

Swiss National Science Foundation  
Career Tracker Cohorts (CTC)

Report 2020

Janine Widmer, Janine Lüthi,  
Barbara Zimmermann, Michèle Amacker

Institute of Sociology  
Interdisciplinary Centre for Gender Studies  
University of Bern

May 14, 2020

**CTC project team**

Janine Widmer MA, Institute of Sociology

Dr. Janine Lüthi, Interdisciplinary Centre for Gender Studies

Dr. Barbara Zimmermann, Institute of Sociology

Prof. Dr. Michèle Amacker, Interdisciplinary Centre for Gender Studies

Prof. Dr. Ben Jann, Institute of Sociology (until September 30, 2019)

Address:

University of Bern

Institute of Sociology

Career Tracker Cohorts (CTC)

Fabrikstr. 8

CH-3012 Bern

+41 31 631 48 85

info@careertrackercohorts.ch

Project website:

<http://careertrackercohorts.ch/>

**SNSF steering group**

Prof. Dr. Matthias Egger, President of the National Research Council

Prof. Dr. Uschi Backes-Gellner, Member of the National Research Council

Prof. Dr. Fritz Schlunegger, Member of the National Research Council and President of the  
Specialised Committee Careers

Dr. Marcel Kullin, Head of Careers Division

Dr. Katrin Milzow, Head of Strategy Support

Dr. Simona Isler, Head of Gender Equality

Fabio Molo MA, Head of Data Management and Analysis

Stéphanie Würth MA, Strategy Support

Rachel Heyard PhD, Data Management and Analysis

With advisory vote (as of October 1, 2019): Prof. Dr. Ben Jann, Member of the National  
Research Council

Please cite this document as follows:

Widmer, J., Lüthi, J., Zimmermann, B., and Amacker, M. (2020). Swiss National Science Foundation Career Tracker Cohorts (CTC). Report 2020. Bern: Institute of Sociology and Interdisciplinary Centre for Gender Studies, University of Bern. Available from <http://doi.org/10.7892/boris.143935>.

## Summary

The SNSF Career Tracker Cohorts (CTC) study tracks the careers of applicants for the postdoctoral career funding schemes of the Swiss National Science Foundation (SNSF). These include Early Postdoc.Mobility, Postdoc.Mobility, Ambizione, Eccellenza, and PRIMA. The aim of the CTC study is to gain a better understanding of the researchers' career paths and of the career impact that is attributable to the SNSF career funding schemes. The results will also serve as a basis for the future development of career funding policies and schemes at the SNSF.

The CTC project is designed as a panel study with yearly cohorts. Every new cohort starts with a base survey shortly after the application deadline. Subsequently, the participants are invited to take part in a monitoring survey every year, in order to follow up on their professional and personal life situations. This report describes the state of the project and presents results based on base survey data from the CTC-18 cohort and the CTC-19 cohort, as well as data from the first monitoring survey administered to the CTC-18 cohort. The CTC-18 cohort is limited to Early Postdoc.Mobility and Postdoc.Mobility. The CTC-19 cohort is the first cohort that includes all the funding schemes examined in the CTC study (Early Postdoc.Mobility, Postdoc.Mobility, Ambizione, Eccellenza, and PRIMA).

Some of the main research questions of the CTC are as follows: In what ways do the career paths of SNSF grantees and non-grantees differ and what is the impact of SNSF career funding on careers both in and outside of academia? How large is the gender gap in academic careers, how does it change over time, and what gender-specific challenges are there in the career development of young researchers? How high is the retention rate in academic science and how does it depend on various factors? What are the reasons for leaving academia? Most of these research questions can only be answered once data from multiple panel waves is available. In the current report we therefore focus on the participants' employment situation, funding success and grant status, as well as additional information about grantees and non-grantees. Moreover, we analyze specific aspects regarding their future career and work values. Lastly, the report presents analyses of the participants' personal situation, in particular their household situation and their satisfaction with their work-life balance and their life in general.

Data on the employment situation of the CTC-19 cohort shows very high employment rates shortly after the application. Furthermore, almost all of the participants conducted academic research in their primary job. In their jobs at that time, the survey participants spent by far the majority of their work time on research (except for participants with clinical duties, who spent the majority of their time on clinical activities). Overall, participants at earlier stages of their career used more time for research than more advanced researchers did, and men used more time for research than women did. On the other hand, teaching took up more time the more advanced the career was, and women used more time for teaching than men did.

The first results of the monitoring survey administered to the CTC-18 cohort provide insights into the employment situation of applicants for Early Postdoc.Mobility or Postdoc.Mobility one year after the application. By then, most of the Early Postdoc.Mobility and Postdoc.Mobility grantees had already started their grant. Almost all of them reported that they had received some sort of support from their host institution: for example, the provision of a

work place, the use of existing infrastructure, or the coverage of material costs. Early Postdoc.Mobility and Postdoc.Mobility grantees normally manage their grant themselves and are not employed at the host institution. Nonetheless, roughly two-fifths of the grantees of Early Postdoc.Mobility and Postdoc.Mobility received an employment contract with their host institution for the duration of their mobility grant. For the non-grantees, one-fifth reported not being engaged in paid employment one year after the application. Among the non-grantees with paid employment, the great majority still had a job involving academic research and most of them were working as postdocs.

Concerning the participants' future career and their work values, the results for the CTC-19 cohort show that having a secure job in the future was rated as very important by the participants, and it was more important for more advanced researchers. The continuation of the academic career was another aspect of great importance. Again, participants at a more advanced career stage found it even more important to be able to continue their academic career than participants at an earlier stage. Additionally, the participants found it moderately important to be able to work and live in the same country as the one they worked and lived in at the time of the base survey. Yet again, participants who applied for funding schemes for more advanced researchers rated this aspect as more important. By contrast, the reconciliation of work and other activities, which was rated as moderately important on average, appeared to be more important for researchers at an earlier career stage than for more advanced researchers. Lastly, the participants found it moderately important to be able to work part-time in the future. Again, researchers at an earlier career stage placed more importance on this aspect than more advanced researchers. Moreover, being able to work part-time in the future appeared to be more important to women than men on average, and PRIMA applicants rated it as less important than the female applicants for Early Postdoc.Mobility or Postdoc.Mobility.

Results regarding the participants' household compositions show that more than half of the participants from the CTC-19 cohort lived together with their partner or spouse, and roughly a quarter lived (also) with children. The remaining participants lived alone or together with other adults. Out of those who lived together with other people, the majority reported that they shared the responsibility for domestic duties in equal parts with the other household member(s). However, women reported more often than men that they themselves were mostly or solely responsible for such duties. Regarding life satisfaction, data from the CTC-18 cohort shows that one year after their application, the survey participants reported being rather satisfied with their life in general, and somewhat less satisfied with their work-life balance. Moreover, one year after the application, those who had received a grant reported that they were more satisfied with their work-life balance and life in general than the non-grantees. There were no such differences between these two groups shortly after the application.

In the future, when data from more cohorts and panel waves is available, more complex analyses will be possible, in particular with regard to the career development of grantees and non-grantees, as well as in and outside of academia. For example, analyses will concern the impact of SNSF funding schemes on career development, retention rates in academia, and gender differences in career trajectories.

## Zusammenfassung

Die “SNSF Career Tracker Cohorts (CTC)”-Studie verfolgt die Karrieren von Bewerber\_innen für die Karriereförderinstrumente des Schweizerischen Nationalfonds (SNF) ab der Postdoc-Stufe. Dazu gehören Early Postdoc.Mobility, Postdoc.Mobility, Ambizione, Eccellenza und PRIMA. Das Ziel der CTC-Studie ist es, die Karrierewege und den Einfluss der SNF-Karriereförderinstrumente auf die Karriere besser zu verstehen. Die Ergebnisse tragen zudem zur Weiterentwicklung der Förderpolitik und der Instrumente des SNF bei.

Die CTC-Studie ist als Panelstudie mit jährlichen Kohorten konzipiert. Jede neue Kohorte beginnt mit einer Base-Umfrage kurz nach Eingabetermin. Danach werden die Teilnehmenden jedes Jahr zur Teilnahme an einer Monitoring-Umfrage eingeladen, damit ihre berufliche und persönliche Situation mitverfolgt werden kann. Der vorliegende Bericht informiert über den Stand des Projekts und präsentiert Resultate basierend auf Daten der Base-Umfrage mit der CTC-18-Kohorte und der CTC-19-Kohorte, sowie basierend auf Daten der ersten Monitoring-Umfrage mit der CTC-18-Kohorte. Die CTC-18-Kohorte umfasst lediglich die Instrumente Early Postdoc.Mobility und Postdoc.Mobility. Die CTC-19-Kohorte schliesst dagegen als erste Kohorte alle Förderinstrumente mit ein, die im Rahmen der CTC-Studie untersucht werden (Early Postdoc.Mobility, Postdoc.Mobility, Ambizione, Eccellenza und PRIMA).

Wichtige Forschungsfragen der CTC-Studie sind unter anderem: Inwiefern unterscheiden sich die Karrierewege von SNF-Stipendiat\_innen und Nicht-Stipendiat\_innen und welchen Einfluss hat die SNF-Karriereförderung auf Karrieren sowohl innerhalb als auch ausserhalb der Wissenschaft? Wie gross ist der Gender Gap in akademischen Karrieren, wie verändert er sich mit der Zeit und welche genderspezifischen Herausforderungen gibt es in der Karriereentwicklung von jungen Forschenden? Wie hoch ist die Verbleibquote in der akademischen Wissenschaft und inwiefern hängt diese von bestimmten Faktoren ab? Was sind Gründe, die Wissenschaft zu verlassen? Die meisten dieser Fragen können erst beantwortet werden, wenn Daten von mehreren Panelwellen verfügbar sind. Im vorliegenden Bericht konzentrieren wir uns daher auf die Erwerbssituation der Umfrageteilnehmenden, die Anteile positiver Förderungsentscheidungen, den aktuellen Status der Stipendien, sowie weitere Angaben über die Stipendiat\_innen und Nicht-Stipendiat\_innen. Weiter analysieren wir spezifische Aspekte hinsichtlich der Karriere und der Arbeitswerte der Umfrageteilnehmenden. Und schliesslich präsentiert dieser Bericht auch Analysen der persönlichen Situation der Teilnehmenden, insbesondere der Haushaltssituation und der Zufriedenheit mit ihrer Work-Life-Balance und mit ihrem Leben im Allgemeinen.

Daten zur Erwerbssituation der CTC-19-Kohorte zeigen sehr hohe Erwerbsquoten zur Zeit kurz nach der Bewerbung. Zudem waren fast alle Teilnehmenden im Rahmen ihrer Haupterwerbstätigkeit in der Forschung tätig. In ihren Jobs verbrachten die Umfrageteilnehmenden den Grossteil ihrer Arbeitszeit mit Forschung (ausser Teilnehmende mit klinischen Pflichten, welche die meiste Arbeitszeit mit klinischen Aufgaben verbrachten). Insgesamt nutzten Teilnehmende, die in früheren Karrierestadien sind, mehr Zeit für Forschung als weiter fortgeschrittene Forschende und Männer nutzen mehr Zeit für Forschung als Frauen. Gleichzeitig nahm

die Lehre mehr Zeit in Anspruch je fortgeschrittener die Karriere war und Frauen verbrachten mehr Zeit mit Lehre als Männer.

Die ersten Ergebnisse der Monitoring-Umfrage, die mit der CTC-18-Kohorte durchgeführt wurde, geben Einblicke in die Arbeitssituation der Bewerber\_innen für Early Postdoc.Mobility oder Postdoc.Mobility ein Jahr nach ihrer Bewerbung. Zu diesem Zeitpunkt hatten die meisten Stipendiat\_innen von Early Postdoc.Mobility und Postdoc.Mobility ihr Stipendium bereits begonnen. Fast alle von ihnen gaben an, dass sie irgendeine Form von Unterstützung von ihrer Gastinstitution erhielten, zum Beispiel die Bereitstellung eines Arbeitsplatzes, die Nutzung vorhandener Infrastruktur oder die Übernahme von Materialkosten. Die Stipendiat\_innen von Early Postdoc.Mobility und Postdoc.Mobility verwalten ihre Stipendien normalerweise selber und sind nicht an ihrer Gastinstitution angestellt. Trotzdem erhielten gut zwei Fünftel der Stipendiat\_innen von Early Postdoc.Mobility und Postdoc.Mobility für die Dauer ihres Mobilitätsstipendiums einen Arbeitsvertrag mit der Gastinstitution. Von den Nicht-Stipendiat\_innen gab ein Jahr nach der Bewerbung ein Fünftel an, keiner bezahlten Beschäftigung nachzugehen. Unter denjenigen Nicht-Stipendiat\_innen mit bezahlter Beschäftigung hatte die grosse Mehrheit nach wie vor einen Job in der Forschung und die meisten von ihnen waren als Postdocs angestellt.

Was die zukünftige Karriere der Umfrageteilnehmenden und ihre Arbeitswerte betrifft, so zeigen die Ergebnisse der CTC-19-Kohorte, dass die Teilnehmenden es als sehr wichtig einstufen, in der Zukunft einen sicheren Arbeitsplatz zu haben. Dies war umso wichtiger für weiter fortgeschrittene Forscher\_innen. Die Fortsetzung der akademische Laufbahn war ein weiterer Aspekt von grosser Bedeutung. Auch dies stuften die Teilnehmenden in weiter fortgeschrittenen Karrierestadien wichtiger ein als diejenigen in einem früheren Stadium. Weiter fanden die Teilnehmenden es mässig wichtig, in Zukunft im selben Land arbeiten und leben zu können wie zur Zeit der Base-Umfrage. Auch dieser Aspekt wurde von Teilnehmenden, die sich für Karriereförderinstrumente für weiter fortgeschrittene Forschende bewarben, als wichtiger eingestuft. Im Gegensatz dazu war die Vereinbarkeit von Arbeit und anderen Aktivitäten, die generell als mässig wichtig eingestuft wurde, für Forschende in früheren Karrierestadien wichtiger als für weiter fortgeschrittene Forschende. Zu guter Letzt hielten die Teilnehmenden es ebenfalls für mässig wichtig, in Zukunft Teilzeit arbeiten zu können. Forschende in einem früheren Karrierestadium massen diesem Aspekt wiederum mehr Bedeutung bei als weiter fortgeschrittene Forschende. Im Durchschnitt schien es für Frauen wichtiger zu sein, in Zukunft Teilzeit arbeiten zu können, als für Männer, und Bewerberinnen für PRIMA bewerteten dies als weniger wichtig als die Bewerberinnen für Early Postdoc.Mobility oder Postdoc.Mobility.

