

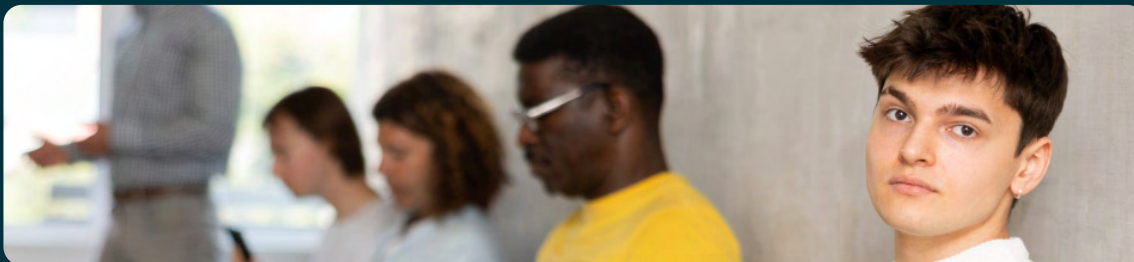
Transforming Migration Research

Insights from the Migration Platform Survey to
inform an online research platform

Full Report

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List of Acronyms

DOD	Department of Defense
GIS	Geographic Information System
IRB	Institutional Review Board
LLM	Large Language Model
MPS	Migration Platform Survey
SPSS	Statistical Package for the Social Sciences
STTR	Small Business Technology Transfer
QGIS	Quantum Geographic Information System

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Executive Summary

In a world where natural disasters, conflict, and economic need have spurred the movement of people within and between countries, migration research has grown at an increasing rate. Many researchers in this field, however, have a primary focus on other subject matter areas, with migrants as a key population of interest. In an environment where researchers enter migration research from other fields and often produce only one article related to migration, better support—in the form of data, methods, and literature—could greatly facilitate their migration research efforts and improve its quality. The development of an online platform for migration research by Aptima, Inc. and AidData, a research lab at William & Mary, seeks to fill this gap.

Focused on improving the functionality of this platform, AidData fielded the Migration Platform Survey (MPS) from April 12 to June 7, 2024. The MPS sent requests for participation to 19,984 migration researchers identified through a co-author search of the Scopus citation database and collected data from 1,835 respondents for a response rate of 9.2%. The survey collected data on the interest of researchers in an online migration research platform, their areas of research, collaboration with other researchers, methodological approaches (including the methods and software used in their research), future plans for research, and barriers to their research efforts. Topline findings for these six themes appear below, followed by recommendations on how to enhance migration research through the online research platform in Table ES_1.

Platform Features

- Migration researchers who responded to the survey selected “accessing migration data” (67% of researchers) and “collaborating with other researchers” (48%) as the most desirable components in an online migration research platform.
- For the data component, researchers most often wanted access to curated lists of migration datasets (67%), links to data sources (43%), and access to migration data repositories (41%).
- Researchers listed “recommendations for potential collaborators” (72%) and “discussion groups” (60%) most often as features they would like to help them with collaboration.

Research Areas

- In terms of participation in migration research, researchers most often responded that migration is one of several primary areas of their research (44%). A quarter responded that migration is the main focus of their research.
- Responding to a question on general areas of research, half of the researchers listed migration as one of the five main areas of their research. Thirty-two percent listed immigration, 29% listed refugees, and 26% listed sociology as main areas of research.
- Researchers focused regionally most on North America (20%), all of Europe (19%), and Western Europe (18%).
- Refugees (50%), long-term migration (50%), forced migration (41%), and immigration (40%) received the most attention from migration researchers.

Collaboration

- Migration researchers most often sought potential collaborators at professional conferences (66%), at their university/place of work (55%), and through referrals (45%).
- The most valued potential collaborators would have skills in writing (58%), quantitative data analysis (45%), data collection design (45%), theory development (40%), and qualitative analysis (36%).

Methodological Approaches

- Not surprisingly, among methodological approaches, qualitative analysis (76%) and quantitative analysis (59%) are the most widely used among migration researchers - only 16% listed geospatial analysis as an approach of interest.
- Researchers who analyze qualitative data most often employ case studies (65%), thematic analysis (54%), content analysis (47%), and ethnographic methods (42%).
- Qualitative researchers most often perform analysis with NVivo (40%).
- Among researchers using quantitative approaches, 71% perform regression analysis, 59% use correlational approaches, and 46% implement longitudinal/time series analysis.
- Use of SPSS (49%) exceeds use of Stata (44%) and R (34%) among quantitative researchers.
- Researchers who perform geospatial analysis tend to analyze data with spatial clustering (54%), spatial regression (40%), spatial networks (39%), and longitudinal geospatial analysis (38%).
- Geospatial researchers analyze data with ArcGIS (52%) far more often than with other software.

Future Research

- Areas of research that migration researchers would like to expand most are the consequences of migration (74%) and migration special topics (61%).
- Among researchers who selected consequences of migration, the most common topics of interest were migrant adjustment/integration (69%) and racism, xenophobia, and discrimination (57%).
- Researchers who selected migration special topics were most interested in pursuing new research on ethnic and/or racial minorities (62%) and integration/social cohesion (62%).
- Like their use of methodological approaches, researchers had the greatest interest in learning new qualitative (61%) and quantitative methods (56%). Thirty-eight percent of researchers were interested in learning new geospatial methods.
- Among researchers interested in learning new qualitative methods, 82% would like to learn about case studies, 73% would like to learn narrative methods, and 72% would like to learn thematic analysis.
- Researchers interested in learning new quantitative methods would most like to learn about regression analysis (79%), longitudinal/time series analysis (71%), and correlation analysis (69%).
- The geospatial methods of most interest were spatial clustering (77%), longitudinal geospatial analysis (68%), and spatial networks (65%).

Barriers to Research

- Researchers listed funding and time as the two greatest barriers to their pursuing new types of migration research.
- Across all types of migration research and methods, 72% of migration researchers stated the lack of funding as a barrier.
- Fifty-four percent of migration researchers seeking to expand into new migration research topics found that time is a barrier.
- Fifty-eight percent of migration researchers pursuing new qualitative, quantitative, and geospatial methods found time to be a barrier to learning those methods.

The full survey report delves deeper into these findings and makes recommendations on how to enhance migration research through the online research platform. The findings will contribute to the research process in two ways: through recommendations on platform features and activities that support the platform. The platform will feature elements that respondents in this survey have identified as essential for their research process. Examples include curated migration data and a system for recommending potential research collaborators. Activities to enhance migration research will complement these features. Associated with the migration platform, there could be activities such as migration research talks and discussion groups. These will enhance the research process through facilitating the sharing of research among migration researchers and increasing interaction between researchers.

Table ES_1: Topline recommendations for the online research platform

Survey theme	Recommendations
Platform features	Focus on the early development of features for the four platform components: accessing data, facilitating collaboration, securing funding, and accessing migration literature
	Features to prioritize for these components:
	Data: Curated lists of migration data sets, Links to key data sources
	Collaboration: Recommend potential collaborators
	Funding: Links to websites with migration research funding opportunities
	Literature: Curated lists of migration articles, Access to free citation databases
Research areas	Regions and topics of most interest to researchers to create subsets of data and literature in early versions of the platform
	Regions to prioritize:
	Regions of destination: Worldwide, North America, Europe
	Regions of origin: Worldwide, Middle East, Latin America & Caribbean
	Topics to prioritize:
	Types of migration: Refugees, Long-term
	Drivers of migration: Employment opportunities, Migrant attitudes and aspirations
	Consequences of migration: Integration, Racism/xenophobia/discrimination
	Special topics: Social cohesion, Access to services
Collaboration (in addition to platform feature recommendation)	List conferences where researchers can meet potential collaborators
	Identify and list researchers from the same institution/department
	Emphasize priority skills when recommending potential collaborators from online platform profiles
Methodological approaches	Methods and software to have links to documentation and advice in early versions
	Methods to prioritize:
	Qualitative: Case studies, Thematic analysis
	Quantitative: Regression, Correlational, Longitudinal/time series
	Geospatial: Spatial clustering, Spatial regression
	Software to prioritize:
	Qualitative: NVIVO, Atlas.ti
	Quantitative: SPSS, Stata, R
	Geospatial: ArcGIS, QGIS
Future research	Topics to create subsets of data and literature in early versions
	Topics to prioritize:
	Types of migration: Refugees, Long-term
	Drivers of migration: Employment opportunities, Migrant attitudes and aspirations
	Consequences of migration: Integration, Racism/xenophobia/discrimination
	Special topics: Social cohesion, Access to services
	Methods to have links to documentation and advice in early versions
	Methods to prioritize:

Survey theme	Recommendations
Future research	Qualitative: Case studies, Narrative analysis
	Quantitative: Regression, Longitudinal/time series, Correlational
	Geospatial: Spatial clustering, Longitudinal geospatial analysis
Barriers to research	Recommendations to mitigate barriers to migration research by type of barrier
	Funding: Links to funding websites
	Time: Easy access to relevant data and literature
	Limitations in relevant data: Curated lists of migration datasets, Links to key data sources

1. Introduction

Fueled by natural disasters, conflict, and economic necessity, migration has become one of the notable topics in the news, politics, and social science research. In addition to becoming an ever-present humanitarian crisis, the large volumes of internally displaced people and refugees strain the resources of recipient communities and countries, and create risks to stability. In an effort to improve data and analysis of migration in response to these ongoing crises, the Department of Defense (DOD) has contracted with Aptima, Inc.¹ to develop an online platform for migration research.

Through the Small Business Technology Transfer (STTR) funding mechanism, Aptima has subcontracted with the research lab AidData at William & Mary to transfer geo-spatial data from GeoQuery to the platform and provide migration expertise to assist in the design of the platform. As part of that assistance, AidData developed and conducted a survey of migration researchers to learn about six themes from migration researchers: 1) features they would like to see in the platform, 2) their areas of research, 3) how they collaborate with other researchers, 4) their approaches to current research, 5) their aspirations for future research, and 6) barriers to research they experience. Findings from this survey will help to improve the migration research platform to meet the needs of migration researchers.

2. Methodology

The research team approached the survey design, implementation, and analysis in a systematic manner based on our prior experience with survey research. The design process focused on creating a survey that delves into the six themes to gather sufficient data to improve the online platform design, while also minimizing respondent burden to maximize survey response rates.

The survey design underwent an iterative development process. The team first mapped out potential themes that might be important for the online platform design, along with some initial questions to accompany those themes. The online platform development team reviewed those early versions of the questionnaire. Based on that review, the themes and questions were revised. Once the survey was sufficiently developed, it was reviewed by the DOD technical point of contact, then revised based on that review.

The research team submitted the questionnaire and related research protocol to William & Mary's Institutional Review Board (IRB) to ensure compliance with the protection of human subjects in research. To avoid potential issues with breaching the confidentiality of respondents, we designed the questionnaire without direct identifiers of individuals and only very general indirect identifiers (e.g., respondents' current areas of research).

¹ Aptima focuses technology and AI to improve how people think, learn, and perform in a variety of settings from pilots in a cockpit to medical staff in an ICU.

Once the reviewers had approved the revised questionnaire, programming for the Qualtrics online data entry system commenced. That development process led to some consolidation of questions and modification of wording to improve the questionnaire's flow and make it easier for respondents to complete. The online version of the questionnaire was thoroughly tested to ensure that it correctly implemented all the elements of the survey questionnaire's themes.

A challenge for this research was the lack of a sampling frame of migration researchers. The team considered building a sampling frame based on researchers at institutions that specialize in migration studies. Creating a sampling frame of that type would entail first generating a list of institutions, then gathering information on migration researchers at those institutions from online information and queries of key individuals. Past experience in building such sampling frames has proven that this method, while effective, is time and labor-intensive. We avoided these costs by devising an alternative solution to the construction of the sampling frame. Instead of manually compiling lists of researchers at institutions, we queried the Scopus citation database for articles on migration and constructed the sampling frame using the co-authors of those articles. We simplified the search for co-author emails by restricting the list to the corresponding authors of the articles. Scopus does not retain email information on all co-authors, but does list the emails of the corresponding authors for articles. While we acknowledge some potential bias due to our reliance on corresponding authors, the pool of potential authors was sufficiently large to mitigate this concern. Our process of gathering migration articles yielded information on 50,662 co-authors.

Figure 1: Geographic distribution of migration researchers in the survey



Source: AidData Migration Platform Survey

After obtaining IRB approval, completing the testing of the online data entry system, and constructing the sampling frame, we launched the survey in April 2024. The survey remained active from April 12 to June 7, 2024. Survey responses surged soon after launch, then began to taper. Three reminders were sent to encourage participation. The number of responses surged with each new reminder. The MPS collected data from 1,835 migration researchers for a

response rate of 9.2%. Not surprisingly, the distribution of responses skewed towards researchers in developed countries and regions.

No special data cleaning was required for the surveys received by Qualtrics, as the questionnaire was relatively simple and the data entry system was well-designed. The questionnaire had straightforward skip patterns, no write-in responses to “Other specify” questions, and no complicated calculations requiring complex consistency checks. The standard functions in Qualtrics readily handled the demands of the questionnaire.

The analysis of the survey responses emphasized question response categories with the highest percentages. Ranking response categories by the percentage of respondents selecting those categories revealed the preferences of the respondents. For example, a figure ranking the responses to the question “Which components of the migration research process would be most helpful to have features in the online migration research platform?” shows that features to make data more accessible and collaboration easy were most valued by survey respondents.

A key caveat for interpreting the results from the MPS is the potential for bias among respondents. It is possible that more established researchers, who have migration as a primary focus, were more likely to respond to this survey. If that is the case, features more relevant to researchers newer to the field may seem less important based on the survey results. Features such as hosting information on migration research methods, which are more relevant to newer researchers, would receive less emphasis if the majority of respondents are more established.

3. Themes for the Migration Research Platform

Theme 1: Platform Features

Researchers responding to the survey were asked to select the components that would be most helpful on the online platform and then identify key features for each of the selected components. Key findings for each of these components appear in Table PF_1. After analyzing these findings, we made recommendations on the features to include in the platform (Table PF_2). The analysis considered the percentage of respondents selecting components and features, as well as other factors, such as the difficulty of implementing these features. The recommendations for features were then grouped into those to be implemented for early or later versions of the platform. Early versions would occur in the first couple of years of implementation, and later versions would occur after two years. The remainder of this section provides details that support these recommendations.

