ECONOMISTS FOR UKRAINE

WORKING PAPER SERIES

WORKING PAPER No. 8 OCTOBER 2025

SHELTER IN SCHOLARSHIP: EVIDENCE FROM A GLOBAL SURVEY OF HOSTS FOR DISPLACED UKRAINIAN SCIENTISTS

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We thank Ina Ganguli, Gaétan de Rassenfosse, Anastsiia Lutsenko and Vladimír Novák for feedback and their helpful comments. This project received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Sklodowska-Curie grant agreement No. 101032702 to KJ.

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ABSTRACT

Shelter in Scholarship: Evidence from a Global Survey of Hosts for Displaced Ukrainian Scientists

In response to Russia's full-scale invasion of Ukraine in February 2022, the global scientific community launched a range of support offers for displaced Ukrainian scientists. In this work, we seek to understand the characteristics of the help offers that received the most interest from Ukrainian scholars. We conduct a survey of hosts offering 2,417 support opportunities registered in the #ScienceForUkraine database (22% participation rate). More than 70% of support offers received at least one application, 48% of them helped at least one Ukrainian scientist. Our analysis reveals that scholarships were more in demand than positions, joint applications for funding or access to resources, and that offers connected to the Social Sciences and/or the Humanities were in demand. For hosts, solidarity was the primary motivation to come up with offers, but the existence of suitable funding was the second most common reason to offer help. More than 70% of support offers received at least one application, 47.5% of all the offers helped at least one scientist. Focusing on future policy design, our findings imply that support programmes for displaced scientists play a role in the hosts' motivation to help refugee scholars, and these programmes should emphasise flexibility and consider the disciplinary composition of the affected academic community in order to be effective.

JEL CLASSIFICATION: I23, J61, F22, O38
KEYWORDS: Refugee academics, Support programmes, Academic mobility, Ukraine

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1 Introduction

Following Russia's full-scale invasion of Ukraine on 24 February 2022, millions of Ukrainian residents sought refuge abroad, including a significant share of the academic workforce (Chala et al., 2024; De Rassenfosse, Murovana, & Uhlbach, 2023; Ganguli & Waldinger, 2023; Stone, 2022). In an unprecedented wave of decentralised support, scientists worldwide offered financial and non-financial assistance, resources, positions, and scholarships on social media. Over time, national and international funding agencies established larger support programmes (Chala et al., 2024; Wolfsberger et al., 2023). In June 2022, several European and U.S. science academies called upon the academic community, from individual to state actors, to support Ukrainian scientists.[1]

The international scientific community has previously stepped up to help persecuted scientists. In the 1930s, persecuted German scientists were supported by newly established organisations (Waldinger, 2010).[2] Some of the programmes, such as the Council for At-Risk Academics (CARA), set up then still exist today. They are complemented by more recently established initiatives such as the Academy in Exile in Germany (Konuk, 2020), the Philip Schwartz Initiative, EU programmes EURAXESS and Science for Refugees and the UNESCO programme World Academy of Sciences. There have also been private donor-funded initiatives such as the University in Exile (Friedlander, 2019).

Together, these programmes continue to aim to help scientists suffering from persecution, natural disasters and political instability around the globe (Konuk, 2020; "Support refugee scientists", 2010). The number of affected scientists at any point in time remains elusive; the estimate of 10,000 affected scientists by McGrath and Lempinen (2021) is likely outdated. Since then, we have witnessed the Russian invasion of Ukraine (February 2022), the civil war in Sudan (April 2023), the Israel-Gaza war (October 2023), the civil war in Myanmar (March 2021) and clashes in the Democratic Republic of Congo (June 2022). Scientists have also been persecuted for individual reasons (Bohmer, 2022; Dudenbostel, 2022). Correspondingly, there are increasing numbers of scientists seeking help. For example, as of June 2024, the Philipp Schwartz Initiative has given fellowships to 491 scientists from 26 countries, including Turkey, Syria, Myanmar, Venezuela and Cameroon.[3]

The response of the international scientific community to the Russian invasion of Ukraine has been extensive in both scale and nature. In the early stages, individual scientists, rather than institutions or established

[1] Specifically, they call for support to "maintain institutional affiliations in Ukraine for Ukrainian researchers receiving temporary appointments abroad", to "develop specific funding programmes directed to early-career researchers", to "establish funding programmes for joint research by international teams" and to "provide access to specialized research facilities abroad." See https://www.nationalacademies.org/news/2022/06/action-steps-for-rebuilding-ukraines-science-research-and-innovation.

[2] Examples include the Emergency Alliance of German Scholars Abroad (*Notgemeinschaft deutscher Wissenschaftler im Ausland*) founded by Philipp Schwartz in 1933, the US-based Emergency Committee in Aid of Displaced Foreign Scholars (pre-cursor of today's Scholar Rescue Fund of the Institute of International Education), and the English Academic Assistance Council (known today as CARA) (Konuk, 2020; Newman, 2020).

[3] See the dossier webpage by humboldt-foundation.org, archived in September 2024: https://web.archive.org/web/20240912184547/https://www.humboldt-foundation.de/en/explore/newsroom/dossier-philipp-schwartz-initiative.

programmes, offered help. Additionally, grass-roots initiatives, such as #ScienceForUkraine (Rose et al., 2022), coordinated these aid offers, and Economists4Ukraine collected funds for remote scholarships. By contrast, in the case of Sudan, help was mostly provided by Sudanese and Chinese institutions and twinning initiatives (Hassan, 2023).

Against this background, the most appropriate form of support remains a subject of an ongoing debate (Machlis, Rhodes, & Carrero-Martínez, 2025). Contemporary support programmes tend to push fleeing displaced scholars into precarious academic positions (Bohmer, 2022; Machlis, Rhodes, & Carrero-Martínez, 2025). Thus, the 2020 evaluation of the Humboldt Foundation's Phillip Schwartz Initiative (PSI) recommends the employment contract as the preferred legal framework for refugee academic positions (Dudenbostel, 2022). On the other hand, supporting refugee scholars even for a short term may positively influence their retention in academia: the IIE Scholar Rescue Fund analysis reports that 77% of scholars from 38 countries of origin supported by IIE fellowships between 2002 and 2020 who responded to their survey remained in academic positions after completing the fellowship (Valuy & Sanger, 2021). Short-term scholarships are also the preferred policy recommendation in the Sudan case (Hassan, 2023). However, evaluations remain scant because there is very little data available on the number and location of affected scientists (McGrath & Lempinen, 2021).

Efforts to evaluate the effectiveness of support programs to displaced Ukrainian scholars have relied on surveys of Ukrainian scientists (Fiialka, 2022; Lutsenko et al., 2023; Maryl, Jaroszewicz, et al., 2022). These (non-representative) surveys indicate financial and social support (including housing) as top priorities, with respondents favouring flexible schemes. Additionally, Maryl, Jaroszewicz, et al. (2022) note that respondents in the Social Sciences and Humanities perceive a lack of opportunities as the primary barrier. In contrast, we aim to identify the most adequate mode of support by analysing the actual demand of the Ukrainian scholars: Which offers of support were the most popular?

We answer this question quantitatively by surveying the hosts of 2,417 offers of academic support to Ukrainian scientists. We relate the number of Ukrainians that got assisted by these offers to all available offer characteristics in a two-stage procedure while controlling for response bias. Measuring demand can sometimes be complicated by the potential endogeneity of both supply and demand (McAuliffe, 2015). For instance, seeing that a certain type of offer faces a lot of demand, other hosts may be induced to offer similar offers. However, the unique circumstances of the year 2022 shut off some endogeneity. In the first weeks of the war, many Ukrainian researchers fled, often without set destinations. This resulted in relatively inelastic demand for academic support. At the same time, hosts advertised open positions before anybody knew how many Ukrainians would actually come, and what their needs were.

The basis for our quantitative analysis is the database of the grass-root initiative #ScienceForUkraine (Rose et al., 2022). We include the registered hosts of all academic support offers registered as of May 2023 and

targeted at academics. We received responses for 528 offers (21.9% participation rate). According to the participants' answers, 805 Ukrainians received some form of help through the offers. A naïve extrapolation suggests that approximately 3,676 Ukrainians benefitted from the 2,417 offers we surveyed. This amounts to 40% of 9,250 Ukrainian scientists who have left Ukraine since the beginning of the full-scale invasion, according to the estimate of De Rassenfosse, Murovana, and Uhlbach (2023).

Our analysis for the demand reveals three key patterns. First, scholarship offers were more popular than comparable academic positions, all else being equal; second, offers related to the Social Sciences or the Humanities were more in demand, all else being equal; third, there were at most weak preferences for specific countries and regions compared to Germany as a reference region. In our regressions, we control for the type of offer, academic discipline, region, and several other characteristics. Our statistical analysis employs a hurdle model with the Heckman correction to account for non-response bias. Our findings are robust to automatically classifying the offer type with GPT-3.5 based on the offer description.

Additionally, we assess the hosts' motivations. Unsurprisingly, solidarity emerged as the most significant motive across all types of offers. The second most common reason was the availability of dedicated funds, particularly for paid positions and scholarships. This observation suggests that dedicated programmes offered by initiatives such as Philipp Schwartz or PAUSE likely prompted some support offers.[4]

To put our results in perspective, we discuss Ukraine's situation in the context of crises in other countries, such as the armed conflicts in Syria, Afghanistan, and Sudan. We identify similar factors, such as gendered patterns of mobility and war-related uncertainty, as well as context-specific differences, such as discipline preferences that reflect differences in education systems, labour markets and academic funding structures in the affected countries.

Our findings provide valuable insights for policy-makers and potential hosts, informing their decisions on effective support and funding programmes. Furthermore, our study contributes to the academic debate on adequate offers of help by documenting the revealed preferences of Ukrainian scientists. The determinants of demand we document inform future work on the inflow of Ukrainian scientists in 2022 and 2023. Finally, by comparing the case of war in Ukraine to other conflicts, we contribute to the broader literature on academic displacement and scientific support systems in times of crises.

[4]These programmes fund joint applications by host researchers and displaced scientists to support the latter's salary and integration for up to two years (McGrath & Lempinen, 2021).

2 Academic support offers for Ukrainian scientists since 2022

2.1 Background on #ScienceForUkraine

Shortly after the Russian Federation launched its full-scale invasion of Ukraine, Twitter saw a surge in spontaneous offers of support from academics worldwide. These offers, typically short-term, invited contact based on shared research interests and included a list of relevant research topics. Many were initiated and funded by the researchers and institutions themselves, while others were made possible through private endowments.

To unify these tweets, #ScienceForUkraine started as an ad-hoc initiative on 26 February 2022 (Rose et al., 2022). Its initial aim was to promote the hashtag "#ScienceForUkraine" and the corresponding Twitter profile "@Sci_for_Ukraine." Potential hosts quickly adopted this hashtag. Between 1 November 2022 and 30 November 2023, 2,263 tweets not by "@Sci_for_Ukraine" used the hashtag, and 3,432 tweets tagged "@Sci_for_Ukraine."

The main goal of #ScienceForUkraine was to collect the support offers and make them available through a website, scienceforukraine.eu. Volunteers searched for and compiled the offers, storing them in a database. Throughout 2022, over 130 volunteers contributed at various times (Rose et al., 2022). (Maryl, Ivashchenko, et al., 2022, Figure 1) show that more than 2,000 listings had been included in the first two months, while growth peaked in the first weeks of March 2022. Over time, potential hosts began registering their offers themselves, a possibility publicised in Science by Mosienko et al. (2022). #ScienceForUkraine also advertised the offers via various social media channels. The most important of these was Facebook, as it is most frequented by Ukrainian academics (Rose et al., 2022).

Over time, curating the listings dataset became a central pillar of #ScienceForUkraine's activities. During several validation campaigns, hosts were asked to confirm whether their offers were still available, but few reported expirations themselves. Offers were otherwise deactivated when the support period ended, the deadline passed, the host relocated, or the website hosting the offer became inaccessible.

2.2 #ScienceForUkraine's listings database

As of May 2023, the database contains over 3,000 entries, roughly 50% of which had been deactivated for various reasons. Each entry belongs to a single type, relates to one or more target groups and academic disciplines, and includes a description of the offer. Most offers include both a website and a contact email. Additionally, several standardised descriptors are included, such as the application deadline, whether accom-

modation or any additional support is offered, and whether the offer can be taken remotely.[5]

Offers vary across several dimensions. The number of beneficiaries is crucial for assessing the database's size. The range of academic fields covered and the specific terms of the support offers are two additional significant sources of heterogeneity. All of this partly stems from local organisation: in some instances, institutions adopted a centralised approach to handle inquiries (e.g., the University of Barcelona), whereas in others, individual department chairs were responsible for this (i.e., the Harvard Ukraine Research Institute).[6]

Contact persons (the hosts) may also differ. They may be scientists or administration/staff personnel, and in some cases, the offer was created as an ad-hoc institutional effort. We categorise the hosts into these three categories based on a simple semi-automatic procedure.[7] We estimate that most of the 3,021 offers belong to a scientist (1791, 53.9%), 1415 (42.6%) to administration/staff personnel, and 118 (3.5%) to ad-hoc efforts. Note that some scientists might have submitted the email address of a secretary, in which case we may have underestimated the share of scientists.