Die Ergebnisse bezüglich der Haushaltszusammensetzung der Umfrageteilnehmenden zeigen, dass mehr als die Hälfte der Teilnehmenden aus der CTC-19-Kohorte zusammen mit einem/einer Partner\_in oder einem/einer Ehegatt\_in wohnten. Etwa ein Viertel lebte (zusätzlich) zusammen mit Kindern. Die übrigen Teilnehmenden lebten allein oder zusammen mit anderen Erwachsenen. Von denjenigen, die mit anderen Menschen zusammenlebten, gab die Mehrheit an, dass sie die Verantwortung für häusliche Pflichten zu gleichen Teilen mit den anderen Haushaltsmitgliedern teilten. Allerdings gaben Frauen häufiger als Männer an, dass

sie selbst überwiegend oder allein für solche Aufgaben verantwortlich waren. Was die Lebenszufriedenheit betrifft, so zeigen Daten der CTC-18-Kohorte, dass die Umfrageteilnehmenden ein Jahr nach ihrer Bewerbung angaben, dass sie mit ihrem Leben recht zufrieden und mit ihrer Work-Life-Balance im Vergleich etwas weniger zufrieden waren. Ein Jahr nach der Bewerbung war die Zufriedenheit mit dem Leben im Allgemeinen und mit der Work-Life-Balance unter den Stipendiat\_innen zudem höher als unter den Nicht-Stipendiat\_innen. Zum Zeitpunkt der Base-Umfrage unterschieden sich die beiden Gruppen in dieser Hinsicht noch nicht.

In Zukunft, wenn Daten von mehr Kohorten und Panelwellen verfügbar sind, werden auch komplexere Analysen möglich sein, insbesondere im Hinblick auf die Karriereentwicklung der Stipendiat\_innen und Nicht-Stipendiat\_innen sowohl innerhalb als auch ausserhalb der Wissenschaft. Zum Beispiel sollen in Zukunft Analysen gemacht werden zur Auswirkung der Förderinstrumente des SNF auf die Karriereentwicklung, zu Verbleibsquoten in der Wissenschaft und zu Geschlechterunterschieden in der beruflichen Laufbahn.

## Résumé

L'étude « Career Tracker Cohorts (CTC) » du Fonds national suisse (FNS) suit la carrière des candidat·es aux instruments d'encouragement de carrières du FNS à partir du niveau postdoctoral. Font partie de ces instruments Early Postdoc.Mobility, Postdoc.Mobility, Ambizione, Eccellenza et PRIMA. L'objectif de l'étude CTC est de mieux comprendre les parcours professionnels des chercheuses et chercheurs ainsi que les répercussions des instruments d'encouragement de carrières du FNS sur leur carrière. Par ailleurs, les résultats contribueront au développement à venir de la politique et des instruments d'encouragement de carrières du FNS.

Le projet CTC est conçu comme étude-panel avec des cohortes annuelles. Chaque nouvelle cohorte débute avec une enquête de base peu après la date limite de soumission des requêtes. Par la suite, les participant·es sont invités à prendre part chaque année à une enquête de monitoring, afin de suivre leur situation professionnelle et personnelle. Le présent rapport décrit l'état du projet et présente les résultats des cohortes CTC-18 et CTC-19, ainsi que les données issues de la première enquête de monitoring à laquelle avait pris part la cohorte CTC-18. La cohorte CTC-18 était limitée aux instruments Early Postdoc.Mobility et Postdoc.Mobility. La cohorte CTC-19 est la première à inclure tous les instruments d'encouragement (Early Postdoc.Mobility, Postdoc.Mobility, Ambizione, Eccellenza et PRIMA) analysés dans le cadre de l'étude CTC.

Parmi les questions de recherche importantes de l'étude CTC, citons : de quelle façon les trajectoires professionnelles diffèrent-elles entre les bénéficiaires et les non-bénéficiaires de subsides du FNS et quel est l'impact de l'encouragement de carrières du FNS sur les parcours professionnels aussi bien au sein qu'en dehors du milieu universitaire ? Quelle est l'étendue de l'écart entre les sexes dans les carrières académiques, comment celui-ci évolue-t-il avec le temps, et quels défis spécifiques au genre existe-t-il dans l'évolution de la carrière des jeunes scientifiques ? Quel est le taux de prise d'un emploi dans la science académique et dans quelle mesure dépend-il de divers facteurs ? Quelles sont les raisons qui motivent les chercheuses et les chercheurs à quitter le monde académique ? Il est toutefois possible de répondre à la plupart de ces questions de recherche uniquement lorsque les données de multiples vagues du panel sont disponibles. Le présent rapport se concentre sur la situation professionnelle des participant·es à l'enquête, le taux de succès des candidat·es, le statut actuel des requêtes et inclut également des informations additionnelles sur les bénéficiaires et les non-bénéficiaires de subsides. Des aspects spécifiques concernant leur future carrière et leurs valeurs professionnelles sont également examinés. Enfin, le rapport présente des analyses de la vie personnelle des participant·es, en particulier en ce qui concerne leur situation familiale, leur satisfaction par rapport à l'équilibre de leur vie professionnelle et privée, et à leur vie de manière générale.

Les données relatives à la situation d'emploi de la cohorte CTC-19 font apparaître des taux d'emploi très élevés peu de temps après la soumission des requêtes. En outre, presque tous les participant·es menaient des recherches dans le cadre de leur emploi principal. Les participant·es à l'enquête consacraient alors la majeure partie de leur temps de travail à la recherche (à l'exception de celles et ceux exerçant en milieu clinique qui poursuivaient surtout



des activités cliniques). Dans l'ensemble, les participant-es en début de carrière dédiaient à la recherche un nombre d'heures plus conséquent que les chercheuses et chercheurs plus avancés, et les hommes plus de temps que les femmes. En revanche, plus leur carrière était avancée, plus le temps consacré à l'enseignement augmentait, les femmes s'investissant par ailleurs plus longtemps que les hommes dans ce domaine.

Les premiers résultats de l'enquête de monitoring menée auprès de la cohorte CTC-18 donnent un aperçu de la situation d'emploi des candidat-es à des bourses Early Postdoc.Mobility ou Post-doc.Mobility un an après candidature. À ce moment-là, la plupart des scientifiques encouragés dans le cadre des instruments Early Post-doc.Mobility et Postdoc.Mobility avaient déjà commencé à bénéficier de leur bourse. Presque tous ont déclaré avoir reçu un soutien de leur institution d'accueil sous une forme ou sous une autre : mise à disposition d'un lieu de travail, utilisation d'infrastructures existantes ou couverture des coûts matériels. Normalement, les bénéficiaires des instruments Early Postdoc.Mobility et Postdoc.Mobility gèrent eux-mêmes leur bourse et ne sont pas employés par l'institution d'accueil. Néanmoins, environ deux cinquièmes d'entre eux ont obtenu un contrat de travail auprès de leur institution d'accueil pour la durée de leur bourse de mobilité. En ce qui concerne les non-bénéficiaires, un cinquième d'entre eux ont déclaré ne pas avoir d'emploi rémunéré un an après candidature. Parmi les non-bénéficiaires ayant un emploi rémunéré, la grande majorité occupait encore un poste impliquant une recherche universitaire, et la plupart d'entre eux travaillaient en tant que postdoctorant-es.

En ce qui concerne la future carrière des participant-es et leurs valeurs professionnelles, les résultats de la cohorte CTC-19 montrent qu'il est très important pour les participant-es de disposer à long terme d'un emploi sûr, et plus encore pour les chercheuses et chercheurs les plus avancés. La poursuite de la carrière universitaire constitue un autre aspect essentiel. Là encore, les participant-es à un stade de carrière plus avancé jugent plus important de pouvoir poursuivre leur carrière universitaire que les participant-es à un stade plus précoce. En outre, les participant-es trouvent modérément important de pouvoir travailler et vivre dans le même pays que celui où ils travaillaient et vivaient au moment de l'enquête de base. Une fois encore, cet aspect a été jugé plus important par les participant-es sollicitant des subsides pour chercheurs avancés. En revanche, la possibilité de concilier travail et activités annexes, jugée modérément importante en moyenne, semblait plus importante pour les chercheuses et chercheurs en début de carrière que pour les chercheurs plus avancés. Enfin, les participant-es estiment modérément important d'avoir ultérieurement l'opportunité de travailler à temps partiel. Là encore, les chercheuses et chercheurs en début de carrière accordent plus d'importance à cet aspect que les chercheurs plus avancés. En outre, la possibilité de travailler à temps partiel dans le futur semble globalement plus importante pour les femmes que pour les hommes, et les candidates au programme PRIMA la jugent moins importante que les candidates aux programmes Early Postdoc.Mobility ou Postdoc.Mobility.

Les résultats concernant la composition des ménages des participant-es montrent que plus de la moitié des participant-es de la cohorte CTC-19 vivaient avec leur partenaire ou conjoint, et environ un quart (également) avec des enfants. Les autres participant-es vivaient seuls ou avec d'autres adultes. Parmi celles et ceux vivant avec d'autres personnes, la majorité a déclaré partager la responsabilité des tâches domestiques à parts égales avec le ou les autres membres

du ménage. Toutefois, les femmes ont déclaré plus souvent que les hommes qu'elles étaient elles-mêmes principalement ou exclusivement responsables de ces tâches. Quant à savoir si leur vie leur donnait satisfaction, les données de la cohorte CTC-18 montrent qu'un an après leur candidature les participant·es à l'enquête se déclaraient plutôt satisfaits de leur vie de manière générale, et un peu moins satisfaits de l'équilibre entre vie professionnelle et vie privée. Par ailleurs, un an après leur candidature, celles et ceux qui avaient reçu une bourse ont déclaré être plus satisfaits de l'équilibre entre vie professionnelle et vie privée et de leur vie en général que les non-bénéficiaires. De telles différences entre ces deux groupes n'avaient pas été observées peu de temps après la soumission de leur requête.

À l'avenir, lorsque des données issues d'un plus grand nombre de cohortes et de vagues de panel seront disponibles, il sera possible de réaliser des analyses plus complexes, en particulier en ce qui concerne l'évolution de carrière des bénéficiaires et non-bénéficiaires et ce, aussi bien au sein qu'en dehors du milieu universitaire. Ces analyses permettront par exemple d'étudier l'impact des instruments d'encouragement du FNS sur le parcours professionnel des chercheuses et chercheurs, le taux de rétention d'emploi dans la recherche académique et l'impact du genre en matière de trajectoires professionnelles.

## Riassunto

Lo studio “SNSF Career Tracker Cohorts (CTC)” monitora le carriere dei/delle richiedenti di strumenti di promozione postdoc del Fondo nazionale svizzero (FNS). Questi includono Early Postdoc.Mobility, Postdoc.Mobility, Ambizione, Eccellenza e PRIMA. Lo scopo dello studio CTC è ottenere una migliore comprensione dei percorsi di carriera dei/delle ricercatori/trici e dell’impatto sulla carriera attribuibile agli strumenti di promozione della carriera erogati dal FNS. I risultati serviranno anche come base per il futuro sviluppo di politiche e strumenti di promozione della carriera in seno al FNS.

Il progetto CTC è concepito come studio di un panel con coorti annuali. Ogni nuova coorte inizia con un rilevamento di base poco dopo il termine di presentazione della domanda. In seguito, i/le partecipanti sono invitati/e a prendere parte a un rilevamento di monitoraggio effettuato a cadenza annuale al fine di monitorare le loro situazioni di vita professionale e personale. La presente relazione descrive lo stato del progetto e presenta risultati basati sui dati del rilevamento di base della coorte CTC-18 e della coorte CTC-19, così come i dati del primo rilevamento di monitoraggio effettuato sulla coorte CTC-18. La coorte CTC-18 è limitata agli strumenti Early Postdoc.Mobility e Postdoc.Mobility. La coorte CTC-19 è la prima coorte che include tutti gli strumenti di promozione esaminati nello studio CTC (Early Postdoc.Mobility, Postdoc.Mobility, Ambizione, Eccellenza e PRIMA).

Alcuni dei principali quesiti di ricerca dello studio CTC sono i seguenti: In che modo differiscono i percorsi di carriera dei beneficiari e non beneficiari di un sussidio FNS e qual è l’impatto della promozione della carriera attraverso il FNS sulle carriere a livello accademico e non? Quanto è ampio il divario di genere nelle carriere accademiche, come cambia nel corso del tempo e quali sono le sfide specifiche di genere che si presentano nell’evoluzione della carriera dei giovani ricercatori e ricercatrici? Quanto è elevato il tasso di fidelizzazione nelle scienze accademiche e in che modo dipende da vari fattori? Quali sono i motivi per cui si abbandona il percorso accademico? Alla maggior parte dei quesiti di ricerca sarà possibile rispondere soltanto quando saranno disponibili i dati di più ondate di panel. Nella relazione attuale ci concentriamo pertanto sulla situazione occupazionale dei/delle partecipanti, sulle percentuali di successo e sullo stato del sussidio, così come su ulteriori informazioni concernenti i beneficiari e non beneficiari di un sussidio. Analizziamo inoltre aspetti specifici riguardanti i valori associati al lavoro e alla futura carriera. Infine, la relazione presenta analisi della situazione personale dei/delle partecipanti, in particolare della loro situazione familiare e della soddisfazione nei confronti del loro equilibrio tra vita lavorativa e privata e della loro vita in generale.

