Method Report of the UniSAFE Survey

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UniSAFE
ENDING GENDER-BASED VIOLENCE

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Disclaimer

Project Partners

Table 1: Survey development, implementation, analysis, and publication – Acknowledgement of contributions

Name	Activities
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Zorana Antonijevic	Translation team Serbian language version
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Dorothee Behr	Advise on translation process and documentation
Fredrik Bondestam	Scoping review; survey questionnaire development; translation team Swedish language version; feasibility assessment of creating monitoring indicators; co-author of initial analysis report.
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Zeynep Gülru Göker	Translation team Turkish language version
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Jeff Hearn	Questionnaire review
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Vera Lomazzi	Scoping review; survey questionnaire development; data protection and ethics.
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Lucrecia Rubio Grundell	Translation team Italian language version; Translation team Spanish language version
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Name	Activities
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Katarzyna Struzińska	Drafted Informed consent; ethics advisor in survey set-up; translation team Polish language version.
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Karen Birna Þorvaldsdottir	Translation team Icelandic language version
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1 Introduction

The aim of the UniSAFE survey was to deliver evidence on the prevalence of gender-based violence, including sexual harassment, in research performing organisations. The survey also enquires into contextual factors, determinants, and consequences of gender-based violence.

The method report consists of methodological specifications on the development of the survey questionnaire and its measurements, including the implementation of the survey field phase. The report details the methods and quality standards GESIS, and other project partners applied during the development and testing of the questionnaire, the questionnaire translation process, and the final implementation of the survey. It also covers the data curation and weighting processes applied to the survey data.

The questionnaire was developed by an international survey team through an initial scoping review of existing prevalence studies. This initial step included a review of measurement instruments which operationalise prevalence of different forms of gender-based violence, its determinants, and contextual factors, as well as the consequences of gender-based violence. The review was followed by an in-depth evaluation of the ten most relevant studies regarding e.g., scope and depth of the measurement. Guided by the project's theoretical and conceptual framework (Strid et al., 2021), the team selected six forms of gender-based violence for inclusion in the UniSAFE survey: Physical violence, psychological violence, economic violence, sexual violence, sexual harassment, and online violence.

The draft questionnaire underwent expert reviews before it was programmed and tested in cognitive and quantitative pre-tests in September and October 2021. Pre-test results led to four major changes: 1) Exclusion of one item on psychological violence, 2) a specification of explanatory sentences for the prevalence questions, 3) an improved visual presentation of the informed consent, and 4) a different ordering of modules within the questionnaire. The final structure of the questionnaire presents the modules in the following order: Sociodemographic characteristics and markers of functional diversity, prevalence of gender-based violence including follow-up questions, consequences, individual attitudes and behaviours, and contextual factors (Lipinsky et al., 2021). Guided by a quality framework for cross-cultural surveys, the final English source questionnaire was translated into 13 target languages and adapted to two additional cultural contexts, for roll out in the national languages in addition to English. The English source questionnaire was also adapted to the context of one international association of mobile researchers. The final questionnaire design and wordings reflects a survivor-centred approach and uses gender-sensitive phrasing in all language versions.

The UniSAFE survey was rolled out in the mode of a self-administered web survey (CAWI) among staff and students (18 years and older) in 46 research performing organisations (RPOs) in 15 countries in Europe, and in addition in one international association of mobile researchers. Before the roll out, GESIS created a template and collected administrative data in all participating RPOs. Administrative data were used to calculate survey weights for the analysis of the survey data. Moreover, GESIS, supported by the technical contractor respondi, supported the RPOs in preparing the individual roll outs with briefing sessions, briefing materials, checklists, and email templates. The survey data collection was

conducted through a static link between 17 January and 1 May 2022. The standard data collection period for each RPO was four weeks. During the survey field phase, incoming data were monitored by the technical contractor and GESIS. Ethical guidelines and data protection standards were followed throughout the entire process of the implementation of the UniSAFE survey. Response rates varied significantly per organisation. The total response rate was 3.9%, with a significantly higher response rate of 10.5% among staff than among students (2.7%).

The UniSAFE survey dataset includes data from 42,186 respondents in total, with a gender composition of 67% (28,214) identifying as women, 30% (12,762) identifying as men, and 3% (1,154) identifying as non-binary person or other gender not listed in the categories. In total, 43% of the respondents are staff and 57% are students. Of the 24,193 students in the sample, 65% are undergraduates, 28% are postgraduates (other than doctoral), and 8% are enrolled to complete a PhD. Almost one-third (30%) of all staff hold fixed-term contracts, though fixed-term contracts are more widespread among academic (37%) than non-academic staff (20%). Overall, 11% of respondents report having a disability or chronic illness; 6% identify with an ethnic minority group; 6% report being international staff or students, and 19% identify as LGBQ+, i.e., lesbian, gay, bisexual, queer, asexual, or a sexual orientation not listed.

2 Project description – UniSAFE

UniSAFE - Gender-based violence and institutional responses is a Horizon 2020 project, funded under the call topic *SwafS-25-2020: Gender-based violence including sexual harassment in research organisations and universities*. It has two objectives: First, to produce robust knowledge on gender-based violence in research performing organisations (RPOs). Second, to translate the new knowledge into operational tools and recommendations for universities, research organisations and policymakers to reduce gender-based violence.

In analysing the mechanisms of gender-based violence in RPOs, its social determinants, antecedents, and consequences, UniSAFE is centred on three research pillars that are combined in a holistic multi-level research model:

1. Legal and policy frameworks specific to gender-based violence in RPOs are analysed via an extensive mapping carried out by national experts in 31 EU Member States, Associated Countries and Third Countries.
2. Prevalence, determinants, and consequences of gender-based violence are analysed via an online survey implemented in 46 RPOs in 15 EU Member States and Associated Countries, and among an international association of mobile researchers.
3. Organisational responses and instruments are analysed via 12-18 in-depth case studies, interviews with vulnerable/precarious groups (n = 54), and an inventory of institutional measures in the 46 RPOs.

This method report focuses on the second pillar, the data collection of micro-level data on prevalence of gender-based violence in universities and research organisations, its determinants, and consequences. A self-administered online survey was carried out among 46 RPOs and among an international association of mobile researchers.

3 Aim of the UniSAFE survey and core concepts

The aim of the UniSAFE survey was to provide large-scale evidence on the prevalence of gender-based violence in universities and research organisations, to advance understanding how it relates to its determinants and consequences. It collected data among staff and student populations starting at 18 years of age from 46 research performing organisations (RPOs) and in one international association of mobile researchers across Europe through a self-administered web survey (CAWI).

3.1 Definition of gender-based violence

Violence and abuse are understood as a form of inequality in itself, which reifies and creates other forms of inequalities, not least gender inequalities. Violence and abuse is gender-based in that it affects women, men and people identifying outside this binary in different ways, though it should always be recognised that relations of power means that women and non-binary people are disproportionately affected (Strid et al., 2021). Gender-based violence is understood as violence directed towards a person because of their gender, or violence that affects persons of a specific gender disproportionately. The forms of gender-based violence considered by the UniSAFE survey are based on the four forms outlined in the Council of Europe's Istanbul Convention (2011), that is, violence that can be physical, sexual, psychological, or economic. In addition, the UniSAFE survey investigates the problems of sexual harassment. It also considers forms of gender-based violence that emerge in an increasingly digitised world and can be carried out online.

3.2 Target groups of the UniSAFE survey

The UniSAFE survey collects data from a variety of genders. Though women are disproportionately and more severely affected by gender-based violence, it affects men and other genders outside the binary, too. It focuses on capturing gendered experiences intersecting with factors such as sexual orientation, age, ethnic minority status and international mobility, which may exacerbate exposure to the risk of violence or its consequences. The UniSAFE survey asks respondents about their experiences of gender-based violence with persons connected with the RPO, thereby excluding other potential exposure to forms of gender-based violence perpetrated in another context (e.g., experiences during childhood of the respondent).

4 Questionnaire development

The international survey team developed the UniSAFE questionnaire, starting with an initial scoping review of existing prevalence studies, followed by an in-depth evaluation of the ten most relevant studies (see *Table 2* below). The criteria for selecting these studies were (a) the topical scope of gender-based violence including sexual harassment, (b) the use of closed-ended questions and (c) the potential for adaptation and adoption in diverse cultural settings. Where possible, studies that reflected the specific context of higher education were sought. Exclusion criteria for items included that (a) they were not available in English, (b) out of the topical scope, (c) open-ended questions, (d) to an extremely high degree specified on country context, or (e) a large set of connected items.