Offers are classified into up to six academic disciplines. They follow the definition of the Frascati Manual 2015 (OECD, 2015, Table 2.2): Natural Sciences (including Mathematics and Computer Sciences), Engineering and Technology, Medical and Health Sciences, Agricultural and Veterinary Sciences, Social Sciences, and Humanities[8]. 58% of the offers are assigned to a single discipline, and only 84 offers are assigned to all disciplines. These are usually academic transfer offers at large universities.

Finally, each listing belongs to one of six types of offers: positions, scholarships, resources, joint applications, academic transfers, and mentoring. Table 1 details the classification criteria. Most of the 3,021 offers are positions (1,546; 51.1%), followed by scholarships (816; 27%). The share of deactivated offers is highest among joint application-type offers, as they tend to relate to a few programmes with specified deadlines. Resource type offers rarely expire and thus have the lowest share of deactivated offers.

Since the classification was performed by different #ScienceForUkraine volunteers (unless the offer submitters classified the type themselves), misclassifications may have occurred. In Appendix A, we classify each offer automatically with GPT-3.5 using the instructions given to the volunteers as a prompt. Table A1 shows that in 741 of the cases, 27%, there is a disagreement between the human assessment and the language model. However, humans sometimes had more information available at the time of the classification (such

[5]The categorisation of offers took place in early 2023. This, and a de-duplication and re-labelling of associated disciplines are absent from the analysis by Wolfsberger et al. (2023).

[6]A guiding principle of the #ScienceForUkraine database is to be as specific as needed such that contact persons are listed only once, unless important offer characteristics (target audience, deadlines, duration) differ. If necessary, submitted offers have been split into multiple offers if crucial elements differ, such as different application procedures, hosts/contact persons, deadlines, etc.

[7]For addresses that are not clearly an institutional address, we extracted the name or performed an internet search for the name. We then matched the names against Elsevier's Scopus database using the code provided by Rose and Kitchin (2019). If we found a match for the person at the provided institution, we defined the host as a scientist; otherwise, we defined the person as staff personnel. E-mail addresses including the strings "ukr", "ucr" or "displaced" are defined as "ad-hoc."

[8]We refer to "Humanities and the Arts" as "Humanities" for brevity.

Table 1: Listings by type of offer as of May 2023.

index	Definition	Total	Share deactivated
Position	Temporary or permanent position associated with a formal employment contract	1546	61.64
Scholarship	All kinds of financial support for academic study or research: scholarships, fellowships, personal research grants, or bursaries	816	64.71
Resources	Any help other than mentoring that comes without payment: Access to library or laboratories; office with desk with no work duties; fee waivers (e.g., for summer schools); free courses	319	38.24
Joint application	Offer to jointly apply for funding schemes that require a local collaborator and a Ukrainian scientist. Examples: Philipp Schwartz Initiative (PSI) in Germany, PAUSE in France	280	83.21
Academic transfer	Offers to continue studying while accepting prior coursework in Ukraine (only relevant to students)	46	47.83
Mentoring	Offers to help navigating local or national science systems	13	38.46

Notes: The table gives an account of the listings in the #ScienceForUkraine database by offer type. The table excludes duplicates and invalid offers (offers that don't fall into the scope of #ScienceForUkraine). Column "Share deactivated" shows percentage values. Offers may be deactivated at the request of hosts, because the deadline passes, or because the website becomes unavailable.

as websites) and are able to learn, so we posit that GPT-3.5 is more often wrong than right. To rule out any problems arising from misclassifications, we also performed our analysis with the automatic classifications.

Table 2: Offers by academic discipline and offer type.

Offer type / Discipline	Academic transfer	Joint application	Mentoring	Position	Resources	Scholarship	Unique Total
Natural Sciences	21	118	10	936	135	414	1635
Social Sciences	21	66	3	205	88	318	701
Humanities and the Arts	17	68	4	117	63	281	550
Engineering and Technology	20	58	5	391	77	256	807
Medical and Health Sciences	15	61	5	427	98	243	849
Agricultural and Vet. Sciences	4	32	4	108	49	129	326
Total	46	280	13	1546	319	816	3021

Notes: The table shows a cross-tabulation of the categories of offers to assigned academic disciplines. An offer can relate to multiple disciplines. Table 2 excludes duplicates and invalid offers (offers that do not fall into the scope of #ScienceForUkraine).

Table 2 crosstabulates the number of offers by type and assigned academic discipline. Note that an offer may relate to multiple disciplines but not to multiple types. The Natural Sciences comprise the largest discipline, with 1,635 offers (54% of the total). Within the Natural Sciences, Engineering and Technology fields, and Medical and Health Sciences, positions remain the predominant offer type. Conversely, in the Social Sciences, Humanities, and Agricultural and Veterinary Sciences, scholarships are more prevalent.

Table 3 encompasses all offers up to the end of May 2023. Germany hosted the most support offers, followed

Table 3: Number of listings by country of host as of May 2023.

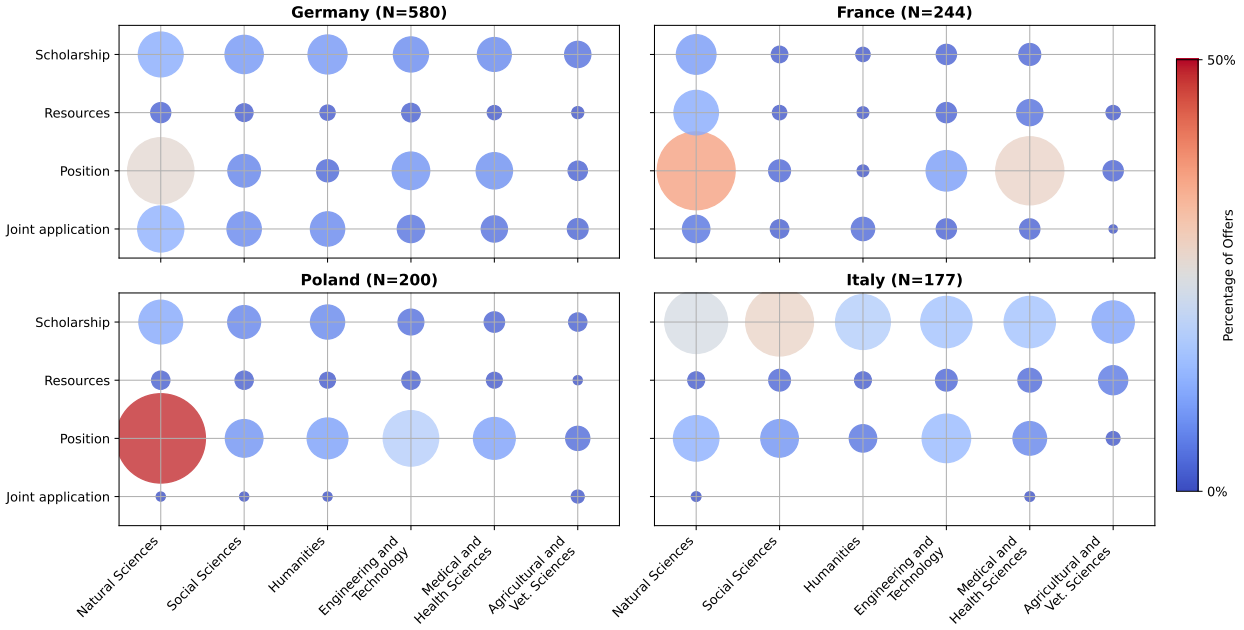
Country	Total	Share deactivated
Germany	593	69.31
France	244	69.26
Poland	203	68.97
Italy	178	69.66
Switzerland	167	58.68
United States	160	55.62
Spain	154	66.88
Czech Republic	135	68.89
Canada	130	51.54
Austria	127	51.97
Other countries	2091	65.04

Notes: The table shows the ten countries with the most listings in the database of #ScienceForUkraine and the share of inactive listings as of the end of May 2023. Table 3 excludes duplicates and invalid offers (offers that do not fall into the scope of #ScienceForUkraine). "Share deactivated" is in percentage.

by France, and Poland. Rose et al. (2022) provided a snapshot of the distribution of offers by country as of the end of May 2022. At that time, 2,609 entries were registered in the database (including some duplicates later identified by #ScienceForUkraine). The top three host countries remained the same, and the overall ranking saw little change.

Countries were not uniform in the types and associated disciplines of help that they offered. Figure 1 shows for instance that more than half of all offers by Polish hosts were positions associated with the Natural Sciences–two characteristics indicating lower demand. France is similar. By contrast, Italy had a high share of Scholarships in the Social Sciences. Thus, it is important to control for the interdependencies of the offer characteristics to determine which types of offers faced the most and the least demand

Figure 1: Composition of offer types and disciplines for Germany, Poland, Italy and France



Notes: This figure displays the joint distribution of offers over offer types and academic disciplines for the four countries with the highest number of offers. Larger and darker circles indicate a higher proportion among all offers in that country.

2.3 How representative is the database?

Assessing the proportion of all help offers represented by the #ScienceForUkraine database is challenging. It is difficult to accurately gauge this as offers sent directly to Ukrainian researchers, as well as ad-hoc support arranged upon contact with a Ukrainian colleague, are unlikely to be captured in the database. Industry offers are also likely underrepresented, because of the sometimes blurred boundaries of their scientific scope and because they may be advertised through different channels.

However, due to the extensive network of volunteers worldwide, we assume that the database's coverage is quite comprehensive. This is especially true for offers to jointly apply for major funding schemes, such as the Philipp Schwartz Initiative of the German Humboldt Foundation, as these maintained central repositories that were integrated into #ScienceForUkraine.

The website access statistics document the broad coverage of the Science for Ukraine database. The website scienceforukraine.eu has become a cornerstone in the international aid ecosystem for Ukrainian science. From March through May 2022, the website had 127k unique visitors (Rose et al., 2022).[9]

Although these statistics are not available for 2023, referrals from external websites serve as a proxy for the website's popularity in that year. Between 1 May and 31 October 2023 there were 256 referring websites, excluding search engines and social media. The referring websites belong to 28 top-level domains. Referring websites include associations such as the European University Association, pan-governmental pages like EURAXESS or UNHCR, university websites, and international NGOs like the World Economic Forum. Finally, considering the national and international (science) news coverage, as well as referrals from funding agencies and science associations, it is unlikely that a potential host would be unaware of the #ScienceForUkraine database. Therefore, we assume the database encompasses the vast majority of openly publicised offers at academic institutions.

3 Survey methodology

3.1 Inclusion criteria

To evaluate which offers of support were the most popular, we focus on academic support offers from the aforementioned #ScienceForUkraine database. We include only offers of the types "Position", "Scholarship", "Resources", and "Joint application" that were active or deactivated by the start of the survey distribution in late May 2023 and whose target audience encompasses Ukrainian researchers or doctoral students.[10] However, we exclude travel grants, fee waivers for summer schools or courses (including language courses),

[9] According to this definition, a unique visitor is a browser-device combination.
[10] For offers by companies, we look for job descriptions pertaining to independent lab work.

general support offers for Ukrainian refugees (including non-scientists) such as accommodation-only offers, and any competitive grant programs, awards or schemes (e.g., MSCA4Ukraine post-doctoral fellowships).

The first three authors independently examined each listing in the database for the above criteria. Each listing was reviewed by at least two authors. The authors discussed unclear cases until a consensus was reached. Our survey includes 2,417 distinct listings fulfilling the criteria.

3.2 Survey design

In the survey, respondents were asked between three and seven questions (Table 4), with one to three mandatory questions. Those who indicated that they had not received any applications in the first question did not see the remaining questions. We asked participants to provide their best estimates. The survey was not incentivised.

Table 4: Survey questions and answer types.