I dati relativi alla situazione occupazionale della coorte CTC-19 mostrano tassi di occupazione molto elevati poco dopo la presentazione della domanda. Inoltre, la quasi totalità dei/delle partecipanti svolgeva ricerca accademica come attività primaria. Per quanto riguarda le attività svolte, la maggior parte del tempo di lavoro dei/delle partecipanti al rilevamento era dedicata alla ricerca (ad eccezione dei/delle partecipanti con incarichi clinici, che dedicavano gran parte del tempo ad attività cliniche). Nel complesso, i/le partecipanti agli inizi della carriera dedicavano più tempo alla ricerca rispetto ai/alle ricercatori/trici a livelli più avanzati, e l’impegno di tempo per la ricerca era superiore tra gli uomini che non tra le donne. D’altro

canto, l'insegnamento assorbiva sempre più tempo con l'avanzare della carriera, e le donne vi dedicavano più tempo degli uomini.

I primi risultati del rilevamento di monitoraggio effettuato sulla coorte CTC-18 fanno luce sulla situazione occupazionale dei/delle richiedenti degli strumenti Early Postdoc.Mobility o Postdoc.Mobility un anno dopo la presentazione della domanda. Trascorso tale periodo, la maggior parte dei beneficiari degli strumenti Early Postdoc.Mobility e Postdoc.Mobility aveva già iniziato a usufruire del proprio sussidio. La quasi totalità ha dichiarato di avere ricevuto qualche forma di sostegno dalla propria istituzione ospite: per esempio, la messa a disposizione di una postazione di lavoro, l'utilizzo dell'infrastruttura esistente o la copertura delle spese materiali. I beneficiari degli strumenti Early Postdoc.Mobility e Postdoc.Mobility gestiscono solitamente il proprio sussidio in autonomia e non sono assunti dall'istituzione ospite. Ciò nondimeno, circa due quinti dei beneficiari degli strumenti Early Postdoc.Mobility e Postdoc.Mobility hanno ricevuto un contratto d'impiego con la propria istituzione ospite per la durata del sussidio Mobility. Per quanto attiene ai non beneficiari, un quinto ha dichiarato che un anno dopo la presentazione della domanda non aveva ancora un rapporto d'impiego retribuito. Tra i non beneficiari con rapporto d'impiego retribuito, la grande maggioranza svolgeva ancora un'attività correlata alla ricerca accademica e la maggior parte di essi lavorava come postdoc.

Quanto ai valori associati al lavoro e alla futura carriera, i risultati per la coorte CTC-19 indicano che per i/le partecipanti è molto importante avere la prospettiva di un lavoro sicuro, e lo è ancora di più per i/le ricercatori/trici a un livello più avanzato. Un altro aspetto particolarmente rilevante è la prosecuzione della carriera accademica. Anche a questo riguardo, i/le partecipanti a un livello di carriera più avanzato attribuiscono maggiore importanza alla possibilità di continuare la propria carriera accademica rispetto ai/alle partecipanti agli inizi della carriera. Inoltre, i/le partecipanti giudicano moderatamente importante la possibilità di vivere e lavorare nello stesso paese in cui vivevano e lavoravano all'epoca del rilevamento di base. Anche in questo caso, tuttavia, tale aspetto è considerato più importante dai/dalle partecipanti che avevano presentato domanda per strumenti di promozione per ricercatori/trici a livelli più avanzati. Per contro, la conciliazione tra lavoro e altre attività, giudicata in media moderatamente importante, riveste un'importanza più elevata per i/le ricercatori/trici agli inizi della carriera che non per quelli/e a livelli più avanzati. Infine, i/le partecipanti valutano come moderatamente importante la possibilità di lavorare in futuro a tempo parziale. Di nuovo, a porre maggiormente l'accento su questo aspetto sono i/le ricercatori/trici agli inizi della carriera e non i/le ricercatori/trici a livelli più avanzati. Inoltre, la possibilità di lavorare a tempo parziale è considerata più importante, in media, dalle donne che non dagli uomini, e le richiedenti dello strumento PRIMA la ritengono meno importante delle richiedenti degli strumenti Early Postdoc.Mobility o Postdoc.Mobility.

I risultati riguardanti la composizione dei nuclei familiari mostrano che oltre la metà dei/delle partecipanti della coorte CTC-19 viveva con il/la proprio/a compagno/a o consorte e circa un quarto aveva (anche) figli. I/Le partecipanti restanti vivevano per conto proprio o con altri adulti. Di quelli che vivevano con altre persone, la maggioranza ha dichiarato di condividere la responsabilità delle incombenze domestiche in parti uguali con gli altri membri del nucleo familiare. Tuttavia, le donne hanno dichiarato più frequentemente degli uomini di es-

sere per la maggior parte o esclusivamente responsabili di tali incombenze. Per quanto riguarda la soddisfazione nei confronti della vita, i dati ottenuti dalla coorte CTC-18 indicano che, un anno dopo la presentazione della domanda, i/le partecipanti al rilevamento esprimevano un discreto grado di soddisfazione nei confronti della loro vita in generale, mentre erano leggermente meno soddisfatti/e del loro equilibrio tra vita lavorativa e privata. Inoltre, nel confronto tra beneficiari e non beneficiari di un sussidio, un anno dopo la presentazione della domanda i primi esprimevano un grado di soddisfazione maggiore rispetto al loro equilibrio tra vita lavorativa e privata e rispetto alla vita in generale. Poco dopo la presentazione della domanda non si evidenziava una simile differenza tra i due gruppi.

In futuro, quando saranno disponibili i dati di più coorti e ondate di panel, sarà possibile condurre analisi più complesse, in particolare per ciò che concerne l'evoluzione della carriera dei beneficiari e non beneficiari, così come in ambito accademico e non accademico. Per esempio, le analisi si focalizzeranno sull'impatto degli strumenti di promozione del FNS sull'evoluzione della carriera, sui tassi di fidelizzazione in ambito accademico e sulle differenze di genere nei percorsi di carriera.

# Contents

<b>Summary</b>	<b>1</b>
<b>Zusammenfassung</b>	<b>3</b>
<b>Résumé</b>	<b>6</b>
<b>Riassunto</b>	<b>9</b>
<b>1 Introduction</b>	<b>13</b>
<b>2 Aims of the CTC</b>	<b>13</b>
<b>3 Method</b>	<b>14</b>
<b>4 State of the project</b>	<b>15</b>
<b>5 Data used for this report</b>	<b>17</b>
5.1 Data from the CTC-19 cohort . . . . .	17
5.2 Data from the CTC-18 cohort . . . . .	20
<b>6 Results</b>	<b>22</b>
6.1 Employment situation . . . . .	22
6.1.1 Funding success, grant status, and employment rates . . . . .	23
6.1.2 Employment involving research . . . . .	25
6.2 Career aspirations and work values . . . . .	31
6.2.1 Job security . . . . .	31
6.2.2 Continuation of academic career . . . . .	32
6.2.3 Country of work place . . . . .	32
6.2.4 Reconciliation of work and other activities . . . . .	33
6.2.5 Part-time work . . . . .	34
6.3 Family and personal life situation . . . . .	34
6.3.1 Household composition . . . . .	35
6.3.2 Responsibility for domestic work . . . . .	35
6.3.3 Life satisfaction . . . . .	36
<b>7 Conclusion</b>	<b>37</b>
<b>References</b>	<b>39</b>

# 1 Introduction

Mandated by the Federal Government, the Swiss National Science Foundation (SNSF) supports basic science in all academic disciplines, through different funding schemes. A key objective is the improvement of the career prospects of promising young researchers. In fact, the SNSF invests over 20% of its funds in career funding schemes that target outstanding young researchers from the PhD level to assistant professorships. A further key objective is the promotion of gender equality in research.

In 2017, the SNSF decided to set up a panel study, the SNSF Career Tracker Cohorts (CTC), to track the career paths of applicants for SNSF career funding schemes at the postdoctoral level. This includes Early Postdoc.Mobility, Postdoc.Mobility, Ambizione, Eccellenza, and PRIMA. Through this panel study the SNSF intends to gain a better understanding of the careers of postdoctoral researchers and of the impact of the SNSF's career funding schemes. At the same time, the results of the panel study serve as a basis for the future development of career funding policies and schemes at the SNSF.

The SNSF has mandated a project team at the University of Bern to develop the CTC study design and to implement the study. The team is comprised of members of the Institute of Sociology and the Interdisciplinary Centre for Gender Studies.

The CTC report provides information on the current state of the study and presents selected results every year. The report does not give a full account of all topics investigated in the survey. Rather, it highlights particular themes every year, depending on the status of the study. The current report focuses on the survey participants' employment situation, particularly funding success, grant status, and employment rates, as well as employment in research. The report also presents the participants' ratings of specific work values and describes aspects of their personal life situations, specifically household compositions and responsibilities, as well as satisfaction ratings. In this regard, we draw first comparisons between grantees and non-grantees and provide insights into the Research Questions 1, 2, 3, and 4 (see Section 2).

## 2 Aims of the CTC

The main goal of the CTC is to analyze the career paths of young researchers who apply for the postdoctoral SNSF career funding schemes, and to assess the degree to which the SNSF funding schemes have an effect on career development. The career paths of the applicants are mapped with regard to employment status and conditions. Moreover, the study compares grantees with non-grantees in terms of their academic achievement, aspirations, and the continuance of their academic careers. The study also compares the career paths of male and female researchers.

The results of the study will serve as a basis for the further development of individual funding schemes and funding policies at the SNSF. Furthermore, the data gained from the CTC are a valuable source for research on working conditions, as well as on the career motives and perspectives of young researchers. Some of the research questions addressed by the CTC study are as follows:

1. What is the employment situation and the family/personal life situation of young researchers, and how do they change over time?
2. What are the career motives of young researchers who apply for the SNSF funding schemes?
3. In what ways do the career paths of SNSF grantees and non-grantees differ?
4. What is the impact of SNSF career funding on careers both in and outside of academia?
5. How large is the gender gap in academic careers, and how does it change over time?
6. What gender-specific challenges are there in the career development of young researchers?
7. How high is the retention rate in academic science and how does the rate depend on personal characteristics (e.g., gender, age, family status), discipline, type of grant, etc.?
8. What are researchers' reasons for leaving academia?

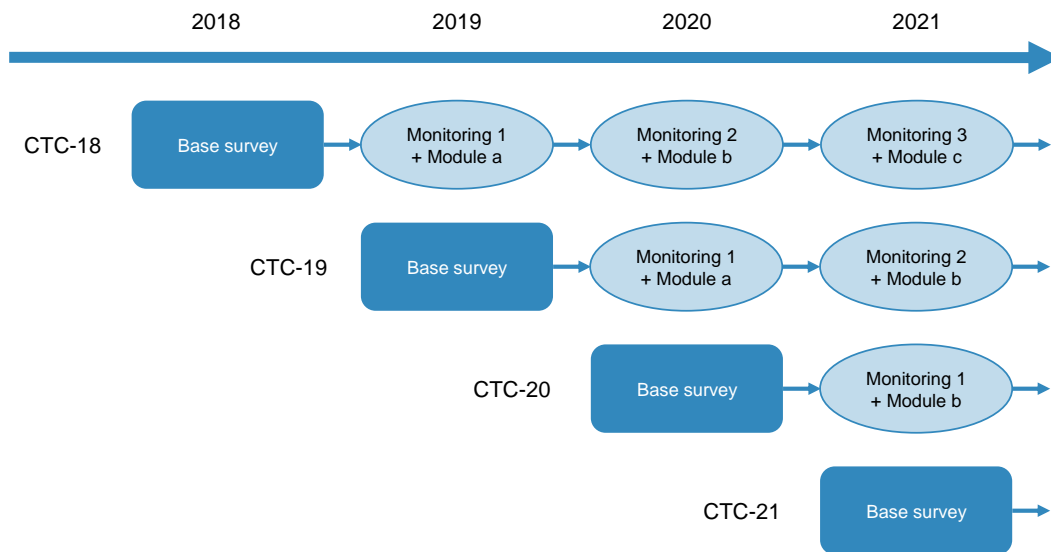
### **3 Method**

The study population of the CTC comprises all applicants for the postdoctoral career funding schemes of the SNSF, namely Early Postdoc.Mobility, Postdoc.Mobility, Ambizione, Eccellenza, and PRIMA. Every year, a new cohort is launched, and every cohort (e.g., CTC-18, CTC-19) includes all the applicants for the postdoctoral funding schemes that are being evaluated in that calendar year. Thus, a cohort comprises the applicants for Ambizione or PRIMA (application deadline: November 1, of the preceding year), for Eccellenza (application deadline: February 1, of the current year), for Early Postdoc.Mobility (application deadline: March 1 and September 1, of the current year), or for Postdoc.Mobility (application deadline: February 1 and August 1, of the current year). The study started with the CTC-18 cohort in fall 2018. This cohort consists only of applicants who applied for Early Postdoc.Mobility or Postdoc.Mobility in fall 2018.

Every new cohort starts with a base survey (see Figure 1), inquiring about applicants' current and previous (academic) employment situations, their doctorate, their career prospects and aspirations, as well as their family and personal life situations. This base survey is timed to coincide with the application process. Given the biannual application deadlines of the SNSF, there is one base survey in spring (all funding schemes) and one in fall (Early Postdoc.Mobility and Postdoc.Mobility only). The base surveys are administered in the period between the application deadline and the notification of the funding decision. The evaluation of the applications by the SNSF is completely independent of the CTC study. The SNSF administration and other actors involved in the evaluation process do not have access to CTC data. This ensures that participation in the survey has no bearing on the funding decision.