Table PF_1: Features researchers would like in the online research platform

Features listed from highest to lowest percent of respondents

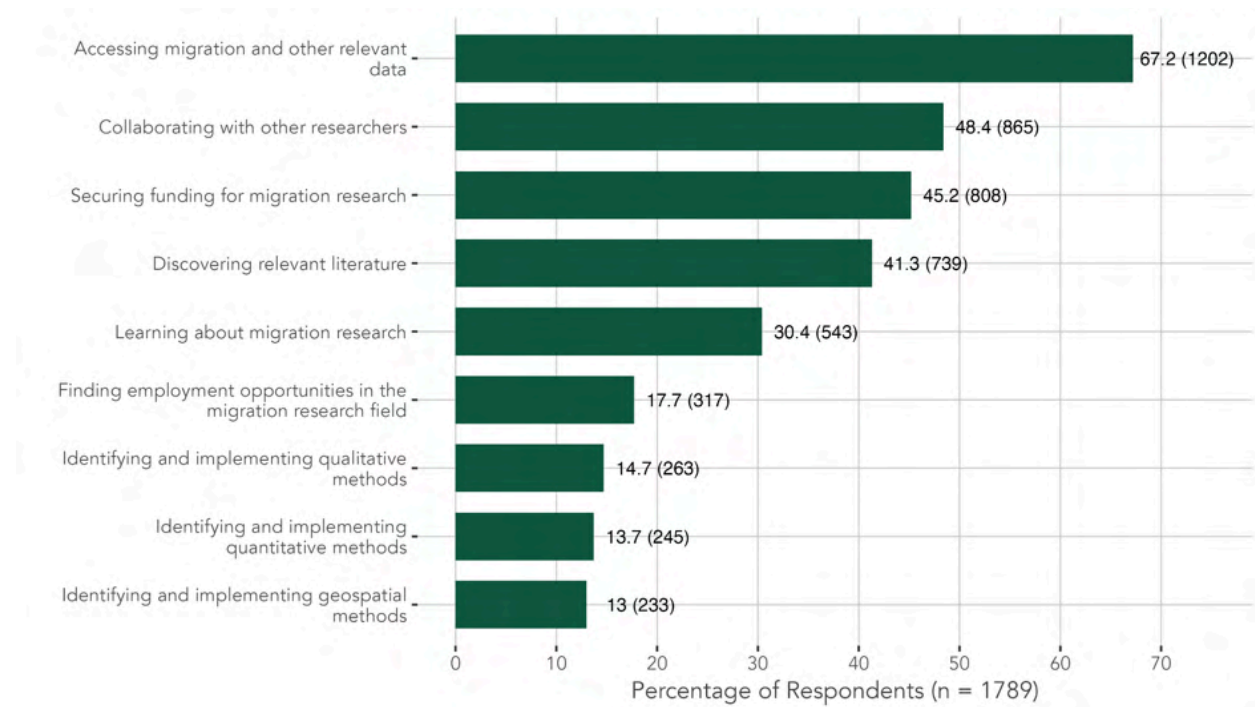
Component	Features
Accessing migration data	<ul style="list-style-type: none"> • Curated lists of migration data sets compiled by topic (67%) • Links to key data sources (43%) • Access to migration data repositories of other researchers (41%)
Collaborating with other researchers	<ul style="list-style-type: none"> • Recommendations for potential collaborators (72%) • Discussion groups on migration topics (60%)
Securing funding for migration research	<ul style="list-style-type: none"> • Links to other websites with migration research funding opportunities (90%) • Ability to post migration research funding opportunities (61%)
Discovering relevant literature	<ul style="list-style-type: none"> • Curated lists of migration articles grouped by topic (81%) • Access to migration literature repositories of other researchers (45%)
Learning about migration research	<ul style="list-style-type: none"> • Background information, reports, and articles on the types of migration, migration theories, and methods for studying migration (88%) • Links to organizations that study migration and/or provide services to migrants (35%)
Finding employment opportunities in the migration research field	<ul style="list-style-type: none"> • Links to other websites with migration research employment opportunities (76%) • Ability to post migration research employment opportunities (63%) • Posting migration research profile to a list of researchers seeking employment opportunities (50%)
Identifying and implementing qualitative methods	<ul style="list-style-type: none"> • Descriptions of qualitative data collection and analysis methods (81%) • Recommendations for relevant qualitative methods (45%) • Access to qualitative migration code repositories of other researchers (35%)
Identifying and implementing quantitative methods	<ul style="list-style-type: none"> • Descriptions of quantitative data collection and analysis methods (71%) • Access to quantitative migration code repositories of other researchers (46%) • Recommendations for relevant quantitative methods (34%)
Identifying and implementing geospatial methods	<ul style="list-style-type: none"> • Descriptions of geospatial data collection and analysis methods (73%) • Access to geospatial migration code repositories of other researchers (41%) • Recommendations for relevant geospatial methods (37%)

Table PF_2: Recommendations of features to incorporate into the online research platform

Component	Version timing	Recommended features
Accessing migration data	Early	Curated lists of migration data sets compiled by topic
		Links to key data sources
	Later	Access to migration data repositories of other researchers
		Recommendations for relevant data sets
		Ability to create and manage migration data repositories
Collaborating with other researchers	Early	Recommendations for potential collaborators
	Later	Discussion groups on migration topics
Securing funding for migration research	Early	Links to other websites with migration research funding opportunities
	Later	Ability to post migration research funding opportunities
Discovering relevant literature	Early	Curated lists of migration articles grouped by topic
		Access to free citation databases (Google Scholar)
	Later	Access to migration literature repositories of other researchers
		Ability to create and manage migration literature repositories
		Access to paid citation databases (Scopus, Web of Science)
Learning about migration research	Early	Background information, reports, and articles on the types of migration, migration theories, and methods for studying migration (Basic version)
		Links to organizations that study migration and /or provide services to migrants
	Later	Background information, reports, and articles on the types of migration, migration theories, and methods for studying migration (Detailed version)
		Migrant stories and their adjustment to new locations
		Discussion groups/forums on migration research
Finding employment opportunities in the migration research field	Early	Links to other websites with migration research employment opportunities
	Later	Ability to post migration research employment opportunities
		Posting migration research profile to a list of researchers seeking employment opportunities
Identifying and implementing qualitative, quantitative, and geospatial methods	Early	Descriptions of qualitative, quantitative, and geospatial data collection and analysis methods relevant to migration research
		Access to code repositories (e.g., GitLab, GitHub)
	Later	Access to migration analysis code repositories of other researchers
		Ability to create and manage migration analysis code repositories
		Recommendations for relevant methods

When asked to select three features for the online platform, researchers ranked facilitating access to data relevant for migration research and collaboration with other researchers highest among a list of potential components for a migration research platform (Figure PF_1). Sixty-seven percent of respondents identified data access and 48% listed collaboration as important. Securing funding and learning about literature were relatively important, with over 41% of respondents selecting these responses. Slightly less than a third of respondents mentioned learning about migration research as important. Only 18% listed finding employment opportunities as important. Identifying and implementing relevant quantitative, qualitative, and geospatial methods were the least valued by researchers. Less than 15% of respondents listed these as important components.

Figure PF_1: Which components of migration research should have features in the online platform?



Two-thirds of survey respondents listed “Accessing migration and other relevant data sources” as a component they would like to have features in an online migration research platform, making this the highest-ranked component. As a follow-up question, respondents who selected data sources as a desired component were asked to select two features for this component that would be most important to include in the platform (Figure PF_2). Curated lists of migration datasets compiled by topic (67%), links to data sources (43%), and access to data repositories of other researchers (41%) were the three features selected most often. The first two of these are relatively straightforward to implement and should be included in early versions of the platform. Access to data repositories should be implemented for later versions of the platform due to the difficulty of developing the complementary feature for creating data repositories. A system to make recommendations for data sets, which was selected by about a quarter of

respondents, should also be reserved for later versions of the platform due to the challenges of creating this system. Good recommendations would involve training a Large Language Model (LLM) like ChatGPT to provide recommendations based on the user characteristics and the query submitted to the system.

Figure PF_2: Which two features would be most important for “accessing migration and other relevant data”?

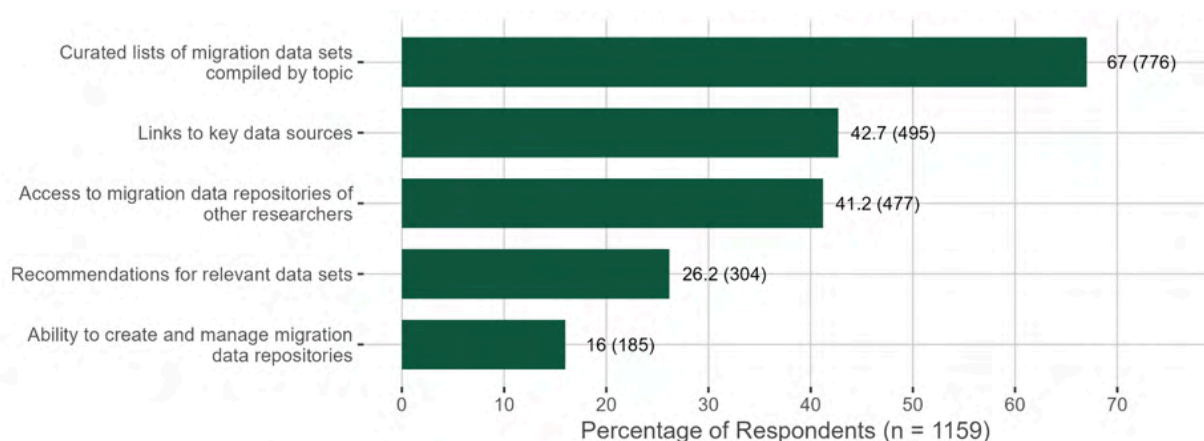
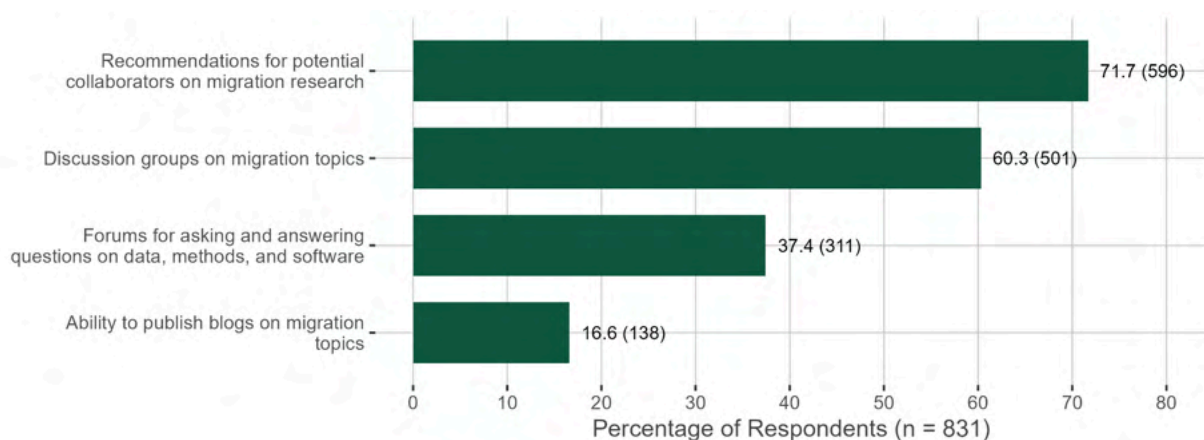


Figure PF_3: Which two features would be most important for “collaborating with other researchers”?

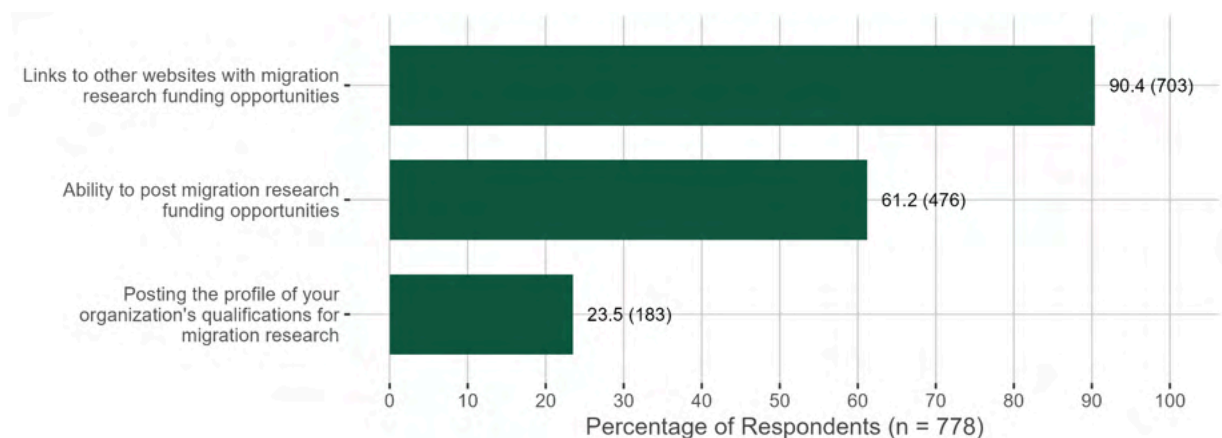


The response category “Collaborating with other researchers” ranked second among the components to include in the platform. Similar to the component for data, respondents who selected this component were asked which two features related to this component were most important to include in the platform (Figure PF_3). Seventy-two percent of researchers selected “Recommendations for potential collaborators on migration research” as the most desirable collaboration feature. Clearly, this feature should have a high priority for inclusion in the platform. Researchers favorably responded to the inclusion of discussion groups on migration topics (e.g., immigration, refugees, climate change, and remittances). Sixty percent of

respondents selected this feature. This is a priority but it should be done later because it will be more difficult to implement. The other two types of features (forums on data, methods, and software (37%), and the ability to publish blogs on migration topics (17%) could be incorporated later if users express sufficient interest.

Researchers selected “Securing funding for migration research” as the third component, with 45% of researchers selecting this option. When asked the follow-up question on features for this component (Figure PF_4), 90% selected links to websites with migration research funding opportunities, making this a high priority for inclusion in the platform. The ability to post migration funding opportunities ranked second (61% of respondents selected this feature). The inclusion of this feature should also be considered for the platform, although it may be implemented at a later time due to the additional effort required. The ability to post the researcher’s organizational profile was of only limited interest, capturing less than a quarter of responses.

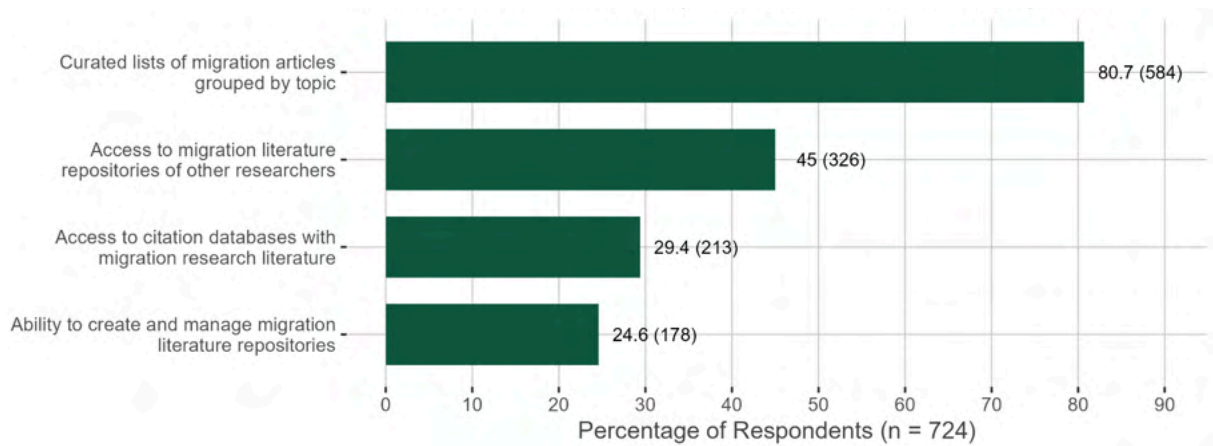
Figure PF_4: Which two features would be most important for “securing funding for migration research”?



Discovering relevant literature ranked fourth among the components researchers would like to have in the migration research platform. A high percentage (81%) of migration researchers who selected this component would like a curated list of migration articles as a feature of the platform (Figure PF_5). Given the large response to this feature, it should be added early in the platform's development. Access to migration literature repositories of other researchers ranked second among features related to literature (45% of respondents selecting this feature). To implement this feature, the platform would have to provide the ability to create and manage literature repositories. While only a quarter of respondents wanted the ability to create such repositories, this feature should be included to make access to migration literature repositories available. Due to the challenges of building the system to incorporate user repositories, the recommendation is to implement that system in a later version of the platform. Access to citation databases ranked third among literature features. At a minimum, the platform should have a link to Google Scholar, because it is widely used and available at no cost. Including

Scopus or Web of Science would require the provider of the platform to pay licensing fees for those citation databases if users are provided access. Those fees would be incorporated into the pricing structure for the platform. The provider would not have to pay a fee if the platform simply provided a link to these databases ,requiring users to access these databases with their own accounts.