#	Question	Answer type	Mandatory	Share
1	How many applications by Ukrainian researchers did you receive for this help offer?	Numerical input	✓	
2	What share of these were eligible and topically fitting?	Slider with 5% bins	✓	
3	How many Ukrainian researchers benefitted from your help offer (hiring, stipend, lab support, etc.) in total?	Numerical input	✓	
4	When did you receive the last help request?	Month selection		64
5	Where did you or your institution actively advertise the help offer?	Multiple choice		99
6	Were you aware the help offer was advertised by #ScienceForUkraine?	Yes/No		99
7	What was your reason/the reason of your institution to come up with this particular help offer?	Long free text		76

Notes: The questions faced by the respondents. Questions 2, 3 and 4 were contingent on a positive numeric input in question 1. Question 6 was contingent on "#ScienceForUkraine" not selected in question 5. Column "Share" is in percentage and identifies the proportion of offers with answers for this question.

Additionally, each respondent was given the opportunity to share a comment regarding "the issues raised in this survey." A hundred answers were provided this way, and many hosts shared their stories as well as their future plans.

3.3 Distribution of the Survey

We began distributing survey invitation emails on 31 May, 2023. Each invitation was linked to its corresponding offer to enable the association of responses with listing characteristics.[11] We utilised various

[11] Some offers belong to the same host. To facilitate their participation, we consolidated their invitations and instructed them to answer questions about each listing individually. This was the case for 194 listings with a total of 67 distinct recipients. Their response rate was 30%.

existing email accounts associated with the scienceforukraine.eu domain, some of which might have been familiar to the invitees. Respondents who did not reply to the first round of invitations received reminders in July and September 2023.[12]

3.4 Characteristics

For each offer, we use the following data: (i) the type of the offer (Position, Joint Application, Scholarship, or Resources), which is mutually exclusive; (ii) the discipline or disciplines of the offer (Natural Sciences, Social Sciences, Humanities, Engineering, Medical Sciences, and Agriculture); (iii) the country or region. We capture this information with binary variables.

We group certain countries, partly for statistical reasons (informed by the Bayesian Information Criterion) and partly for geographic and cultural similarities. These groupings form wider regions: "Baltics" includes Estonia, Latvia, and Lithuania; "BeNeLux" stands for Belgium, Netherlands, and Luxembourg; "Iberia" includes Spain and Portugal; "Scandinavia" includes Denmark, Finland, Iceland, Norway, and Sweden;[13] "Rest of Europe" includes Albania, Bulgaria, Croatia, Czechia, Cyprus, Greece, Hungary, Romania, Slovakia, Slovenia, Turkey and Ukraine; "Rest of World" includes all other countries.[14]

A fourth group of variables captures the scope and characteristics of an offer. "Remote" indicates that the offer was advertised as open for remote work. "Unclear" indicates that the advertisement does not specifically target Ukrainians, scholars at risk, or scientists adversely affected by the war, be it in the descriptions, websites or email addresses. "Researchers and Doctoral" indicates that both doctoral students and researchers with a doctoral degree were eligible to apply, instead of just one of these groups. Finally, "Multiple Disciplines" indicates that the offer is associated with more than one discipline. "Scientist" indicates that the host is estimated to be a scientist, which is the case for 58% of the offers in the survey.

4 Results

In this section, we first evaluate whether the survey sample responses are representative. Next, we explore the motivations that prompted hosts to provide support offers and examine the distribution channels. Finally, we analyse the demand for support offers, focusing on the extensive margin of applications (which offer types received at least one eligible application) and the intensive margin of realised offers (how many applications led to successful outcomes). We prioritise these two variables as they offer the most credible and accurate

[12] Respondents were given the chance to opt out of the survey and further invites. 66 listings' contacts elected this option.

[13] One might wonder whether the mix of EU member and non-EU member states is warranted. Given that Norway and Iceland enacted the same asylum policy as the European Union, we think it is.

[14] These are: Australia, Brazil, Chile, China, Costa Rica, Egypt, Georgia, Hong Kong, India, Israel, Japan, Mexico, New Zealand, Nigeria, Saudi Arabia, South Africa, South Korea, Taiwan and Uruguay.

insights into the demand for support.

4.1 Representativeness and Participation

We assess potential response bias using a logistic regression model. We create a binary variable "participated" to indicate whether the invited host completed the survey (i.e., answered all mandatory questions). This model controls for the selection bias in the subsequent analysis of the determinants of receiving eligible applications from Ukrainian scientists (equation (2) in subsection 4.4.2) using a Heckman correction. The regression equation for the probability of survey participation is:

$$\mathbb{1}_{i,\text{participated}} = \alpha_1 \mathbb{T}_i + \alpha_2 \mathbf{D}_i + \alpha_3 \mathbb{C}_i + \alpha_4 \mathbf{X}_i + \epsilon, \tag{1}$$

where $\mathbb{T}_i$ indicates the type of offer i with type "position" as base category, $\mathbf{D}_i$ is a matrix with binary indicators for the discipline of offer i (not mutually exclusive), $\mathbb{C}_i$ indicates the country of offer i, and $\mathbf{X}_i$ is a matrix with the binary variables "remote", "unclear", "multiple disciplines", "Scientist", and "Researchers and Doctoral".

Table 5 displays the results, showing how the terms of equation (1) were entered sequentially in different models. The last column includes all terms simultaneously, making it our preferred specification. The model fit is rather low, suggesting that unobservable characteristics likely influence participation in the survey.

All else being equal, we find five characteristics to be statistically significant: Hosts of remote offers were more likely to participate as were hosts that are scientists. There is also variation between countries. Compared to Germany and all else equal, hosts based in BeNeLux were less likely to respond, whereas hosts based in Spain or Portugal ("Iberia") were more likely to participate.[15] Except for Iberia, the coefficients are only weakly statistically significant.

The Heckman correction requires a Probit-link and assumes a standard normal distribution. We use the Inverse Mills Ratio (IMR) in the subsequent analysis. Alternatively, we estimate the selection model (1) using a Logit-link, which assumes a logistic distribution. Instead of the IMR, we derive the Inverse Hazard Rate from it. The results are qualitatively the same, but the coefficients are naturally lower. We note that neither model fits the data well, as the Shapiro-Wilk test rejects the normality of the residuals of a Probit regression ($t = 0.659$, $p < 0.001$), and the Kolmogorov-Smirnov test rejects a logistic distribution for the residuals of a Logit regression ($t = 0.3395$, $p < 0.001$).

Table C1 presents the same analysis using the automatic classification of types of offers. However, since we

[15] In Spain, many offers were centralised and handled by the same person. Before sending out the survey links, we reached out to all persons with more than 10 offers to ask them to participate.

did not survey offers of type "academic transfers" or "mentoring", we excluded up to 65 offers automatically assigned to these types. The results are almost identical, except that hosts of offer from the UK and the USA were less likely to respond hosts of offers from Germany, all else being equal.

Overall, we conclude that selection bias is unlikely to impact our results significantly. However, to ensure robustness, we incorporate the IMR derived from the predicted estimates from model (1) into the remaining regression analyses. This approach helps to control for any potential residual effects of selection bias and provides more reliable estimates of the determinants of receiving eligible applications for the support offers.

Table 5: Probabilistic estimates for participation in the survey.

	(1)	(2)	(3)	(4)
Joint Application	0.17*			0.15
	(0.09)			(0.11)
Resources	0.05			0.06
	(0.11)			(0.12)
Scholarship	-0.10			-0.11
	(0.07)			(0.08)
remote	0.19*			0.20*
	(0.11)			(0.11)
Nat. Sciences		-0.06		-0.01
		(0.07)		(0.07)
Soc. Sciences		0.07		0.08
		(0.08)		(0.09)
Humanities		-0.02		0.02
		(0.09)		(0.09)
Engineering		-0.09		-0.11
		(0.08)		(0.08)
Med. Sciences		-0.12		-0.10
		(0.08)		(0.08)
Agriculture		0.09		0.09
		(0.10)		(0.10)
Austria			-0.12	-0.10
			(0.16)	(0.16)
Baltics			0.11	0.13
			(0.19)	(0.19)
BeNeLux			-0.32**	-0.25*
			(0.14)	(0.15)
Canada			-0.19	-0.13
			(0.16)	(0.16)
France			-0.30**	-0.24*
			(0.12)	(0.12)
Iberia			0.33***	0.40***
			(0.11)	(0.12)
Ireland			-0.00	0.05
			(0.24)	(0.25)
Italy			-0.05	0.02
			(0.13)	(0.14)
Poland			-0.13	-0.09
			(0.13)	(0.13)
Scandinavia			0.04	0.10
			(0.14)	(0.15)
Switzerland			-0.07	-0.07
			(0.13)	(0.13)
United Kingdom			-0.36**	-0.29
			(0.18)	(0.19)
United States			-0.25*	-0.20
			(0.15)	(0.15)
RoE			-0.10	-0.05
			(0.12)	(0.13)
RoW			-0.12	-0.07
			(0.16)	(0.16)
Scientist	0.03	0.07	0.12**	0.11*
	(0.06)	(0.06)	(0.06)	(0.06)
Further specifics	✓	✓	✓	✓
N	2417	2417	2417	2417
BIC	2593.28	2611.81	2652.86	2716.00
Log-Likelihood	-1261.58	-1263.06	-1248.53	-1241.15

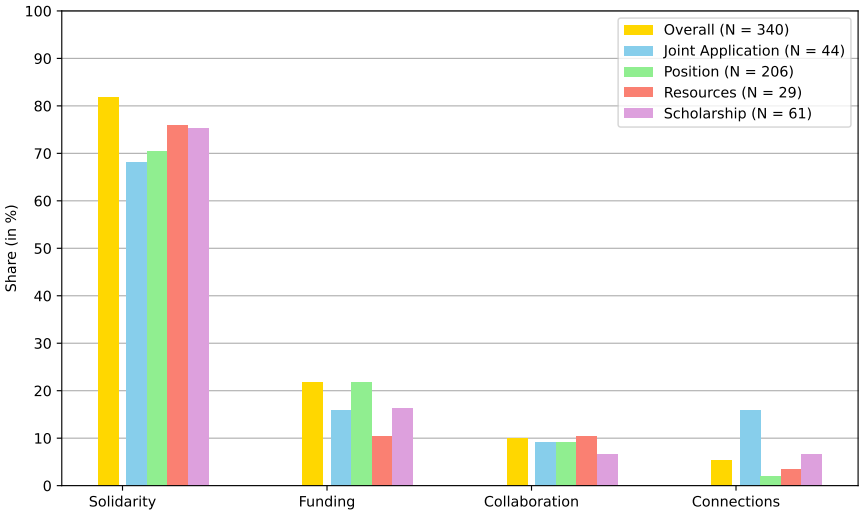
Notes: Standard errors in parentheses. The type of offer is entered as a categorical variable with "Position" as the baseline category. The country/region of the offer is entered as a categorical variable with "Germany" as the baseline category. Further specifics include "unclear", "multiple disciplines", and "Researchers and Doctoral".
* p<.1, ** p<.05, ***p<.01

4.2 Motives to help Ukrainians

For 340 offers, respondents provided free-text answers to the optional question "What was your reason/the reason of your institution to come up with this particular support offer?" We manually categorised them into four groups: expression of solidarity, availability of funds, desire to collaborate, and prior contacts with Ukrainians. A few comments relate to multiple motives.

Figure 2 shows the responses to this question were provided by 60% of survey participants. Most of the respondents (81%) stated a feeling of solidarity or humanity as their motivation. Typical answers included "Feeling of solidarity," "Solidarity with Ukrainian academics," or simply "Solidarity!" This was the most prevalent motivation across all four offer types.

Figure 2: Expressed motivations of hosts



Notes: The bar plot shows the share of each of the four motivation groups among all 340 responses to the multiple choice question "What was your reason/the reason of your institution to come up with this particular help offer?". Some respondents stated multiple reasons.

The second most common reason was funding availability, cited in 21% of responses. Some referred directly to specific funding calls: "There were EU money available", "Estonian Research Agency had a specific funding program for Ukrainian scholars..." or "Notification from the German Research Foundation (DFG) that unused scholarship funds could be used to temporarily support Ukrainian scientists...." This motive was the second-most often stated among all types of offers except Resource-only offers.