Table 2: Selected studies on gender-based violence, in alphabetical order

ID	Study Reference	Name of study	Issuing organisation	Year	Target group	Geographic coverage	Brief description of content
1	AAU, 2015 (Cantor et al., 2015)	AAU Campus Climate Survey on Sexual Assault and Sexual Misconduct	AAU - Association of American Universities	2015	University students 18+	United States	Includes measures of experiencing of sexual assault and misconduct, with focus on university setting, takes communication technologies and intimate partner violence into account. Also includes questions directed to bystanders. Measures knowledge about support services, seeking support and reporting by victims and bystanders
2	AHRC, 2017 (Australian Human Rights Commission, 2017)	Change the course: National report on sexual assault and sexual harassment at Australian universities	AHRC - Australian Human Rights Commission	2017	University students 18+	Australia	Includes measures of experiencing sexual assault & sexual harassment, with focus on university setting, takes communication technologies into account. Also includes questions directed to bystanders. Measures knowledge about support services, seeking support and reporting by victims and bystanders
3	ARC3, 2015 (Administrator-Researcher Campus Climate Collaborative, 2015; Swartout et al., 2019)	ARC3 Campus Climate Survey	ARC3 - Administrator Researcher Campus Climate Collaborative	2014-15	University staff and students	United States	Includes measures of experiences of physical violence, sexual violence, and sexual harassment of staff and students, including information on institutional responses and individual attitudes (e.g., peer norms)
4	FRA, 2014 (European Union Agency for Fundamental Rights, 2014)	Violence against women: an EU-wide survey	FRA - European Union Agency for Fundamental Rights	2014	Women, aged 18-74	EU MS	Includes measures of experiencing physical & sexual violence, sexual harassment, including stalking and taking communication technology into consideration. All measures for intimate partners and non-partners, also questions about seeking support and reporting by victims
5	Gendercrime, 2011 (Ruhr University Bochum, 2011)	Gender-based Violence, Stalking and Fear of Crime (Gendercrime)	Ruhr-Universität Bochum (RUB)	2010-11	female higher education students	Germany, Italy, Poland, United Kingdom, and Spain	Includes measures of experiences of sexual violence and harassment of female higher education students in four EU-countries. Also asks about knowledge about provision of institutional support services

ID	Study Reference	Name of study	Issuing organisation	Year	Target group	Geographic coverage	Brief description of content
6	HEA, 2021 (MacNeela et al., 2021a, 2022b)	National Survey of Student Experiences of Sexual Violence and Harassment in Irish HEIs	HEA - Irish Higher Education Authority	2021	University staff and students	Ireland	Includes measures about experiences with sexual violence and harassment of university staff and students of Irish higher education institutions, including information on contextual factors and individual attitudes (e.g., bystander attitudes, and individual attitudes to and perceptions of sexual violence and harassment)
7	KI, 2022 (Karolinska Institutet, 2022)	Gender and sexual harassment in Higher Education in Sweden	KI - Karolinska Institutet; Swedish Secretariat for Gender Research	2022	University staff, PhD students, and students	Sweden	Includes measures about experiences with diverse forms of gender-based violence from a victim, bystander, and perpetrator perspective, including questions about reporting/seeking support & the relationship between those actors. Communication technologies are considered. Also asks about the work/study environment & personal (mental) health.
8	NUS, 2018 (National Union of Students and The 1752 Group, 2018)	Power in the academy: staff sexual misconduct in UK higher education	NUS - National Union of Students (in conjunction with The 1752 Group)	2018	(former) higher education students 16+	United Kingdom	Includes measures of experiences of sexual misconduct of staff towards students from victim and bystander perspective and its consequences, the reporting of incidents, as well as the perceived appropriateness of certain behaviours
9	UCU, 2021 (University and College Union, 2021)	Sexual violence UCU member survey	UCU - University and College Union	2021	Staff only	United Kingdom	Mainly includes measures about organisational responses & reactions towards gender-based violence and about prevention & support services provided. Asks about victims and bystanders experiencing gender-based violence and bystander interventions.
10	Wits, 2018 (Finchilescu & Dugard, 2021)	Survey on gender-based harm at the University of the Witwatersrand	Wits - University of the Witwatersrand	2018	University staff and students 18+	South Africa	Includes measures about experiencing different forms of gender-based violence including information about the perpetrator, the consequences of gender-based violence on work & studies, perceptions of support for & prosecution of gender-based violence at Wits, attitude questions about gender, relationships, sex, and LGBTQ

The initial scoping of prevalence measurements was complemented by a review of measurement instruments which operationalise determinants, contextual factors, and consequences of gender-based violence, e.g. instruments measuring markers of functional diversity in research teams developed within the GEDII project (Humbert & Günther, 2018), fields of work/study based on the Frascati Manual (OECD, 2015), seniority grades of researchers based on She Figures (European Commission, 2021), gender beliefs based on the Eurobarometer 76.1 (European Commission & European Parliament, 2014), perception of violence based on the Eurobarometer 85.3 (European Commission, 2020), mental and physical well-being informed by the Copenhagen Psychosocial Questionnaire (COPSOQ) (Burr et al., 2019). Finally, each measurement was evaluated against its potential fit for our survey, considering the depth and scope of the measurement per concept and subsequently included or excluded from the draft UniSAFE survey questionnaire (version 1). Existing measurements were adopted or adapted to better fit the objectives of our survey.

4.1 Questionnaire modules

The UniSAFE survey questionnaire is structured in in a welcome page to the survey, an informed consent form and six questionnaire modules, including filters to take different study and work environments into consideration. The complete UniSAFE survey questionnaire (Lipinsky et al., 2021) can be found here.

The informed consent form for the survey data collection was drafted in cooperation with the project partner Jagiellonian University. This involved the application of the project's ethics-related guidelines, procedures, and mechanisms relevant for survey research, including precautions for the safety and well-being of the survey participants, the necessary transparency and information about the aims and methods of the research, and an age limit.

Questionnaire modules cover different topical questions on the respondents' sociodemographic characteristics and markers of functional diversity, prevalence of gender-based violence, consequences of gender-based violence, individual factors (including individual attitudes and behaviours), and contextual factors of gender-based violence, including indicators on organisational tolerance of and measures against gender-based violence, and questions on the remaining six Ps of UniSAFE's 7Ps model (Strid et al., 2021). Conceptually, sociodemographic characteristics and markers of functional diversity as well as other individual factors, such as perception of violence, are defined as determinants of gender-based violence, i.e., lowering or increasing the risk of exposure to violent behaviour in context of the organisation. The UniSAFE questionnaire covers these aspects in two modules separately for methodological reasons based on the results of the quantitative pre-test.

The next paragraphs outline each of the six modules and provide examples of the constructs, which are covered in each module. For a comprehensive overview of the sources of the questionnaire items used in the UniSAFE survey, please see *Table 4*.

4.1.1 Filter questions

Filter questions were placed at the beginning of the questionnaire, which are necessary to address the different target groups correctly in case of specific questions per target group, e.g., students or staff. In addition to asking respondents to state whether they are staff or students, the filter questions included also questions on the type of staff, study level of students, and time since the respondents have started working/studying at their institution.

If respondents indicated to be neither a staff member nor a student at the respective RPO, they were first asked to confirm their answer and then forwarded directly to the exit page of the UniSAFE questionnaire.

4.1.2 Sociodemographic characteristics and markers of functional diversity

UniSAFE conceptualises gender as a social construct, a hierarchy, a relation and as a process - rather than as biology or merely a sociodemographic variable only (Strid et al., 2021). Thus, in examining the experiences of gender-based violence in research performing organisations, the UniSAFE survey goes beyond a binary understanding of gender, including the experiences of women, men, and non-binary genders.

In particular, the UniSAFE survey includes three questions addressed to the respondents on sex, gender identity, and sex at birth to establish relevant dimensions of gender, including a non-binary approach (*Table 3*).

Table 3: UniSAFE survey questions on sex, gender identity and sex at birth

Sex	**Gender identity**	**Gender - sex**
Question Q6: Are you (…)? **Answer Categories:** Female, Male, Other	**Question Q7:** Do you identify as (…)? **Answer Categories:** A woman, A man, A non-binary person, Not listed here	**Question Q8:** Is your gender the same as the sex you were assigned at birth? **Answer Categories:** Yes, No, Prefer not to say

In addition, the UniSAFE survey collected data on different socio-demographic categories such as sexual orientation, age, and ethnic minority status, which potentially play a factor in exacerbating exposure to the risk of violence (determinants). Data on markers of functional diversity, such as type of contract, seniority level of staff, or being a visiting researcher were collected by the UniSAFE survey, too. For the complete overview please see: Lipinsky, A., Schredl, C., Baumann, H., Lomazzi, V., Freund, F., Humbert, A. L., Tanwar, J., & Bondestam, F. (2021). *UniSAFE D4.1 Final UniSAFE-Survey Questionnaire*. Zenodo. https://doi.org/10.5281/zenodo.7220636.

4.1.3 Prevalence of gender-based violence

The module on prevalence of gender-based violence includes all questions on experiences with the following six forms of gender-based violence: Physical violence and abuse;

psychological violence and abuse; economic violence and abuse; sexual violence and abuse; sexual harassment; and online violence. All questions of the module address the perspectives of victims, bystanders, and perpetrators. For each form of gender-based violence respondents are provided with a definition, which sets the frame for the prevalence items. Each item asks respondents whether they experienced specific situations which correspond to the respective forms of gender-based violence. If respondents indicate they have made one or more experiences listed in the prevalence question of the respective form of gender-based violence, they receive follow-up questions on one randomly selected item of the reported incidents. The follow-up questions topically cover the frequency of the incident/s, the victim-perpetrator relationship, perpetrator's gender, place of incident(s), experiences as bystanders and perpetrators, and an indication of the victim's(s') gender in case the respondent indicated experiences as perpetrator or bystander.

Due to lack of existing validated measurements of economic violence outside of intimate partner violence (IPV), the survey team developed three new items on economic violence and abuse for higher education context. The development based on the definition of economic and financial violence and abuse in the UniSAFE project's theoretical and conceptual framework (Strid et al., 2021). It involves making or attempting to make a person financially dependent by maintaining control over financial resources, withholding access to money, and/or forbidding attendance in education or employment (Postmus et al. (2018). It includes acts or behaviours which causes economic or financial harm to an individual (Krigel & Benjamin 2020). In addition, we considered different dimensions of economic violence that are covered in the Scale of Economic Abuse (SEA) by Adams et al. (2008), namely restricting access to financial resources, and controlling resources. In the UniSAFE survey, three items are used to capture economic violence and abuse in research organisations covering (1) restricting access to financial resources and (2) controlling resources through intentially damaging items or intentially deleting/removing access to files or information. The three newley developed items (Q38_A – Q38_C) can be found in the UniSAFE questionnaire (Lipinsky et al., 2021) and dataset (Lipinsky et al., 2022). The measurement validity of the newly develeoped items on economic violence in higher education context will be further examined in a forthcoming article by Schredl & Lomazzi (2023).