Figure 1: Design of the CTC



Subsequently, the survey participants receive a yearly monitoring survey. These monitoring surveys are administered to all the participants who completed the respective base survey, irrespective of whether their application was successful or not. Thus, both grantees (i.e., applicants who received a positive funding decision) and non-grantees (i.e., applicants who did not receive a positive funding decision, including applications withdrawn before the decision date) remain part of the study. The monitoring surveys follow up on the participants' employment situation, their continuance in their academic career, mobility and research productivity, as well as their family and personal life situations. Moreover, every monitoring survey incorporates a rotating module on one specific aspect related to research careers (e.g., mentoring and networks, dual-career couples). These modules are administered for all cohorts in the same year, except in the case of CTC-18 cohort, which serves to test the modules one year in advance.

## 4 State of the project

The CTC project started in May 2018 and has so far launched three cohorts. It started with the reduced CTC-18 cohort, which includes only applicants for Early Postdoc.Mobility or Postdoc.Mobility from fall 2018. It continued with the CTC-19 cohort, which incorporates all the examined funding schemes. The CTC-20 cohort has recently been launched. An overview of the launched cohorts and the surveys carried out to date is provided in Table 1.

After the publication of the Report 2019 (Widmer et al. 2019), which contained the first results of the base survey administered to the CTC-18 cohort, we made additional material publicly available. Firstly, we published the data, documentation (Jann et al. 2019a), and questionnaire (Jann et al. 2019b) for the CTC-18 base survey in the data archive of FORS (<https://forsbase.unil.ch/project/study-public-overview/16545/0>), where interested researchers

Table 1: Overview of cohorts and surveys to date

Cohort	Time point	Type of survey
CTC-18	2018, October	Base
	2019, October	Monitoring 1
CTC-19	2019, March/April	Base
	2019, September/October	Base
	2020, April/May	Monitoring 1
CTC-20	2020, March–May	Base

can request access to the files. The questionnaire and documentation of the CTC-18 base survey can also be found on the project website (<https://careertrackercohorts.ch>).

Substantial efforts were made in the preparation of the survey data gathered in fall 2019, namely data from the base survey of the CTC-19 cohort and from the first monitoring survey of the CTC-18 cohort. In particular, the survey responses were cleaned and edited, augmented with data from the administrative records of the SNSF, and formatted for data analyses. At the same time, documentations on the surveys and the data was produced. These documentations provide detailed information on the survey preparation and implementation, and on the resulting data. Specifically, they include a codebook of the data, including frequency counts, screenshots of the online questionnaire, and facsimiles of other survey materials. Documentation of the CTC-18 base survey is provided in Jann et al. (2019a). Widmer et al. (2020e) provide all relevant information on the CTC-19 base survey, and information on the first monitoring survey of the CTC-18 cohort can be found in Widmer et al. (2020d). Furthermore, we created and sent out the Newsletter 2020/1 (Widmer et al. 2020c), which presents the first results from the first monitoring survey with the CTC-18 cohort.

In preparation for the surveys conducted in spring 2020 (base survey of the CTC-20 cohort, first monitoring survey of the CTC-19 cohort), we made minor adjustments to the questionnaires and updated the invitation and reminder emails for the field phase. During the field phase of the surveys in spring, several waves of reminder emails were sent to late respondents, and questions from study participants were handled.

In fall 2020 we will conduct the base survey with the second part of the CTC-20 cohort, namely the applicants for Early Postdoc.Mobility or Postdoc.Mobility in fall 2020, and we will administer the first monitoring survey to the second part of the CTC-19 cohort, as well as the second monitoring survey to the CTC-18 cohort. Documentations and data sets of the base survey of the CTC-20 cohort, the first monitoring survey of the CTC-19 cohort, and the second monitoring survey of the CTC-18 cohort are expected to be available in summer 2021.

## 5 Data used for this report

The results presented in this report are based on base survey data from the CTC-18 cohort and the CTC-19 cohort, as well as data from the first monitoring survey of the CTC-18 cohort (Widmer et al. 2020a,b). Further information about the base survey administered to the CTC-18 cohort, which was conducted in 2018, can be found in Jann et al. (2019a) and first results based on this survey can be found in the Report 2019 (Widmer et al. 2019). In this section we will first describe the study population and the survey participants from the CTC-19 cohort. We will then provide information about the first monitoring survey with the CTC-18 cohort.

### 5.1 Data from the CTC-19 cohort

The base survey administered to the **CTC-19 cohort** was the first survey that included all the funding schemes examined in the CTC study (i.e., Early Postdoc.Mobility, Postdoc.Mobility, Ambizione, Eccellenza, and PRIMA). The CTC-19 cohort generally comprises all applicants for the SNSF's postdoctoral funding schemes between November 2018 and September 2019, whose submitted documents passed the formal examination. However, the cohort does not include applicants who submitted a follow-up proposal for an ongoing grant, those who withdrew their application before the start of the survey, and those who rejected the transfer of data from the SNSF to the CTC project team (for more information, see Widmer et al. 2020e). Thus, the cohort does not include all people who initially submitted an application and its composition may differ slightly from the administrative figures published by the SNSF.

The study design provides that each person receives one survey per year. They are invited to participate in the base survey (and are thereby included in the study) when they first apply for one of the SNSF's postdoctoral funding schemes. Subsequently, they receive yearly monitoring surveys. If they apply for the same or a different funding scheme later on, they still continue in their initial cohort, and the data from their most recent survey participation (either a base survey or a monitoring survey) can be added to the relevant new cohort for cohort-specific analyses. This is possible given that the base and monitoring surveys are adapted in terms of structure and content. Accordingly, in the CTC-19 cohort, participants who had at least partially completed a previous base survey were not invited to participate in a base survey in 2019 again. Instead, we imported the data of these individuals from their most recent survey participation into the data set of the CTC-19 base survey to conduct the analyses for the present report. Henceforth, when describing the survey participants from the CTC-19 cohort, we will refer to all applicants of this cohort who took part in a survey, irrespective of whether it was in 2018 or in 2019. Lastly, if a person submitted two applications within the same cohort (i.e., one in spring and another one in fall), they were half weighted for the analyses throughout this report, such that the survey data of the same person is not counted twice.

The study population of the CTC-19 cohort comprises 1,544 applicants. For the subsequent analyses concerning the survey participants we will use only data from respondents who completed the survey. The survey is considered to have been completed if at least 70% of the applicable questions have been answered (for more information on data quality see Wid-

mer et al. 2020e). Hence, survey data is available for 1,443 participants (93% of the study population).

Table 2 compares the survey participants and the study population for the base survey of the CTC-19 cohort. The mean age of the survey participants was 34 years, with a range from 25 to 55. The gender ratio among the survey participants was 57% male versus 43% female. More than half of the survey participants (56%) applied for Early Postdoc.Mobility or Postdoc.Mobility, 22% applied for Ambizione, 14% for Eccellenza, and 8% for PRIMA. Regarding research domains, 37% of the participants applied in the field of mathematics, natural and engineering sciences, 33% in biology and medicine, and 30% in the humanities and social sciences. At the time of the application, 71% of the participants were employed at a research institution in Switzerland and 24% worked at a foreign research institution. Finally, 40% of the survey participants eventually received a positive funding decision in response to their application in 2019, and 60% received a negative funding decision (including withdrawals before the funding decision). Note that the survey was conducted before the applicants were officially informed about the funding decision.

Table 2: Characteristics of study population and survey participants (CTC-19)

		Study population (N = 1544)	Survey participants (N = 1443)
Age	Mean	33.8	33.8
	Minimum	25	25
	Maximum	55	55
Gender	Men	57.6%	57.3%
	Women	42.4%	42.7%
Funding scheme	EPM/PM	56.4%	55.8%
	Ambizione	22.2%	22.3%
	Eccellenza	13.7%	14.0%
	PRIMA	7.7%	7.9%
Research domain	Humanities and social sciences	30.6%	30.2%
	Mathematics, natural and eng. sciences	36.5%	37.0%
	Biology and medicine	32.9%	32.8%
Research institution (time of application)	Swiss	71.4%	71.3%
	Foreign	23.6%	23.6%
	Unknown	5.0%	5.0%
Funding decision in 2019	Negative <sup>a</sup>	60.3%	60.0%
	Positive	39.7%	40.0%

<sup>a</sup> Including withdrawals before the funding decision.

There seem to be only very minor differences between the study population and the survey participants, which is not surprising given that survey data is available for 93% of the applicants. To further examine potential selectivity of the survey participants, we first conducted a logistic regression of survey participation on age, gender, funding scheme, research domain, and place of the research institution (see Table 3). A marginally significant effect can be observed for age ( $p = 0.068$ ), indicating that older applicants were somewhat less likely to participate in the survey. Concerning funding schemes, the overall test (calculated by means of a likelihood-ratio test) for the factor funding scheme was marginally significant ( $p = 0.091$ ). Specifically, applicants for Eccellenza were significantly more likely to participate in the survey than applicants for Early Postdoc.Mobility or Postdoc.Mobility ( $p = 0.012$ ). There were no other significant relations between the individual funding schemes. The remaining characteristics (gender, research domain, and place of research institution) did not show any substantial relations and overall tests for the research domain and place of research institution were not significant ( $p = 0.441$  and  $p = 0.697$  respectively). The likelihood-ratio test of the regression model is not significant ( $p = 0.195$ ). In summary, the analysis shows that the sample is only slightly selective. In this report, we represent results that are not corrected for this selectivity.

Table 3: Logistic regression of survey participation on background characteristics (CTC-19)

	Coef.	<i>t</i> value	AME
Age (centered)	-0.214 <sup>+</sup>	-1.84	-0.013
Gender (ref.: men)			
Women	0.256	1.12	0.015
Funding scheme (ref.: EPM/PM)			
Ambizione	0.346	1.28	0.022
Eccellenza	0.786*	2.09	0.042
PRIMA	0.801	1.53	0.043
Research domain (ref.: humanities and social sciences)			
Mathematics, natural and engineering sciences	0.344	1.22	0.021
Biology and medicine	0.084	0.33	0.006
Research institution (at time of application, ref.: Swiss)			
Foreign	0.039	0.16	0.002
Unknown	0.429	0.80	0.022
Constant	2.176***	9.53	
McFadden $R^2$	0.016		
LR $\chi^2$ ( $p$ value)	12.346	(0.194)	
<i>N</i>	1544		

AME = Average marginal effect. Respondents who broke off their participation are counted as non-participants.

<sup>+</sup>  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Second, we analyzed the relation between survey participation and funding success. Applicants who participated in the survey were somewhat more successful in finally gaining approval from the SNSF than non-participants (including applications withdrawn before the decision date, 40% vs. 35%). However, results from a logistic regression of survey participation on funding success show that there is no significant relation between survey participation and funding success ( $p = 0.346$ ).

## 5.2 Data from the CTC-18 cohort

Further data used in this report stems from the first monitoring survey of the **CTC-18 cohort**. The study population of the CTC-18 cohort comprises 450 applicants. We invited all those within the study population who had participated in the base survey in 2018 to take part in the first monitoring survey one year after their application (for more information see Widmer et al. 2020d). Of the 415 invited researchers, 76% completed the survey. Importantly, participants were included in the study irrespective of whether their application in 2018 turned out to be successful or not. Of those survey participants with a successful application, 89% completed the survey, while 61% of those participants with a negative funding decision (including withdrawals before the funding decision) completed the survey. For the subsequent analyses, we considered whether participants who received a negative funding decision in response to their application in fall 2018 had in the meantime successfully applied for either the same or a different SNSF funding scheme. In other words, we updated information about their SNSF funding status according to administrative data available from the SNSF, and the funding status of the participants refers to the funding status of their most recently submitted application (and not necessarily to their application at the time of the base survey).

The first monitoring survey was completed by 315 participants, which corresponds to 70% of the study population. The survey is considered to have been completed if at least 70% of the applicable questions have been answered (for more information on data quality see Widmer et al. 2020d). For the subsequent analyses concerning the survey participants, we will use only data from respondents who completed the first monitoring survey.

For a comparison of the participants of the first monitoring survey and the study population, see Table 4. The mean age of the survey participants was 31 years, with a range from 25 to 43. The gender ratio among the survey participants was 60% male versus 40% female. More than two-thirds (69%) of the survey participants applied for Early Postdoc.Mobility and 31% for Postdoc.Mobility. Regarding research domains, 41% of the participants applied in the field of mathematics, natural and engineering sciences, 32% in biology and medicine, and 27% in the humanities and social sciences. At the time of the application, 71% of the participants were employed at a research institution in Switzerland and 25% worked at a foreign research institution. Lastly, 63% of the participants of the first monitoring survey received a positive funding decision in response to their application in 2018 and 37% received a negative funding decision (including withdrawals before the funding decision).

Table 4: Characteristics of study population and survey participants (CTC-18)

		Study population ( <i>N</i> = 450)	Survey participants ( <i>N</i> = 315)
Age	Mean	31.7	31.4
	Minimum	25	25
	Maximum	47	43
Gender	Men	62.2%	60.3%
	Women	37.8%	39.7%
Funding scheme	Early Postdoc.Mobility	68.4%	68.9%
	Postdoc.Mobility	31.6%	31.1%
Research domain	Humanities and social sciences	26.7%	26.7%
	Mathematics, natural and eng. sciences	40.7%	41.0%
	Biology and medicine	32.7%	32.4%
Research institution (time of application)	Swiss	70.4%	71.1%
	Foreign	24.7%	25.1%
	Unknown	4.9%	3.8%
Funding decision in 2018	Negative <sup>a</sup>	47.1%	36.8%
	Positive	52.9%	63.2%

<sup>a</sup> Including withdrawals before the funding decision.