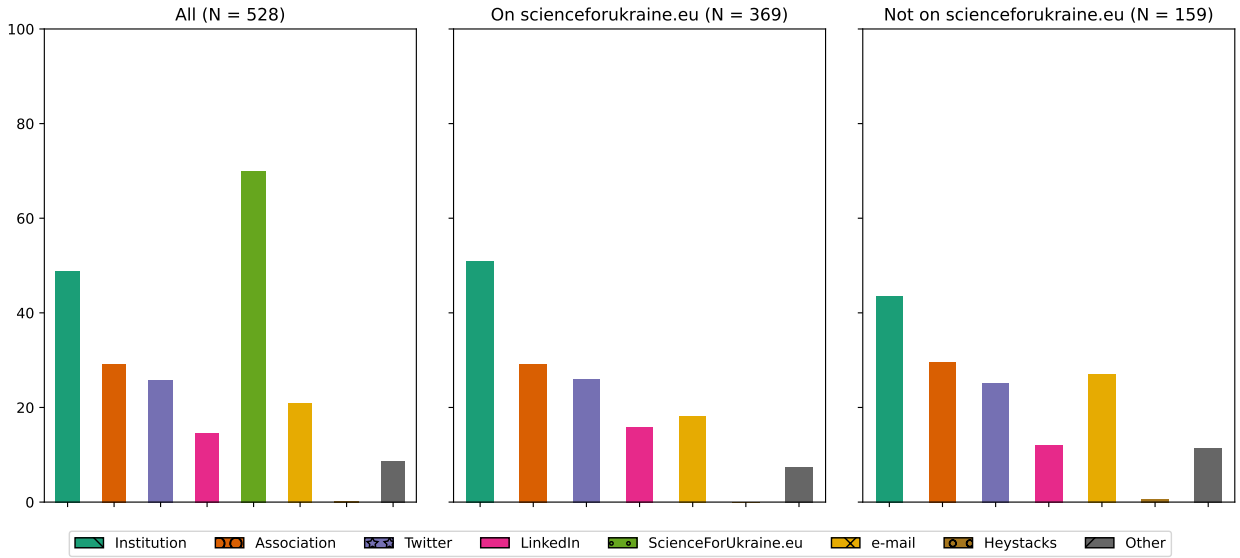
10% of stated motivations were collaboration-driven. They refer to the desire to expand one's own network and/or acquire new skills: "help in developing and internationalize Ukrainian research, get active collaborations in Ukraine for my field (botany)", "Mutual benefit with the researcher" or "Real need to develop this topic". Often there were open short-term positions that hosts thought would fit Ukrainian scientists. This motive was the least important for Scholarships and the second-most important for Resources offers.

Finally, about 5% of responses belong to the prior or personal connections category. This includes both the Ukrainian diaspora ("I'm Ukrainian Canadian, Ukraine is in my blood"), and researchers, who previously had contact with Ukrainians ("We had several partners in Ukraine for decades who reached out to us and who we reached out to when the war started", "The close contacts of our institution to the Ukrainian research community in the field of history."). Interestingly, this motive was the second-most important (on par with the funding motive) for joint application offers.

4.3 Distribution Channels

Regarding the optional question "Where did you or your institution actively advertise the help offer?", the #ScienceForUkraine database (scienceforukraine.eu) was mentioned as the primary and most important distribution channel.[16] Figure 3 shows that 70% of offers were submitted there (left panel). However, a similar proportion of offers were advertised in multiple places. For instance, 369 offers were advertised on scienceforukraine.eu and at least one other location, usually the host institution's website (middle panel). Offers that were not submitted to #ScienceForUkraine by hosts were usually advertised on the website of the host institution or a scientific association.

Figure 3: Distribution channels of the support offers



Notes: Answers to the optional question "Where did you or your institution actively advertise the help offer?". The left panel includes all listings, the middle panel displays only those submitted to scienceforukraine.eu by hosts, and the right panel includes only those listings whose hosts did not actively advertise on scienceforukraine.eu.

Our survey found that 29% of offers were not submitted to the #ScienceForUkraine database by the hosts themselves. Almost half of them (48.1%) knew that their offer was advertised on scienceforukraine.eu.[17]

[16] All but four participants answered this question.

[17] 15.5% did not answer this question; the remaining 36.0% were not aware that their support offer was actively advertised

4.4 Eligible Applications and Ukrainians Helped

4.4.1 Descriptives

The key question is whether these offers effectively benefitted their intended target audience. The initial step towards this is establishing contact, which we term application. This can include a formal application, a research solicitation for a joint application, or an inquiry about offered resources. In total, the 528 hosts who replied to our survey received 3,972 applications. Of course, multiple applications can be sent by the same person.

However, not every application met the eligibility criteria of the support offer. We asked hosts to determine eligibility themselves. Common criteria included sufficient English proficiency, a relevant topical fit, Ukrainian affiliation before the full-scale invasion, and the ability to relocate to the host institution. Overall, we estimate that 49.2% of all 3,972 applications met the hosts' criteria.[18]

Table 6 reports average success rates for all offers by type of offer, by academic discipline and by region. In total, 71.8% of offers received at least one application by a Ukrainian scientist. This share is about 10 percentage points lower if we exclude non-eligible applications. 47.5% of all offers had a successful outcome. This means that at least one Ukrainian scientist received support, was hired, or a joint application was initiated.

However, Table 6 also shows that there is considerable variation in success rates across scientific disciplines, types of offers, and regions. As for offer types, scholarship offers were most sought after, with 86.6% receiving at least one application, and 71.4% of all scholarship offers helped at least one Ukrainian. Scholarships also saw the highest number of applications, namely 20.7 on average. Offers for access to resources (which do not involve funding) received the fewest applications, both eligible and overall.

As for disciplines, offers in the Social Sciences were most sought-after, with 89.4% of them receiving applications. Humanities follows close thereafter with 87.3% but leads in the intensive margin with a high average of 27.7 applications per offer. In the Natural Sciences however, only 71.2% of offers received an application, and the average number of applications was 5.6. While about three-quarters of all offers in the Social Sciences and Humanities helped a Ukrainian scientist, only 43.8% of offers linked to the Natural Sciences did so.

Finally, Table 6 reveals considerable regional variations in the success of support offers. The proportion of offers receiving applications ranges from 42.9% in South East Europe to 87.5% in Ireland. Ireland stands out as the country with the highest success rate, with 62.5% of offers resulting in support for Ukrainian scientists, although they had just a moderate number of 4.1 applications per offer (on average, 50% of these

by #ScienceForUkraine.

[18] In 18 instances, we correct the stated answer for the question on the share of eligible applications when it is apparent that the respondents reported absolute numbers.

Table 6: Applications and help rate by offer type, scientific discipline and region.

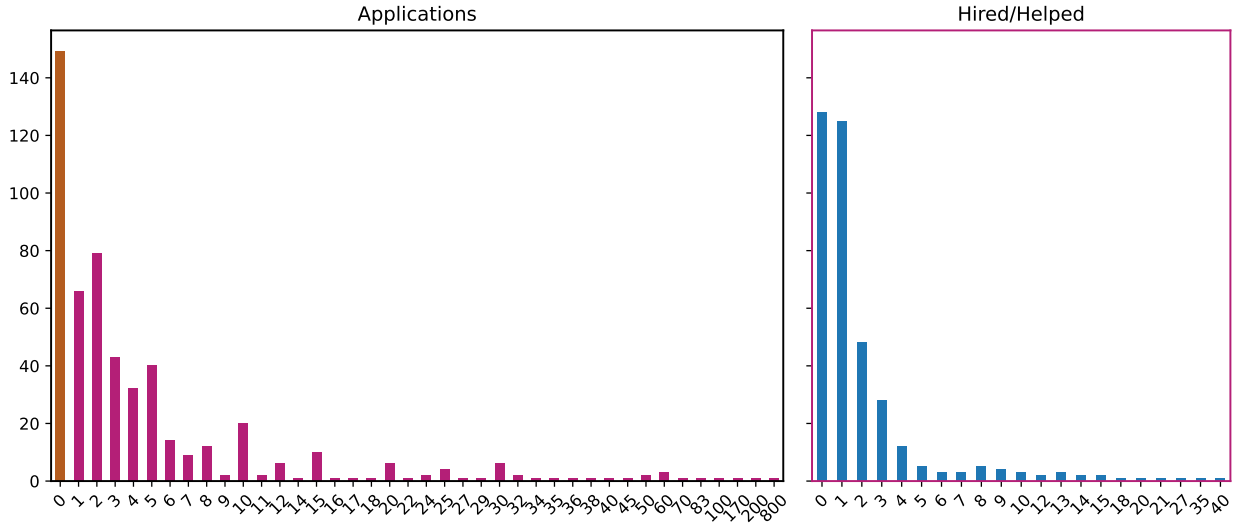
	# offers	Share w/ applications	Avg. # applications	Avg. eligibility	Share successful
Offer type					
Joint Application	74	81.1	4.9	50.0	50.0
Position	301	66.4	3.9	41.2	41.5
Resources	41	53.7	2.7	32.0	22.0
Scholarship	112	86.6	20.7	56.0	71.4
Discipline					
Natural Sciences	292	71.2	5.6	44.7	43.8
Social Sciences	113	89.4	19.8	51.0	75.2
Humanities	79	87.3	27.7	54.3	74.7
Engineering and Technology	121	75.2	8.9	46.9	52.9
Medical and Health Sciences	132	77.3	6.9	42.8	53.0
Agricultural and Vet. Sciences	57	75.4	9.1	47.6	49.1
Region					
Austria	21	71.4	52.0	38.3	52.4
Baltics	15	60.0	3.3	51.7	40.0
BeNeLux	21	81.0	6.5	36.2	52.4
Canada	19	78.9	9.1	37.3	47.4
France	38	65.8	2.3	35.8	23.7
Germany	121	76.9	8.2	45.9	55.4
Iberia	67	70.1	4.0	53.9	50.7
Ireland	8	87.5	4.1	50.0	62.5
Italy	32	75.0	9.3	57.9	56.2
Poland	34	47.1	1.7	33.8	23.5
RoE	39	66.7	2.3	49.4	46.2
RoW	19	63.2	2.6	49.2	21.1
Scandinavia	29	82.8	4.6	34.4	48.3
Switzerland	32	81.2	7.8	56.9	59.4
United Kingdom	12	66.7	8.6	55.0	50.0
United States	21	71.4	7.8	37.3	57.1
Total	528	71.8	7.5	45.8	47.5

Notes: Table gives average success rates for offers by offer type, scientific discipline and region. Columns include the number of support offers, their share that received at least one application (in %), the average number of applications, the average share of eligible applications (in %) and the share of support offers that resulted in at least one successful application (i.e., a hire, a joint application was initiated or the promised resources were transferred). The section on Disciplines includes double-counts as offers may relate to multiple disciplines.

were eligible).

Taking into account the average number of applications, it becomes clear that many applications were unsuccessful, hinting at a relative scarcity of the offers. For instance, we estimate that only 18.6% of eligible scholarship applications resulted in support for a Ukrainian scientist, tied with position offers. By contrast, applications for resource-only offers had the highest success rates with 30.8%. Among the disciplines, just 16.9% of applications to offers associated with the Humanities were successful compared to 32% of applications to offers related to Agricultural Sciences.

Figure 4: Histogram of the number of applications and helped/hired Ukrainians, per offer



Notes: Answers to the question "How many applications by Ukrainian researchers did you receive for this help offer?" (left) and "How many Ukrainian researchers benefitted from your help offer (hiring, stipend, lab support, etc.) in total?" (right). The second question was only shown if the answer to the first question was greater than 0.

While Table 6 presents the average number of received applications, we found a long tail in the distribution of the number of applications. Figure 4 shows that the most common number of inquiries is 2, with a maximum of 800 inquiries per offer. Bunching at round numbers is present, indicating that numbers ≥ 10 are likely estimates and should not be interpreted at face value. Of those that did receive applications, about two-third helped or assisted the Ukrainian applicant. Most offers helped one Ukrainian scientist (Figure 4, right panel).

The descriptive evidence suggests that offers related to Social Sciences and Humanities were the most popular, and, for the type of offers, scholarships and joint application offers were among the most demanded. This however does not account for composition effects, but Figure 1 showed earlier that the distribution of offer types and disciplines varies by country. We will address composition effects in the following multivariate regressions.