Figure PF_5: Which two features would be most important for “discovering relevant literature”?

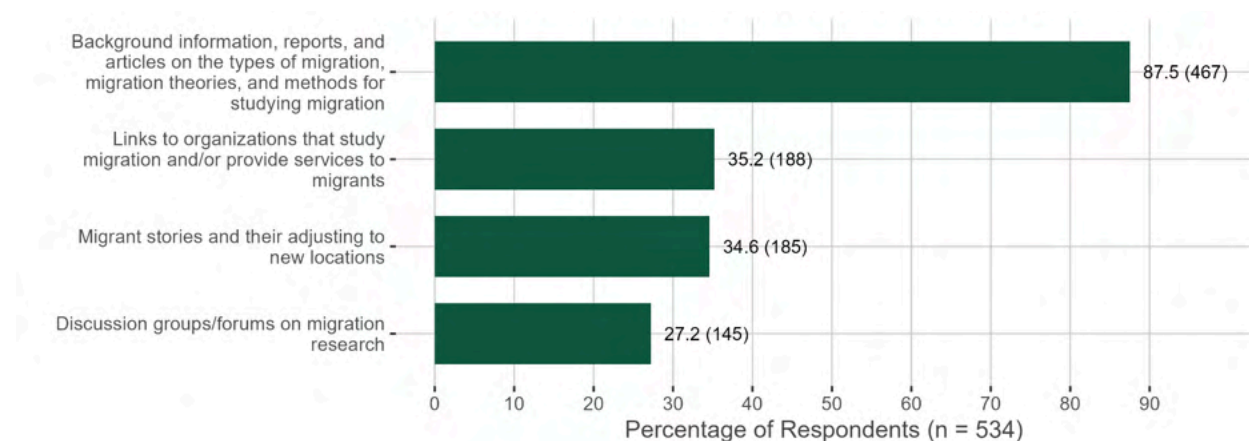


Learning about migration research ranked fifth among the components. While the combination of this ranking and the finding that less than a third of respondents selected this component suggests it should have a low priority, this component would be important to researchers new to the migration field. Other research by the authors on migration research co-author networks has shown that most migration researchers typically produce only one article on migration. Such researchers would benefit from information on the migration field. It is therefore recommended that a limited amount of information be included in early versions of the platform and over time the amount of information be increased.

A high percentage of respondents who had selected this component (88%) would like to see background information, reports, and articles on the migration platform regarding types of migration, migration theories, and methods for studying migration (Figure PF_6). At a minimum, the initial version of the platform should contain a glossary of migration terms and the basics of migration theories. Over time, more detailed information on migration theories and methods could be added to the platform. The platform should also contain links to additional information on these topics.

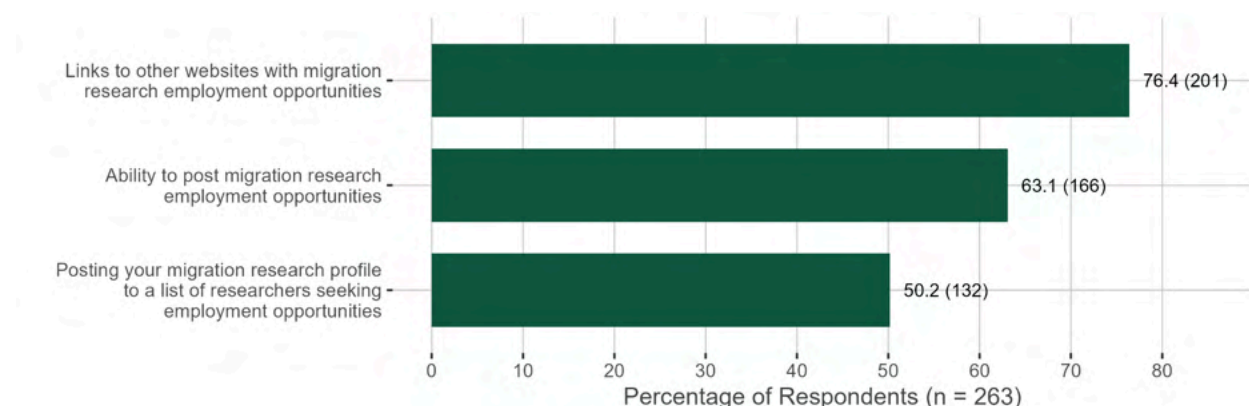
Thirty-five percent of researchers selected “Links to organizations that study migration and/or provide services to migrants” and “Migrant stories and their adjustment to new locations.” The first of these should be relatively straightforward to implement and should be in early versions of the platform. The second will take more effort and, therefore, should be implemented in later versions of the platform.

Figure PF_6: Which two features would be most important for “learning about migration research”?



Just over a quarter (27%) of researchers selected discussion groups on migration research as an important feature for learning about migration research. Twenty-seven percent of the 30% of respondents interested in learning about migration research is equivalent to 8% of respondents overall. Even though the proportion of respondents interested in discussion groups to learn about migration research was low, discussion groups, however, were important to the collaboration component. If discussion groups were to be part of the platform for collaboration, adding discussion groups for learning about migration would take a limited amount of additional effort. Posting a call for users to join a group on migration research could be a way to determine if holding such a group is worthwhile.

Figure PF_7: Which two features would be most important for “finding employment opportunities in the migration research field”?



The remaining four components are of lower priority. Eighteen percent of respondents or fewer selected these components as important to the migration platform. Finding employment opportunities in the migration field ranked highest among these components. Links to other websites with migration research employment opportunities (Figure PF_7) is the simplest

feature to implement and the one selected by the highest percentage of respondents (76%). Early versions of the platform should include this feature. Posting migration research employment opportunities and migration researcher profiles can be readily done; however, implementing them would be more work than simply posting links. These two features could be incorporated into later versions of the platform.

Among the three types of methods listed in the components, qualitative methods ranked highest, with 15% of researchers selecting this component. Researchers chose quantitative methods 14% of the time, followed by geospatial methods (13%). Researchers would most often like the platform to have a feature that describes data collection and analysis methods relevant to migration for each of these three components. Eighty-one percent of respondents for qualitative methods, 71% of respondents for quantitative methods, and 73% of respondents for geospatial methods chose this feature (Figures PF_8, PF_9, and PF_10). This feature is recommended for the early versions of the online platform.

The remainder of the features for the methods components involve recommendations for methods and code repositories for migration analysis. Developing a system to recommend methods would also take time and should be implemented in a later version of the platform. Creating a system to recommend methods would require training an LLM (e.g., ChatGPT) to provide recommendations based on user characteristics and the query submitted to the system. Training of that nature takes time and effort. Access to existing code repositories (e.g., GitLab, GitHub) could be added early in the platform's development. Creating a code repository within the platform would be implemented later due to the time and effort required to implement this feature.

Figure PF_8: Which two features would be most important for “identifying and implementing qualitative methods”?

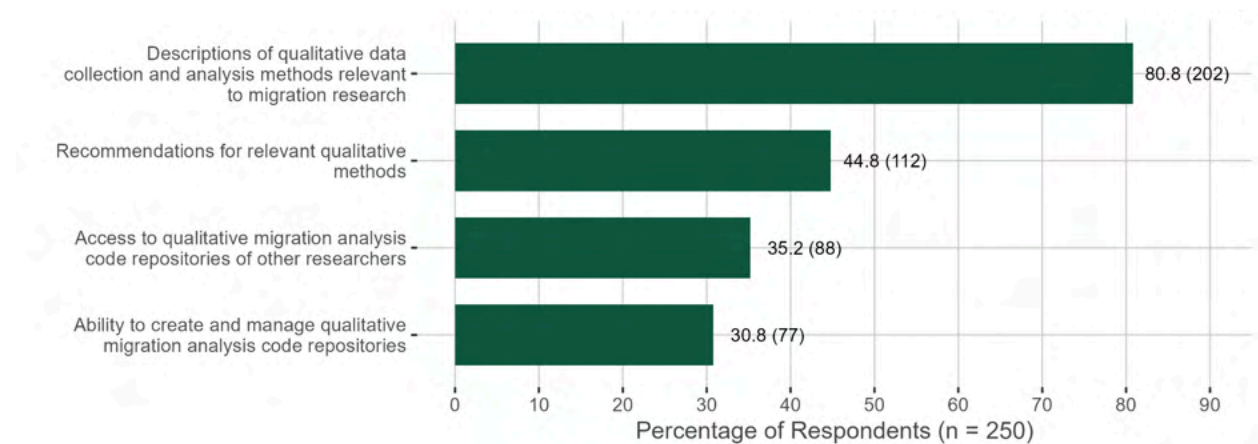


Figure PF_9: Which two features would be most important for “identifying and implementing quantitative methods”?

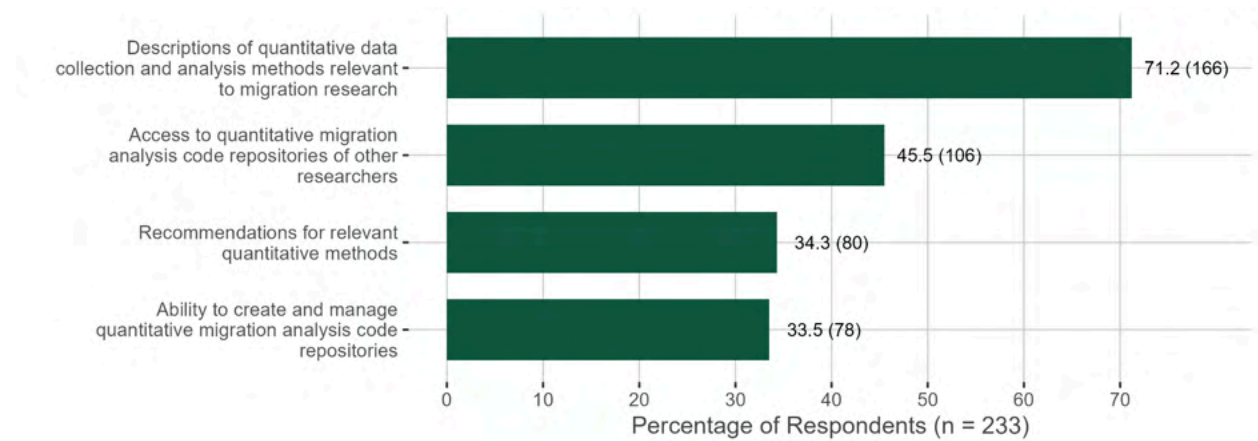
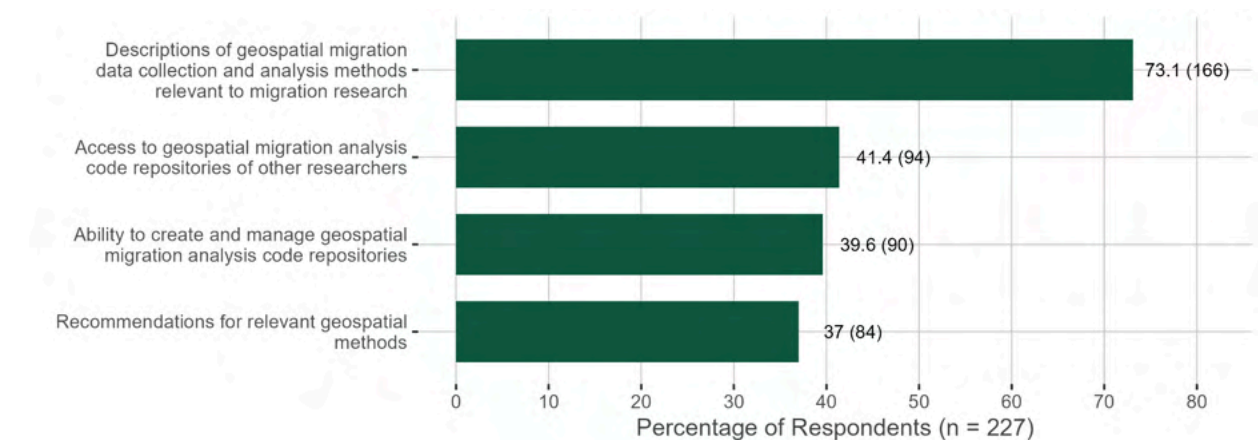


Figure PF_10: Which two features would be most important for “identifying and implementing geospatial methods”?



Theme 2: Research Areas

Knowing the regions and research topics of interest to migration researchers can help platform designers customize the data and literature incorporated into the research platform to the areas of highest interest. Table RA_1 lists the research areas of greatest interest to researchers. While focusing on areas of interest can help designers tailor the platform more effectively to potential users, the platform will be designed in a manner that is flexible enough to accommodate other research areas. Such a design will enable the platform to adapt to shifts in research focus over time and accommodate niche areas of interest.

Table RA_1: Regions and research topics of interest

Categories listed from highest to lowest percent of respondents

Areas of interest	Categories
Regions	
Region of destination	<ul style="list-style-type: none"> • North America (28%) • All of Europe (25%) • Western Europe (19%) • Worldwide (16%) • Middle East (8%)
Region of origin	<ul style="list-style-type: none"> • Worldwide (33%) • Middle East (14%) • All of Africa (11%) • Eastern Europe (9%) • All of Latin America and the Caribbean (9%) • All of Europe (9%)
Research topics	
Types of migration researched	<ul style="list-style-type: none"> • Refugees (50%) • Long term (50%) • Forced Migration (41%) • Immigration (40%) • Labor Migration (35%) • Asylum Seekers (34%) • International (30%)
Drivers of migration	<ul style="list-style-type: none"> • Employment opportunities (40%) • Migrant aspirations and attitudes (40%) • War (33%) • Economic downturns/poverty (30%) • Migration laws and policies (30%) • Migration networks (30%) • Ethnic conflict (30%)
Consequences of migration	<ul style="list-style-type: none"> • Migrant integration (46%) • Racism, xenophobia, and discrimination (40%) • Refugees (36%) • Migration laws and policies (30%) • Migrant labor market participation (30%) • Diasporas (26%) • Health (25%)
Other special topics	<ul style="list-style-type: none"> • Integration/Social Cohesion (43%) • Access to services for migrants (33%) • Ethnic and/or racial minorities (33%) • Protection of migrant rights (32%) • Civic and Political Inclusion (32%) • Equal opportunity for migrants (30%)

Based on responses of the researchers about the regions and research topics where they focus their migration research, Table RA_2 lists recommendations for the areas the migration platform should have subsets of datasets and literature.² Knowing the priorities for the platform is important because subsetting the data and literature will require some manual effort by platform designers. While it may be faster and less expensive for an LLM to subdivide data and literature, it will ultimately require some human effort to divide data and literature into subsets properly. The recommendations have been divided into those for inclusion in the early versions of the platform and those for later inclusion. The prioritization of the timing of inclusion was determined by ranking the regions and research topics according to the percentage of researchers who selected these areas most and the authors' judgment.³

Table RA_2: Recommendations for regions and research topics to subset the data and literature for the online research platform

Area of interest	Version timing	Recommended focus areas
Regions		
Region of destination	Early	Worldwide, North America, Europe
	Later	Western Europe, Middle East
Region of origin	Early	Worldwide, Middle East, Latin America & Caribbean
	Later	Africa, Eastern Europe
Research topics		
Types of migration	Early	Refugees, Long-term
	Later	Forced migration, Immigration
Drivers of migration	Early	Employment opportunities, Migrant attitudes and aspirations
	Later	War, Economic downturns/poverty, Ethnic conflict
Consequences of migration	Early	Integration, Racism/xenophobia/discrimination
	Later	Migration laws and policies
Other special topics	Early	Social cohesion, Access to services
	Later	Ethnic/racial minorities

Migration researchers tend to concentrate on more than migration. Only a quarter of respondents to the survey consider migration as the main focus of their research (Figure RA_1).