There are some differences between the study population and the survey participants of the first monitoring survey. To examine potential selectivity of the survey participants, we first conducted a logistic regression of survey participation on age, gender, funding scheme, research domain, and place of research institution. The results are shown in Table 5. Age is significantly related with survey participation, with younger applicants being more likely to participate ( $p = 0.009$ ). Moreover, candidates whose research institution at the time of the application in fall 2018 is unknown were less likely to participate in the first monitoring survey than those who were employed at a Swiss research institution ( $p = 0.085$ ). There is no difference between candidates employed at a Swiss institution and those employed at a foreign institution. The overall test (calculated by means of a likelihood-ratio test) of the factor research institution is also not significant ( $p = 0.172$ ). The other characteristics (gender, funding scheme, and research domain), as well as the overall test for research domain ( $p = 0.240$ ), were not significant.

Table 5: Logistic regression of survey participation on background characteristics (CTC-18)

	Coef.	<i>t</i> value	AME
Age (centered)	−0.325*	−2.55	−0.057
Gender (ref.: men)			
Women	0.419	1.64	0.072
Funding scheme (ref.: Early Postdoc.Mobility)			
Postdoc.Mobility	0.093	0.32	0.016
Research domain (ref.: humanities and social sciences)			
Mathematics, natural and engineering sciences	−0.543	−1.58	−0.090
Biology and medicine	−0.464	−1.39	−0.076
Research institution (at time of application, ref.: Swiss)			
Foreign	−0.094	−0.31	−0.016
Unknown	−0.925 <sup>+</sup>	−1.92	−0.192
Constant	1.445***	4.90	
McFadden $R^2$	0.031		
LR $\chi^2$ ( $p$ value)	13.984	(0.051)	
$N$	415		

AME = Average marginal effect. Respondents who broke off their participation are counted as non-participants.

<sup>+</sup>  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

The likelihood-ratio test of the regression model is marginally significant ( $p = 0.052$ ). In conclusion, survey participation is only slightly selective regarding the examined background characteristics. In this report, we represent results that are not corrected for this selectivity.

In a second step, we analyzed the relation between survey participation and funding success. Applicants who participated in the first monitoring survey more often received a positive funding decision in 2018 than those who did not participate (63% vs. 25%). Results from a logistic regression of funding success on survey participation show a significant relation between these two factors ( $p < 0.001$ ). Since the subsequent analyses are always made separately for the grantees and non-grantees, no correction is necessary.

## 6 Results

### 6.1 Employment situation

In this section we present analyses concerning the employment situation of the survey participants roughly at the time of the application and one year after the application. First, we show the funding rates and employment rates of the participants and analyze the grant status of those participants with positive funding decisions. Second, we focus on the employment situation of all those participants who conduct research. In particular, we analyze what positions these researchers hold, what activities they use their work time for, and what kind of support they are

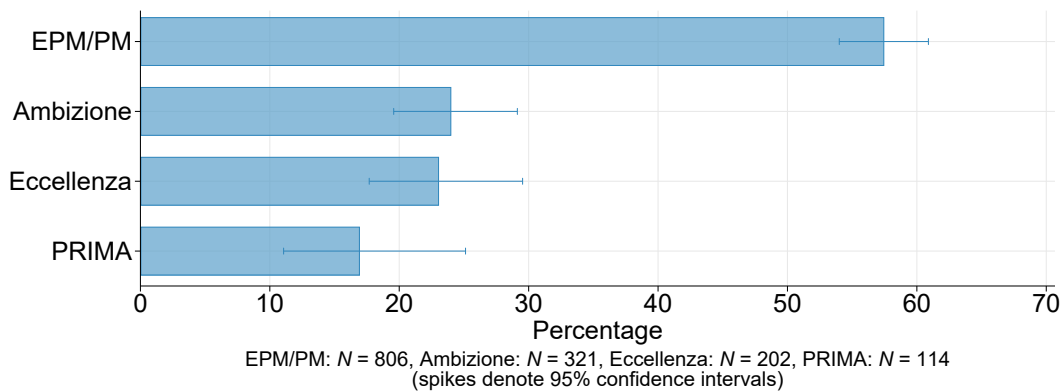


provided by their host institutions. The results reported in this section are based on data from the CTC-18 and CTC-19 cohorts.

### 6.1.1 Funding success, grant status, and employment rates

To begin with, we report the funding success of the survey participants from the **CTC-19 cohort**. Out of all the participants, 41% received a positive funding decision and 56% received a negative funding decision (3% had withdrawn their application before the decision date)<sup>1</sup>. Regarding the share of positive funding decisions, there were strong differences between the funding schemes (see Figure 2). For the survey participants it was the greatest for Early Postdoc.Mobility and Postdoc.Mobility (58%). This share was significantly higher than the rates for Ambizione (24%,  $p < 0.001$ ), Eccellenza (23%,  $p < 0.001$ ), and PRIMA (17%,  $p < 0.001$ ).

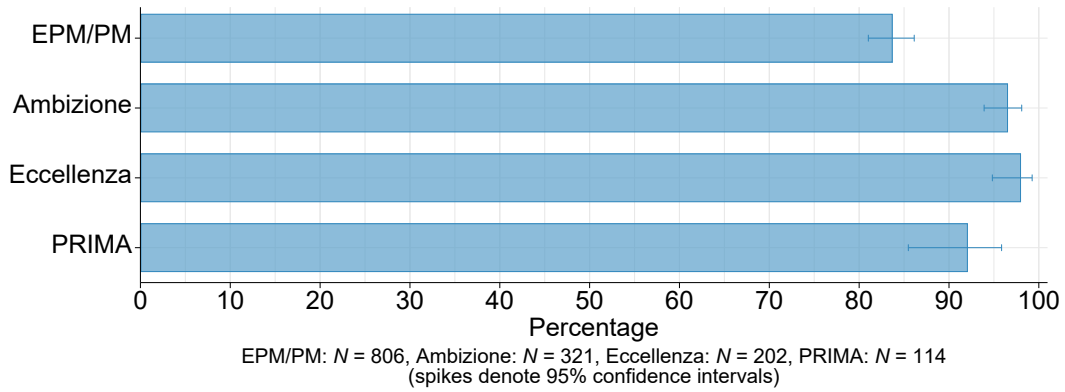
Figure 2: Share of positive funding decisions by funding scheme (CTC-19)



Furthermore, the survey data shows the following employment rates. At the time shortly after their application, 89% of the survey participants from the **CTC-19 cohort** were engaged in paid employment. Figure 3 shows that there were differences in employment rates between the funding schemes that the participants applied for. Among the applicants for Early Postdoc.Mobility or Postdoc.Mobility there were significantly less people with paid employment shortly after the application (84%) than among the applicants for Ambizione (97%,  $p < 0.001$ ), Eccellenza (98%,  $p < 0.001$ ), and PRIMA (92%,  $p = 0.006$ ). Moreover, there were slightly less people engaged in paid employment among the PRIMA applicants than among the Eccellenza applicants ( $p = 0.096$ ).

<sup>1</sup>Note that this distribution refers to the status at the end of the year. In principle, it is possible that people applied twice in the same year. For example, someone may have received a negative decision for an application in spring but a positive one for a renewed application in fall. The former (negative) decision in such cases is not represented in the number reported here.

Figure 3: Engagement in paid employment by funding scheme (CTC-19)



Those without paid employment at the time of the base survey were further asked about the main reasons for not being engaged in paid employment. The two main reasons the participants indicated were unemployment (38%) and transitioning between jobs (32%). Furthermore, 13% indicated that they were not engaged in paid employment because they were pursuing further education or training, 7% reported travelling or language stays, and 7% indicated it was because of family obligations. Finally, 4% had other reasons for not being engaged in paid employment at the time.

Data from the first monitoring survey of the **CTC-18 cohort** allows for analyses of the 226 grantees and 89 non-grantees<sup>2</sup>. The data provides first insights into the grant status of the grantees and the employment rates of the non-grantees one year after the application. Concerning the grant status, 83% of the survey participants with positive funding decisions had already started their grant at the time of the monitoring survey. The grant was not running yet for 12%, and 4% had withdrawn their grant before the actual start. The rest had either interrupted their grant at the time or terminated their grant prematurely (see Table 6<sup>3</sup>).

<sup>2</sup>Henceforth we will use the term grantees to refer to all those who received a positive funding decision in response to their most recent application, regardless of whether this application was submitted in fall 2018 or later. By the same token, we use the term non-grantees to refer to all those who received a negative decision in response to their most recent application.

<sup>3</sup>Two cases were excluded from the analysis. In both cases, we consider the information on the grant status as invalid because the reported status (already finished their grant after a very short time) did not correspond with the SNSF's administrative data.

Table 6: Current grant status (CTC-18)

	<i>N</i>	Percent
Withdrawn before start	9	4.0
Not started yet	27	12.1
Interrupted	1	0.5
Running	186	83.0
Terminated prematurely	1	0.5
Total	224	100.0

Regarding the employment rates of the non-grantees, 81% of the survey participants were engaged in paid employment, 27% of whom had the same job as one year ago. The remaining 19% reported not being engaged in paid employment. More than half of them indicated that they were unemployed (65%), 18% were not engaged in paid employment because of further education or training, 12% due to family obligations, and 6% were transitioning between jobs.

### 6.1.2 Employment involving research

The survey participants from the **CTC-19 cohort** were also asked whether they conducted research in their jobs at the time of the base survey (i.e., shortly after their application). Of the survey participants who were employed at that time, 96% reported that they conducted academic research in their (primary) job. The remaining 4% did not conduct academic research (or only in a secondary job). There was hardly any difference between funding schemes in this regard. The percentage of survey participants who conducted academic research in their (primary) job at the time of the application was 95% for Early Postdoc.Mobility and Postdoc.Mobility, 97% for Ambizione, 98% for Eccellenza, and 99% for PRIMA.

Data from the first monitoring survey of the **CTC-18 cohort** allows for first analyses regarding the research activities of the survey participants who applied for Early Postdoc.Mobility or Postdoc.Mobility in 2018. One year after the application, the majority of the grantees were obviously engaged in research (see Section 6.1.1). Of particular interest is the question whether the non-grantees – that is, survey participants who did not receive a positive decision in response to the application from 2018 onwards – were still engaged in research one year later. The survey results show that among the non-grantees who conducted research in their (primary) job at the time of the base survey and who were engaged in paid employment one year later, 85% still had a (primary) job involving academic research. Another 2% conducted academic research only in their secondary job, and 13% were no longer in research.

## Positions in research jobs

Data of those participants of the **CTC-18 cohort** who were non-grantees and still had a research job at the time of the monitoring survey further shows what positions they held. Keep in mind that the participants of the CTC-18 cohort were applicants for Early Postdoc.Mobility and Postdoc.Mobility. Roughly one year after the base survey, 78% of the non-grantees working in research had a postdoc position. The percentage of postdocs among the male participants was slightly higher than that among the female participants (80% vs. 77%). This difference may be related to other factors (e.g., domain-specific gender distributions). As for the other researchers, 9% were employed as research associates or scientific collaborators, and 7% as senior researchers. The rest had positions as doctoral students, assistant professors with tenure track or similar, or other positions (see Table 7).

Table 7: Non-grantees' positions in research jobs (CTC-18)

	<i>N</i>	Percent
Doctoral student / PhD student	1	2.2
Junior researcher / Postdoc	36	78.3
Senior researcher	3	6.5
Research associate / Scientific collaborator	4	8.7
Assistant professor with tenure track or similar	1	2.2
Other	1	2.2
Total	46	100.0

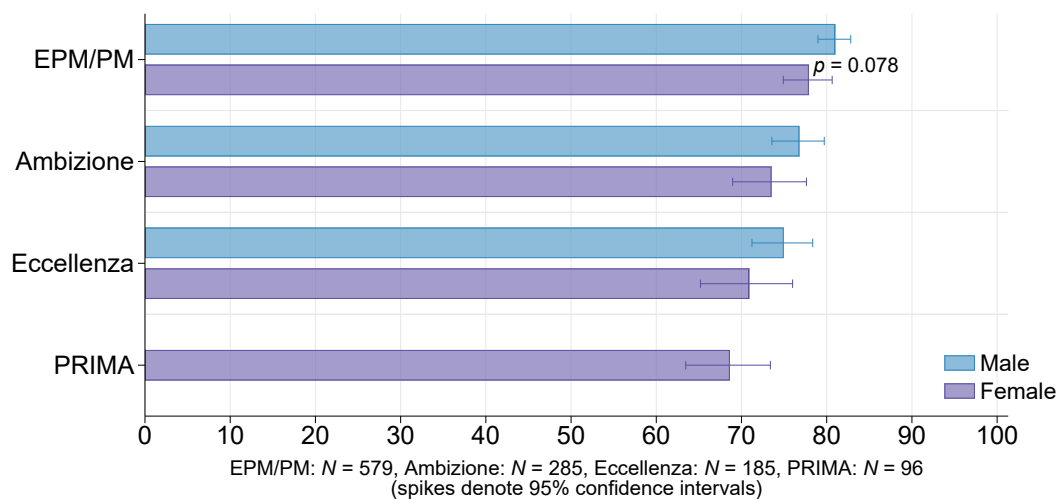
## Time spent on different activities in academic jobs

In the surveys, the participants with jobs involving academic research were further asked to indicate how much of their work time they used for research, teaching, administrative duties as well as for clinical and other activities. In the following, we will report the results regarding activities carried out in research jobs held by the survey participants within the **CTC-19 cohort**. Shortly after the application, the survey participants (excluding those with clinical activities) spent by far the most work time on research (77%), though the amount varies between funding schemes (see Figure 4<sup>4</sup>). The applicants for Early Postdoc.Mobility and Postdoc.Mobility spent significantly more time on research (80%) than applicants for Ambizione (76%,  $p = 0.007$ ), Eccellenza (74%,  $p < 0.001$ ), or PRIMA (69%,  $p < 0.001$ ). Similarly, applicants for Ambizione or Eccellenza used significantly more of their time for research than applicants for PRIMA ( $p = 0.004$  and  $p = 0.059$  respectively).