In the UniSAFE dataset for secondary use[1], there are also seven newly computed variables on prevalence of gender-based violence included (based on the items Q20_A – Q20_D, Q29_A – Q29_G, Q38_A – Q38_C, Q47_A – Q47_F, Q56_A – Q56_H, Q65_A – Q65_D) to show the overall prevalence by form of gender-based violence (i.e., pv, py, ec, sx, sh, on) and across all forms of gender-based violence (i.e., anyvio). These variables include all items collected for each form of gender-based violence and therefore fully represent the available data on respondents' indicated experiences with gender-based violence in the UniSAFE survey. For more details on how these variables were created, please see the codebook. Preliminary analyses in the context of forthcoming publication projects have shown that measurement validity for measuring prevalence of some forms of gender-based violence can be increased by omitting items. For this reason, we recommend conducting

[1]The UniSAFE dataset for secondary use will be available after 29 February 2024 due to embargo.

confirmatory factor analyses to test for measurement validity in context of the respective research aim when carrying out more complex analyses.

4.1.4 Individual factors

Investigated individual factors influencing the prevalence of gender-based violence in universities and other research performing organisations in the UniSAFE survey include questions on essentialist gender beliefs, attitudes towards the normalisation of violence (perceiving an act of violence as violating or abuse or not), bystander responsibility, and bystander behaviour. Some of these variables fall into the category of 'determinants' for prevalence levels.

4.1.5 Contextual factors

The aim of measuring contextual factors is to better understand the data on prevalence of gender-based violence in the organisational context. This includes an assessment of the extent to which gender-based violence in the RPO is perceived as problematic, as well as a measurement of the organisational tolerance, perception of the institution's ability to intervene, and institutional responses towards gender-based violence. Contextual factors on the prevalence of gender-based violence in universities and other research performing organisations in the UniSAFE survey reflect the 7Ps model (Strid et al., 2021). The section covers questions on respondents' awareness and perception of existing policies, prevention mechanisms, protection measures, provision of services, prosecution procedures, and partnerships with staff, students or their representatives.

For two Ps of the 7P model, namely prosecution and partnership, the survey team newly developed two items that were consistent with the UniSAFE project's theoretical and conceptual framework (Strid et al., 2021). For the question on prosecution (Q90) we also adopted the question structure of similar questions on contextual factors of the national survey of staff experiences of sexual violence and harassment in Irish higher education institutions (HEA, 2022a), i.e., using a hypothetical phrase "My institution would…" and a response scale from "very unlikely" to "very likely." For newly developing a question on partnership (Q91), the definition of "partnership" from UniSAFE project's theoretical framework was used: "University and departmental procedures are developed and implemented in cooperation with students, staff and faculty and their representatives" (Strid et al., 2021, p. 18). For more information on the 7P model, please see the UniSAFE theoretical and conceptual framework (ibid.), here.

4.1.6 Consequences

The aim of measuring consequences is to enable the analysis of potential associations between exposure to gender-based violence, well-being, feeling of safety, and consequences for work and studies for staff and students, including members of an international association of mobile researchers. Instead of asking respondents for consequences *as a result of* an incident of gender-based violence, we ask all survey respondents all questions of this module.

The measurement of consequences aims at estimating the impact of gender-based violence in terms of well-being related consequences and work- or study-related consequences e.g., work or study performance, job or study satisfaction. It comes with the potential to compare reported consequences between respondents who experienced any form of gender-based violence and those respondents who stated to have not experienced gender-based violence on campus. The scope of measuring consequences of gender-based violence in the UniSAFE survey covers well-being of staff and students in two major dimensions (physical health and mental health), satisfaction in staff in terms of research performance, working conditions, colleagues, managers, and termination of job; and satisfaction in students in terms of study performance, conditions for studies, peers, supervisors, and termination of studies. Furthermore, the UniSAFE survey also examined respondents' feeling of safety and social exclusion.

Table 4: Overview of questionnaire item sources

Short name	Source	Adapted	Informed by
AAU 2015	Cantor, D., Fisher, B., Chibnall, S., Townsend, R., Lee, H., Bruce, C., & Thomas, G. (2015). Report on the AAU Campus Climate Survey on Sexual Assault and Sexual Misconduct. Rockville. https://www.aau.edu/sites/default/files/AAU-Files/Key-Issues/Campus-Safety/AAU-Campus-Climate-Survey-FINAL-10-20-17.pdf	Q5, Q74 (4) + (6), Q84, Q89 (B) + (G)-(H)	Q47 (A)-(B) + (F)
AHRC 2017	Australian Human Rights Commission. (2017). Change the course: National report on sexual assault and sexual harassment at Australian universities. Sydney. https://www.humanrights.gov.au/sites/default/files/document/publication/AHRC_2017_ChangeTheCourse_UniversityReport.pdf	Q15, Q24, Q33, Q42, Q51, Q60, Q65 (B)	Q4, Q73, Q76
ARC3 2015	Administrator-Researcher Campus Climate Collaborative. (2015). *ARC3 Campus Climate Survey,* see: Swartout, K. M., Flack, W. F., Cook, S. L., Olson, L. N., Smith, P. H., & White, J. W. (2019). *Measuring campus sexual misconduct and its context: The Administrator-Researcher Campus Climate Consortium (ARC3) survey*. Psychological Trauma: Theory, Research, Practice and Policy, 11(5), 495–504. https://doi.org/10.1037/tra0000395	Q89 (A)-C) + E)-(F)	Q3, Q19, Q29 (A)-(B), Q78 (A)-C), Q79 (A)+ E)
COPSOQ	Burr, H., Berthelsen, H., Moncada, S., Nübling, M., Dupret, E., Demiral, Y., Oudyk, J., Kristensen, T. S., Llorens, C., Navarro, A., Lincke, H.-J., Bocéréan, C., Sahan, C., Smith, P., & Pohrt, A. (2019). The third version of the Copenhagen Psychosocial Questionnaire. Safety and Health at Work, 10(4), 482–503. https://doi.org/10.1016/j.shaw.2019.10.002	Q77	
Eurobarometer 76.1	European Commission and European Parlament, Brussels (2014). Eurobarometer 76.1 (2011). *GESIS Datenarchiv, Köln. ZA5565 Datenfile Version 4.0.0,* https://doi.org/10.4232/1.11847	Q80 (A)-(E)	
Eurobarometer 85.3	European Commission, Brussels (2020). Eurobarometer 85.3 (2016). *GESIS Datenarchiv, Köln. ZA6695 Datenfile Version 2.0.0*, https://doi.org/10.4232/1.13519	Q81 (A)-(F)	
FRA 2014	FRA - European Union Agency for Fundamental Rights. (2014). Violence against women: An EU-wide survey: Survey methodology, sample, and fieldwork. Technical Report. Lux-embourg. Publications Office, https://fra.europa.eu/sites/default/files/fra-2014-vaw-survey-technical-report-1_en.pdf	Q20, Q47 (C)-E), Q56 (A)-(H), Q21, Q22, Q30, Q31, Q39, Q40, Q48, Q49, Q57, Q58, Q66, Q67	Q13, Q65 (C)-(D), Q23, Q32, Q41, Q50, Q59, Q68, Q73

Short name	Source	Adapted	Informed by
GEDII 2019	Callerstig, A.-C., Guenther, E. A., Humbert, A. L., Klatt, S., Müller, J., & Sandström, U. (2019). *Survey Analysis and Performance Indicator Research Report (2.0).* Zenodo. https://doi.org/10.5281/zenodo.2546551; Humbert, A. L., & Günther, E. (2018). *GEDII D3.2 Measuring Gender Diversity in Research Teams: Methodological Foundations of The Gender Diversity Index.* Zenodo. https://doi.org/10.5281/zenodo.1442706	Q6, Q9, Q10, Q11, Q17, Q18	
Gendercrime 2011	Ruhr University Bochum. (2011). *Gender-based Violence, Stalking and Fear of Crime (Gendercrime): Research Report Publication*. EU-Project 2009-2011. Bochum.	Q9, Q24, Q33, Q42, Q51, Q60, Q76	
HEA 2021	MacNeela, P., Dawson, K., O'Rourke, T., Healy-Cullen, S., Burke, L., & Flack, W. F [W. F.]. (2022a). *Report on the National Survey of Staff Experiences of Sexual Violence and Harassment in Irish Higher Education Institutions.* Dublin: Irish Higher Education Authority (HEA). https://hea.ie/assets/uploads/2021/04/Full-report-Staff-Jan-2022.pdf MacNeela, P., Dawson, K., O'Rourke, T., Healy-Cullen, S., Burke, L., & Flack, W. F [W. F.]. (2022b*). Report on the National Survey of Student Experiences of Sexual Violence and Har-assment in Irish Higher Education Institutions*. Dublin: Irish Higher Education Authority (HEA). https://hea.ie/assets/uploads/2021/04/Full-report-Students-Jan-2022.pdf	Q12, Q82, Q83, Q84, Q85, Q87, Q88, Q89 (B)-(G) + (I)	Q4, Q7, Q8, Q11, Q14, Q73, Q90
KI 2022	Karolinska Institutet (Ed.). (2022). Survey on Gender-Based Vulnerability and Sexual Harassment in the Swedish Higher Education Sector. https://ki.se/media/247264/download	Q24, Q25, Q27, Q29 C)-(G), Q33, Q34, Q36, Q42, Q43, Q45, Q51, Q52, Q54, Q60, Q61, Q63, Q69, Q71	Q23, Q26, Q28, Q29 (A)-(B), Q32, Q35, Q37, Q41, Q44, Q46, 47 (A)-(B)+(F), Q50, Q53, Q55, Q59, Q62, Q64, Q65 (A)+C), Q68, Q70, Q72, Q73, Q76, Q78 E), Q79 (F)
NUS 2018	National Union of Students and The 1752 Group (Ed.). (2018). *Power in the academy: staff sexual misconduct in UK higher education. https://1752group.com/power-in-the-academy-report/*	Q74 (1)-(3) + (5) + (7)-(11), Q78 (F)-(H), Q79 (A)-C)+(G)-(H)	Q4, Q73, Q78 (B)-(D) + (I), Q79 (D)-E) + (I)-(K)
OECD 2015	OECD (2015). Frascati Manual 2015: Guidelines for Collecting and Reporting Data on Research and Experimental Development, The Measurement of Scientific, Technological and Innovation Activities, OECD Publishing, Paris, https://doi.org/10.1787/9789264239012-en.	Q14	