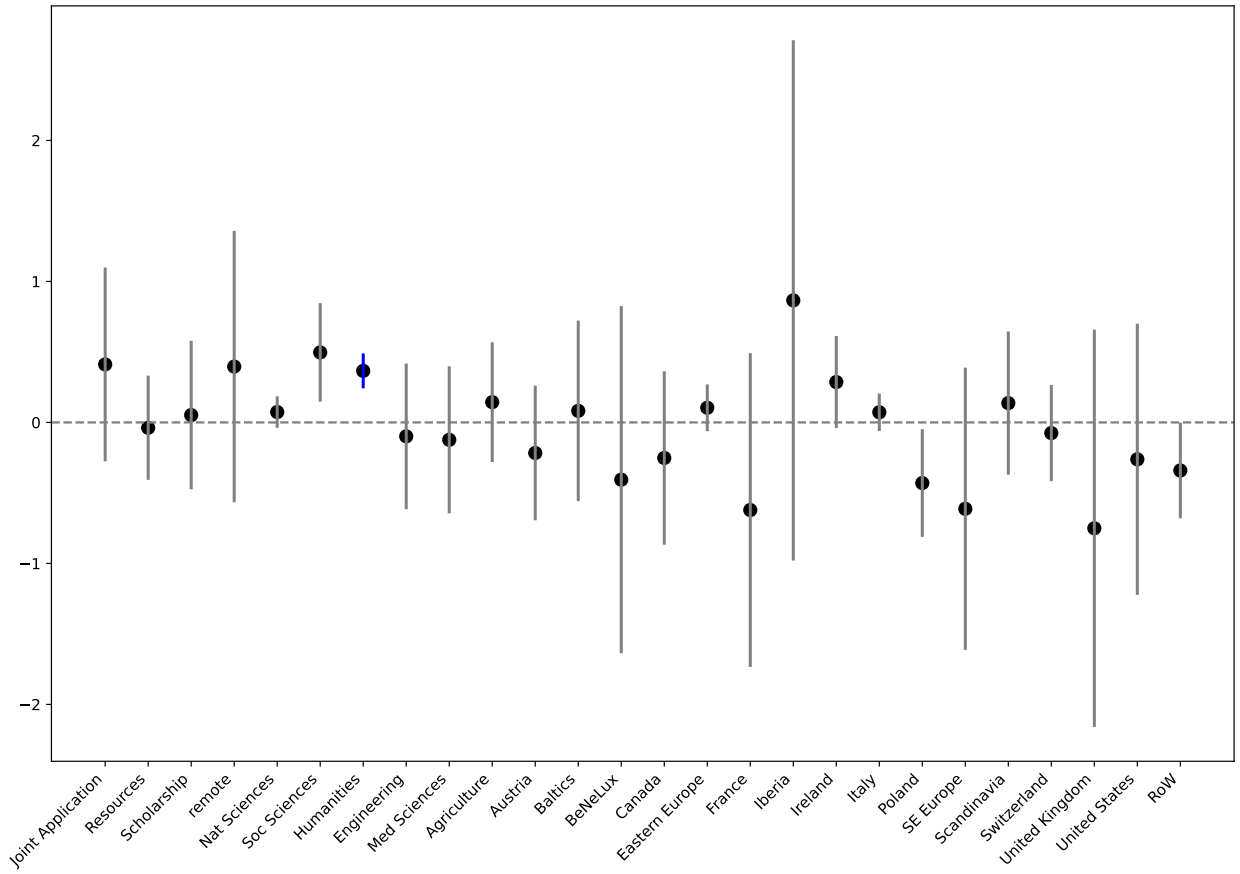
4.4.2 Extensive Margin: Probability of Receiving Eligible Applications

In the first step, we seek to capture the relationship between the probability of receiving eligible applications and the characteristics of the offer. Importantly, we take into account all interdependencies, particularly composition effects by country. The absolute number of applications is not credible to model because of bunching at round numbers and possible double counts of applications. Therefore, we model the probability of receiving applications. This leads to the following hurdle model:

$$\log\left(\frac{\Pr(\mathbb{1}_{i,\text{applications}}=1)}{\Pr(\mathbb{1}_{i,\text{applications}}=0)}\right) = \beta_1\mathbb{T}_i + \beta_{\mathbf{2}}\mathbf{D}_i + \beta_3\mathbb{C}_i + \beta_{\mathbf{4}}\mathbf{X}_i + \lambda\frac{\phi(\alpha' z_i)}{\Phi(\alpha' z_i))} + \epsilon \tag{2}$$

where $\mathbb{T}_i$ indicates the type of offer i relative to an offer of type "position", $\mathbf{D}_i$ is a matrix with binary indicators for the disciplines of offer i (not mutually exclusive), $\mathbb{C}_i$ indicates the country of offer i, and $\mathbf{X}_i$ captures the specifics of an offer. Among the 528 offers with participating contact persons, 46 (8.7%) were advertised as remote, 37 (7%) had unclear targeting of Ukrainians, 191 (36%) were open to both researchers and doctoral students, and 174 (32.8%) spanned multiple disciplines. For 391 (out of 528) offers that included support duration information, we ran robustness checks including the variable "short-term". $\frac{\phi(\alpha' z_i)}{\Phi(\alpha' z_i)}$ is the Inverse Mills Ratio (the ratio of the probability density function ϕ and the cumulative density function Φ of the distribution of predictions $\alpha'\mathbf{z}$) estimated in equation 1. It accounts for the non-response bias observed in Table B2. Model (2) captures the extensive margin of eligible applications, i.e., whether any eligible person reached out to the prospective host.

Figure 5: The marginal effects of the logistic model log-odds of the probability of receiving at least one eligible application.



Notes: Marginal effects of a logistic regression estimating model (2) with robust standard errors. The dependent variable is a binary indicator equal to 1 when the offer received any applications from eligible Ukrainians. See Table B1, column (4) for numeric values. The type of offer is entered as a categorical variable with "Position" as the baseline category. The country/region of the offer is a categorical variable with "Germany" as the baseline category. Variables "unclear", "multiple disciplines" and "Researchers and Doctoral" are not shown.

Figure 5 shows the results of the extensive margin analysis. We report marginal effects evaluated at the sample's median for clearer interpretation. We highlight statistically significant coefficients with $p < 0.1$ in blue. Table B1 column (4) reports the precise point estimates.[19][20]

For the median offer (a non-remote position in Germany in the Natural Sciences discipline), we find little evidence of any differences between offers that received at least one eligible application and those 40% that

[19] For comparison, we report the coefficients instead of the marginal effects in Table B2.

[20] 8 participants indicated that they received 0 eligible applications, although they helped Ukrainians. Including these 8 observations with the "applications" indicator set to 1, we observe qualitatively identical results. The only difference we observe is a statistically highly significant coefficient for Social Sciences in the marginal effects regression, but nowhere else.

received no eligible applications. The only statistically significant relationship we observe is that linking the offer to the discipline of Humanities increases the likelihood of arrival of an eligible application by 36%.

When we use the automatic classification by GPT-3.5, presented in Table C2, the results are large the same. However, instead of linked to the Humanities, offers linked to the Social Sciences were more likely to receive eligible application, namely 49%. Compared to Germany (the reference country), offers linked to Poland were 56% less likely to receive at least one application.

4.4.3 Intensive Margin: Number of Ukrainians Helped

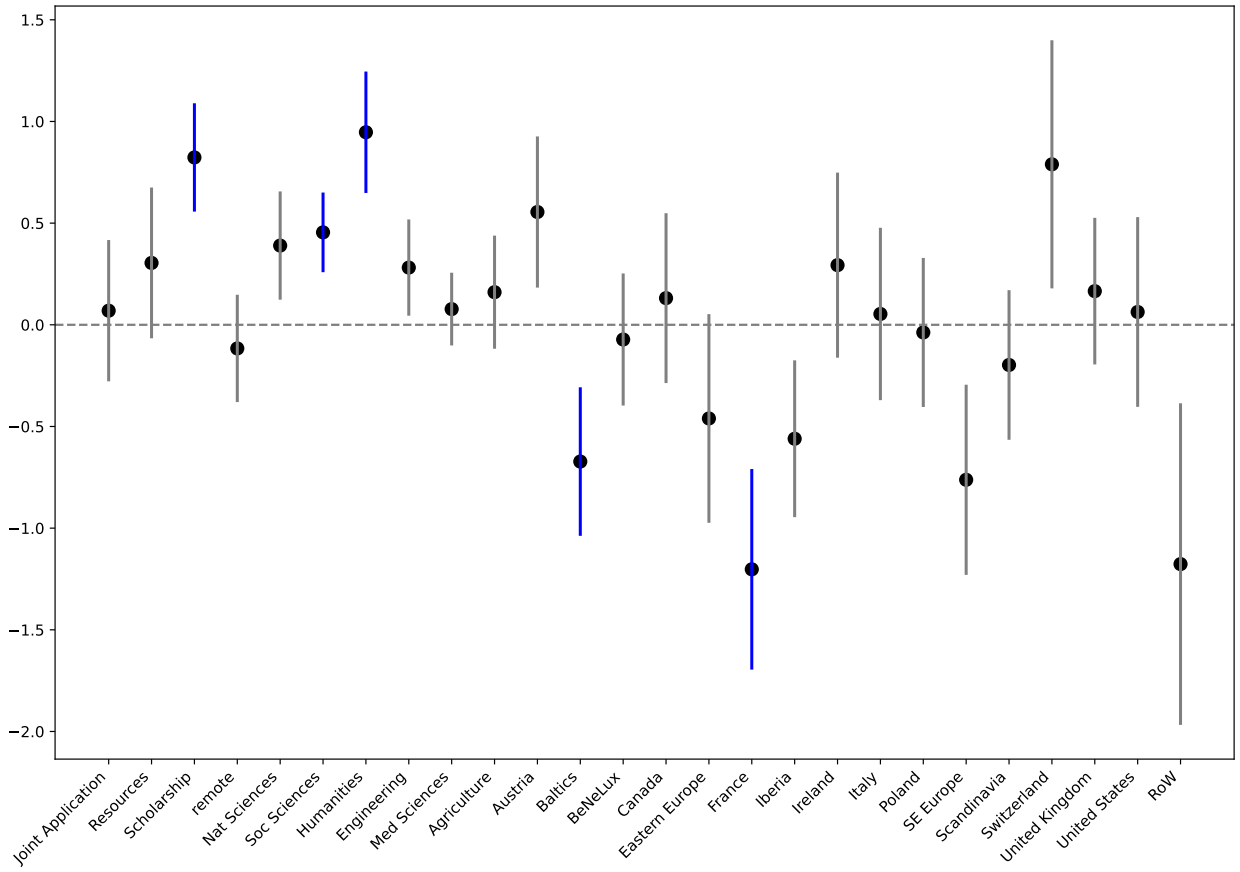
Inquiring about a potential support offer is not equivalent to actually receiving the offer. Therefore, we analyse the determinants of the number of successful support offers for Ukrainian scientists, the intensive margin of actual help. For this analysis, we restrict our subsample to support offers that received at least one eligible application. We estimate equation (3) using a Negative Binomial regression to account for overdispersion observed in the data:[21]

$$H_i|\mathbb{1}_{i,\text{application}} = 1 = \gamma_1 \mathbb{T}_i + \gamma_{\mathbf{2}} \mathbf{D}_i + \gamma_3 \mathbb{C}_i + \gamma_{\mathbf{4}} \mathbf{X}_i + \epsilon, . \tag{3}$$

Similarly to equation (2), $\mathbb{T}_i$ indicates the type of offer i relative to an offer of type "position", $\mathbf{D}_i$ is a matrix with binary indicators for the discipline of offer i (not mutually exclusive), $\mathbb{C}_i$ indicates the country of offer i, and $\mathbf{X}_i$ captures the specifics of an offer ("remote", "unclear", "multiple disciplines", "Researchers and Doctoral").

[21] In all models, the dispersion parameter α differs from 0.

Figure 6: Marginal effects of the Negative Binomial model for the number of Ukrainians helped.



Notes: Marginal effects of a Negative Binomial regression estimating model (3) with robust standard errors. The dependent variable is the number of Ukrainians actually supported by a support offer. See Table B3, column (4) for numeric values. The type of offer is entered as a categorical variable with "Position" as the baseline category. The country/region of the offer is a categorical variable with "Germany" as the baseline category. Variables "unclear", "multiple disciplines" and "Researchers and Doctoral" are not shown.

Figure 6 plots the results of estimating equation (3). Column (4) of Table B3 reports the corresponding point estimates. We find that the median offer helped about 0.86 more researchers when the offer was a scholarship.[22] Linking the median offer to the Social Sciences or Humanities increased the number of Ukrainians helped by 0.43 and 0.99, respectively. Offers based in the Baltic countries or in France helped fewer Ukrainians compared to those based in Germany, all else equal, while offers based in Canada helped more Ukrainians, all else equal. Except for France, these associations are only weakly statistically significant.

The results are large stable to the inclusion of the "Short term" variable, which reduces the sample size by about two fifths to 223 observations. Notably, the coefficient for resource-only offers becomes statistically

[22] These results are robust to using another reference type of the offer.

significant while the coefficient for the Baltics looses statistical significance and the estimated negative relationship for France becomes more imprecise.

If we look at the coefficients instead of the marginal effects in B4, the set of statistically significant determinants remains the same as in Table B3. Only countries in the Iberia as well as RoW groups tended to help fewer Ukrainians compared to similar offers in Germany.