<sup>4</sup>In Figure 4 and subsequent figures,  $p$ -values are shown for those gender differences that are significant at the 10% or lower level.

Overall, men spent significantly more time on research than women (79% vs. 74%,  $p < 0.001$ ), though this difference may not be driven by gender alone. The analysis by funding scheme revealed that male applicants for Early Postdoc.Mobility or Postdoc.Mobility used significantly more time for research than women (81% vs. 78%,  $p = 0.078$ ). Among the Ambizione applicants, women used 74% and men used 77% of their time for research, and among the Eccellenza applicants, women spent 71% and men 75% on research.

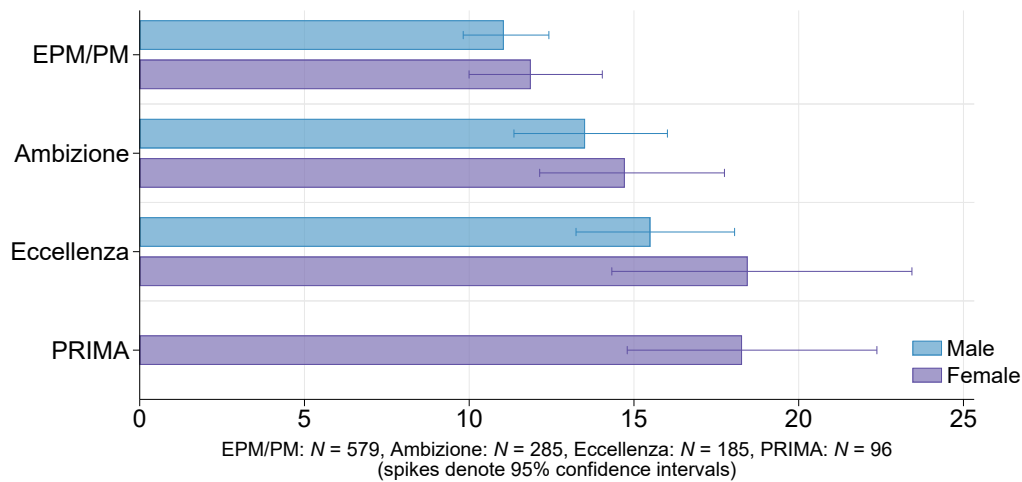
Figure 4: Proportion of work time used for research by funding scheme and gender (excluding respondents with clinical duties – CTC-19)



While applicants at a more advanced career stage spent less time on research, they used more time for teaching (see Figure 5). At 11%, applicants for Early Postdoc.Mobility and Postdoc.Mobility used significantly less time for teaching than applicants for Ambizione (14%,  $p = 0.018$ ), for Eccellenza (16%,  $p < 0.001$ ), or PRIMA (18%,  $p < 0.001$ ). Similarly, the share of time used for teaching was significantly smaller for applicants for Ambizione than for applicants for Eccellenza ( $p = 0.066$ ) and PRIMA ( $p = 0.013$ ).

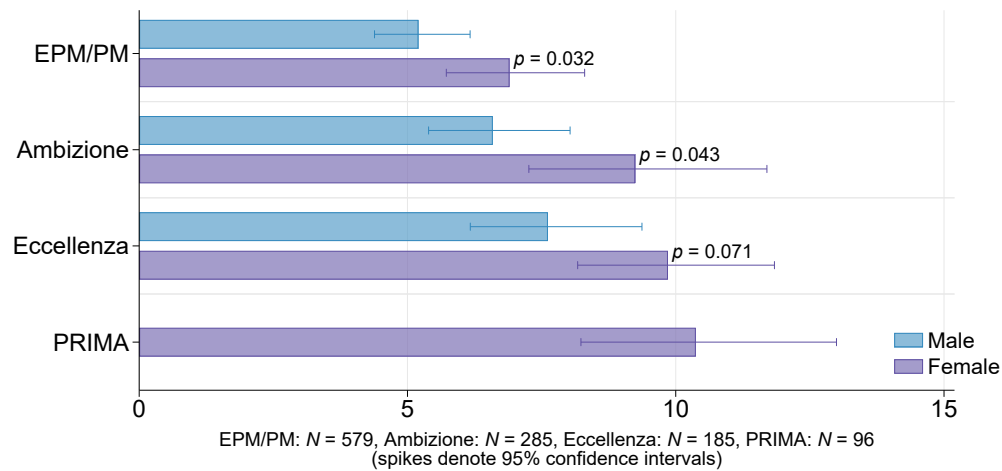
Across all funding schemes, there was a significant gender difference, with women spending more time on teaching on average than men (15% vs. 13%,  $p = 0.021$ ). Analyses for each funding scheme show that female applicants for Early Postdoc.Mobility used 12% and male applicants used 11% of their work time for teaching. Female Ambizione applicants used 15% of their time for teaching while men used 14%. Among the Eccellenza applicants, women spent 18% of their work time on teaching and men 16%. The differences within each funding scheme, however, are not statistically significant. Finally, the share of time spent on teaching by the PRIMA applicants (only females, 18%) was similar to that of female Eccellenza applicants.

Figure 5: Proportion of work time used for teaching by funding scheme and gender (excluding respondents with clinical duties – CTC-19)



In addition to research and teaching, the survey participants used 7% of their work time for administrative activities (e.g., accounting, personnel administration, and marketing), with differences across funding schemes (see Figure 6). Applicants for Early Postdoc.Mobility or Postdoc.Mobility spent less time on administrative duties (6%) than applicants for Ambizione (7%,  $p = 0.018$ ), Eccellenza (8%,  $p = 0.001$ ), or PRIMA (10%,  $p < 0.001$ ). Furthermore, applicants for PRIMA used more time for administrative duties than applicants for Ambizione ( $p = 0.009$ ) and Eccellenza ( $p = 0.090$ ). In general, female survey participants reported spending significantly more time on administrative activities than men (8% vs. 6%,  $p < 0.001$ ). Within the funding schemes, there was a difference in the share of work time used for administrative activities for Early Postdoc.Mobility and Postdoc.Mobility, with 7% for women and 5% for men ( $p = 0.032$ ), and for Ambizione, with 9% for women and 7% for men ( $p = 0.043$ ), as well as for Eccellenza, with 10% for women and 8% for men ( $p = 0.071$ ). Lastly, PRIMA applicants (and female Eccellenza applicants) reported the highest share of time used for administrative duties (10%).

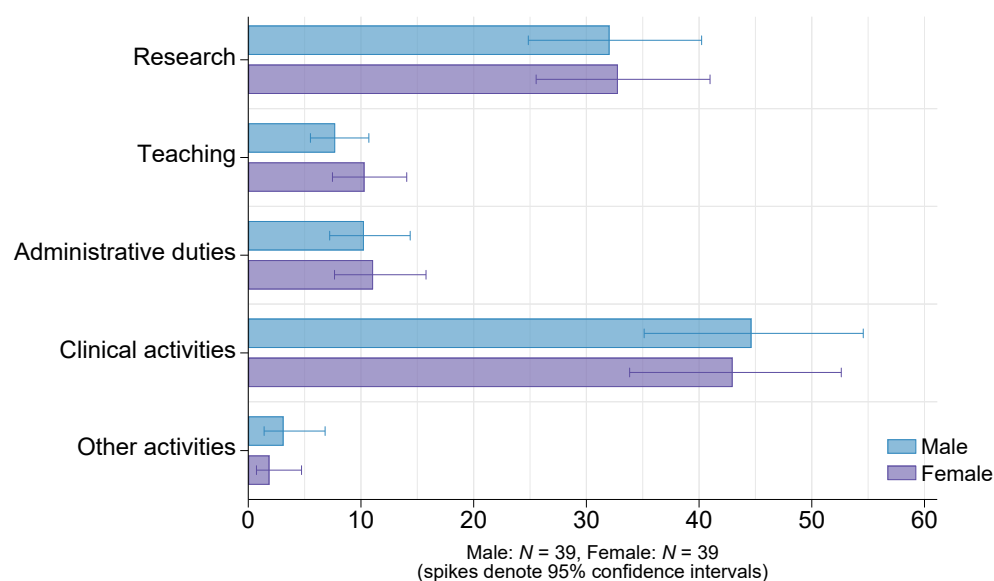
Figure 6: Proportion of work time used for administrative activities by funding scheme and gender (excluding respondents with clinical duties – CTC-19)



Finally, the survey participants reported that they used 3% of their work time for other activities than those mentioned above. There were no differences between men and women, or between funding schemes.

A separate analysis for the group of survey participants who were engaged in clinical activities in addition to research shows a different pattern. Firstly, those survey participants spent the most time on clinical activities (44%), followed by research (32%). Note that this relates to their job situation at the time of the application. Furthermore, they used 11% of their work time for administrative activities, 9% for teaching, and 3% for other activities. Across all funding schemes, no significant gender differences can be observed (see Figure 7).

Figure 7: Proportion of work time used for different activities by gender (only respondents with clinical duties – CTC-19)

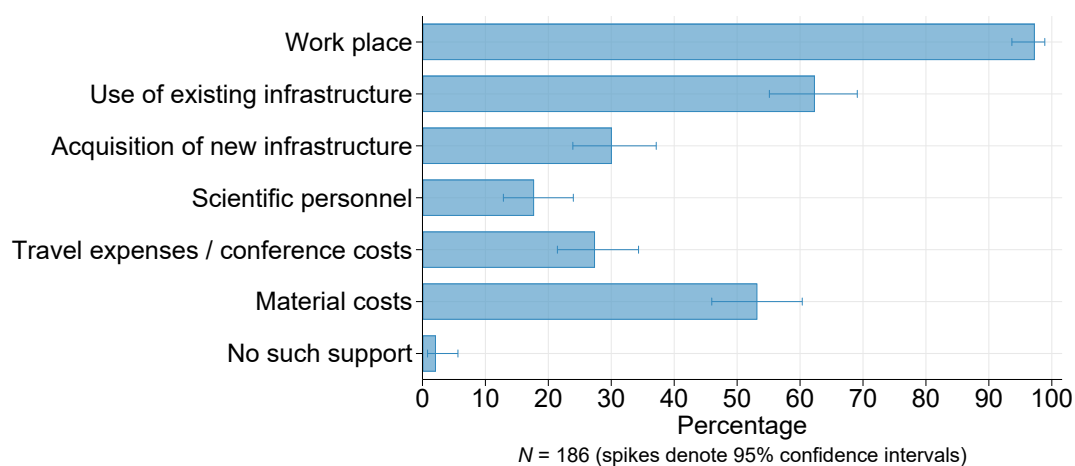


However, separate analyses by funding scheme show a significant gender difference among the Ambizione applicants. Female applicants for Ambizione used more time for teaching than male applicants did (25% vs. 9%,  $p = 0.028$ ). There was no such difference for any of the other funding schemes. Finally, we tested for differences between the funding schemes. The results show that applicants for Early Postdoc.Mobility and Postdoc.Mobility spent significantly less time on teaching than applicants for PRIMA (7% vs. 14%,  $p = 0.075$ ).

### Support provided by the host institution

The participants in the first monitoring survey of the **CTC-18 cohort** were asked with which specific means they had been supported by the host institution since the start of their grant (see Figure 8). Multiple answers were possible. Almost all the survey participants (97%) received a work place, including access to basic research infrastructure, which is required by the SNSF, and 62% reported that they were supported in terms of additional use of existing infrastructure (e.g., additional rooms, specialized IT facilities and instruments). Moreover, 30% of the survey participants indicated the acquisition of new infrastructure as a form of support, and 18% were supported with the provision of additional scientific personnel by their host institution. Regarding the coverage of additional costs, 27% of the participants reported that their host institution had covered travel expenses and conference costs, and 53% received coverage of material costs. Finally, 2% reported that they had not received such support from their host institution.

Figure 8: Means of support provided by host institution (CTC-18)



Furthermore, the grantees were asked whether they had received an employment contract from their host institution for the duration of their mobility grant. In principle, the Early Postdoc.Mobility and Postdoc.Mobility grants are managed by the grantees. Moreover, the grants are generally not transferred to the host institutions and the grantees are not employed there. In some cases, however, host institutions demand that the grantees are officially employed there in regard to their grant. The survey results show that 41% of all the grantees (38% of the Early Postdoc.Mobility grantees and 50% of the Postdoc.Mobility grantees) who participated in the



survey received an employment contract from their host institution. All the other survey participants reported that they did not have an employment contract with their host institution during their grant.

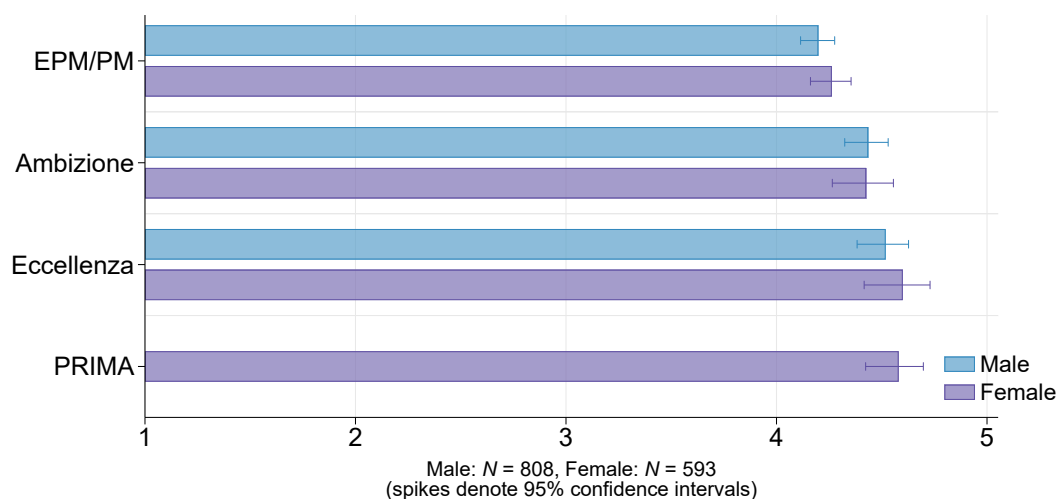
## 6.2 Career aspirations and work values

In this section we present the survey participants' ratings of aspects relating to their future careers. The participants were asked to rate the importance of several aspects focusing on career aspirations and other work values, on a scale from one to five. Among all the surveyed items, we focus here on the following: job security, continuation of the academic career, country of work place, reconciliation of work and other activities, and part-time work. The results reported here are based on data collected shortly after the applications of the CTC-19 cohort.