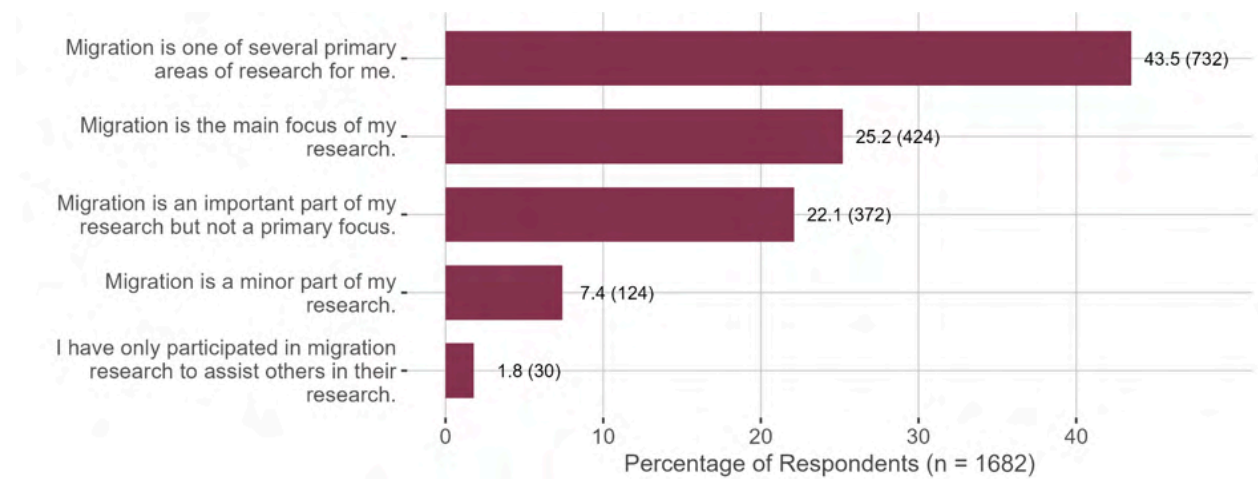
² These priorities for subsetting do not apply to data from GeoQuery or other datasets incorporated into the platform which are designed to be subset at a national or more granular level worldwide.

³ Worldwide, for example, ranked lower than Western Europe as a region of destination but was included in the early version over Western Europe because it will be easier to determine. Any data or literature would be put in the worldwide category, meaning there is no additional work to classify the content as worldwide.

Many (44%) view migration as one of a set of primary focus areas but not the sole area of focus. Almost another quarter (22%) see migration as an important part of their research, without it being a primary focus—another 7% view migration as a minor part of their research. Only two percent participated in migration research to help others in their research. The low percentage could be due to those not directly interested in migration research self-selecting out of the sample by not responding to the survey.

The variety in the level of participation of researchers in migration research suggests that the research platform should incorporate more than migration. The challenge will be to maintain the central theme of the platform, focusing on migration, while incorporating other subject areas of interest. A strategy to maintain the migration theme while accommodating other subject areas is to identify which other subject areas are of most interest and have offerings available on the platform for those. Following that strategy will avoid migration being lost among these other subjects and, at the same time, allow for the platform to have other research areas of interest that will attract users to the platform. Discussion of the researcher's interests in the remainder of this section will help the platform designers prioritize which other research areas to include in the platform.

Figure RA_1: Which of the following statements describes your level of participation in migration research?



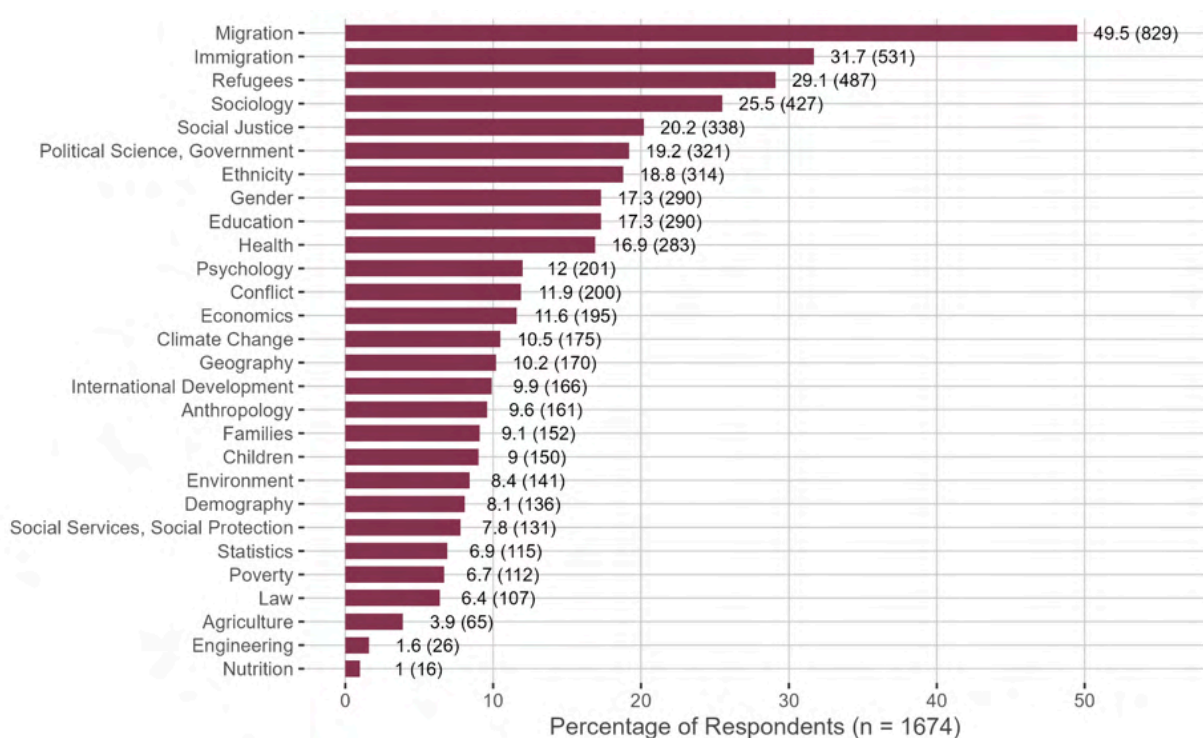
Survey respondents listed a range of research areas of interest when asked to select up to five keywords that describe their general research focus (Figure RA_2). Not surprisingly, the top three were directly related to migration (migration (50%), immigration (32%), and refugees (29%)). The other research topics can be grouped into academic disciplines (e.g., sociology, economics, and anthropology) and special topics (e.g., ethnicity, conflict, families, and children).

Among the academic disciplines, sociology ranked highest (26%), followed by political science/government (19%), education (17%), psychology (12%), economics (12%), geography (10%), and anthropology (10%). The lower percentage for anthropology compared to more

quantitative disciplines could be indicative of a bias in who responded to the survey. In our early research on the migration literature, we found that the majority of articles employ qualitative methods, rather than quantitative methods. That being the case, we expected to have a higher percentage of respondents who are anthropologists.

The special topics represent a range of subjects that intersect with migration. The largest proportion of researchers listed social justice as a special topic they research. Twenty percent of respondents selected this topic. Nineteen percent of respondents mentioned ethnicity and 17% mentioned gender and health. Conflict was listed by 12% of respondents. Nine percent of respondents selected families and children. Although these percentages may not appear high, the inclusion of these topics on the platform will attract a diverse range of researchers. Conflict is of special interest to the DOD and should be prioritized for inclusion.

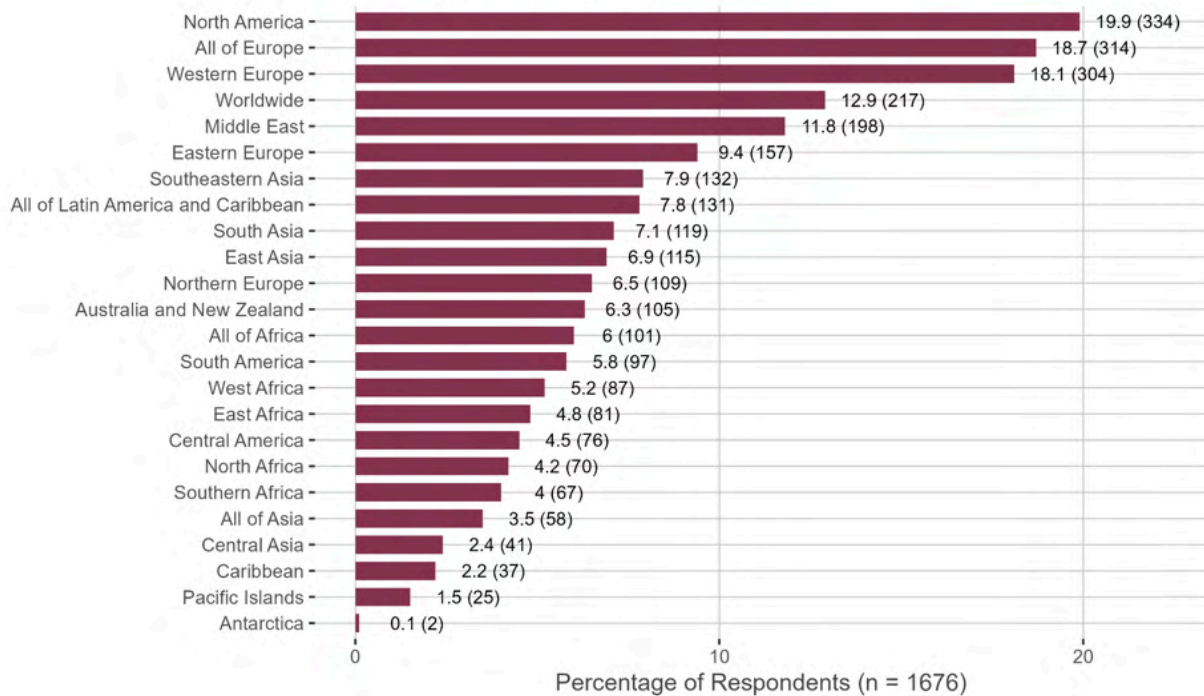
Figure RA_2: What are your main areas of research in general?



Survey respondents answered questions on the geographic focus of their research (Figure RA_3). Researchers were asked to list all research areas that apply. In their general research and migration research on regions of destination, researchers most often focus on developed regions, including North America, all of Europe, and Western Europe. Between 18% and 20% of researchers focus their migration and non-migration research on these regions. When asked specifically about their migration research, respondents tend to research migration with destinations in these developed regions (Figure RA_4). Compared to their general research, even higher percentages of researchers study migration with destinations in North America (28%), all of Europe (25%), and Western Europe (19%). Worldwide appears just below

these developed regions, both for general research and destinations of migration research.⁴ Thirteen percent focus their general research worldwide and 16% focus on research with worldwide destinations for migrants. Next to North America and Europe, researchers emphasize the Middle East for general research (12%) and research on the destination of migrants (8%).

Figure RA_3: What are the primary focus regions of your research, including migration and non-migration research?



The remaining three regions (Asia, Latin America and Caribbean (LAC), and Africa) fared less well. Eight percent of respondents focus their general research on Southeast Asia and all of Latin America and the Caribbean. Seven percent of respondents study South Asia and East Asia, and six percent focus on all of Africa. Five percent of respondents focus on East Asia and Southeast Asia as destinations for migration and 3% focus on South Asia. Four percent focus on South America and 3% focus on the LAC region as destinations. Three percent or less focus on any region in Africa as a region of destination for migration.

⁴ Researchers may focus at least some of their research globally. A researcher, for example, could have some research studies that analyze data across the globe and others that focus on specific regions or countries.

Figure RA_4: What regions of destination for migrants do you research?

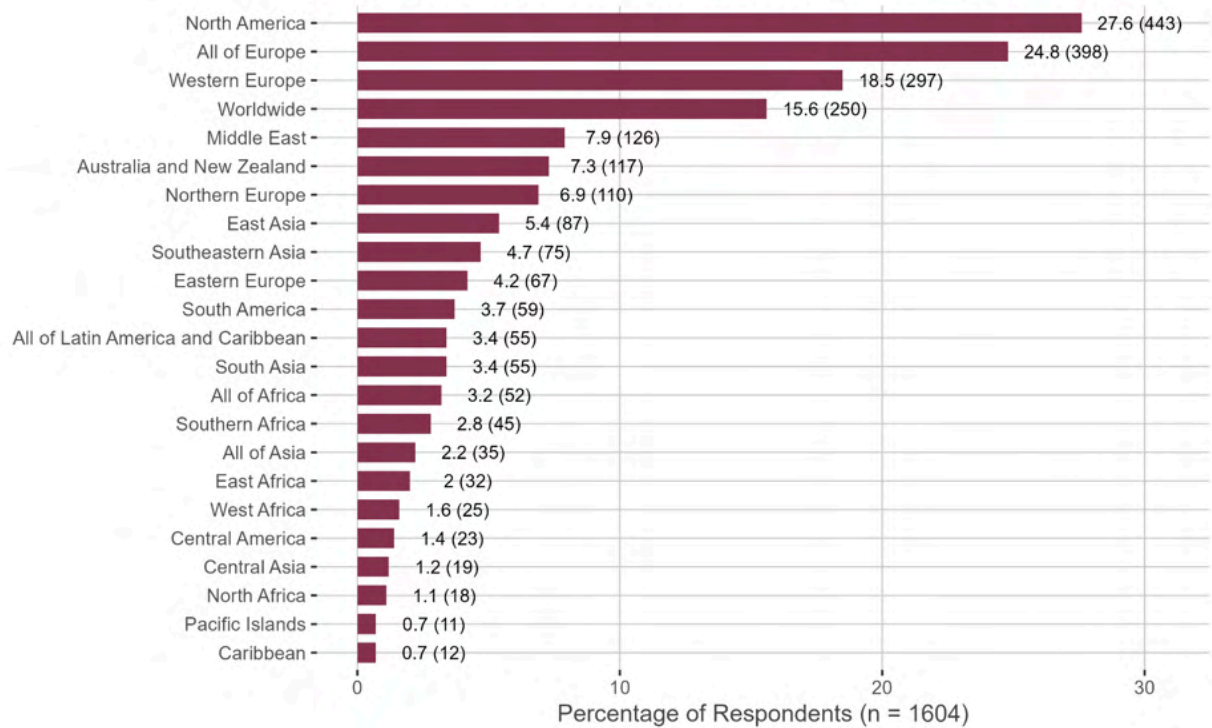
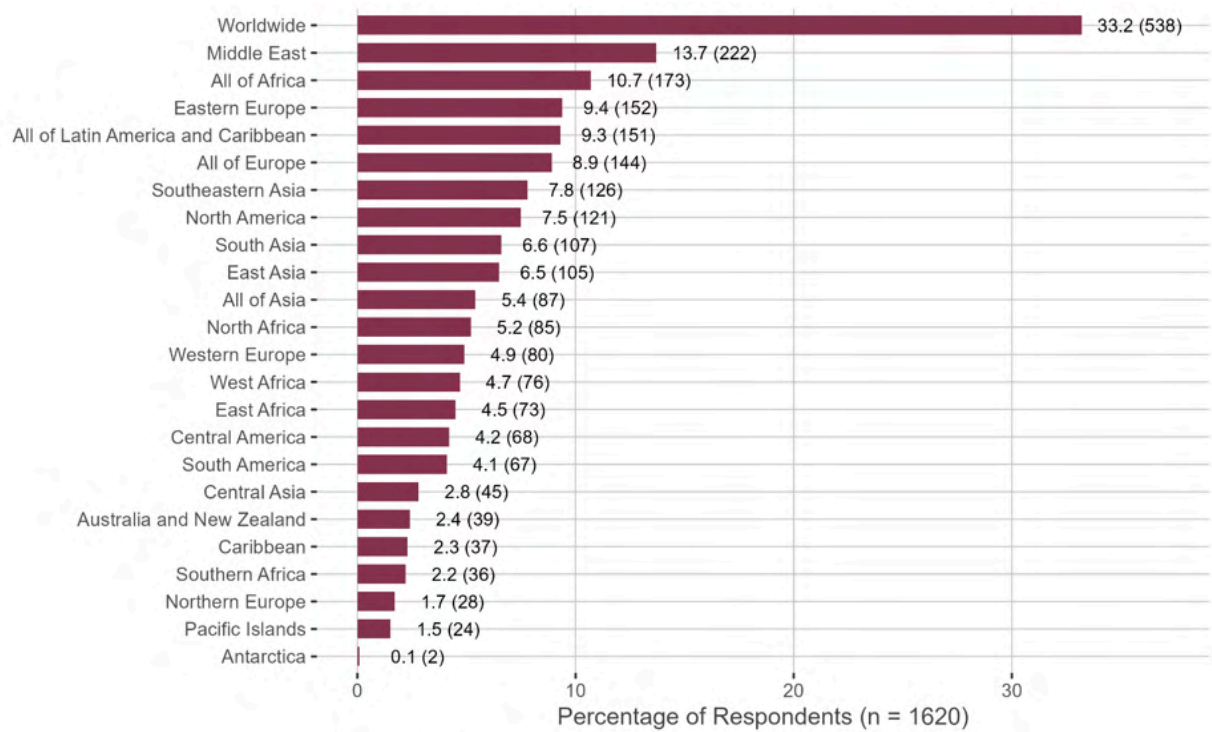