Because non-linear regression models (like Negative Binomial) tend to be sensitive to baseline categories, we estimate model (3) in a simple OLS regression. Table B5 reports the results. Except for the country preferences, all results are the same. Notably, only offers in the Baltic countries, the RoE group and the RoW group helped fewer Ukrainians than comparable offers in Germany.

Finally, when we use the automatic classification by GPT-3.5, the results appear the same (Table C3). The only difference from the model with the manual classification is that resource-only offers significantly helped more Ukrainians than did comparable offers of type Position. The associations with academic disciplines and countries remain the same.

5 Discussion and Implications

Our results suggest that scholarships and support offers in the social sciences and humanities received higher demand than any other type of offer. While our data reveal patterns in the types of support most frequently requested by displaced Ukrainian scientists, these patterns should not be interpreted as a direct measure of the adequacy of the support mechanisms. Instead, they reflect the preferences and constraints faced by scientists during the first year and a half of war.

5.1 Displacement from Ukraine

War-related uncertainty One of the most important factors shaping the demand for support offers was the uncertainty regarding the duration of the war and the displacement it caused. In the face of this uncertainty, many scientists preferred flexible support offers that allowed them to join host institutions promptly without requiring long-term commitments or severing ties with their home institutions. The academic culture in Ukraine is characterised by strong ties with domestic universities due to widespread academic inbreeding (Sologoub & Coupé, 2015). As a result, many Ukrainian academics seek to stay affiliated with their home institutions while abroad Jaroszewicz, Shkoda, and Ovchynnikova (2025).

Correspondingly, the survey of Maryl, Jaroszewicz, et al. (2022), which was conducted in the end of 2022, suggests that more than 30% of respondents continued working remotely for their home institutions and

about half the respondents kept receiving their salary or scholarship from their home institutions. Many scientists, upon leaving Ukraine, expected to return within a few months, and a large share of them left their families behind (Maryl, Jaroszewicz, et al., 2022). Similarly, Ganguli and Waldinger (2023) estimate from publications that 5% of Ukrainian scientists are now publishing with a foreign affiliation. Comparing this estimate to the 18.5% estimate (of Ukrainian scientists who left Ukraine) in De Rassenfosse, Murovana, and Uhlbach (2023) suggests that a substantial share of Ukrainian scientists abroad have accepted support that allows them to maintain their original institutional ties, although sample selection in their study might affect this comparison.

As the war lasts, the attachment to home institutions and connections with Ukrainian fellow scientists in Ukraine is likely to decline (De Rassenfosse, Murovana, & Uhlbach, 2023), and that preferences for support could could change. Akkad (2025) highlights that scientific hypermobility due to short-term contracts and visa uncertainties can disrupt academic productivity. Therefore, the longer-term orientation of support offers is likely to become more attractive over time.

Differential funding cuts by field During wartime, all funding of the National Academy of Science (NAS), Ukraine's central funding agency, was prioritised according to the relevance of research for defence needs.[23].

Following a series of earlier resolutions, the NAS announced nine priority areas on September 27, 2022, only two of which (resilient development and European integration) fall under the purview of the Social Sciences and Humanities.[24] Thus, we may deduce that Engineering and Natural Sciences were likely less affected by the budget cuts introduced by the Ukrainian government and experienced lower demand from the displaced Ukrainian scientists.

Gendered mobility An additional factor characterising migration from Ukraine is the gender composition of displaced scientists. Due to martial law, mostly women were allowed to leave Ukraine. Correspondingly, most Ukrainian scientists abroad were women (De Rassenfosse, Murovana, & Uhlbach, 2023).

The distribution of female scientists over disciplines helps explain the preference of Ukrainian scientists overall for support offers in the Social Sciences and Humanities. Table 7 decomposes the number of female scientists by discipline based on official figures from the Ukrainian Statistics Authority (Kutznetsova, 2021) for 2020. 16.3% of female scientists in Ukraine worked in the Social Sciences, making it the third most common field after Natural Sciences and Engineering (which were not as much affected by funding cuts, see above). In addition, a large share of female researchers in Natural Sciences and Engineering were employed by private companies, which may have made them less likely to look for support in scientific institutions.

[23]See e.g. https://scienceeurope.org/news/nrfu-general-overview-and-challenges-at-wartime/
[24]See https://www.nas.gov.ua/UA/Messages/Pages/View.aspx?MessageID=9475.

Table 7: Share of academic disciplines among Ukrainian female scientists.

	Natural Sciences	Engineering and Technology	Medical Sciences	Agricultural Sciences	Social Sciences	Humanities and the Arts	Total
Total	6,890	6,850	2,258	3,611	3,813	1,288	23,338
Share	29.5	29.4	9.7	9.6	16.3	5.5	100

Notes: This table reports our estimates of the academic disciplines Ukrainian female scientists work in. These estimates are based on Table 2.33 of Kutznetsova (2021). As per their definition, the figures include scientific and engineering-technical workers whose main task involves the creation of knowledge. This may include students, and it may exclude scientists at universities whose main task is teaching. Row "Share" is in percentage.

English language proficiency and offer accessibility Lastly, Ukrainian social scientists and humanities scholars may exhibit higher English proficiency levels. The British Council report by Bolitho and West (2017, p. 25) states that "[t]here is some evidence that more English [teaching] is available to students enrolled in highly verbal major subjects [...] than in Pure and Applied Science disciplines". Thus, although English is mandatory coursework for all doctoral students in Ukraine, scientists in technical fields may have lower English proficiency.

5.2 Broader Context of War Crises

The lessons learned from scientific support to Ukrainian scientists discussed above (war-related uncertainty, gender composition of the fleeing workforce, field-specific funding restrictions and English proficiency) can be applied to a broader context of wars and crises. Plackett (2025) argues that the international community's response to the war in Ukraine represents a blueprint for providing support to scientists affected by crises in other countries.

Gender mobility patterns have been observed in other conflicts, too. In Afghanistan's long-running conflict, the shares of male and female refugees were initially comparable, until the Taliban returned to power and initiated systematic persecution of women and girls. Then the share of females seeking refuge nearly tripled according to UN Women and UNHCR (2022). By contrast, in the International Education's Scholar Rescue Fund (IIE-SRF) support for applicants from Sub-Saharan Africa and the Middle East between the years 2022 and 2007, only 23% were women (Jarecki & Kaisth, 2009). A similar gender gap appears in Syria, where a survey of displaced academics reported 10% of female respondents (Ghazzoul, 2022).

Gendered mobility influences which disciplines can be overrepresented among displaced scientists. For instance, Afghan female academics are more likely to come from Social Sciences and Humanities for historical reasons. Given the current restrictions on education for women imposed by Taliban government, they are more likely to seek support abroad (Boroujerdi, 2023). Additionally, researchers from these fields reportedly have fewer relevant skills for the job market compared to STEM disciplines, which increases their demand for

academic support (Boroujerdi, 2023). On the contrary, at IIE-SRF, where the applicants were predominantly male, most came from the Natural Sciences (Jarecki & Kaisth, 2009).

Furthermore, English language proficiency plays a critical role in determining access to international academic opportunities. Language barriers were reported for the older generation of Afghan facultyBoroujerdi (2023), as well as by Syrian academics in exile Ghazzoul (2022) and Parkinson, McDonald, and Quinlan (2020). While mandatory English coursework exists in many countries, actual proficiency levels can vary significantly across countries and disciplines. Hence, academic support should include targeted language support for displaced scholars, regardless of their discipline, to ensure equitable access to international opportunities.

Finally, differential funding cuts by field during wartime significantly influence the demand for external support. As observed in Ukraine, the prioritisation of defence-related research led to more severe budget cuts for social sciences and humanities, likely increasing the urgency for scholars in these fields to seek international opportunities. Similarly, in Afghanistan, the demand for support offers in social sciences and humanities is reportedly exacerbated by researchers in these fields having fewer immediately transferable skills for the general job market compared to STEM disciplines, thus making academic support even more vital (Boroujerdi, 2023).

Overall, the Ukrainian experience suggests that funding, supportive policy environments, and a collaborative approach within the scientific community can make a difference. Plackett (2025) suggests that since the recent outbreaks of military conflicts in the Palestinian territories, Lebanon, and Sudan, requests for help from Middle Eastern researchers have increased compared to those in Ukraine, and argues that hosting Ukrainian academics has provided an invaluable experience for preparing UK universities and funding organisations to better aid displaced academics.

5.3 Implications for Scientific Support

Different types of support offers for refugee scientists may affect scientific productivity in Ukraine and host countries. Certain types of offers allowing to keep affiliation with the home institutions, e.g. scholarships, enable scholars to maintain higher scientific productivity in the host countries and eventually return to their home countries (Baruffaldi & Landoni, 2012). Valuy and Sanger (2021) found that scholarship opportunities allowed displaced scientists to publish, teach, and engage with their home institutions and communities, with 75% maintaining ties to their home institutions and 55% contributing to social causes. However, the evidence from Syria, Afghanistan and Iran shows that the constant need to relocate due to short-term contracts or visa uncertainties can significantly hamper scholars' productivity (Akkad, 2025; Boroujerdi, 2023; Ghazzoul, 2022).

Moreover, the relocation of displaced scientists to lower-income host countries can contribute to the scientific

progress of the host countries. Since we find no strong preferences for host countries when applying for support offers (among the countries included in our sample), lower-income countries could develop policies and infrastructures to attract the displaced scientists and invest in science and education (McGrath & Lempinen, 2021). Supporting refugee scientists can enhance global knowledge exchange and scientific progress in both home and host countries, even if scientists do not return (Martin et al., 2021). This can help bridge the divide in access to knowledge between countries.

Taken together, our results and previous research (e.g. De Rassenfosse, Murovana, and Uhlbach, 2023, Ganguli and Waldinger, 2023, Lutsenko et al., 2023 and others) suggest the importance of fostering a scientific community with a strong sense of solidarity and willingness to help. When the war in Ukraine began, the grass-roots initiatives and the spontaneous offers by countless scientists were significantly strengthened by established networks and initiatives. Plackett (2025) points out that the combination of structured support through fellowships and involvement of individual academics helped Ukrainian researchers to continue their work in the UK.

Funding assistance programmes where Ukrainians and hosts jointly apply for funding, e.g., the Philipp Schwartz Initiative, CARA in the UK or PAUSE, require active voluntary participation of established scientists in host countries. Faced with a massive scientist refugee inflow, the programmes quickly scaled up. But this was only possible because the programmes already existed. Policymakers must maintain those initiatives in times of no crises, nurture an active and empathic scientific community.

5.4 Limitations and Future Research

While our findings offer valuable and credible insights into the determinants of the demand for academic support offers in times of crises, future research could address certain limitations. One key statistical limitation is the response rate, a common challenge in similar studies. Given the high societal relevance, future surveys could be bolstered by policy institutions to enhance response rates. However, as we show in Sections 2 and 4, survey attrition is unlikely to affect our results. The analysis studying whether offers received eligible applications or not suffers from one limitation. During the survey, we allowed respondents to give an estimate of the number of applications and the share of eligible applications, which lead to improbable bunching. Another limitation is that our study does not encompass potential demand for unprovided types of support. We also do not observe the total demand for offers, but the demand up to the point of offer deactivation. Our estimations thus likely represent the lower bounds of the demand determinants.

In addition to that, our study was conducted as a quantitative survey without direct qualitative input from displaced Ukrainian scientists. While the survey provided specific information about the demand for support offers, future research can expand on it by conducting qualitative interviews focusing on individual

motivations behind the demand numbers.

Our study also does not differentiate between various contract types within scholarships. Dudenbostel (2022) describes how recipients of Phillip Schwartz Initiative stipends from Syria, Turkey, and other countries found that it hindered researchers' integration into host institutions and created an additional "administrative burden ... as they had to organize ... their social security independently". Future studies could investigate optimal types and duration of support in greater detail.

6 Conclusion

In the context of the ongoing war in Ukraine, this study analyses the revealed preferences of Ukrainian scholars in the beginning of the war and identifies four key aspects regarding the preferred support offers:

1. Scholarships were more in demand than any other kind of offer;
2. Offers associated with the Social Sciences and Humanities elicited the greatest demand;
3. There is at most weak evidence for country preference relative to Germany;
4. Available funding likely increased the supply of individual help offers.

These findings enhance our understanding of how the academic community can increase the effectiveness of its response to crises that may disrupt science in affected countries, with several policy implications for both current and future crises. First, scholarships, although sometimes branded as precarious, were highly in demand according to our data. This may indicate that scholarships represent a valuable form of help, at least in the first months of a crisis. Second, support offers should take into account the likely composition of disciplines among refugee scientists. Third, while country preferences may appear in other crises, Ukrainian refugee scholars do not display them strongly, which may mean that any country may offer effective help. Fourth, considering that existing funding motivated hosts to offer help and joint applications were as popular as positions among Ukrainian refugee scholars, we propose that programmes enabling joint applications should be maintained during times of peace so that they can quickly scale up in times of need.