Short name	Source	Adapted	Informed by
She Figures 2021	European Commission, Directorate-General for Research and Innovation, *She figures handbook 2021*, Publications Office, 2021, https://data.europa.eu/doi/10.2777/003736	Q19	
UCU 2021	University and College Union (Ed.). (2021). *Eradicating sexual violence in tertiary education: A report from UCU's sexual violence task group.* *https://www.ucu.org.uk/media/12269/UCU-sexual-violence-task-group-report-2021/pdf/UCU_sexual_violence_task_group_report_20211220.pdf*	Q12, Q85, Q86	Q7, Q8, Q89 (A)
UniSAFE 2022	Lipinsky, A., Schredl, C., Baumann, H., Humbert, A. L., Tanwar, J., Bondestam, F., Freund, F., & Lomazzi, V. (2022). UniSAFE Survey – Gender-based violence and institutional responses. GESIS - Leibniz Institut für Sozialwissenschaften. Datenfile Version 1.0.0, https://doi.org/10.7802/2475	**Newly developed items for UniSAFE survey**: Q38 (A)-C), Q81 (G), Q91	
WIS 2011	Cortina, L. M., Magley, V. J., Williams, J.H., Langhout, R. D. (2001). Incivility in the Workplace: Incidence and Impact. *Journal of Occupational Health Psychology, 6*(1), 64-80, https://doi.org/10.1037/1076-8998.6.1.64	Q75	
Wits 2018	Finchilescu, G., & Dugard, J. (2021). Experiences of gender-based violence at a South African university: Prevalence and effect on rape myth acceptance. *Journal of Interpersonal Violence, 36*(5-6), NP2749–NP2772, https://doi.org/10.1177/0886260518769352	Q16, Q79 (A)-C)	Q1, Q2, Q6, Q47 (A)-(B)

Note: *Adapted:* Minor to more extensive modifications, for example, changing order of items, merging items, separating one item in to two, or leaving certain items out. Also changing the grammatical person/perspective of a question (e.g., you vs. the person reporting). Modifying wording, modifying answer categories, adapting a question to fit the academic sector. *Informed by:* General similarity to items in the referenced studies, general logic (structure) or topic of an already existing item. A specific topic, situation or structure might appear in several studies; therefore, some questions/items in the overview is assigned to multiple sources.

5 Pre-tests

Ensuring high data quality of the UniSAFE survey data, the draft source questionnaire (v1.0), developed by the international survey team by the end of August 2021, was tested through cognitive and quantitative pre-tests in September and October 2021. In addition to the two pre-tests, the survey team collected feedback from several internationally renowned experts in survey methodology and gender-based violence, including Dr. Dorothee Behr, Prof. Dr. Michael Braun, Prof. Enrique Gracia, Prof. Jeff Hearn, Dr. Timo Lenzner, Dr. Cornelia Neuert, Dr. Ranjit K. Singh, and integrated the advice in further developing the survey.

The draft questionnaire of the UniSAFE survey (v1.0) was programmed by the external subcontractor in charge of the technical implementation of the UniSAFE survey, respondi. Quality checks of the first programmed version were performed by respondi and GESIS.

5.1 Cognitive pre-test

Cognitive interviewing can be applied to gather insights into the cognitive processes underlying survey responding, including comprehension, retrieval, judgement, and response. It is to see if any of the draft survey questions are confusing, difficult or do not make sense (Tourangeau et al., 2000). Cognitive pre-testing or cognitive interviewing involves '(…) the administration of draft survey questions while collecting additional verbal information about the survey responses, which is used to evaluate the quality of the response or to help determine whether the question is generating the information that its author intends' (Beatty & Willis, 2007, p. 287).

Within the framework of developing the UniSAFE survey questionnaire, the aim of the cognitive pre-test was to test newly developed questions and relevant aspects of the survey, for example, respondents' understanding of the definition of gender-based violence provided.

5.1.1 Procedure of the cognitive interviews

In total, 14 cognitive interviews (each lasted about 60 minutes) were conducted remotely (online) in English between 14 September and 1 October 2021. Participants of the cognitive interviews included international staff and students from research performing organisations and people with different first languages (*Table 5*). All participants of the cognitive pre-test signed the informed consent form.

Table 5: Sociodemographic characteristics and target group of cognitive pretest interviewees

Interviewee ID	Gender	Age	Level of education	First language	Target group
IN01	F	25-29 years	Master's degree	German	Student
IN02	F	18-24 years	Upper secondary education	German	Student
IN03	F	35-39 years	Doctoral degree	German	Staff
IN04	F	25-29 years	Bachelor's degree	German	Student
IN05	F	30-34 years	Doctoral degree	Konkani (minority language in India)	Staff
IN06	F	50-54 years	Doctoral degree	English	Staff
IN07	M	35-39 years	Master's degree	German	Staff
IN08	F	55-59 years	Master's degree	French	Staff
IN09	F	25-29 years	Master's degree	Greek	Student
IN10	F	45-49 years	Doctoral degree	English	Staff
IN11	F	60-64 years	Doctoral degree	English	Staff
IN12	F	25-29 years	Master's degree	French	Staff
IN13	F	25-29 years	Master's degree	English	Staff
IN14	F	50-54 years	Doctoral degree	Finnish	Staff

In the remote interviews (via MS Teams) the interviewer shared their screen and talked the interviewees through specific parts of the programmed UniSAFE questionnaire for the cognitive pre-test, i.e., the interviewer clicked through the questionnaire and not the interviewees. During the cognitive interview, the interviewees were asked probes, e.g., "What do you understand under (…)," or "You have just said that you [strongly agree] with this statement, can you tell me more about that?" The interviewees saw the original visualisation of the survey questions but not the probes.

Probing is a technique that uses follow-up (or probing) questions administered either immediately after the respondent provided an answer to a survey question or at the end of the interview. The goal is to gather specific information about subjects 'understanding of terms, questions, or answer categories and about the processes by which they arrived at their answers (Lenzner et al., 2016).

For the cognitive pre-test of the UniSAFE survey questionnaire a cognitive interview protocol was created, which included the survey questions that were tested, the cognitive techniques to test the questions and space for interviewer comments. The order of the tested survey question blocks was alternated in the cognitive interviews to avoid sequence effect. The following survey questions[2] from the draft questionnaire (v1.0) were tested:

- Definition of gender-based violence, referred to several times in questionnaire, but tested in Section B, Headline, before Q6
- Q6, Gender-based violence perceived as an issue
- Q23, Psychological violence, prevalence

[2] Question numbers refer to draft questionnaire (v1.0), not to the final UniSAFE survey questionnaire.

- Q24-Q27, Follow-up questions on experience(s) with psychological violence, including frequency of incident(s), relation between the victim and perpetrator(s), perpetrator's/s' gender, place of incident(s)
- Q32, Economic and financial violence, prevalence
- Q59, Online violence, prevalence
- Q69, Gender-based violence, Covid-19 impact
- Q72, Well-Being, including physical and mental health
- Q76, Normalisation, perceiving an act of violence as violating or abuse
- Q77, Bystander responsibility

Interviews were partly transcribed and analysed by using a data entry mask. To enable a swift data analysis, an informal analysis was conducted, in which the data analyst decides for each respondent comment/answer, whether it indicates a question problem or not (Lenzer et al. 2016). To reduce the risk of a subjective assessment of question problems, two quality assurance steps were undertaken: First, question problems that were indicated by all or most interviewees were focused on. Second, all identified problems with question comprehension, category selection or suggestions for additional items or reductions of the item list were discussed in the survey team in detail before deciding on necessary changes in the tested survey questions.

5.1.2 Implications of the cognitive pre-test results for the UniSAFE survey questionnaire

Overall, the cognitive pre-test results outlined the necessity of revising the tested questions in several regards. For example, the cognitive pre-test showed that explanatory sentences of some questions require more specification. For example, in case of the prevalence questions, the sentence "Multiple answers are possible" led to confusion as the respondents were asked to provide one answer (yes/no) for each item or to answer "prefer not to say" before being able to continue with the questionnaire. Thus, for the final UniSAFE survey questionnaire, we changed the explanatory sentence for all prevalence questions to "Please provide an answer for each line" and adapted the question prompt accordingly. Also, some of the pre-test interviewees indicated the need for a "don't know" or "can't say" answer option in some of the questions, which we integrated for those questions where from an analytical perspective, this additional answer option could not lead to ambivalent or difficult interpretation of the responses.