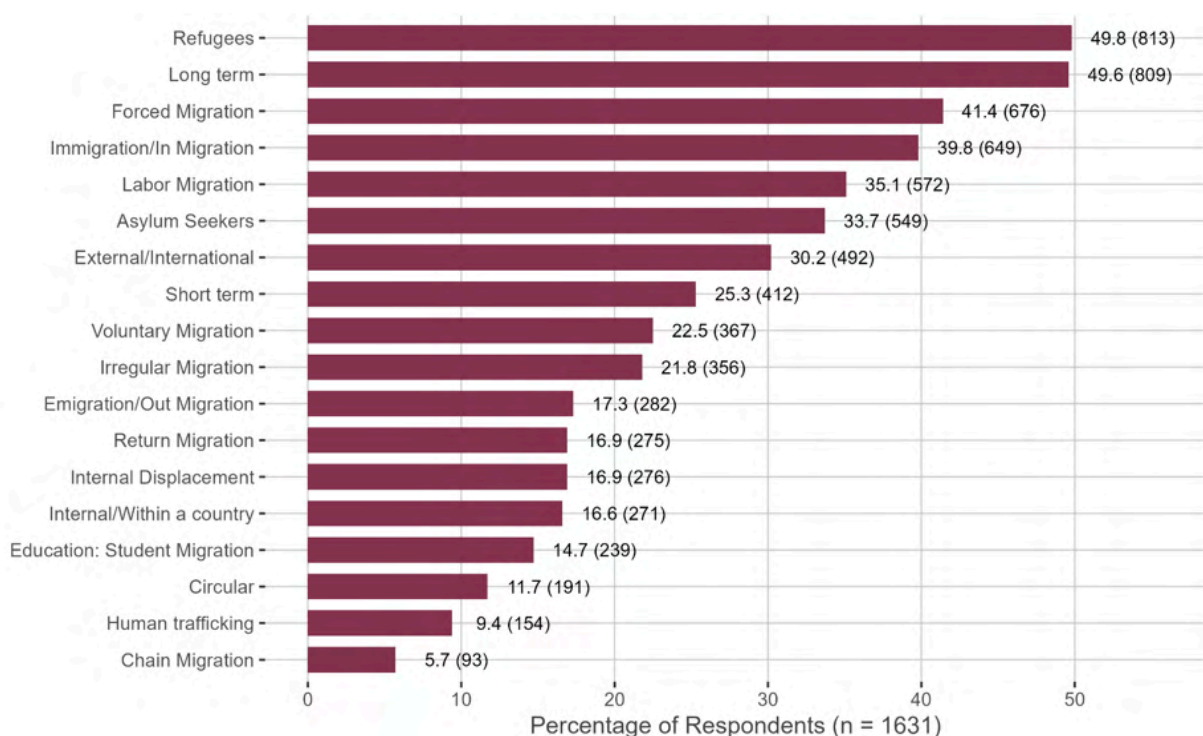
Figure RA_5: What regions of origin for migrants do you research?



Researchers listed worldwide most as the region of origin for their migration research (Figure RA_5). A third of respondents listed worldwide. Far lower percentages were listed for other regions. Fourteen percent listed the Middle East and 11% listed all of Africa. Nine percent of researchers selected Eastern Europe, LAC, and all of Europe. Eight percent listed Southeast Asia and North America.

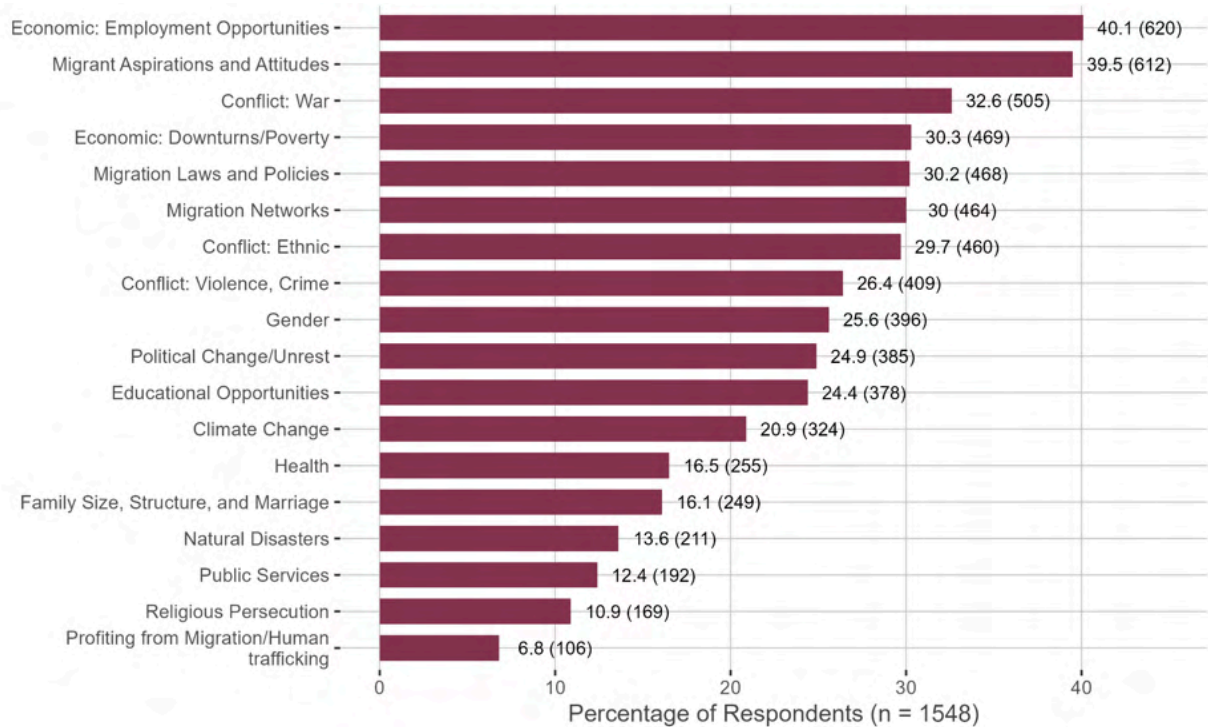
Researchers study familiar types of migration (Fig. RA_6). When asked to select all types that apply, half of the researchers selected refugees and long-term migration as areas of study. Only a quarter selected short-term migration. The next two most common types of migration selected were forced migration (41%) and immigration (40%). Thirty-five percent selected labor migration and about a third selected asylum seekers. Far more researchers study external than internal migration. Thirty percent of the researchers focus on external migration, compared to 17% that focus on internal migration. Less than 10% selected human trafficking or chain migration as their primary concern.

Figure RA_6: What types of migration do you research?



What types of drivers of migration do researchers study? Researchers most often selected employment opportunities, followed by migration aspirations and attitudes (Fig. RA_7). Forty percent of researchers selected these two drivers of migration. Researchers study various types of conflict as drivers of migration, including war (33%), ethnic conflict (30%), and violence and crime (26%). Thirty percent of researchers listed economic downturns and poverty, migration laws and policies, and migration networks as drivers they study. Approximately one-quarter of researchers study gender, political change and unrest, and educational opportunities.

Figure RA_7: What drivers of migration do you research?



The highest percentage of researchers (46%) listed migrant adjustment/integration as a consequence of migration that they study (Fig. RA_8). Forty percent of researchers selected racism, xenophobia, and discrimination, making it the second most selected topic. Researchers selected refugees (36%) third most often. Thirty percent of researchers study migration laws and policies, as well as migrant labor market participation. Approximately one-quarter of researchers listed diasporas and health. Smaller percentages studied various types of conflict as consequences of migration. Nineteen percent of researchers selected ethnic conflict, 14% selected violence and crime, and 13% selected war as consequences of migration.

Figure RA_8: What consequences of migration do you research?

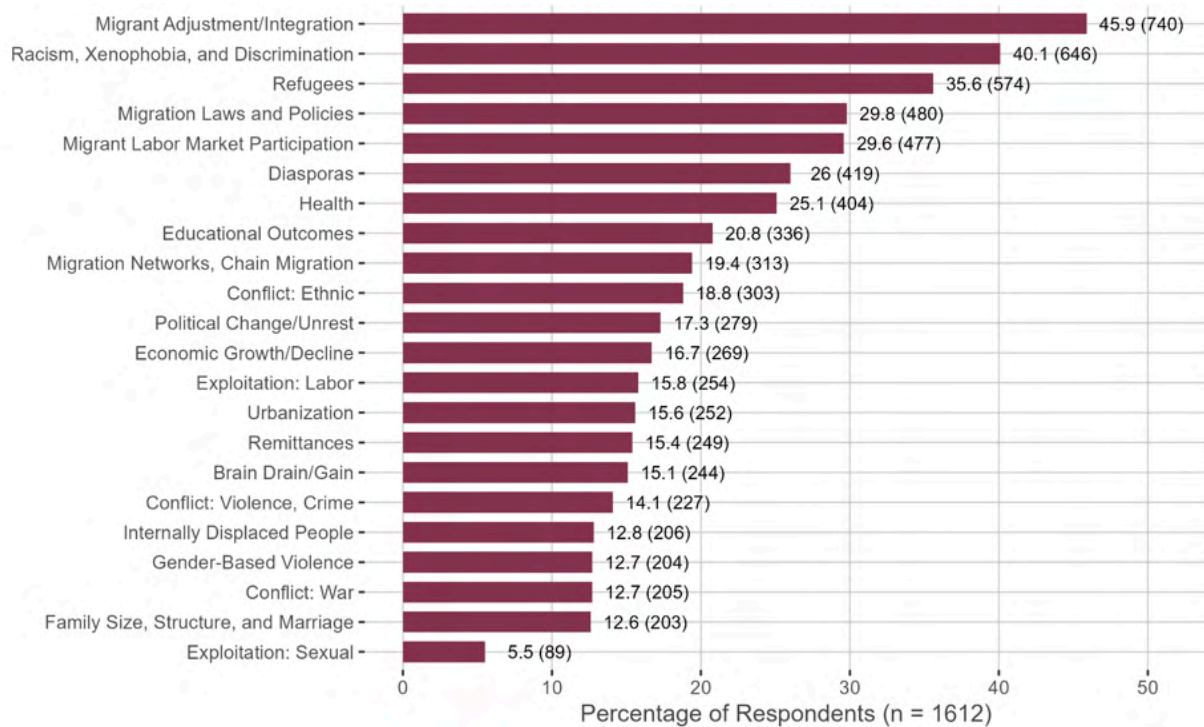
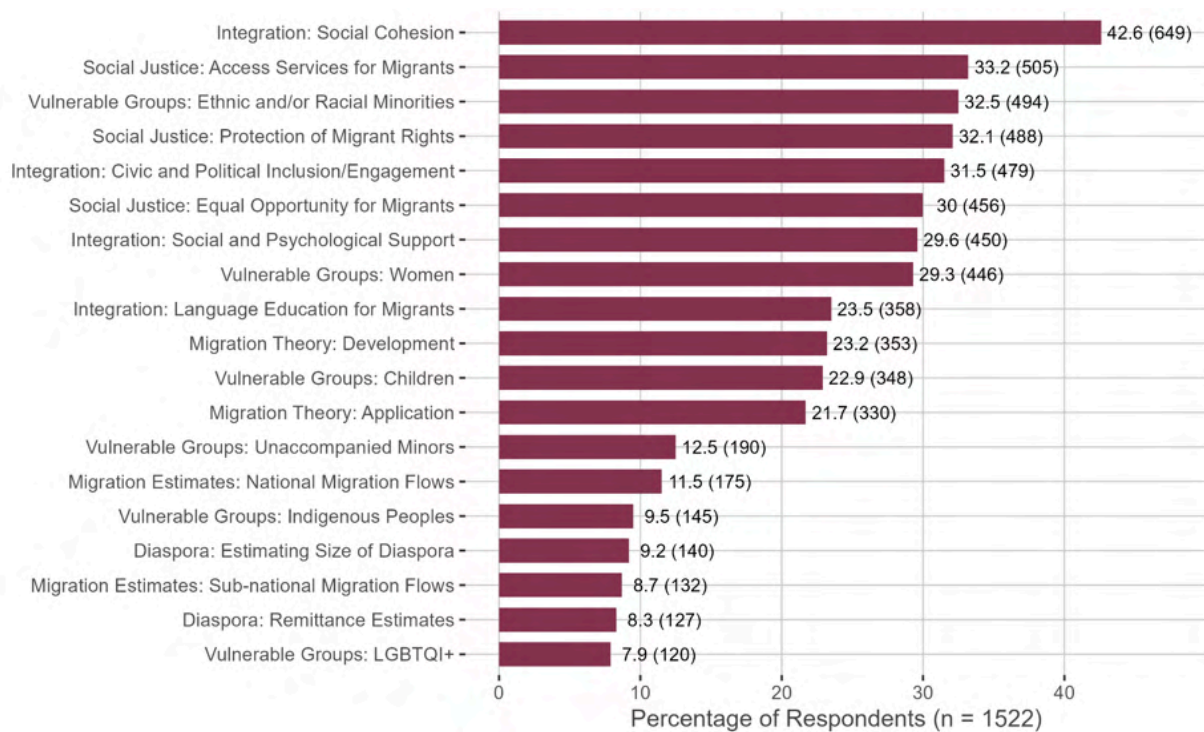


Figure RA_9: What other special topics related to migration do you research?



The survey inquired about other special topics researchers were studying (Figure RA_9). Migration researchers most often selected topics related to the themes of integration, social justice, and vulnerable groups. Researchers selected social cohesion, an integration theme, as the most important among all topics. Forty-three percent of researchers selected this topic. Other integration topics selected include civic and political inclusion/engagement (32%), social and psychological support (30%), and language education for migrants (24%). Thirty percent or more of researchers selected the following social justice topics: access to services for migrants (33%), protection of migrant rights (32%), and equal opportunity for migrants (30%). For the vulnerable groups theme, researchers selected ethnic and/or racial minorities (33%), women (29%), children (23%), unaccompanied minors (13%), and indigenous peoples (10%).

Theme 3: Collaboration in Research

Collaboration with colleagues plays an essential role in the research process. Our preliminary review of social networks in migration research revealed limited collaboration among migration researchers. Most researchers either only produce one research article or collaborate with the same limited set of researchers over time. Increasing collaboration among migration researchers is a basic goal of the online research platform.