Our analysis also suggests directions for future research on support mechanisms for refugee scholars. Notably, the preference for scholarships should be analysed with respect to the long-term precarity of such academic position, as well as the ability of the supported refugee scholar to maintain the links with their original institution.

Finally, while the short- and long-term damage of scientist displacement is well documented (Baruffaldi & Gaessler, 2021; Kaiser, 2005; Sinha, 2017; Waldinger, 2016), support programmes that allow scientists to remain in the academy while maintaining links to their home countries represent an improvement over the forced disruption of academic careers. We conclude that support strategies tailored to the specific context

of the targeted academic population benefit not only the academic refugees but the scientific community as a whole.

Declaration of generative AI and AI-assisted technologies in the writing process During the preparation of this work the authors used GPT-3.5 and ChatGPT4o to improve writing and assist with coding. After using this tool/service, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

Acknowledgements We thank Ina Ganguli, Gaétan de Rassenfosse, Anastsiia Lutsenko and Vladimír Novák for feedback and their helpful comments.

Ethical approval Following the Code of Federal Regulations on the Protection of Human Subjects ('Common rule'), this study does not require ethical approval as it only involves survey procedures, and disclosure of subjects' responses outside research would not reasonably place the subjects at risk (45 CFR §46.104 (d)(2)(ii)).

Informed consent All participants were informed about the purpose of the study, both in the invitation and at the beginning and end of the survey. Participants had the right to opt out of invitations. 66 participants opted out.

Funding This project received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Sklodowska-Curie grant agreement No. 101032702 to KJ.

Competing interests MR, KJ, MP have been volunteers of #ScienceForUkraine since spring 2022, OS joined in the summer of 2023.

Data and materials availability Researchers who wish to access anonymised survey responses and replication code should send a formal email to the corresponding author, accompanied by a statement of purpose.

Author contributions MR (Conceptualisation, Data Curation, Formal analysis, Investigation, Methodology, Project Administration, Supervision, Validation, Visualization, Writing - original draft, Writing - review & editing), KJ (Data Curation, Formal analysis, Writing - review & editing), MP (Conceptualization, Methodology, Data Curation, Writing - original draft, Writing - review & editing), OS (Data Curation, Formal analysis, Writing - original draft, Writing - review & editing), JY (Data Curation, Writing - review & editing)

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A Automatic Offer Classification with GPT

The classification of offers to positions, scholarships, etc. was often done by volunteers. While we believe they exerted the utmost scrutiny and sometimes took information on the linked webpages into account, wrong and inconsistent classifications may occur.

To alleviate that concern, we used the generative AI model GPT-3.5 to classify each entry based on the description, the country, the email address and the URL alone. An email address and a URL may sometimes indicate special programs. With a temperature of 0 and one call per description, we eliminate creativity and learning from the classification task.

The prompt used in the task is the same as the one volunteers faced. It details the descriptions of the types of offers: *You are a helpful assistant that classifies offers of help into specific categories. Use the following categories and instructions: Position: Temporary or permanent position associated with a formal employment contract. Scholarship: All kinds of financial support for academic study or research: scholarships, fellowships, personal research grants, or bursaries. Resources: Any help other than mentoring that comes without payment: Access to library or laboratories; office with desk with no work duties; fee waivers (e.g., for summer schools); free courses. Joint application: Offer to jointly apply for funding schemes that require a local collaborator and a Ukrainian scientist. Examples: Philipp Schwartz Initiative (PSI) in Germany, PAUSE*

in France. Academic transfer offers to continue studying while accepting prior coursework in Ukraine (only relevant to students). Mentoring: Offers to help navigating local or national science systems. Classify each offer into one of these categories based on the information provided in the fields: 'Description', 'Country', 'Contact', and 'Link'.

Table A1: Classifications of offers by volunteers and GPT-3.5.

GPT Manual	Academic transfer	Joint application	Mentoring	Position	Resources	Scholarship
Academic transfer	25	0	1	0	13	7
Joint application	0	192	6	29	14	39
Mentoring	0	0	6	0	4	3
Position	7	42	24	1258	79	136
Resources	25	3	17	16	210	48
Scholarship	5	7	16	85	114	589

Notes: Cross-tabulation of the classifications of valid offers by #ScienceForUkraine volunteers (left) and GPT-3.5 with 0 temperature based on information in the database.

Table A1 presents the cross-tabulation of the manual and the automated classification. In 741 out of 3,021 offers (19%) GPT-3.5 disagrees with the manual classification. Misclassification can be broadly grouped into three groups: positions classified as scholarships and vice versa (219 cases), scholarships classified as resource-only offers (107 cases), and the rest.

For the first group, it seems to be challenging for humans to make a distinction based on the available information. In many cases, volunteers likely took into account information on websites (which GPT-3.5 did not have access to). For instance, offers posted on regular job application platforms were usually classified as positions. For the second group, the difference was simply whether money was available or not. Manual inspection indicates that GPT-3.5 erred most of the time, partly due to a lack of an understanding of academic usage of terms like "full support" or "some funding." In the third group, we posit that GPT-3.5 was incorrect most of the time, for instance, due to the frequent use of academic transfer.

B Main Regression Tables

Table B1: Marginal effects of log-odds of the probability of receiving at least one eligible application.

	(1)	(2)	(3)	(4)
Joint Application	0.16			0.49
	(4.20)			(0.58)
Resources	-0.18			-0.00
	(1.10)			(0.32)
Scholarship	0.27			-0.02
	(2.40)			(0.53)
remote	0.08			0.56
	(4.53)			(0.85)
Nat. Sciences		-0.05		0.12
		(0.17)		(0.14)
Soc. Sciences		0.08		0.62***
		(0.27)		(0.24)
Humanities		-0.01		0.39***
		(0.03)		(0.12)
Engineering		-0.09		-0.11
		(0.29)		(0.52)
Med. Sciences		-0.12		-0.14
		(0.39)		(0.50)
Agriculture		0.10		0.24
		(0.32)		(0.39)
Austria			-0.00	-0.23
			(0.00)	(0.44)
Baltics			0.00	0.15
			(0.00)	(0.61)
BeNeLux			-0.00	-0.54
			(0.01)	(1.12)
Canada			-0.00	-0.36
			(0.01)	(0.55)
France			-0.00	-0.79
			(0.01)	(0.96)
Iberia			0.00	1.11
			(0.01)	(1.63)
Ireland			0.00	0.30
			(0.00)	(0.29)
Italy			-0.00	0.06
			(0.00)	(0.13)
Poland			-0.00	-0.50*
			(0.01)	(0.30)
Scandinavia			0.00	0.23
			(0.00)	(0.47)
Switzerland			-0.00	-0.15
			(0.00)	(0.31)
United Kingdom			-0.00	-0.97
			(0.02)	(1.21)
United States			-0.00	-0.42
			(0.01)	(0.88)
RoE			-0.00	-0.09
			(0.00)	(0.24)
RoW			-0.00	-0.40
			(0.01)	(0.27)
Further specifics	✓	✓	✓	✓
Inv. Mills. Ration	✓	✓	✓	✓
N	528	528	528	528
BIC	707.11	696.82	773.73	774.69
Log-Likelihood	-322.21	-310.79	-321.04	-290.18

Notes: Table presents the marginal effects corresponding to a logistic regression of model (2), evaluated at the median observation. The median observation is an offer of a position in Germany in the Natural Sciences discipline. Robust standard errors are in parentheses. The type of offer is a categorical variable with "Position" as the baseline category. The country/region of the offer is a categorical variable with "Germany" as the baseline category. Further specifics include "unclear", "multiple disciplines", "scientist", and "researchers and doctoral."
* p<.1, ** p<.05, ***p<.01

Table B2: Logistic estimates for log-odds of the probability of receiving at least one eligible application.

	(1)	(2)	(3)	(4)
Joint Application	0.67			2.05
	(16.88)			(3.01)
Resources	-0.72			-0.02
	(4.82)			(1.33)
Scholarship	1.10			-0.08
	(10.32)			(2.25)
remote	0.32			2.31
	(18.40)			(4.17)
Nat. Sciences		-7.43		0.49
		(6.03)		(0.51)
Soc. Sciences		11.47		2.58
		(7.18)		(1.68)
Humanities		-1.52		1.61**
		(2.22)		(0.67)
Engineering		-12.71		-0.47
		(10.11)		(2.29)
Med. Sciences		-17.07		-0.58
		(13.26)		(2.23)
Agriculture		13.82		0.98
		(10.32)		(1.90)
Austria			-7.61	-0.96
			(4.77)	(2.12)
Baltics			5.84	0.62
			(4.23)	(2.70)
BeNeLux			-20.41	-2.24
			(13.06)	(5.31)
Canada			-12.52	-1.48
			(7.61)	(2.70)
France			-20.62*	-3.30
			(12.32)	(4.95)
Iberia			20.67	4.60
			(12.99)	(8.10)
Ireland			0.53	1.25
			(0.78)	(1.46)
Italy			-3.30	0.27
			(2.16)	(0.59)
Poland			-9.99*	-2.06
			(5.38)	(1.82)
Scandinavia			2.28	0.94
			(1.79)	(2.20)
Switzerland			-4.40	-0.61
			(2.81)	(1.46)
United Kingdom			-24.64	-4.02
			(15.06)	(6.20)
United States			-15.94	-1.74
			(10.14)	(4.14)
RoE			-6.69	-0.37
			(4.18)	(1.12)
RoW			-8.74*	-1.65
			(4.92)	(1.55)
Further specifics	✓	✓	✓	✓
Inv. Mills. Ration	✓	✓	✓	✓
N	528	528	528	528
BIC	707.11	696.82	773.73	774.69
Log-Likelihood	-322.21	-310.79	-321.04	-290.18

Notes: The table presents the coefficients of a logistic regression of model (2). Robust standard errors are in parentheses. The type of offer is a categorical variable with "Position" as the baseline category. The country/region of the offer is a categorical variable with "Germany" as the baseline category. Further specifics include "unclear", "multiple disciplines", "scientist", and "researchers and doctoral."
* p<.1, ** p<.05, ***p<.01

Table B3: Marginal effects of the Negative Binomial model for the number of helped Ukrainians.

	(1)	(2)	(3)	(4)
Joint Application	0.51			0.08
	(0.41)			(0.35)
Resources	0.45			0.38
	(0.38)			(0.35)
Scholarship	1.08***			0.86***
	(0.23)			(0.26)
remote	0.00			-0.09
	(0.28)			(0.26)
Nat. Sciences		0.54		0.39
		(0.43)		(0.26)
Soc. Sciences		0.67**		0.43**
		(0.26)		(0.19)
Humanities		1.30***		0.99***
		(0.41)		(0.30)
Engineering		0.28		0.27
		(0.25)		(0.23)
Med. Sciences		-0.00		0.05
		(0.19)		(0.18)
Agriculture		0.10		0.18
		(0.26)		(0.28)
Austria			0.70	0.48
			(0.58)	(0.37)
Baltics			-0.87*	-0.70*
			(0.51)	(0.37)
BeNeLux			-0.21	-0.09
			(0.46)	(0.32)
Canada			0.06	0.12
			(0.51)	(0.42)
France			-2.32***	-1.22**
			(0.75)	(0.49)
Iberia			-1.27**	-0.55
			(0.54)	(0.38)
Ireland			0.38	0.30
			(0.54)	(0.45)
Italy			0.70	0.05
			(0.58)	(0.42)
Poland			-0.43	-0.04
			(0.49)	(0.37)
Scandinavia			0.03	-0.16
			(0.66)	(0.34)
Switzerland			0.78	0.78
			(0.90)	(0.61)
United Kingdom			0.96***	0.15
			(0.36)	(0.35)
United States			-0.05	0.05
			(0.72)	(0.46)
RoE			-0.89*	-0.47
			(0.48)	(0.43)
RoW			-1.22	-1.21
			(0.84)	(0.80)
Further specifics	✓	✓	✓	✓
N	309	309	309	309
BIC	1295.44	1291.26	1346.92	1346.18
Log-Likelihood	-619.05	-611.23	-613.26	-584.23

Notes: Table presents the coefficients of a negative binomial regression of model (3). Robust standard errors are in parentheses. The type of offer is a categorical variable with "Position" as the baseline category. The country/region of the offer is a categorical variable with "Germany" as the baseline category. Further specifics include "unclear", "multiple disciplines", "scientist", and "researchers and doctoral."
* p<.1, ** p<.05, ***p<.01

Table B4: Negative Binomial estimates for the number of helped Ukrainians.