The cognitive pre-test also demonstrated that a question on the Covid-19 impact on the respondents' experiences of gender-based violence was perceived as difficult and complex. As consequence, the question was dropped. Findings of the cognitive pre-test showed too that one of the items on experiences with psychological violence[3] needed to be removed from the final questionnaire due to unclarity and other items on experiences with economic violence needed examples to be better understood in the intended way.

[3] "Forced you to act against your own will, due to being under external control (by someone/something)"

5.2 Quantitative pre-test

The quantitative pre-test of the UniSAFE survey was conducted at one of the project partner organisations between 9 September and 14 October 2021. It was conducted as self-administered online survey, i.e., in the same mode of data collection.

5.2.1 Sample of the quantitative pre-test

From the total of 325 respondents, who clicked on the disseminated link, only 75.4% continued to the second page of the survey - the informed consent form - and about 56.9% gave informed consent to the participation of the survey. Thus, 185 respondents started answering the first question of the quantitative pre-test of the UniSAFE survey. Dropout of respondents increased steadily from the first pages of the survey through the prevalence section. About 50% of the respondents dropped out from the survey before reaching the end of the survey. In total, only 84 respondents of the partner organisation answered all questions in the quantitative pre-test of the UniSAFE survey.

5.2.2 Reasons for dropout rates

Reasons for dropouts in the quantitative pre-test could be self-selection mechanisms, the length of the questionnaire (approximate completion time of 20 minutes) and survey fatigue, i.e., respondents are less likely to participate to surveys or complete the surveys if they have recently received surveys from the institution where they work or study. Self-selection mechanisms could be expected due to the survey topic. Some people might not to be interested in the topic or do not think it is an issue. Others might not want to participate to the survey because of the traumatic nature of their experiences of gender-based violence or fear of anonymity.

5.2.3 Implications of the quantitative pre-tests results for the final UniSAFE survey questionnaire

Overall, the highest dropouts were observed on the informed consent page. For this reason, the survey team decided on two changes in the informed consent in the final UniSAFE survey questionnaire: First, the tick boxes for agreeing to the participation were reduced from four boxes to one box only. This was done to improve user friendliness of the informed consent form when answering the online survey. The single tick box[4] still included the same content as the previous four tick boxes. Second, an accordion style visualisation was used in the final version of the informed consent form, i.e., some of the information on the UniSAFE project in general, details on data protection compliance, and detailed contact information was made visible in the programmed questionnaire when respondents clicked on the respective button. Respective paragraphs would then unfold in accordion style to provide further information. The changes in the final questionnaire informed consent aimed

[4] ☐ I read and understood this request for participation. I confirm that I am 18 years of age or older. I consent to participate in the online survey. I consent to the terms of the use of my data.

at reducing cognitive load of respondents and layout of the informed consent form but did not reduce any of the relevant information provided on research purpose or data protection.

Due to the increasing dropouts throughout the questionnaire in the quantitative pre-test, the survey team decided to change the order of the different modules of the UniSAFE survey questionnaire. In the draft questionnaire v1.0, questions on sociodemographic characteristics and markers on functional diversity were placed at the end of the survey and questions on the contextual factors started off the survey (after the filter questions). As the prevalence of gender-based violence experienced by groups of different diversity characteristics is the core research interest of the UniSAFE survey, the order in the final UniSAFE survey questionnaire was changed to the following:

- Filter questions
- Sociodemographic characteristics and markers on functional diversity
- Prevalence of gender-based violence
- Consequences
- Individual Attitudes and Behaviours
- Contextual Factors

Two more results of the quantitative pre-test of the UniSAFE survey related to the questions on the seniority grade of academic staff (Q19 in final UniSAFE survey questionnaire, v2.0) and the main field of work/study (Q14, v2.0). In both cases, there was a higher number of missing values, which can be caused by either some respondents not being comfortable in answering the respective question, by the respondents' fear of being identified or difficulty in selecting a suitable category. For question Q19, the survey team decided to delete the academic grade classification names: Grade A, grade B, grade C, grade D, according to She Figures (European Commission, 2021) and instead only used the descriptions of the grade classifications. For example, for grade A: "Single highest grade/position at which research is normally conducted within your institution, e.g., full professor, research director." For question Q14 on the main field of work/study, examples were added for each field of science based on the six Frascati fields of science (OECD, 2015).

6 Translation process

The translation process of the UniSAFE questionnaire followed the good practices outlined in the cross-cultural survey guidelines, GESIS Survey Guidelines, as well as considering the particular needs of the research topic. This section outlines the UniSAFE source questionnaire translation process by (1) input for the translation into the target languages, e. g. instructions, guidelines and templated provided by GESIS to the translation teams; (2) method standards and process of the translation, including quality control and support offered to the translation teams by members of the survey team; (3) documentation of the output of the final translations. The overall translation documentation process follows latest good practice standards in cross-cultural survey translation (Behr & Zabal 2020; Behr, Dept, & Krajčeva, 2019; Behr & Shishido, 2016). The documentation of the questionnaire translation process serves both, internal and external purposes: In addition to coordination and quality assurance aims during the process, the documentation of translation choices can also help empirical researchers performing secondary analysis of the data to fully understand the quality management of the empirical data collection. Documentation of the survey translation of each target language was done in English. All members of the translation teams approved to be named on the published language versions of the UniSAFE survey questionnaire, which are available here.

The final source questionnaire has been translated into 13 target languages to facilitate the roll out of the UniSAFE survey in each of the national languages in addition to English. Thus, the questionnaire was rolled out in 14 languages overall: Dutch, Czech, Finnish, Swedish, French, German, Icelandic, English, Italian, Lithuanian, Polish, Serbian, Spanish, and Turkish. Additionally, in two countries, Belgium and Sweden, the survey was offered in two national languages in addition to the English version. One or two national researchers and an expert reviewer (mostly project partners) collaboratively developed each target language questionnaire based on the source questionnaire template and further instructions developed by GESIS. Forming translation teams of two or more people to develop the target language questionnaire is in accordance with the good practice in cross-cultural survey research. The process of discussing to finding agreement on best translation choices was performed by experts with natural language competences and experts familiar with the field of research. The survey PI was always available for consultation and in case a translation decision could not be reached by the translation team of a particular language.

6.1 Translation guideline and template

The translation guideline and template, including its annotations made by the survey team on each question and most items underwent quality review by renowned experts in the field of cross-cultural survey research. The guidelines included the following topics: general roadmap of the process; contact points; aim of the translation; general instructions for the translation teams including reviewing; guidance on the use of the translation template including translation annotations; guidance on specific terminology and adaptations;

guidance on gender-sensitive wording; guidance on translation documentation; overview of machine translation tools and references.

6.2 Method standards and process of the translation

Method standards of the translation included quality control and support offered to the translation teams by members of the survey team, particularly the survey PI. All translation teams made use of the contact point at GESIS to clarify procedural or content-related questions. For example, the choice to present the Serbian questionnaire translation in Latin letters not in Cyrillic letters was a joint decision taken by the external experts with the contact point. In the case of uncertainty or equally suitable options for the translation of a term, sentence or scale item, the expert reviewers documented the options discussed with the national researchers and provided a brief justification statement to reason the final choice made.

Online briefings were prepared by GESIS for all teams involved. These and other meetings took place between 28 October 2021 and 22 January 2022. Two meetings took place after this date to clarify some choices made in the Icelandic language version of the questionnaire.

Table 6: Questionnaire translation process timeframe and specifications

Timeframe	#	Process description	Specifications
11.2021	1	Reviewers localise translation annotations, i.e. adapt the annotations to the context of their target language if needed	Experts review the translation annotations made in the English language source questionnaire template and make necessary additions to and specifications of the annotations as needed in the national language context (localisation).
11.2021	2	National researchers produce a first draft translation of the questionnaire, check their own work, in some cases involving a colleague, and revise into a high-quality draft questionnaire in their target language to be shared with the reviewer	Expert reviewers forward the localised translation template to the national expert who is/are responsible for drafting the translation of the core texts of the questionnaire. The draft translation of the survey […] provided by the national researcher is reviewed jointly by the expert reviewer and the national researcher. The mode and channels of communication for the collaboration are agreed between reviewer and national researcher.
11.2021	3	The reviewer and national researchers debate and agree on best translation choices	The expert reviewer ensures sufficient and in-depth communication about the target language questionnaire text version(s) with the aim to agree on the best translation choices mutually and amicably.

Timeframe	#	Process description	Specifications
11.2021	4	The national researchers implement the agreed changes & the reviewer documents options and choices, and performs a final check	In the case of uncertainty, the expert reviewer documents which options have been discussed and provides a brief statement to reason the final translation choice made. Consultation with survey PI if needed. The translation documentation template is used to document the discussion on difficult items.
12.2021	5	Reviewers' final approval of questionnaire in target language	The expert reviewers decide whether the translation can be considered finalised and ready for programming. The expert reviewers perform a last checks and edit the copy, before sending the finalised questionnaire to GESIS for programming. The finalised translation of the survey is to be delivered to GESIS together with the documentation template.
12.2021 and 01.2022	6	Reviewers check and approve the programmed target language questionnaire in web format	As soon as the programmed target language questionnaire is available, the expert reviewers receive a link to the online version of the survey in the respective language. The expert reviewer carefully inspects the programmed questionnaire and provides feedback on errors to the survey team (GESIS) so that remaining bugs can be fixed. After all bugs have been eliminated, the expert reviewer notifies GESIS on the final approval of the respective language version of the survey questionnaire.