Table CR_1: Collaboration among migration researchers

Categories listed from highest to lowest percent of respondents

Areas of focus	Categories
How researchers find collaborators	<ul style="list-style-type: none"> • Professional conferences (66%) • University/workplace (55%) • Referrals from others in network (45%) • Journal articles/reports (33%) • Professional meetings (27%) • In their department (15%) • Online platforms (12%)
Knowledge, skills, and experience desirable in potential collaborators	<ul style="list-style-type: none"> • Report writing (58%) • Quantitative data analysis (45%) • Data collection design (45%) • Theory development (40%) • Qualitative data analysis (36%) • Research design (30%) • Literature review (30%) • Policy/advocacy experience (26%) • Results interpretation (25%)

Understanding how migration researchers find and select collaborators will form the basis for designing the platform to facilitate collaboration (Table CR_1). The survey asked questions about the methods researchers use to find potential collaborators and the qualities they seek in collaborators. The first question can help designers focus the platform on the means to assist researchers in identifying and meeting potential collaborators. The second can contribute to

the design of the recommendation system for potential collaborators. Recommendations from that system will emphasize those qualities researchers seek most in collaborators.

Ways the platform can encourage collaboration draw on the results from the collaboration questions in the survey. Table CR_2 lists possible additions to the online platform that can facilitate collaboration. The first two recommendations stem from responses to the first survey question on collaboration, that researchers most often find collaborators at professional conferences and in their home institutions. These recommendations facilitate conference attendance and help identify potential collaborators within the researcher's institution. The third recommendation prioritizes the skills to emphasize when recommending collaborators. Skills important in a collaborator selected more often by researchers responding to the survey will receive priority when the platform determines which collaborators to recommend from its researcher profiles.

Table CR_2: Recommendations to facilitate collaboration among migration researchers

Recommendation	Version timing	Comments
List conferences where researchers can meet potential collaborators	Early	Provide links to migration and related conferences
	Later	Recommend relevant conferences
Identify and list researchers from same institution/ department	Early	Find researchers with same institution/department in the online platform profile data or through metadata in citation databases (e.g., Scopus)
Emphasize priority skills when recommending potential collaborators from online platform researcher profiles	Early	<i>Emphasize skills by priorities specified below:</i> <u>High priority skills:</u> Report writing, Quantitative data analysis, Qualitative analysis, Data collection design, Theory development <u>Lower priority skills:</u> Research design, Literature review, Policy/advocacy experience, Results interpretation

The survey asked a direct question on the top three ways migration researchers find collaborators (Figure CR_1). In answer to this question, researchers selected professional conferences the most. Two-thirds of migration researchers find new collaborators through conferences. Complementing this response, researchers chose professional meetings 27% of the time. The next highest response was at their university/place of work (55%). In addition, 15% identify potential collaborators within their department. Like conferences and professional meetings, interaction at the researcher's workplace involves direct person-to-person interaction that can form a dynamic means for researchers to find and assess the potential of other researchers as collaborators.

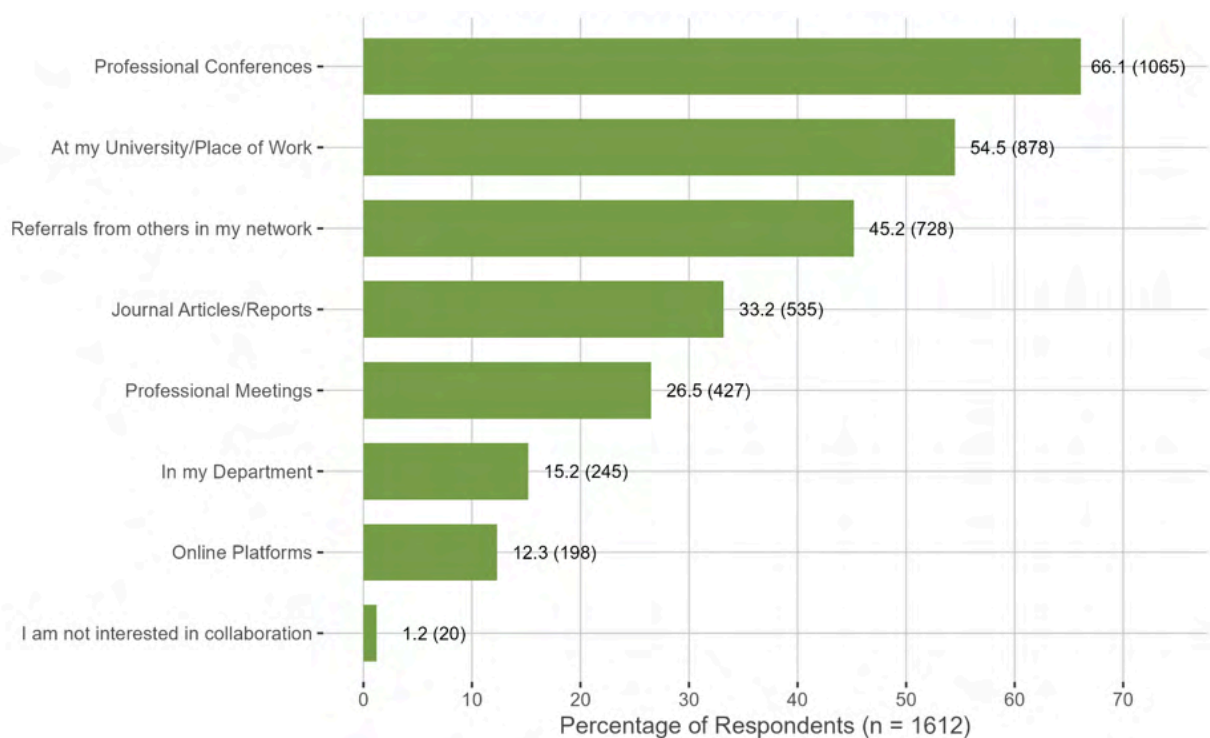
Referrals from others in their networks (45%) ranked third among responses. Referrals are an indirect way for researchers to find collaborators. The impact of such referrals will depend on the researcher's view of the person making the referral. In other words, some referrals may be acted upon more seriously than others. The impact of these referrals will also depend on the extent and depth of the researcher's network. The online platform can help researchers build

and strengthen their network directly through contact among researchers on the platform or indirectly through information on literature and data, which informs researchers about who produced those articles and datasets.

Journal articles and reports are another indirect means to identify potential collaborators. One-third of researchers find collaborators in this way. Authors cited more often by other researchers are desirable collaborators, although those at the top of their field may be harder to access than less well-known researchers.

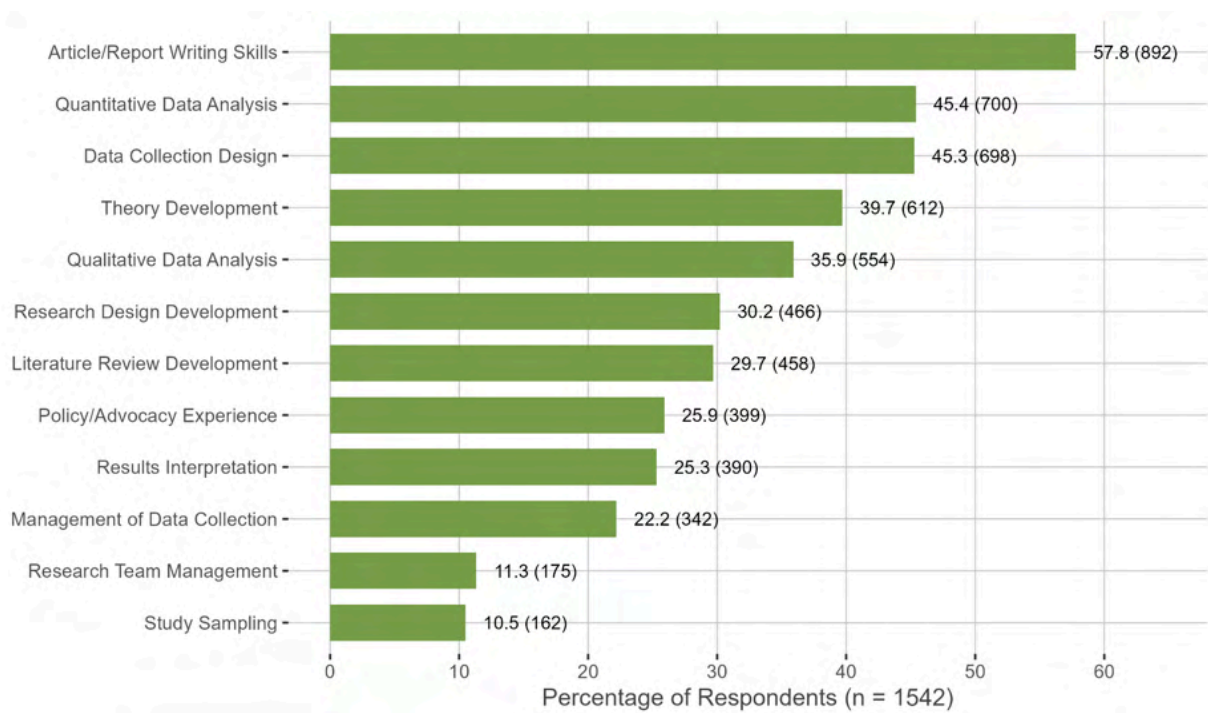
Online platforms were mentioned least by respondents (12%). The survey does not give information on why this is the case. It could be that such platforms are few, the features on those platforms are not effective in encouraging collaboration, or awareness of these platforms is limited. We view this low response not as a weakness of online platforms, but as an opportunity for improvement. We plan to enhance collaboration by attracting users to the platform and fostering interaction among them. We will raise awareness of the platform by advertising the platform on our own websites, encouraging other organizations to post links to the platform on their websites, and conducting outreach to other migration organizations and researchers. While on the platform, users will be able to identify potential collaborators by learning about them through the data and literature available on the platform, as well as through the recommendation system, which identifies potential collaborators and provides platform users with the means to communicate with these researchers.

Figure CR_1: How do you find new research collaborators?



What knowledge, skills, and experience do migration researchers seek in potential collaborators? When asked to choose the top five of these (Figure CR_2), migration researchers selected writing skills the most. Fifty-eight percent of researchers chose article and report writing skills as an attribute they want in research collaborators. Researchers chose quantitative data analysis and data collection design (45%) over theory development (40%) and qualitative data analysis (36%). The choice of quantitative over qualitative research skills is interesting given that most migration articles are qualitative in nature. Researchers may believe learning qualitative analysis will be easier than learning quantitative analysis. Thirty percent of researchers selected research design and literature review development, and a quarter selected policy/advocacy experience and results interpretation. Management skills were of lower priority. Twenty-two percent chose management of data collection, while half of that (11%) chose research team management. Less than 11% chose study sampling. The small percentage for sampling could be due to studies using secondary data, not collecting survey data, or collecting qualitative data that does not require formal sampling.

Figure CR_2: What knowledge, skills, and experience are you looking for in a research collaborator?



Theme 4: Methodological Approaches to Research

Researchers study migration with a variety of methodological approaches, applying different methods and types of software to implement those approaches. The online platform will assist researchers to implement those approaches by providing guidance and documentation on key methods and software. The online platform development team will identify guidance and

documentation, then review those for inclusion in the platform. In early versions of the platform, the guidance would be in the form of links to existing websites. In later versions of the platform, guidance and documentation would be directly incorporated into the platform. Due to the time required to prepare this guidance, the inclusion of guidance on different approaches will be phased. It is essential, therefore, to understand which approaches to include. Generally, those with more users will be prioritized; however, there may be special and emerging methods or software that receive priority due to their importance to the migration field. Table MA_1 highlights the methodological approaches, methods, and software applied by researchers, followed by recommendations for the phasing of guidance and documentation on these methods and software in Table MA_2. The remainder of the section discusses these in greater depth.

Table MA_1: Methodological approaches, methods, and software applied by migration researchers

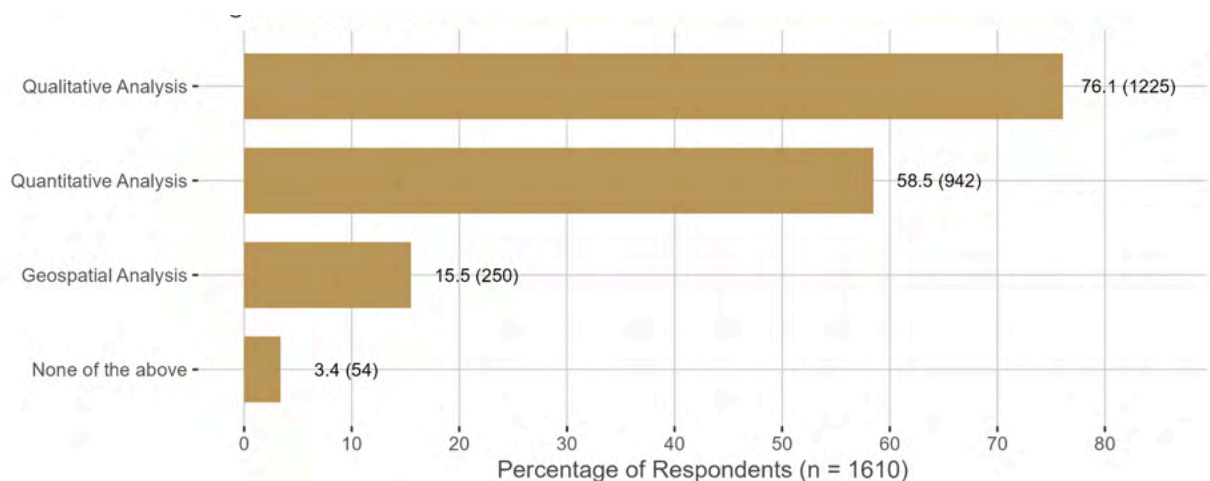
Categories listed from highest to lowest percent of respondents

Approach	Categories
Methodological approach	<ul style="list-style-type: none"> • Qualitative (76%) • Quantitative (59%) • Geospatial (16%)
Methods	
Qualitative	<ul style="list-style-type: none"> • Case studies (65%) • Thematic analysis (54%) • Content analysis (47%) • Ethnographic methods (42%)
Quantitative	<ul style="list-style-type: none"> • Regression (71%) • Correlational (59%) • Longitudinal/time series (46%)
Geospatial	<ul style="list-style-type: none"> • Spatial clustering (54%) • Spatial regression (40%) • Spatial networks (39%) • Longitudinal geospatial analysis (38%)
Software	
Qualitative	<ul style="list-style-type: none"> • NVIVO (40%) • ATLAS.ti (21%) • MAXQDA (12%)
Quantitative	<ul style="list-style-type: none"> • SPSS (49%) • Stata (44%) • R (34%)
Geospatial	<ul style="list-style-type: none"> • ArcGIS (52%) • QGIS (32%) • ProGIS (5%)

Table MA_2: Recommendations for methods and software to provide guidance and documentation in the online research platform

Areas of interest	Version Timing	Recommended focus areas
Methods		
Qualitative	Early	Case studies, Thematic analysis
	Later	Content analysis, Ethnographic methods, Narrative analysis
Quantitative	Early	Regression, Correlational, Longitudinal/time series
	Later	Cross-national, Text analysis
Geospatial	Early	Spatial clustering, Spatial regression
	Later	Spatial networks, Longitudinal geospatial analysis
Software		
Qualitative	Early	NVivo, Atlas.ti (links to websites)
	Later	NVivo, Atlas.ti (custom content)
Quantitative	Early	SPSS, Stata, R (links to websites)
	Later	SPSS, Stata, R (custom content)
Geospatial	Early	ArcGIS, QGIS (links to websites)
	Later	ArcGIS, QGIS (custom content)

Figure MA_1: Do you conduct any of the following types of analysis in your migration research?