### 6.2.1 Job security

One aspect rated by the survey participants from the **CTC-19 cohort** was job security. As Figure 9 shows, having a secure job was rated as very important on average (mean = 4.3), and it was more important for more advanced researchers. Having a secure job was rated significantly less important by applicants for Early Postdoc.Mobility or Postdoc.Mobility (mean = 4.2) than by applicants for Ambizione (mean = 4.4,  $p < 0.001$ ), Eccellenza (mean = 4.5,  $p < 0.001$ ), or PRIMA (mean = 4.6,  $p < 0.001$ ). In addition, Ambizione applicants rated this aspect as less important than PRIMA applicants ( $p = 0.099$ ). There were no differences in the ratings between women and men in this regard.

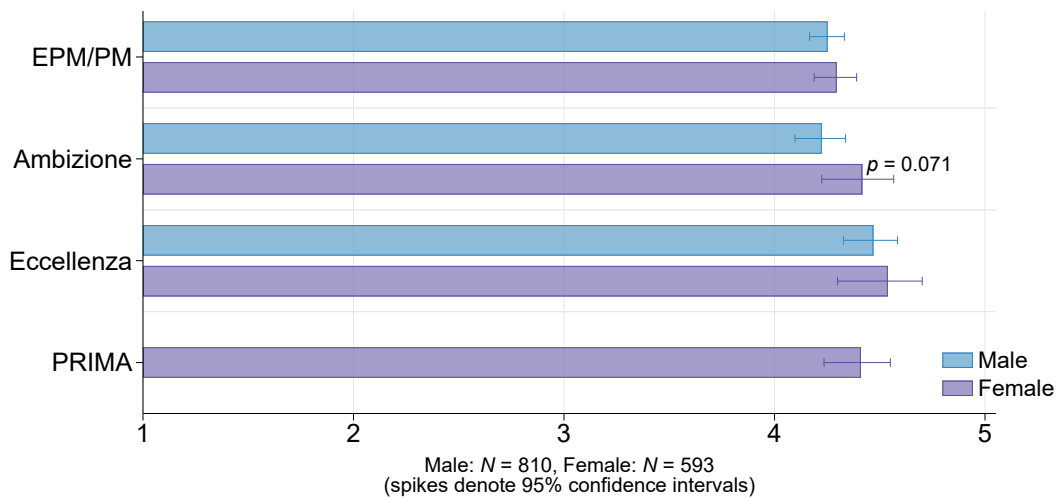
Figure 9: Importance of having a secure job (CTC-19)



### 6.2.2 Continuation of academic career

Another survey item asked about the importance of continuing the academic career on a scale from one to five (see Figure 10). The survey participants from the **CTC-19 cohort** considered it very important to continue their academic career (mean = 4.3). The applicants for Eccellenza rated the importance of continuing their academic career somewhat higher (mean = 4.5) than applicants for Early Postdoc.Mobility or Postdoc.Mobility (mean = 4.3,  $p = 0.002$ ). PRIMA applicants rated the importance of continuing their academic career as 4.4 and differed significantly from applicants for Ambizione (mean = 4.3,  $p = 0.012$ ). There was a gender difference among Ambizione applicants, with women rating this item as more important than men (mean = 4.4 vs. 4.2,  $p = 0.071$ ).

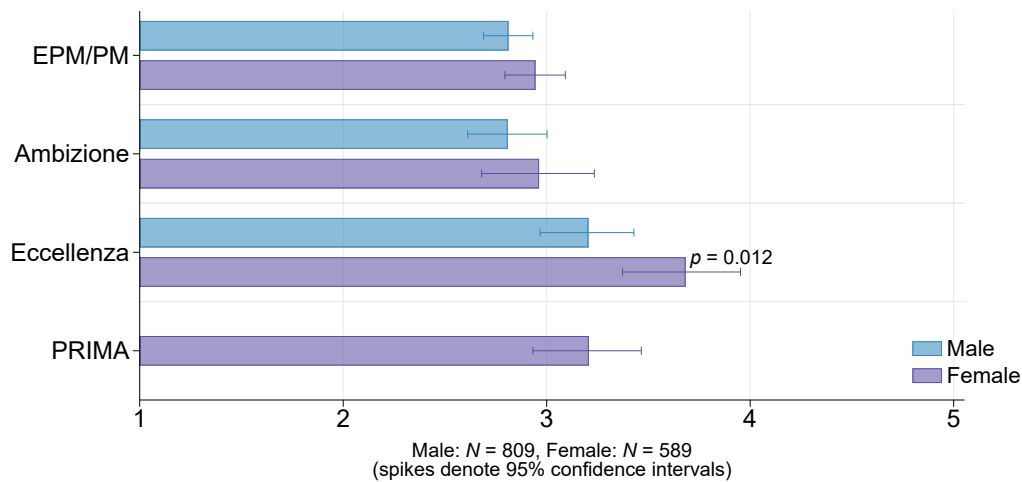
Figure 10: Importance of continuing the academic career (CTC-19)



### 6.2.3 Country of work place

The survey participants from the **CTC-19 cohort** further rated the importance of working and living in the same country in the future as now (i.e., at the time of the survey). As Figure 11 shows, this aspect was considered moderately important (mean = 3.0), but it was somewhat more important for researchers who were more advanced in their career. Thus, working in the same country as now was much more important for applicants for Eccellenza (mean = 3.4) than for applicants for Ambizione (mean = 2.9,  $p < 0.001$ ) or Early Postdoc.Mobility or Postdoc.Mobility (mean = 2.9,  $p < 0.001$ ). Note that the latter funding schemes specifically target mobility in the academic career. Similarly, it was more important for PRIMA applicants (mean = 3.2) than for Ambizione applicants ( $p = 0.022$ ) and applicants for Early Postdoc.Mobility or Postdoc.Mobility ( $p = 0.013$ ). Moreover, female applicants for Eccellenza rated this item significantly more important as compared to male applicants for this funding scheme (mean = 3.7 vs. 3.2,  $p = 0.012$ ).

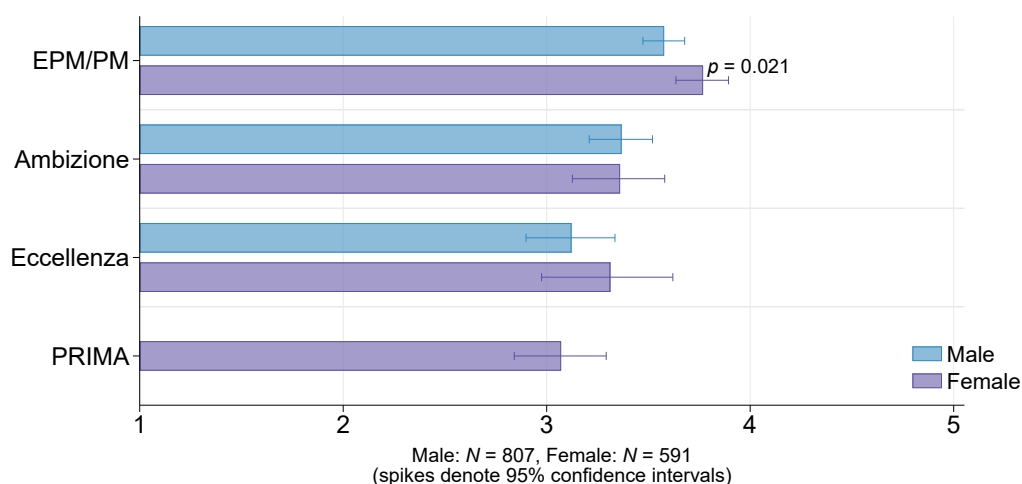
Figure 11: Importance of working and living in the same country as now (CTC-19)



#### 6.2.4 Reconciliation of work and other activities

When asked how important it was for them to be able to reconcile work and other activities in the future (see Figure 12), the survey participants from the **CTC-19 cohort** indicated a moderate average rating of 3.5. Applicants for funding schemes at an earlier career stage evaluated this item as more important than did more advanced researchers. Thus, the survey participants who applied for Early Postdoc.Mobility or Postdoc.Mobility rated this aspect as considerably more important (mean = 3.7) than those who applied for Ambizione (mean = 3.4,  $p < 0.001$ ), Eccellenza (mean = 3.2,  $p < 0.001$ ), or PRIMA (mean = 3.1,  $p < 0.001$ ). Similarly, Ambizione applicants rated it as more important than did Eccellenza applicants ( $p = 0.090$ ) and PRIMA applicants ( $p = 0.023$ ). Furthermore, there was a gender difference among the applicants for Early Postdoc.Mobility or Postdoc.Mobility, with men placing less importance on reconciling work and other activities than women (mean = 3.6 vs. 3.8,  $p = 0.021$ ).

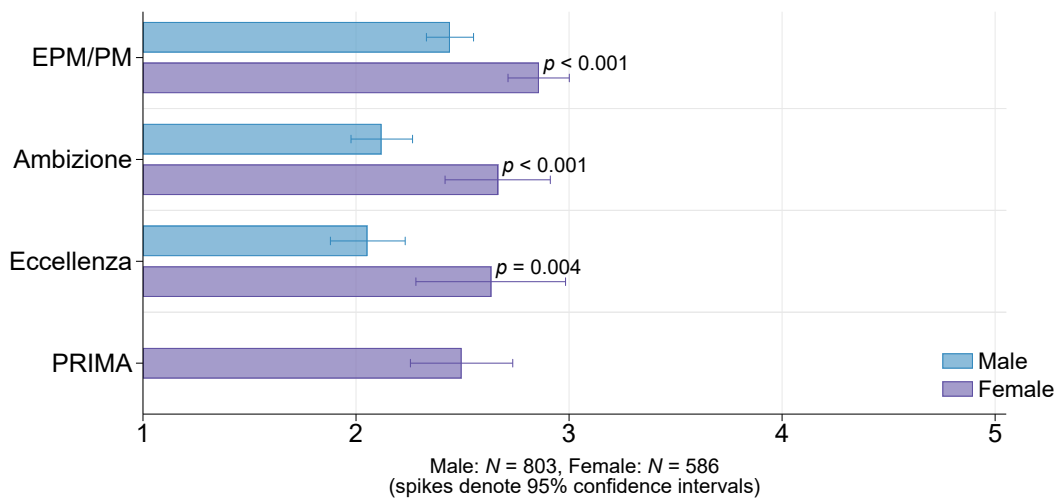
Figure 12: Importance of reconciling work and other activities (CTC-19)



### 6.2.5 Part-time work

The importance of being able to work part-time in their future career was rated as moderate on average (mean = 2.5) by the survey participants from the **CTC-19 cohort** and there were great differences by funding schemes and gender (see Figure 13). Participants who applied for Early Postdoc.Mobility or Postdoc.Mobility evaluated the importance of being able to work part-time the highest (mean = 2.6). They differed significantly from Ambizione applicants (mean = 2.3,  $p < 0.001$ ) and Eccellenza applicants (mean = 2.2,  $p < 0.001$ ). Working part-time was also of greater importance to applicants for PRIMA (mean = 2.5) compared to Eccellenza applicants ( $p = 0.083$ ).

Figure 13: Importance of having the possibility to work part-time (CTC-19)



On average, the female applicants rated the importance of being able to work part-time in the future as significantly more important than male applicants did (mean = 2.7 vs. mean = 2.3,  $p < 0.001$ ). For example, among the applicants for Early Postdoc.Mobility or Postdoc.Mobility, women rated this aspect as 2.9 and men as 2.4 ( $p < 0.001$ ). The female Ambizione applicants rated it 2.7 and the male Ambizione applicants 2.1 ( $p < 0.001$ ). Finally, it was also more important to female Eccellenza applicants than to male Eccellenza applicants (mean = 2.6. vs. 2.1,  $p = 0.004$ ). Among all the female survey participants, the PRIMA applicants showed the lowest rating regarding the importance of being able to work part-time in the future (mean = 2.5). They rated this aspect significantly less important than female applicants for Early Postdoc.Mobility or Postdoc.Mobility ( $p = 0.007$ ). Otherwise, there were no significant differences between the female applicants for different funding schemes.