	(1)	(2)	(3)	(4)
Joint Application	0.46			0.06
	(0.39)			(0.28)
Resources	0.41			0.30
	(0.35)			(0.28)
Scholarship	0.98***			0.67***
	(0.17)			(0.18)
remote	0.00			-0.07
	(0.26)			(0.20)
Nat. Sciences		0.40*		0.31*
		(0.25)		(0.19)
Soc. Sciences		0.50***		0.33**
		(0.16)		(0.15)
Humanities		0.97***		0.77***
		(0.18)		(0.17)
Engineering		0.21		0.21
		(0.19)		(0.17)
Med. Sciences		-0.00		0.04
		(0.14)		(0.14)
Agriculture		0.07		0.14
		(0.20)		(0.22)
Austria			0.43	0.37
			(0.38)	(0.29)
Baltics			-0.54**	-0.55**
			(0.26)	(0.23)
BeNeLux			-0.13	-0.07
			(0.27)	(0.24)
Canada			0.03	0.10
			(0.32)	(0.33)
France			-1.43***	-0.95***
			(0.27)	(0.27)
Iberia			-0.79***	-0.43*
			(0.23)	(0.24)
Ireland			0.23	0.24
			(0.35)	(0.36)
Italy			0.43	0.04
			(0.37)	(0.33)
Poland			-0.27	-0.03
			(0.27)	(0.28)
Scandinavia			0.02	-0.12
			(0.41)	(0.26)
Switzerland			0.48	0.61
			(0.58)	(0.50)
United Kingdom			0.59**	0.12
			(0.23)	(0.28)
United States			-0.03	0.04
			(0.44)	(0.36)
RoE			-0.55**	-0.37
			(0.22)	(0.30)
RoW			-0.76*	-0.95*
			(0.45)	(0.54)
Further specifics	✓	✓	✓	✓
N	309	309	309	309
BIC	1295.44	1291.26	1346.92	1346.18
Log-Likelihood	-619.05	-611.23	-613.26	-584.23

Notes: Table presents coefficients of a negative binomial regression of model (3). Robust standard errors are in parentheses. The type of offer is a categorical variable with "Position" as the baseline category. The country/region of the offer is a categorical variable with "Germany" as the baseline category. Further specifics include "unclear", "multiple disciplines", "scientist", and "researchers and doctoral."
* p<.1, ** p<.05, ***p<.01

Table B5: OLS estimates for the number of helped Ukrainians.

	(1)	(2)	(3)	(4)
Joint Application	0.85			-0.03
	(0.91)			(0.96)
Resources	1.05			0.84
	(0.92)			(0.72)
Scholarship	2.83***			1.98***
	(0.60)			(0.55)
remote	-0.15			-0.00
	(1.14)			(1.09)
Nat. Sciences		1.58**		1.42*
		(0.70)		(0.74)
Soc. Sciences		2.05***		1.62***
		(0.52)		(0.50)
Humanities		3.43***		3.11***
		(0.67)		(0.68)
Engineering		0.85		0.99
		(0.64)		(0.60)
Med. Sciences		0.43		0.33
		(0.64)		(0.63)
Agriculture		0.84		0.78
		(0.86)		(0.85)
Austria			2.47	2.31
			(2.52)	(2.21)
Baltics			-1.26**	-1.64**
			(0.54)	(0.65)
BeNeLux			-0.08	-0.13
			(0.87)	(0.93)
Canada			-0.25	-0.18
			(0.87)	(0.91)
France			-2.11***	-0.86
			(0.48)	(0.53)
Iberia			-1.66***	-0.83
			(0.50)	(0.69)
Ireland			0.93	0.81
			(1.41)	(1.07)
Italy			1.38	-0.26
			(1.39)	(1.36)
Poland			-0.56	-0.16
			(0.55)	(0.63)
Scandinavia			0.20	0.31
			(1.49)	(1.19)
Switzerland			0.70	1.12
			(1.79)	(1.85)
United Kingdom			3.03**	0.54
			(1.22)	(1.11)
United States			-0.85	-0.24
			(1.04)	(1.01)
RoE			-1.11**	-1.06*
			(0.48)	(0.64)
RoW			-1.57**	-2.48**
			(0.66)	(1.01)
Further specifics	✓	✓	✓	✓
N	309	309	309	309
R^2	0.13	0.19	0.13	0.26
R^2 adj.	0.10	0.17	0.08	0.19

Notes: Table presents coefficients of an ordinary least squares regression akin to model (3). Robust standard errors are in parentheses. The type of offer is a categorical variable with "Position" as the baseline category. The country/region of the offer is a categorical variable with "Germany" as the baseline category. Further specifics include "unclear", "multiple disciplines", "scientist", and "researchers and doctoral."
* p<.1, ** p<.05, ***p<.01

C Robustness Check with Automatic Offer Classification

Table C1: Logistic estimates for participation in the survey with automatic classification.

	(1)	(2)	(3)	(4)
Joint Application	-0.02			-0.05
	(0.10)			(0.12)
Resources	0.01			0.00
	(0.09)			(0.09)
Scholarship	0.10			0.10
	(0.07)			(0.08)
remote	0.17			0.19*
	(0.11)			(0.11)
Nat. Sciences		-0.04		-0.02
		(0.07)		(0.07)
Soc. Sciences		0.09		0.07
		(0.09)		(0.09)
Humanities		-0.03		-0.01
		(0.09)		(0.09)
Engineering		-0.09		-0.11
		(0.08)		(0.08)
Med. Sciences		-0.14*		-0.12
		(0.08)		(0.08)
Agriculture		0.07		0.07
		(0.10)		(0.10)
Austria			-0.09	-0.11
			(0.16)	(0.16)
Baltics			0.14	0.10
			(0.19)	(0.20)
BeNeLux			-0.31**	-0.30*
			(0.15)	(0.15)
Canada			-0.17	-0.18
			(0.16)	(0.16)
France			-0.30**	-0.26**
			(0.12)	(0.12)
Iberia			0.31***	0.33***
			(0.11)	(0.12)
Ireland			0.02	0.00
			(0.25)	(0.25)
Italy			-0.04	-0.09
			(0.13)	(0.14)
Poland			-0.13	-0.14
			(0.13)	(0.13)
Scandinavia			0.05	0.06
			(0.14)	(0.15)
Switzerland			-0.06	-0.07
			(0.13)	(0.14)
United Kingdom			-0.35*	-0.37**
			(0.18)	(0.19)
United States			-0.28*	-0.30*
			(0.15)	(0.16)
RoE			-0.10	-0.10
			(0.12)	(0.13)
RoW			-0.11	-0.13
			(0.16)	(0.16)
Scientist	0.06	0.06	0.11*	0.13**
	(0.06)	(0.06)	(0.06)	(0.06)
Further specifics	✓	✓	✓	✓
N	2352	2352	2352	2352
BIC	2536.05	2548.55	2593.14	2658.51
Log-Likelihood	-1233.09	-1231.58	-1218.94	-1212.81

Notes: The table replicates Table 5 with type classifications by GPT-3.5, dropping offers assigned to types not surveyed. Standard errors are in parentheses. The type of offer is a categorical variable with "Position" as the baseline category. The country/region of the offer is a categorical variable with "Germany" as the baseline category. Further specifics include "unclear", "multiple disciplines", "scientist", and "researchers and doctoral."
* p<.1, ** p<.05, ***p<.01

Table C2: Marginal effects of log-odds of the probability of receiving at least one eligible application with automatic classification.

	(1)	(2)	(3)	(4)
Joint Application	-0.00			-0.08
	(0.00)			(0.18)
Resources	0.00			-0.04
	(0.00)			(0.08)
Scholarship	0.01			0.28
	(0.02)			(0.27)
remote	0.01			0.38
	(0.04)			(0.61)
Nat. Sciences		-0.00		0.08
		(0.00)		(0.17)
Soc. Sciences		0.00		0.49***
		(0.00)		(0.12)
Humanities		-0.00		0.28
		(0.00)		(0.30)
Engineering		-0.00		-0.14
		(0.00)		(0.43)
Med. Sciences		-0.00		-0.19
		(0.01)		(0.44)
Agriculture		0.00		0.15
		(0.00)		(0.22)
Austria			-0.07	-0.30
			(0.28)	(0.30)
Baltics			0.07	0.03
			(0.26)	(0.47)
BeNeLux			-0.20	-0.56
			(0.80)	(1.02)
Canada			-0.12	-0.41
			(0.49)	(0.55)
France			-0.22	-0.71
			(0.94)	(0.70)
Iberia			0.20	0.72
			(0.80)	(0.98)
Ireland			0.03	0.21
			(0.16)	(0.25)
Italy			-0.02	-0.18
			(0.09)	(0.31)
Poland			-0.12	-0.56**
			(0.52)	(0.23)
Scandinavia			0.02	0.05
			(0.07)	(0.26)
Switzerland			-0.04	-0.13
			(0.14)	(0.28)
United Kingdom			-0.25	-1.02
			(1.04)	(1.03)
United States			-0.19	-0.50
			(0.74)	(1.06)
RoE			-0.07	-0.22
			(0.28)	(0.33)
RoW			-0.09	-0.40
			(0.40)	(0.33)
Further specifics	✓	✓	✓	✓
Inv. Mills. Ration	✓	✓	✓	✓
N	516	516	516	516
BIC	719.72	689.60	773.55	790.58
Log-Likelihood	-328.63	-307.32	-321.19	-298.48

Notes: Table replicates Table B1 with type classifications by GPT-3.5, dropping offers assigned to types not surveyed. It presents the marginal effects corresponding to a logistic regression of model (2), evaluated at the median observation. The median observation is an offer of a position in Germany in the Natural Sciences discipline. Robust standard errors are in parentheses. The type of offer is a categorical variable with "Position" as the baseline category. The country/region of the offer is a categorical variable with "Germany" as the baseline category. Further specifics include "unclear", "multiple disciplines", "scientist", and "researchers and doctoral."
* p<.1, ** p<.05, ***p<.01

Table C3: Marginal effects of the negative binomial model for the number of helped Ukrainians.

	(1)	(2)	(3)	(4)
Joint Application	0.29			-0.15
	(0.25)			(0.31)
Resources	0.93**			1.02***
	(0.43)			(0.33)
Scholarship	0.82***			0.58***
	(0.22)			(0.21)
remote	0.02			-0.07
	(0.29)			(0.24)
Nat. Sciences		0.53		0.23
		(0.46)		(0.23)
Soc. Sciences		0.66**		0.39**
		(0.27)		(0.18)
Humanities		1.27***		0.94***
		(0.43)		(0.31)
Engineering		0.27		0.30
		(0.27)		(0.21)
Med. Sciences		0.03		0.12
		(0.20)		(0.17)
Agriculture		0.12		0.38
		(0.27)		(0.27)
Austria			0.87	0.50
			(0.59)	(0.37)
Baltics			-0.91*	-0.73*
			(0.53)	(0.41)
BeNeLux			-0.19	-0.21
			(0.48)	(0.35)
Canada			0.02	0.06
			(0.53)	(0.38)
France			-2.40***	-1.33***
			(0.80)	(0.49)
Iberia			-1.32**	-0.62
			(0.57)	(0.39)
Ireland			0.32	0.18
			(0.55)	(0.39)
Italy			0.66	0.14
			(0.61)	(0.41)
Poland			-0.47	-0.07
			(0.52)	(0.34)
Scandinavia			-0.14	-0.25
			(0.77)	(0.39)
Switzerland			0.78	0.36
			(0.93)	(0.46)
United Kingdom			0.90**	-0.00
			(0.36)	(0.25)
United States			-0.01	0.22
			(0.75)	(0.40)
RoE			-0.96*	-0.49
			(0.51)	(0.41)
RoW			-1.29	-1.13
			(0.87)	(0.72)
Further specifics	✓	✓	✓	✓
N	292	292	292	292
BIC	1245.10	1237.17	1288.11	1283.79
Log-Likelihood	-594.17	-584.52	-584.45	-553.91

Notes: Table replicates Table B3 with type classifications by GPT-3.5, dropping offers assigned to types not surveyed. It presents the coefficients of a negative binomial regression of model (3). Robust standard errors are in parentheses. The type of offer is a categorical variable with "Position" as the baseline category. The country/region of the offer is a categorical variable with "Germany" as the baseline category. Further specifics include "unclear", "multiple disciplines", "scientist", and "researchers and doctoral."
* p<.1, ** p<.05, ***p<.01