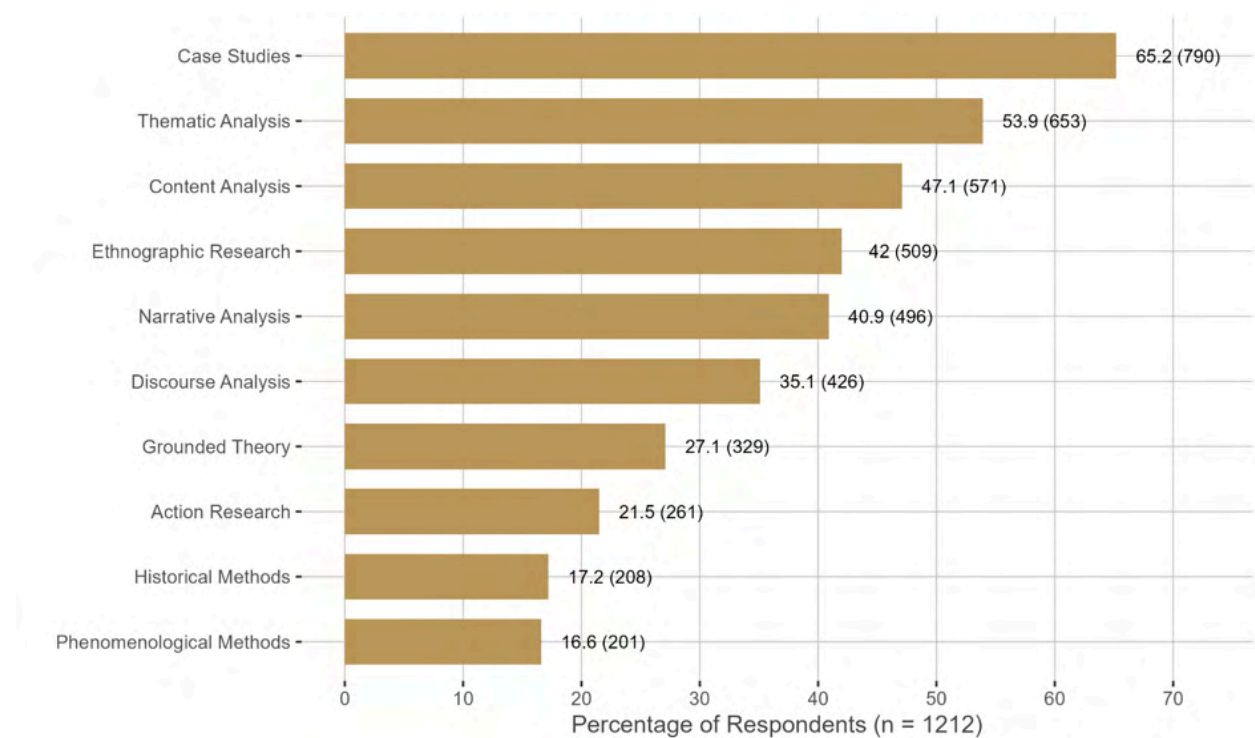


The survey probed respondents on their methodological approaches through a question on the types of analysis they conduct in their migration research (Figure MA_1). Respondents selected all types that apply among qualitative, quantitative, and geospatial. Given the preponderance of qualitative migration research, it is not surprising that researchers conduct qualitative analysis most (76%). Although researchers conduct quantitative analysis much less frequently

than qualitative, over half of the researchers (59%) perform quantitative migration research. Geospatial analysis lags behind qualitative and quantitative research, with only 16% of researchers conducting geospatial analysis. This result does not imply that geospatial analysis should be ignored by the online platform. It does, however, suggest that early versions of the platform focus guidance on qualitative and quantitative research, soon to be followed by guidance on geospatial research.

Among respondents who selected qualitative analysis, the survey asked which qualitative methods they use in their research (Figure MA_2). Almost two-thirds stated they conduct case studies. Over half (54%) conduct thematic analysis and close to half (47%) conduct content analysis. Just over 40% conduct ethnographic research and narrative analysis. Thirty-five percent conduct discourse analysis, and about a quarter perform grounded theory research.

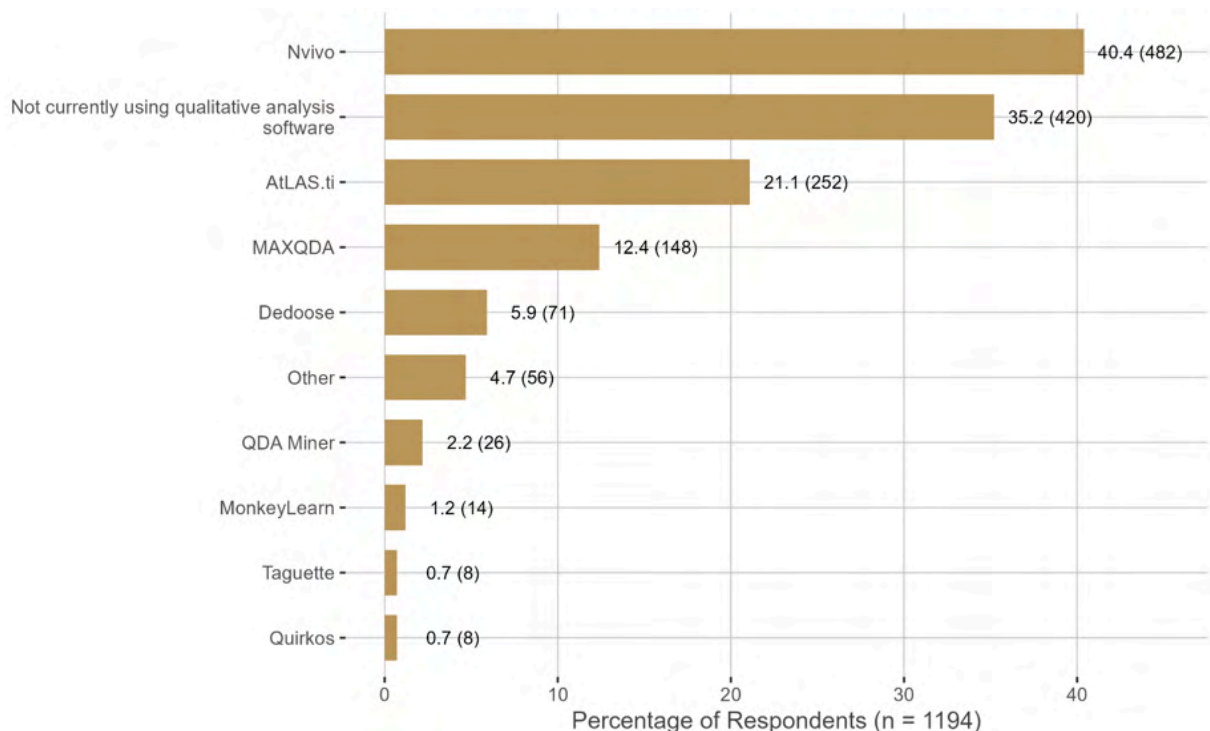
Figure MA_2: What qualitative methods do you use in your research?



Qualitative migration researchers do not appear to be in agreement on the best software for analysis (Figure MA_3). While NVivo had the highest response rate, less than half (40%) of researchers analyzed qualitative data using NVivo. ATLAS.ti ranked second among the qualitative analysis software but only 21% of qualitative researchers perform analysis with this software package. The two qualitative analysis software packages ranked next (MAXQDA and Dedoose) fared less well (12% and 6% respectively). Less than 3% of qualitative researchers used any of the remaining named software packages. A notable statistic is that 35% of researchers do not utilize analysis packages to conduct qualitative research. It is likely that they use some software to organize and manage their analysis, such as coding matrices in a

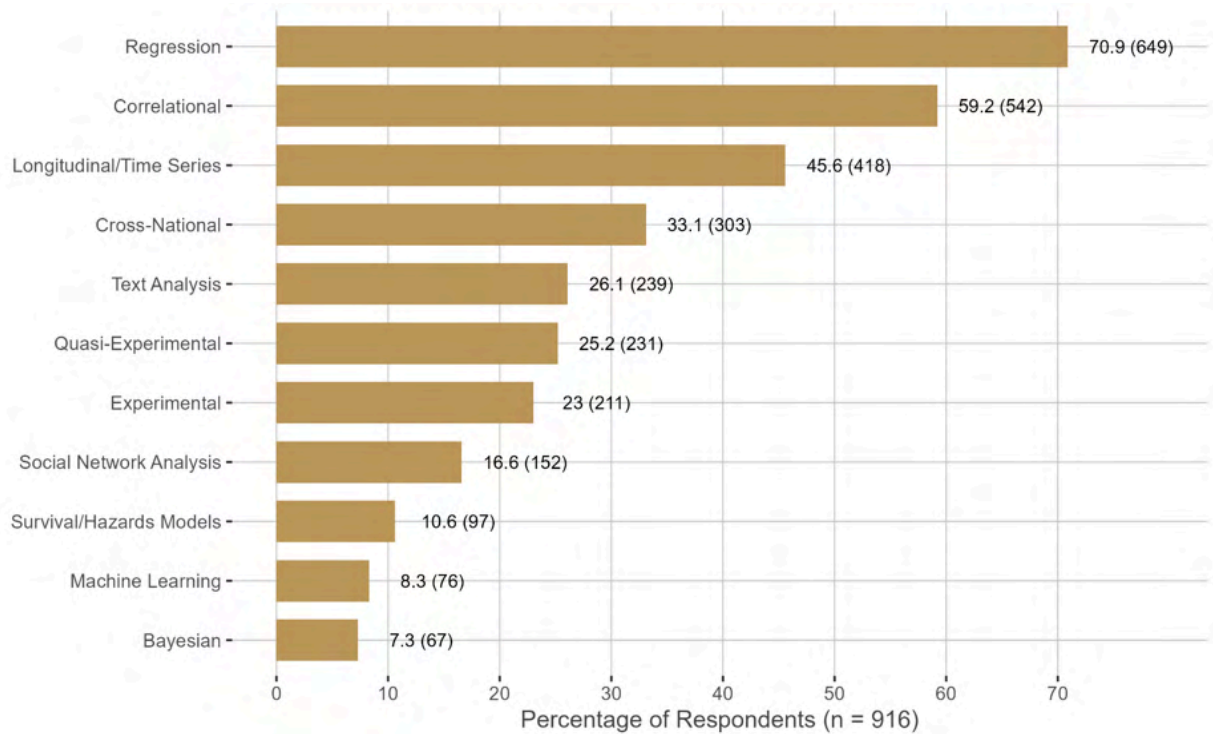
spreadsheet, but these are not packages designed specifically for qualitative analysis. It is also possible that some qualitative researchers do not use software because others in the research team perform the analysis. Nonetheless, the substantial percentage of researchers not using analysis software stresses the importance of the online platform providing guidance to make qualitative analysis software more accessible.

Figure MA_3: What qualitative analysis software do you use in your research?



Most migration researchers who conduct quantitative research carry out at least some of this research with fairly standard methods (Figure MA_4). Seventy-one percent of quantitative researchers use regression analysis, and 59% use correlational analysis. The percentage of researchers decreases as the complexity of the analysis increases. Forty-six percent of quantitative researchers conduct longitudinal analysis and a third implement cross-national studies. About a quarter employ text analysis, quasi-experimental, and experimental methods. Seventeen percent of researchers study migration with social network analysis. Less than 11% use hazards/survival models, machine learning techniques, and Bayesian methods.

Figure MA_4: What quantitative methods do you use in your research?



Quantitative migration researchers tend to conduct their analysis with a fairly limited set of software packages (Figure MA_5). Most of these researchers apply SPSS (49%), Stata (44%), and R (34%) to their research. Only 5% use SAS and about 8% use Python. Twelve percent employ other unspecified software. Seven percent state they are not currently using statistical software. Some of these researchers may perform descriptive analysis with spreadsheets, although it is more likely that they rely on coauthors to conduct the statistical analysis. The conclusion from this analysis is that the online platform will likely focus guidance only on SPSS, Stata, and R.

Figure MA_5: What quantitative analysis software do you use in your research?