The technical contractor respondi programmed the language versions, including all filters and mouseover texts to ensure a smooth start of the survey roll out.

The template of the invitation texts, with which the access links to the questionnaire were sent, were adapted by the participating research performing organisations, i.e., adapted to the local contexts. These texts were not part of the methodologically controlled translation process.

7 Data collection and fieldwork

The survey population of the UniSAFE survey include staff (teaching and scientific, professional services, management, and administrative staff) and students (undergraduate, postgraduate, doctoral students) from 46 research performing organisations (RPOs) in 15 EU and associated countries, as well as from an international association of mobile researchers.

7.1 Recruitment process

The recruitment process for the 46 RPOs was three-fold:

- Universities and research organisations with which the UniSAFE project consortium already has had contacts from previous research projects were contacted.
- A call for voluntary participation in the UniSAFE survey and community was sent out via different channels, including the UniSAFE project website, social media channels, and communication channels of diverse umbrella organisations.
- Various umbrella organisations were also asked to pro-actively encourage their member organisations to participate in the UniSAFE survey.

From the volunteering RPOs, the participating RPOs were selected based on several criteria, such as the geographic diversity, size of institution, and type of RPO. The UniSAFE survey aimed at recruiting RPOs from Northern, Eastern, Southern, Western and Central European countries, to include large and small RPOs, public and private RPOs, universities and research institutes, and RPOs from different fields of science.

Due to the high implementation costs and time-consuming demands of drawing probability samples in all 46 participating universities and research organisations (e.g., field access, list-based selection, data protection regulations) a census approach was used in the UniSAFE survey. Each organisation named a central contact point for collaborating with the project and signed a memorandum of understanding, which outlined the framework of the cooperation. The central contact point in the organisation also coordinated the distribution of the survey access. The survey team provided one link to access the survey to each RPO. Staff and students of the 46 RPOs with a registered email address received an email from their organisation with a request to participate and details on how to access the anonymous online survey. The target population of the international association of mobile researchers were invited to participate in the survey through a central communication point of the association.

7.2 Data collection mode and field phase of the UniSAFE survey

The UniSAFE survey data was conducted among the 46 participating RPOs and one international association of mobile researchers in the period of 17 January and 1 May 2022. It is a self-administered online survey, which also allowed the use of mixed devices (e.g.,

smartphones or tablets). The chosen programming format and assistive apps ensured access to the survey for people with visual impairments.

Survivor-centred approach and research ethics

The UniSAFE survey takes a survivor-centred approach by focusing on survivor's perspective on prevalence of gender-based violence. Bystander and perpetrator perspectives are also included in the UniSAFE survey, but detailed information about incidents of gender-based violence is collected through follow-up questions that address the survivor's perspective only. In addition, several measures were taken to protect respondents from re-victimisation and re-traumatisation, and to ensure adherence with high standards of research ethics.

First, when introducing the survey to potential respondents, it is explicitly communicated that the UniSAFE survey collects data on gender-based violence in research organisations and universities. Second, the personal and sensitive nature of this research is acknowledged in the informed consent form of the survey by pointing out that some of the survey questions may make respondents feel uncomfortable or distressed and by emphasizing the possibility to stop the survey at any time or to skip any question without giving a reason and without any consequences. Third, the informed consent form included detailed information on how the UniSAFE research team protects the privacy of the survey participants and the confidentiality of the collected data. Fifth, a list of available national, regional, and organisational care and support services in the native language and in English was embedded as a hyperlink at each prevalence question as well as at the end of the survey. Sixth, gender sensitive language was used throughout the whole questionnaire, to especially include women and non-binary people.

GESIS ethics committee approved the implementation of the UniSAFE survey in its final form on 15 July 2021.

Regular length of field phase, extensions, and shorter field phases

The respondents were provided a four-week timeframe at each RPO in which they could participated to the UniSAFE survey. Not all participating organisations conducted the UniSAFE survey at the same time. If the participation level was low, GESIS offered the RPOs' contact points to extend the field phase if additional communication measures were implemented to actively promote the participation to the UniSAFE survey. At some RPOs the field phase of the UniSAFE survey was shorter than four weeks if required preparations before the survey launch were not in place, e.g., ethical approval not received for the survey, dissemination and communication channels not prepared. GESIS aimed at allowing flexibility in the planned field phase schedule of the RPOs to ensure the best possible conditions of the survey launch at each RPO, which in turn should positively influence the participation among staff and students. On average the field phase was 30 days, with three RPOs having a shorter field phase of six to 20 days and 15 RPOs with a longer field phase between 34 and 48 days.

Survey language

All respondents could choose between answering the survey in the national language(s) of their institution or in English. One exception was the UniSAFE survey among the international association of mobile researchers, which was made available in English.

7.2.1 Fieldwork preparation of the UniSAFE survey

GESIS made the support available to all RPOs and the international association of mobile researchers to keep workload on their side as low as possible and still ensure a smooth process of data collection. For a smooth roll out of the UniSAFE survey in each individual institution, GESIS provided preparatory materials to the RPOs contact points including information on carrying out a self-administered online survey and the UniSAFE survey in specific.

To prepare the fieldwork of the UniSAFE survey, several support sessions and materials were provided to the RPOs, including:

- Four survey briefing sessions on 19 October, 20 October, 25 October, and 27 October 2021, delivered online
- Presentation slides and recording of the survey briefing sessions for RPO representatives could not attend the briefing sessions
- UniSAFE survey briefing materials for inviting respondents
- FAQs about the survey and data protection on the project website
- Further materials for preparing the survey field phase (including the survey timeline, a checklist before the survey launch, templates for sending invitations and reminders to staff and students)
- Support materials for ethical approval

GESIS was also available for consultation on the preparatory steps before the survey launch and created a functional email address for preparing, planning, and coordinating the UniSAFE survey field phase in all participating 46 RPOs and the international association of mobile researchers. Project partners and the technical contractor supported GESIS in the bilateral coordination of the UniSAFE survey implementation.

7.2.2 Disseminating and communication channels

For disseminating the UniSAFE survey, GESIS asked the 46 participating RPOs to send an email including the survey link to all staff and students with a request to participate and details on how to access the anonymous online survey. Respondents of the UniSAFE survey did NOT need to register or identify themselves for participating in the survey. They accessed the browser-based online survey through a static link. Participation was anonymous as participants of each organisation used the same link to access the survey. The survey team provided one link to access the survey to each RPO. The dissemination channel via internal email address aimed at ensuring that respondents belong to the participating RPO.

At some RPOs it was not possible to disseminate the survey link via email. Either due to no available access to institutional email addresses or due to internal restrictions on how staff and students are allowed to be contacted for participating in online surveys.

Alternative dissemination channels included:

- Dissemination of survey link included in a newsletter which was sent by email to staff/students (via an official channel, e.g., RPO's communication department)
- Dissemination through an intranet page, only accessible for staff/students through login.

Survey dissemination in the international association of mobile researchers

The target population of the international association of mobile researchers also received a link to the survey through a central communication point of the association. The link to the UniSAFE survey was disseminated through an intranet page and via emails of the associations' working group chairs.

Email reminders and other communication channels to promote participation

Prior to and during the field phase, RPO contact points were continuously encouraged by GESIS to actively promote the participation in the UniSAFE survey to achieve a good response rate for the survey.

To increase the response rate, the survey team recommended all RPO representatives to send weekly reminders to staff and students to participate in the UniSAFE survey, or at least one reminder after two weeks of the field phase. Already during the monitoring of the field phase, it was clear that sending reminder substantially increased the response rates.

In addition to email reminders some RPOs implemented further communication measures for promoting the UniSAFE survey. The UniSAFE communication officers at ESF prepared several materials for the RPOs to use (e.g., press release and social media cards).

Communication channels that RPOs used to promote the participation in the UniSAFE survey included:

- Email reminders to staff/students
- Reminder included in newsletter which was sent by email to staff and students
- Reminder disseminated through intranet page, only accessible for staff and students through login
- Communicating about UniSAFE survey on institution's social media account (Twitter, LinkedIn, Facebook, Instagram)
- Communicating about UniSAFE survey on institution's website

7.2.3 Response rates of the UniSAFE survey

In total, 57,674 persons among the 46 RPOs and the international association of mobile researchers clicked on the access link of the UniSAFE survey. This amounts to 5.3% of the

target population based on the administrative data of the participating RPOs. About 83.3% of the respondents who opened the UniSAFE survey link agreed to the informed consent, i.e., agreed to participate in the UniSAFE survey. 42,186 respondents answered all questions on their sociodemographic characteristics and markers of functional diversity and the first prevalence question on experiences with gender-based violence (Q20) and were thereby included in the UniSAFE survey sample. Out of the 42,160 respondents, 79.7% completed the survey interview fully, i.e., provided answers to all questions of the UniSAFE survey.

The total response rate is 3.9%, with a significantly higher response rate of 10.5% among staff than among students (2.7%) (*Table 7*). When taking a closer look at the response rates by RPO, this pattern of a high response rate among staff but lower response rate among students can be observed consistently in all RPOs.