## 6.3 Family and personal life situation

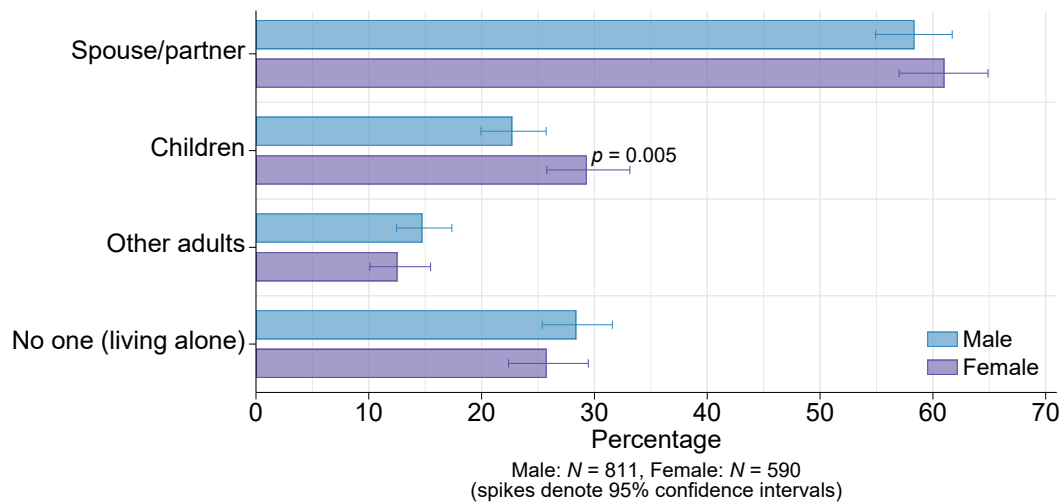
This section discusses selected topics concerning the survey participants' family and personal life situations. Specifically, we examine the household composition and the distribution of domestic duties among household members. Moreover, we analyze the participants' ratings of

their satisfaction with life in general, and with their work-life balance. The results discussed in this section are based on data from the CTC-18 and CTC-19 cohorts.

### 6.3.1 Household composition

The survey participants from the **CTC-19 cohort** were asked about their household situation at the time shortly after their application. In particular, they indicated who else lived in their household (see Figure 14). More than half of the survey participants (59%) reported that they lived together with their spouse or partner. Furthermore, 25% reported that there were children in the same household (too). Women more often than men reported that they lived together with children (29% vs. 23%,  $p = 0.005$ ). Finally, 14% shared the household with other adults and 27% lived alone.

Figure 14: People living in the same household (CTC-19)

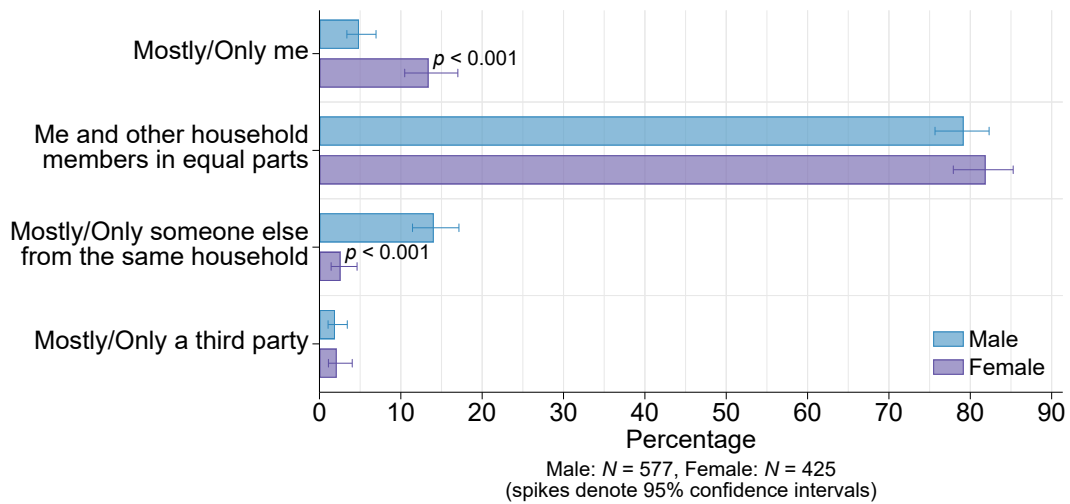


### 6.3.2 Responsibility for domestic work

The survey participants were asked about responsibilities for domestic work, for example cleaning, cooking, laundry, shopping, and home maintenance. In the **CTC-19 cohort**, 80% of the survey participants who lived together with other adults (i.e., spouse, partner, or other adults) in the same household claimed that they shared the responsibility for domestic duties in equal parts (see Figure 15). In addition, 8% indicated that they themselves were mostly responsible, and 9% reported that someone else from the same household mainly took on domestic work. In 2% of all cases, domestic work was carried out by a third party, for example by cleaning staff.

From a gender perspective, there were significant gender differences in those cases where one person was mostly or solely responsible for domestic work. Women more often indicated that only or mostly they themselves were responsible for domestic duties (13% vs. 5% males,  $p < 0.001$ ), and men more often indicated that someone else from the same household was responsible for domestic work (14% vs. 3% females,  $p < 0.001$ ).

Figure 15: Responsibility for domestic work (CTC-19)



Finally, the survey participants who reported that they lived alone almost exclusively reported that mostly or only they themselves were responsible for domestic work. Only 2% reported that a third party took on domestic duties. There were no gender differences in this regard.

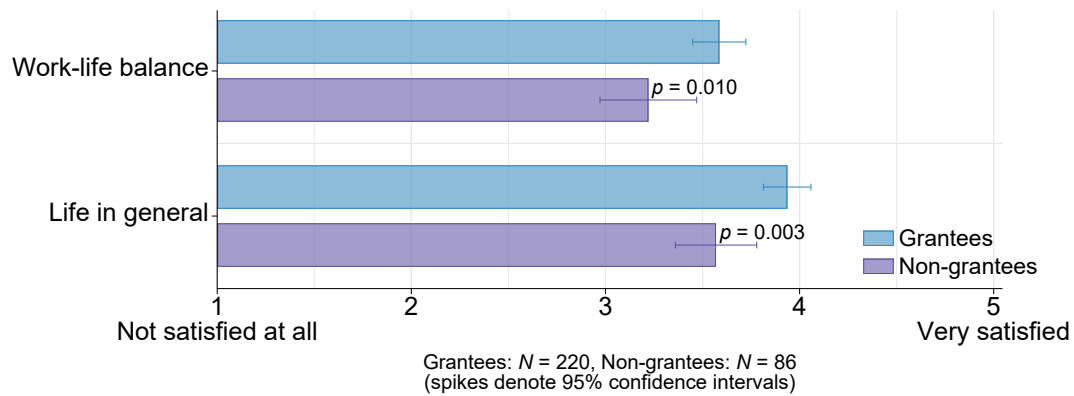
### 6.3.3 Life satisfaction

We analyzed data on the survey participants' satisfaction with their work-life balance and with their life in general. In the following, we focus on data of the **CTC-18 cohort**. One year after their application, they rated their satisfaction with their work-life balance lower than their satisfaction with life in general (mean = 3.5 vs. mean = 3.8, on a scale from one to five). In addition, there were significant differences between the grantees and non-grantees in terms of satisfaction (see Figure 16). Note that the grantees include all the participants who received a positive funding decision since 2018, and not just for their application in fall 2018. The grantees, of which 83% had already started their grant, reported a higher satisfaction with their work-life balance than those who had received a negative funding decision (mean = 3.6 vs. mean = 3.2,  $p = 0.010$ ). Also, the grantees appeared to be happier with their life in general than the non-grantees (mean = 3.9 vs. mean = 3.6,  $p = 0.003$ ).

One year before, when they participated in the base survey shortly after submitting their application, there were no significant differences in life satisfaction and work-life balance satisfaction between those who eventually received a positive funding decision and those who did not. At that time, life satisfaction was rated as 4.0 by the future grantees and 3.9 by the non-grantees. The satisfaction with their work-life balance was rated 3.6 by the future grantees and 3.5 by the non-grantees.

Note at this point that we have so far not included any further factors (e.g., work situation, research conditions) in the analysis, which might have an influence on the survey participants' satisfaction with life. Also note that this finding is specific to the limited cohort of applicants

Figure 16: Satisfaction with life and work-life balance of grantees and non-grantees (CTC-18)



for Early Postdoc.Mobility and Postdoc.Mobility, and specific to the point in time one year after the base survey.

## 7 Conclusion

In this report, we have described the CTC project and given an overview of its current state. The study started in fall 2018 with the base survey for the CTC-18 cohort and has launched two further cohorts since then. This report presents results based on data from the CTC-18 and CTC-19 base surveys and the first monitoring survey of the CTC-18 cohort.

Firstly, we analyzed the employment situation of the survey participants. At the time shortly after their application the employment rate among the survey participants was very high on average, and almost all of the participants conducted academic research in their primary job at the time. Regarding the time used for different activities at the time of their application, the results show that the survey participants spent by far the majority of their work time on research (except for participants with clinical duties, who spent most of their time on clinical activities). Overall, participants at earlier stages of their career spent more time on research than more advanced researchers did, and men spent more time on research than women did, on average. Teaching, on the other hand, took up more time the more advanced the career was, and women used more time for teaching than men did. One year after their application most of the grantees of Early Postdoc.Mobility and Postdoc.Mobility had already started their grant. Almost all of them received some sort of support from their host institution (mostly provision of a work place and existing infrastructure, and coverage of material costs). Less than half of the grantees received an employment contract with their host institution for the duration of their mobility grant. Among the non-grantees, one-fifth reported not being engaged in paid employment one year after their application. Among the non-grantees with paid employment, the great majority still had a job involving academic research and most of them were working as postdocs.

Secondly, we examined specific aspects regarding the survey participants' work values in relation to their future career. The results show that having a secure job in the future was rated as very important by the participants, and it was more important the more advanced the career

was. Another aspect of great importance was the continuation of their academic career. Again, participants at a more advanced career stage found it even more important to continue their career than participants at an earlier stage. Additionally, the participants found it moderately important to be able to work and live in the same country as they did at the time of the survey. Yet again, participants who applied for funding schemes for more advanced researchers rated this aspect as more important. Also, it was more important to female participants who applied for Eccellenza, than to male researchers who applied for the same funding scheme. By contrast, the reconciliation of work and other activities, which was rated as moderately important on average, appeared to be more important for researchers at an earlier career stage than for more advanced researchers. Lastly, the participants found it moderately important to be able to work part-time in the future. Again, researchers at an earlier career stage placed more importance on this aspect than more advanced researchers. Moreover, being able to work part-time in the future appeared to be more important to women than men on average, and applicants for PRIMA rated it as less important than the female applicants for Early Postdoc.Mobility and Postdoc.Mobility.

Thirdly, we analyzed data on the participants' family and personal life situation. In particular, we looked at their household situation and found that more than half of the participants lived together with their partner or spouse, and roughly a quarter lived (also) with children. The rest lived alone or together with other adults. Out of all those who lived together with other people, the majority reported that they shared the responsibility for domestic duties in equal parts with the other household member(s). However, women reported more often than men that they themselves were mostly or solely responsible. Finally, data from the first monitoring survey shows that one year after their application, the survey participants reported being rather satisfied with their life in general, and somewhat less satisfied with their work-life balance. The grantees reported a higher satisfaction with both items than the non-grantees.

The analyses in this report are limited to data from two cohorts, one of which only includes applicants for Early Postdoc.Mobility and Postdoc.Mobility. Therefore, the research questions of the CTC study can thus far only partially be analyzed. Once data from more cohorts and from more monitoring surveys over time becomes available, we will be able to conduct more comprehensive analyses and provide more profound insights into the career paths of the applicants for SNSF career funding schemes.



## References

- Jann, B., Widmer, J., Lüthi, J., Zimmermann, B., and Amacker, M. (2019a). Swiss National Science Foundation Career Tracker Cohorts (CTC). Documentation of the CTC-18 Base Survey. Bern: Institute of Sociology and Interdisciplinary Center for Gender Studies, University of Bern. Available from <http://doi.org/10.7892/boris.135589>.
- Jann, B., Widmer, J., Lüthi, J., Zimmermann, B., and Amacker, M. (2019b). Swiss National Science Foundation Career Tracker Cohorts (CTC). Questionnaire of the CTC-18 Base Survey (Paper-and-Pencil Lookalike). Bern: Institute of Sociology and Interdisciplinary Center for Gender Studies, University of Bern. Available from <http://doi.org/10.7892/boris.135582>.
- Widmer, J., Lüthi, J., Jann, B., Zimmermann, B., and Amacker, M. (2019). Swiss National Science Foundation Career Tracker Cohorts (CTC). Report 2019. Bern: Institute of Sociology and Interdisciplinary Center for Gender Studies, University of Bern. Available from <http://doi.org/10.7892/boris.135591>.
- Widmer, J., Lüthi, J., Zimmermann, B., and Amacker, M. (2020a). Data Sets of CTC-18 Cohort. Release 2. Bern: Institute of Sociology and Interdisciplinary Center for Gender Studies, University of Bern. Rights owned by SNSF, Bern. Distributed by Fors, Lausanne. Available from <https://doi.org/10.23662/FORS-DS-1121-2>.
- Widmer, J., Lüthi, J., Zimmermann, B., and Amacker, M. (2020b). Data Sets of CTC-19 Cohort. Release 1. Bern: Institute of Sociology and Interdisciplinary Center for Gender Studies, University of Bern. Rights owned by SNSF, Bern. Distributed by Fors, Lausanne. Available from <https://doi.org/10.23662/FORS-DS-1167-1>.
- Widmer, J., Lüthi, J., Zimmermann, B., and Amacker, M. (2020c). SNSF Career Tracker Cohorts (CTC) Newsletter 2020/1. Bern: Institute of Sociology and Interdisciplinary Center for Gender Studies, University of Bern. Available from <http://doi.org/10.7892/boris.141193>.
- Widmer, J., Lüthi, J., Zimmermann, B., and Amacker, M. (2020d). Swiss National Science Foundation Career Tracker Cohorts (CTC). Documentation of the CTC-18 Monitoring 1 Survey. Bern: Institute of Sociology and Interdisciplinary Center for Gender Studies, University of Bern. Available from <http://doi.org/10.7892/boris.143936>.
- Widmer, J., Lüthi, J., Zimmermann, B., and Amacker, M. (2020e). Swiss National Science Foundation Career Tracker Cohorts (CTC). Documentation of the CTC-19 Base Survey. Bern: Institute of Sociology and Interdisciplinary Center for Gender Studies, University of Bern. Available from <http://doi.org/10.7892/boris.143937>.