Table 7: Response rate of the UniSAFE survey in total and by target group

	Sample (n)	Target Popula-tion (N)	Average Re-sponse rate	Minimum Re-sponse rate	Maximum Re-sponse rate
Staff	17,993	170,550	10.53%	1.08%	48.08%
Students	24,193	910,748	2.66%	0.04%	20.00%
Total	42,186	1,081,298	3.90%	0.22%	34.27%

7.2.4 Limitations of the sample

The method of collecting data corresponds to a census approach, meaning that every member of the population had equal chances to participate. However, some target populations might not have been reached due to limitations in the availability of contact data at the participating RPOs. Moreover, some staff or students might not have been reached, because they do not have registered an email account at their institution or it is not regularly used. Consequently, a risk is that, for example, visiting students or staff, or contractual workers could not be reached well via the distribution channels. In addition, the self-selecting nature of the organisational sample in connection with the sensitive topic of the project, and the comparatively low response rates can be expected to have resulted in some degree of non-response bias in the data. Unfortunately, the nature of the non-response bias is a matter of speculation. One possible self-selection mechanism is that people who experienced gender-based violence could be less likely to participate in such survey because of the traumatic nature of their earlier experiences. However, different mechanisms with an opposite effect are plausible as well. People who have experienced gender-based violence or who are invested in or attuned to the phenomenon could be more motivated to participate than individuals who have never encountered gender-based violence or who think it is not a relevant issue.

As we cannot be sure which self-selection mechanisms influenced the data of the survey and we can only speculate about the relative strength of probable effects. The UniSAFE project promoted the survey as a chance to ‘make your voice heard’ and ‘to help’ in the

effort to 'end gender-based violence'. Therefore, it appears justified to assume that, if the survey promotion and the invitation message had some effect in recruiting participants, these are more likely to be, for one reason or another, invested in the topic, even though the UniSAFE survey explicitly encouraged all staff and students to participate in the survey, regardless of whether participants themselves had experienced gender-based violence or not. How strong this effect is in the data and whether and how far it is offset by other factors, remains unknown.

7.2.5 Efforts to address the limitations

To minimise the above limitations and address the problem of low response rates UniSAFE made a number of efforts to increase participation. Before the field phase, the survey team and consortium partners met and informed RPOs on the survey (see chapter 2.5 for more details on the field phase preparation). The survey team also supported participating RPOs in the promotion of the survey before and during the field phase. For example, by suggesting additional channels to promote and publicise the UniSAFE survey on the RPOs' social media platforms or the RPOs' websites as well as providing a communication toolbox for promoting the UniSAFE survey. During the field phase we monitored the progress of data collection at each participating RPO. RPOs were updated weekly on the development of response rates and encouraged to send reminders to participate in the survey at least once during the four-week data collection period. If deemed necessary, UniSAFE also worked with RPOs to develop customised strategies for contacting hard to reach populations. Finally, the four-week field time could be extended by up to two additional weeks in case RPOs were willing to continue promoting the survey through email reminders and other communication measures.

7.2.6 UniSAFE survey sample

The UniSAFE survey dataset includes data from 42,186 respondents from 46 research performing organisations in 15 EU and associated countries, and from one international association of mobile researchers, with a gender composition of 67% (28,214) identifying as women, 30% (12,762) identifying as men, and 3% (1,154) identifying as non-binary person or other gender not listed in the categories. It is thereby the largest quantitative data collection on the topic of gender-based violence in research performing organisations. In total, 43% of the respondents are staff and 57% are students. Of the 24,193 students in the sample, 65% are undergraduates, 28% are postgraduates (other than doctoral), and 8% are enrolled to complete a PhD. Almost one-third (30%) of all staff hold fixed-term contracts, though fixed-term contracts are more widespread among academic (37%) than non-academic staff (20%). Overall, 11% of respondents report having a disability or chronic illness; 6% identify with an ethnic minority group; 6% report being international staff or students, and 19% identify as LGBQ+, i.e., lesbian, gay, bisexual, queer, asexual, or a sexual orientation not listed.

7.2.7 Data protection

The survey was collected under a carefully negotiated contract with a European-level commercial fieldwork agency, respondi, where compliance with European survey research standards and transparency of internal procedures were core selection criteria for the winning tender. The first relevant set of standards was pertained to data collection methodology, which follows the guidelines published by the ESOMAR and WAPOR survey research associations.

Anonymous participation

Participation in the UniSAFE online survey was anonymous. Participants did not need to register or identify themselves to take part. The survey was accessible via a static, non-personalised link, i.e., respondents received an anonymous link to the survey to a browser-based online survey via the official organisational email address. The link contained neither personal information parameter nor any other parameter to identify the specific unit, status or similar. Participating institutions did not share any individual contact details of survey respondents, such as email addresses, with the survey team.

GDPR compliance

GESIS complies with the GDPR to ensure data security. At the end of the project, the data from all research performing organisations will be made available for secondary research in accordance with the European Union's Open Access policy. Any data potentially usable for re-identification will be either diluted or removed from the data set. The remaining data will then be permanently and securely stored at an open access data repository within the EU, where it will be available for legitimate scientific purposes on request.

7.3 Administrative data collection

In addition to the survey data collection, GESIS collected administrative data from all participating RPOs between October 2021 and April 2022. Basis of the administrative data collection was an Administrative Data Grid, which served as a template in Excel format gathering sex-disaggregated administrative data at the organisational level. This includes administrative data, such as sex-distribution of staff and students, sex-distribution over fields of science, and more. The collected sex-disaggregated data was treated confidentially and used for the calculation of survey weights for the analysis of the UniSAFE survey data (see chapter 9). By weighting the samples of all participating RPOs, non-response bias in the samples was reduced and made more reliable, so that generalisable conclusions can be drawn about the prevalence of gender-based violence, its determinants, and consequences.

8 Data curation

8.1 Preparation of data set template for RPO-data

The first step in the data curation process at GESIS was to prepare a data set template for the survey data collected at each RPO. This data set template served as a model for the data sets delivered by the subcontractor and data collector, respondi. Preparing the data set template involved three broad steps:

8.1.1 Mapping of survey instrument

Survey questions were mapped to variables (one-to-one for single response questions, one-to-many for multiple response questions). Expected paradata was specified (e.g., technical data on randomisation of items, technical data on drawing of items for follow-up questions, timestamps).

8.1.2 Definition of code ranges for all variables

GESIS specified a coding scheme for all variables by mapping the answer options in the questionnaire to numeric values in the data set. Exceptional care was taken to make the coding of recurring answer scales consistent throughout the data set.

A comprehensive scheme of permissible missing values (e.g., refusal, cannot say, question inapplicable) was defined, which could be applied consistently to all variables in the dataset. Each category of missing data was assigned a negative integer as value and a standardised value label.

8.1.3 Definition of a standardised set-up for RPO-data sets

A consistent naming scheme for variables was developed. Variable names are based on the corresponding question numbers. For individual items from multiple response questions, a suffix consisting of an underscore and an integer was added. Where individual items were identified by alphabetic characters, these were used to form a suffix instead. For variables not resulting from survey questions mnemonic names were chosen.

Each variable was assigned a variable label (ca 80 characters max.) containing structured information of the content of the variable.

For each variable, all permissible values were assigned a value label (ca 40 characters max.).

8.2 Data cleaning

Preparing raw data as specified in the data set template

Data preparation of the raw survey data was performed by respondi. This included:

- Mapping the raw data variables to the variables specified in the data set template
- Renaming and labelling all variables as specified in the data set template
- Recoding and labelling all values as specified in the data set template
- Recoding all unspecified system missing codes according to the reason the data is missing, e.g., because of routing, i.e., respondent skipped the question, or because the respondent moved on to the next question without giving a response or did not finish the survey
- Tagging missing values as specified in the data set template

Data cleaning

Data cleaning of the raw survey data was performed by respondi in close coordination with GESIS. This included eliminating wild codes and cleaning filter threads. Any issues with wild codes, i.e., codes in the raw data which could not be mapped to a code in the data set template, were resolved in one of two ways: either the data set template was amended to include an appropriate code, or the inadmissible value was recoded to an appropriate missing value code.

Survey routing was handled automatically by the web survey software. However, respondents were able to move backwards and forwards through the survey, which systematically lead to inconsistent filter threads whenever respondents changed their answer to a filter question after having already answered one or more subsequent questions. The resulting inconsistencies were systematically resolved by recoding all data in the abandoned filter thread to code -90 “NAP: screened out”.

8.3 Quality checks and integration of RPO-data sets

Quality checking RPO-data sets

After receiving the RPO-data sets from respondi, GESIS performed quality checks and, if necessary, implemented final corrections. Quality checks included:

- Checking that all expected variables and cases are included
- Checking that case ids are unique
- Checking for codes outside permissible range
- Checking for screening errors
- Checking the coding of incomplete cases
- Spot checking frequency distributions

At this step, GESIS also deleted all remaining test cases, i.e., any cases from before the official field start date.

Merging the individual RPO data sets into one data set

The quality checked RPO-data sets were then merged to form the integrated data set. A unique and anonymised case id was created by first sorting the cases by an arbitrary criterion and then applying a consecutively numbering starting with one. All superfluous variables were deleted from the integrated data set: This pertained exclusively to paradata, such as time stamps, technical protocol variables, variables calculated for screen checks, the original case id, i.e., no variables containing responses of survey participants were deleted. Furthermore, versioning information was added, and missing values and variable formats were specified.

Identifying the net case count

Self-administered web surveys such as the UniSAFE survey allow respondents to quit at any time during the interview. Consequently, not all cases in the raw data are complete. Because one of the main purposes of the UniSAFE survey was to gather evidence of gender-based violence, the integrated data set includes all cases where respondents answered at least the first prevalence question (Q20 “Physical violence”). All cases from respondents who broke off before answering Q20 were deleted.

Adding additional variables

The project partners at Oxford Brookes University (OBU) calculated a number of additional variables, which were curated and integrated into the overall data set by GESIS.

- Prevalence variables: prevalence data (whether a respondent reported experiencing gender-based violence) was calculated for each form of gender-based violence (pv, py, ec, sx, sh, on) and for experiencing any form of gender-based violence (anyvio).
- Grouped duration variables: Time at RPO, staff (Q3); Time at RPO, staff (Q5), Age (Q9)
- Weighting factors: post-stratification weights were calculated for the total sample (weights) and for the student and staff subsamples (weights_students, weights_staff)

Data protection measures

To mitigate any de-anonymization potential inherent in the data, all information that links individual cases to a specific RPO was deleted. This included any direct RPO-identifiers as well as the date of participation or the respondent. Additionally, data in two variables were diluted. In Q14 “Main field of work or study” the category “Agricultural Sciences” was grouped with “Engineering and Technology”. The data in Q19 “Seniority grade, staff” were grouped into two broad categories “Grade A + B” for senior academic staff and “Grade C + D” for junior academic staff.

Data files

Finally, the data set was exported to SPSS and Stata format. To preserve the original numeric coding of the variables, the Stata file does not contain missing value definitions.

9 Survey data weighting

A survey such as the one undertaken by the UniSAFE project, and which focuses on a sensitive topic such as gender-based violence, necessarily presents challenges concerning reliable, generalisable conclusions. One of these challenges is non-response bias (see chapter 7.2.4).

Diverse groups of staff and students might respond at different rates, which are affected for example by the (perceived) relevance of the study to them, among a range of other factors. It is possible that women might be more likely to feel concerned by the topic of gender-based violence, while another factor at play might be that more senior staff respond less because of time constraints. Non-response bias can be expressed as:

$$Bias_{\bar{y}} = P_{NR}(\mu_{NR} - \mu_R)$$

where $\bar{y}$ is the sample mean, represented as a function of the probability of non-response (P_{NR}), with μ_{NR} and $\mu_R$the mean responses from non-respondents and respondents, respectively.

Non-response bias is not unique to the UniSAFE project and affects all surveys. Large scale international surveys therefore typically attempt to 'correct' for bias caused by over- or under-representation by using weights as a post-hoc strategy (Kulas et al., 2018; Lavrakas, 2008). Weighting modifies the relative contributions of the individuals in the dataset, making it more representative of the actual population distribution. A default weight value is one, which means that the associated relative contribution is unaltered. A weight below 1 reduces the relative contribution, and conversely. Across the dataset, it is desirable to ensure that the average weights average to one to maintain the original interpretation relative to the sample size.

A technique to tackle non-response bias is that of RIM weighting (Random Iterative Method). The aim of the RIM weighting procedure is to achieve sample representation across these variables to approach those of the population. This technique has been used by other surveys, including FRA's Europe-wide survey on violence against women, based on two variables: age categories and urban/rural area[5]. RIM weighting is an extension of proportional weight adjustment, across different strata (Kulas et al., 2018). For each stratum, the weight is calculated as follows for a stratum k, and where n and N stand for the sample and population size respectively:

$$\pi_k = \frac{N_k/N}{n_k/n} = \frac{N_k/n_k}{N/n}$$

The overall weights can then be obtained through an iterative procedure, where proportional weights are derived for each stratum in turn (i.e., proportional weights are calculated for the first stratum; then proportional weights are calculated for the second stratum, after

[5] See page 28, https://fra.europa.eu/sites/default/files/fra-2014-vaw-survey-technical-report-1_en.pdf

the weights of the first stratum have been applied and multiplied by the previous proportional weights to obtain the weights across the first two strata; etc.).

In practice, RIM weighting can easily be implemented using Excel plug-ins that automate this process and document the steps of the iteration algorithm used behind the calculation of the weights. Weights were calculated using such a plug-in, which is available here, Version 1.1.1 was used (ssci_rimweight.xlam v1.1.1), and last downloaded 9 June 2022. The weights were calculated for each RPO individually. In practice, this means that the full dataset was split into individual datasets for respective RPOs, for export into Excel, before aggregating the files back into a single data file.

Some methodological aspects need to be considered in the process of applying RIM weighting. These consists of:

- Variables used for weighting (number, distribution, and correlation)
- Sample size considerations (overall sample size and minimum crosstabulation cell count)
- Weight distribution (rescaling, range and capping applied)

9.1 Variables used for weighting

RIM weighting can be volatile, particularly with increasing number of variables. It is recommended to keep this number to a minimum. Volatility is also higher for variables that are highly skewed, and best for variables more evenly distributed across categories. The three variables considered for weighting in each RPO were: (1) sex; (2) type of student/staff; and (3) staff/students by STEMM field or otherwise (*Table 8*). This selection relies on information being available for both the survey responses and the administrative data provided by respective RPOs on the sex distribution of their staff and students[6], the distribution of staff in the categories into academic and non-academic staff, and the distribution of students in the categories into undergraduates, postgraduates other than doctoral and doctoral, and finally with the exception of non-academic staff, the distribution of staff and students in STEMM or non-STEMM disciplines.

[6] Because the administrative data provided by RPOs relies on a binary count of their staff and students, this was recoded as a binary variable for those that responded 'other' to the survey question asking for sex (Q6), which account for 1.5% of responses. 'Other' was recoded as 'female' in recognition that both were more likely to belong to a minoritized group and more likely to experience gender-based violence. This only affects the computation of weights and does not in any way impeded further analysis across different sex groups.

Table 8: Variables used for weighting

	Categories
Sex (Q6)	(1) Female (2) Male
Type of staff/student (Q2 & Q4)	(1) Academic staff (2) Non-academic staff (3) Undergraduate students (4) Postgraduate students (other than doctoral) (5) Doctoral/PhD students
Staff/students by STEMM and non-STEMM field (Q1, Q2 & Q14)	(1) Non-academic staff (2) Academic staff STEMM (3) Academic staff non-STEMM (4) Student STEMM (5) Student non-STEMM

The RIM procedure relies on reweighting the sample data on these variables according to targets calculated from the administrative data collected among respective RPOs. Administrative data were collected among RPOs between October 2021 and April 2022 (see chapter 7.3). They were available for 45 RPOs as one RPO did not provide an administrative data grid, despite several reminders sent by GESIS. Furthermore, five RPOs had fewer than 100 responses. In those six cases, no weights could be calculated, and the cases were allocated a weight of 1.

Table 9: Comparison of the proportions of variables used for weighting, un/weighted

Code	Category	Sample proportion (unweighted)	Sample proportion (weighted)
1	Female	69%	55%
2	Male	31%	45%
1	Academic staff	24%	14%
2	Non-academic staff	19%	12%
3	Undergraduate students	37%	47%
4	Postgraduate students (other than doctoral)	16%	22%
5	Doctoral students	4%	5%
1	Non-academic staff	19%	12%
2	Academic staff STEMM	16%	11%
3	Academic staff non-STEMM	8%	4%
4	Student STEMM	27%	34%
5	Student non-STEMM	30%	40%

There were four RPOs where discrepancies arose between the information provided between the administrative data and survey responses. For example, this concerned cases where a given RPO reported that it did not have undergraduate students, and yet some responded as such in the survey. In such cases, the value of 1% was imputed for the category, borrowing from the largest category (and similar groups) in that variable group.

9.2 Sample size

RIM weighting works best for larger samples, with for example 500 responses seen as appropriate for the use of three layers of RIM. However, in practice, RIM weighting can work well for much smaller sets of responses. Accordingly, to avoid any issues with potential volatility, we did not weight RPOs with a sample size below. Out of 46 RPOs, six RPOs did not meet this threshold and were thus assigned a weight of 1.

Furthermore, it is important to ensure that there are at least ten observations in any cell of crosstabulations as a cell count below this threshold is not recommended (Kulas et al., 2018). All crosstabulations were thus produced and examined for low cell counts, excluding structural zeroes. Where they arose, the associated categories were merged (for example, aggregating postgraduate students together, disregarding doctoral status) following the lowest count and nearest category criteria. Recoding was needed in 24 RPOs from the 40 RPOs that were weighted.

9.3 Weight distribution

An investigation of the distribution of weights is recommended, with a focus on larger and smaller values (Kulas et al., 2018). During the implementation, a cap was applied (by default at 5) to the weights, i.e., any weight above 5 was automatically assigned a value of 5 by the RIM procedure. Applying this cap produces average weights that average below 1 for some RPOs, and thus needed to be rescaled accordingly. This rescaling was performed by multiplying all the weights for a given RPO by a constant that returned the average weights to 1. This section has described how the weights were calculated across each RPO. They were subsequently appended into a single datafile, to allow for an analysis across all RPOs. The weight values in the aggregated dataset were checked, with a range spanning from a minimum of .007703 to a maximum 8.681155, and with an average value of 1 for the total sample.

9.4 Weights

The dataset includes three variables to adjust the UniSAFE data to the total target population proportions (i.e., staff and students) and to the target population proportions of one of the two groups (staff or students only): *weights*, *weights_staff*, and *weights_students*. As described in the previous section, they were calculated following the RIM weighting procedure and contain weighting factors that adjust for respondents' sex, type of staff/students, and staff/students by STEMM and non-STEMM fields. For more details on these variables, please see the codebook, available here.

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