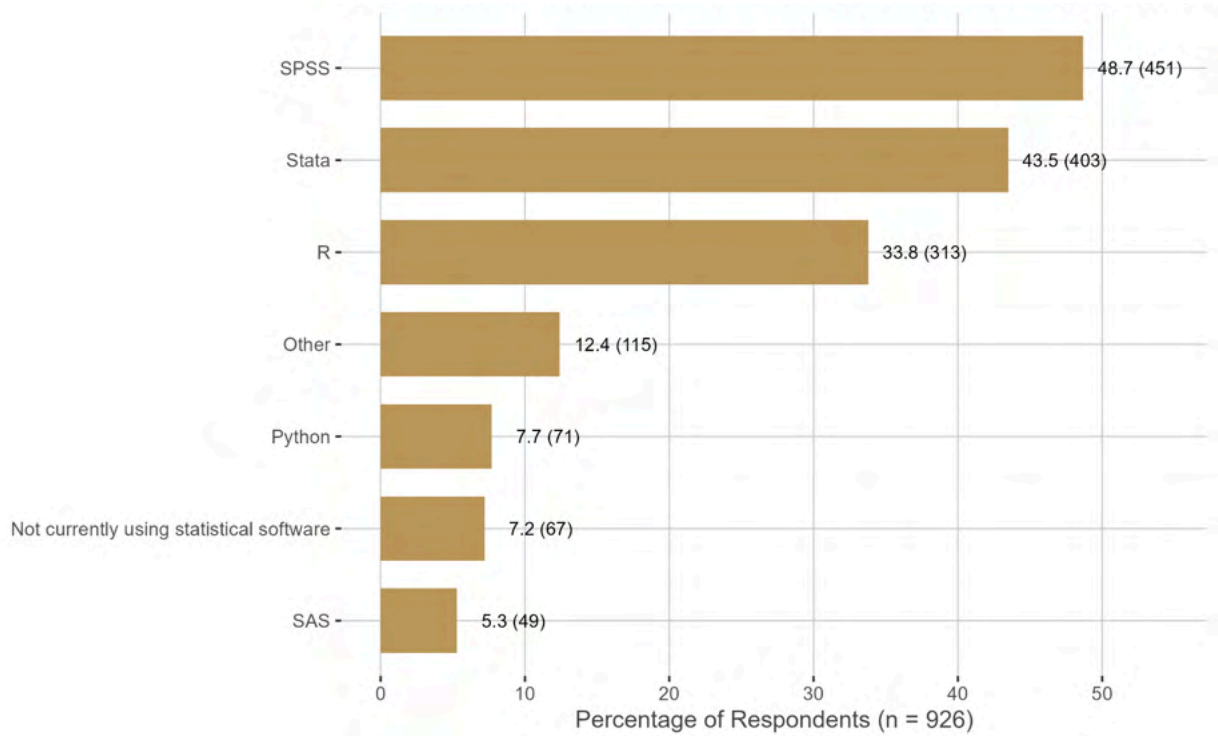
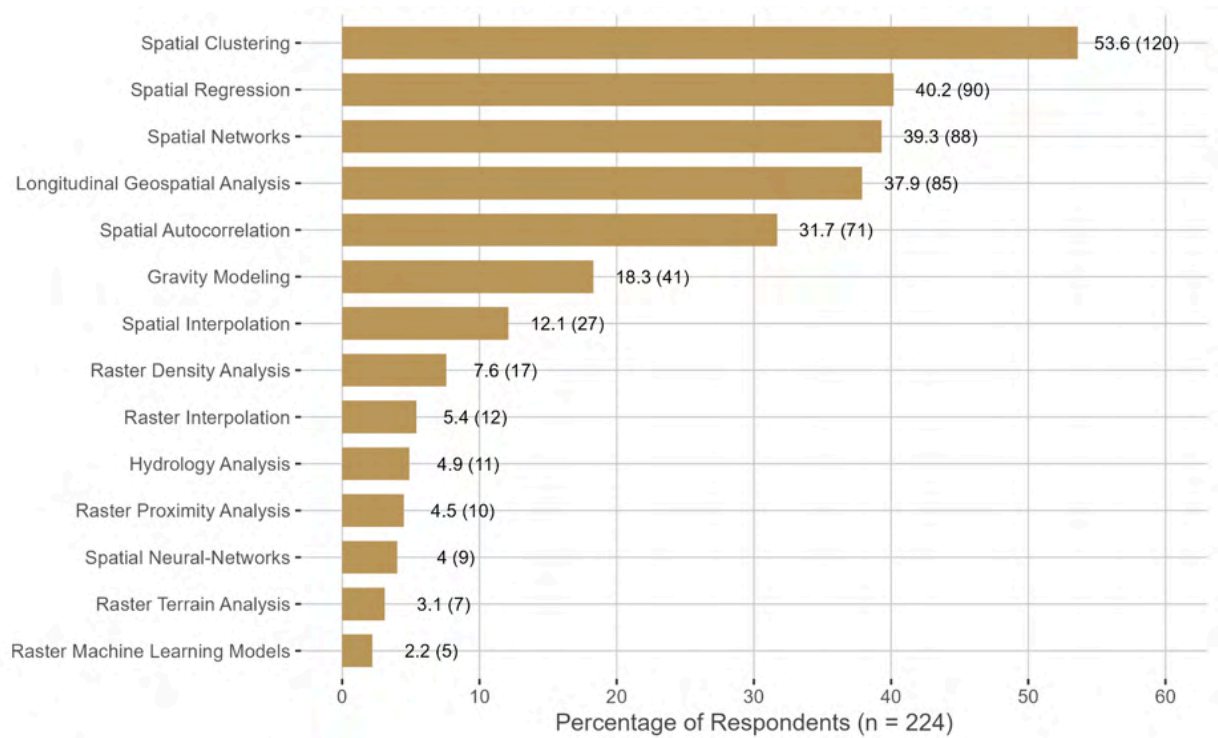
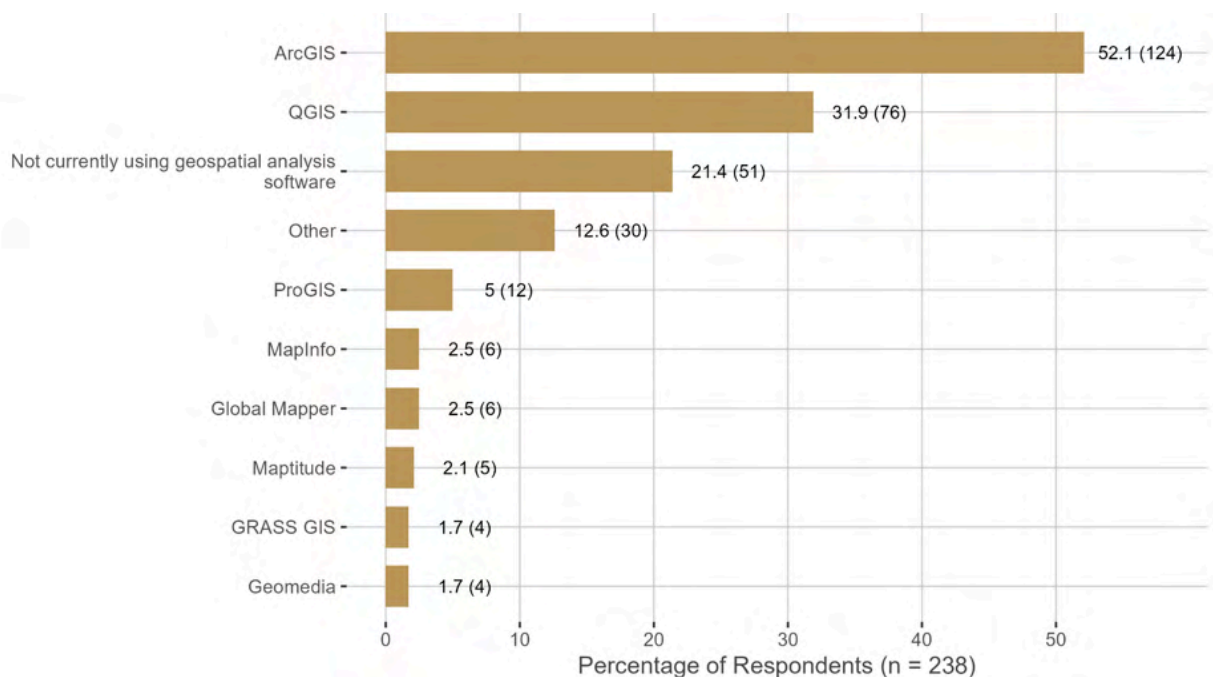


Figure MA_6: What geospatial methods do you use in your research?



Researchers who conduct geospatial analysis in their migration research apply a variety of methods (Figure MA_6). Over 30% of researchers employ the top five methods. Only spatial clustering is used by over half (54%) of the geospatial researchers. Between 38% and 40% of these researchers apply spatial regression, spatial networks, or longitudinal geospatial analysis. About 32% perform spatial autocorrelation. Gravity modeling, although common in geospatial research, is employed by only 18% of these researchers. Twelve percent perform spatial interpolation. Eight percent or less perform a variety of raster methods (raster density analysis, raster interpolation, raster proximity analysis, raster terrain analysis, and raster machine learning). Early versions of the platform will likely focus guidance on the top four of these methods.

Figure MA_7: What geospatial software do you use in your research?



Geospatial migration researchers have a number of software packages for geospatial analysis. Only a couple of these are used by a third or more of these researchers (Figure MA_7). About half of these researchers conduct analysis with ArcGIS. Thirty-two percent use QGIS. Five percent or less conduct geospatial analysis with other named software packages. Twenty-one percent do not use geospatial analysis software. Given the complexity of geospatial analysis, it is unlikely that these researchers perform geospatial analysis with spreadsheets or maps. It is more likely that these researchers rely on other team members to perform geospatial analysis. Due to the limited use of the other named packages, the online platform will focus its guidance on the top two software packages: ArcGIS and QGIS.

Theme 5: Future Research

The migration platform will support areas of interest for future research, stated by researchers responding to the survey. The platform will provide this support by enabling researchers to access content related to research topics and methods of interest. Table FR_1 presents research topics and methods that researchers would like to implement in the future. The content incorporated into the platform related to topics will include curated subsets of datasets and literature, plus guidance and documentation on methods. Table FR_2 lists recommendations on the topic areas and methods to focus on in early and later versions of the platform. The table categorizes recommendations by research area (e.g., types of migration, drivers of migration) and methodological approach (qualitative, quantitative, and geospatial). We derived these recommendations from the ranking of researchers' responses on topics and methods. Topics ranked higher in terms of the percentage of respondents who selected the topic were recommended for early versions of the platform. As a general principle, future surveys and feedback from users will provide information to recalibrate the focal areas of the platform.

Table FR_1: Future migration research topics and methods of interest to migration researchers

Categories listed from highest to lowest percent of respondents

Approach	Categories
Research areas	
Consequences of migration (74%)	<ul style="list-style-type: none"> • Integration (69%) • Racism, xenophobia, and discrimination (57%) • Refugees (46%) • Migration laws and policies (45%) • Migrant labor market participation (45%)
Special topics (61%)	<ul style="list-style-type: none"> • Ethnic/racial minorities (62%) • Social cohesion (62%) • Protection of migrant rights (54%) • Equal opportunity for migrants (54%) • Migrant access to services (53%) • Social and psychological support (52%)
Drivers of migration (40%)	<ul style="list-style-type: none"> • Employment (64%) • Migrant aspirations (59%) • Economic downturn/poverty (59%) • Migration networks (53%) • Climate change (52%)
Types of migration (25%)	<ul style="list-style-type: none"> • Long term (72%) • Forced migration (59%) • Immigration (58%) • International migration (58%) • Labor migration (58%) • Refugees (58%)
Methodological approaches	
Qualitative (61%)	<ul style="list-style-type: none"> • Case studies (82%) • Narrative analysis (73%) • Thematic analysis (72%) • Ethnographic methods (70%) • Content analysis (68%),
Quantitative (56%)	<ul style="list-style-type: none"> • Regression (79%) • Longitudinal/time series (71%) • Correlational (69%) • Cross-national (58%) • Social network analysis (53%)
Geospatial (38%)	<ul style="list-style-type: none"> • Spatial clustering (77%) • Longitudinal geospatial analysis (68%) • Spatial networks (65%) • Spatial regression (57%)

The platform will assist researchers to access curated sets of literature for specific topic areas. These would be drawn from within the body of literature contained in the online platform. The

platform would provide a list of these subsets, from which the user would select a research area of interest. Then, the large language model (LLM) recommendation system of the platform would suggest recommended sets of articles based on the user's queries. The user could then select among the articles listed to gain access to the research articles of interest.

The survey identified topics of interest by first asking researchers to select the migration research areas they would like to study in the future. For the selected research areas, the survey inquired about specific topics of interest. It is for these topics that the online platform designers would create curated sets of literature.

Table FR_2: Recommendations for research topics to subset the data and literature, and methods to provide guidance and documentation in the online research platform

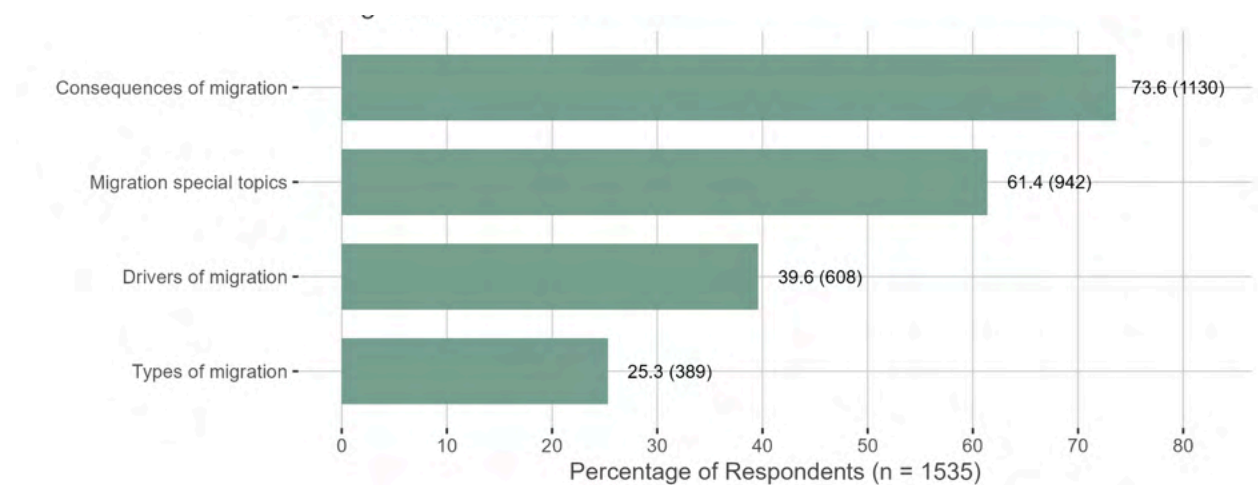
Areas of interest	Version timing	Recommended focus areas
Topics		
Types of migration	Early	Refugees, Long-term
	Later	Forced migration, Immigration
Drivers of migration	Early	Employment opportunities, Migrant attitudes and aspirations
	Later	War, Economic downturns/poverty, Ethnic conflict
Consequences of migration	Early	Integration, Racism/xenophobia/discrimination
	Later	Migration laws and policies
Other special topics	Early	Social cohesion, Access to services
	Later	Ethnic/racial minorities
Methods		
Qualitative	Early	Case studies, Narrative analysis
	Later	Thematic analysis, Ethnographic methods, Content analysis
Quantitative	Early	Regression, Longitudinal/time series, Correlational
	Later	Cross-national, Social network analysis
Geospatial	Early	Spatial clustering, Longitudinal geospatial analysis
	Later	Spatial networks, Spatial regression

The migration platform will also support future research by providing information on methodological approaches and methods. The survey asked researchers about methodological approaches they would like to pursue in the future. Then, for the approaches selected by the respondent, the survey asked which methods the researchers would like to learn more about.

As discussed in the previous section, plans are in place for the platform to support learning about methodological approaches. Platform users will select one of these approaches, then be given a list of related methods they can learn more about. The platform will provide information about these methods to assist users in the learning process.

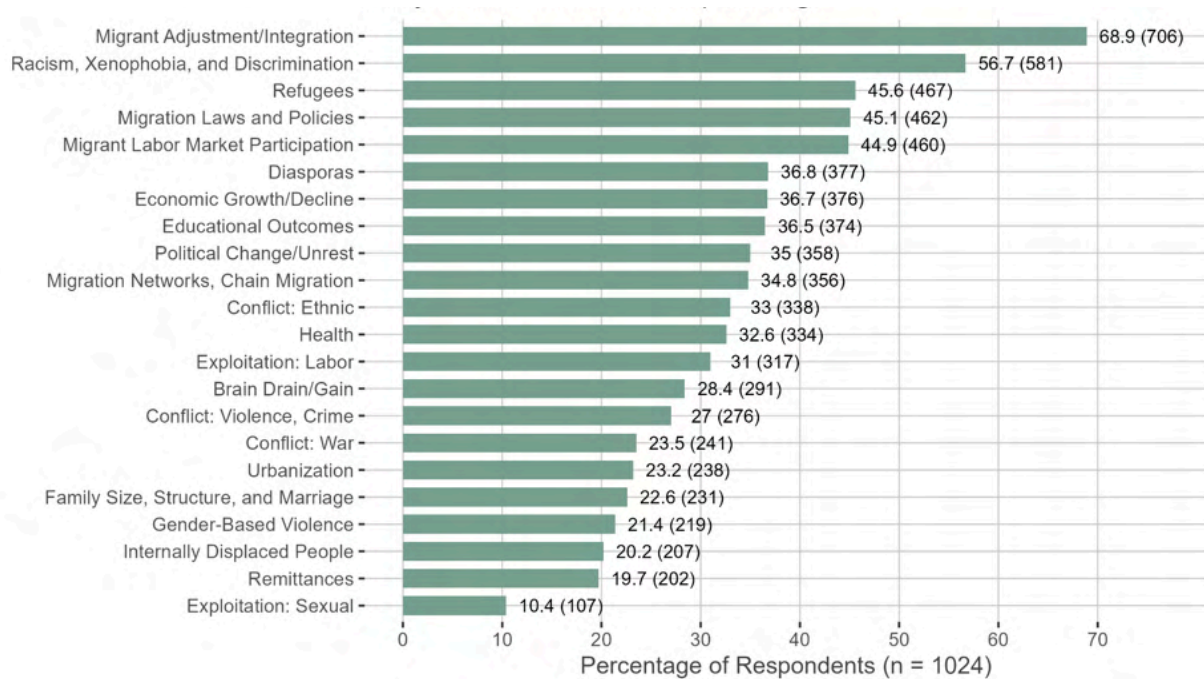
The survey started the inquiry into future areas of research interest with a question about general classes of migration topics: types of migration, drivers of migration, consequences of migration, and special topics. Researchers identified the consequences of migration as the most significant (Figure FR_1). Seventy-four percent of researchers chose this topic. Interestingly, researchers selected special topics next (61%). The special topic category was intended to encompass topics that do not fit well into general categories. Researchers selecting this second most often may indicate that they have varied research interests that do not fit well into large categories. Drivers of migration, a classic area of migration research, ranked third with 40% of respondents selecting this topic. Types of migration, which include topics such as immigration, forced migration, and labor migration, accounted for only a quarter of the responses. This could also be an indication that researchers are interested in more specific topics than general types of migration.

Figure FR_1: Which of the following research areas would you like to expand into new migration topics?



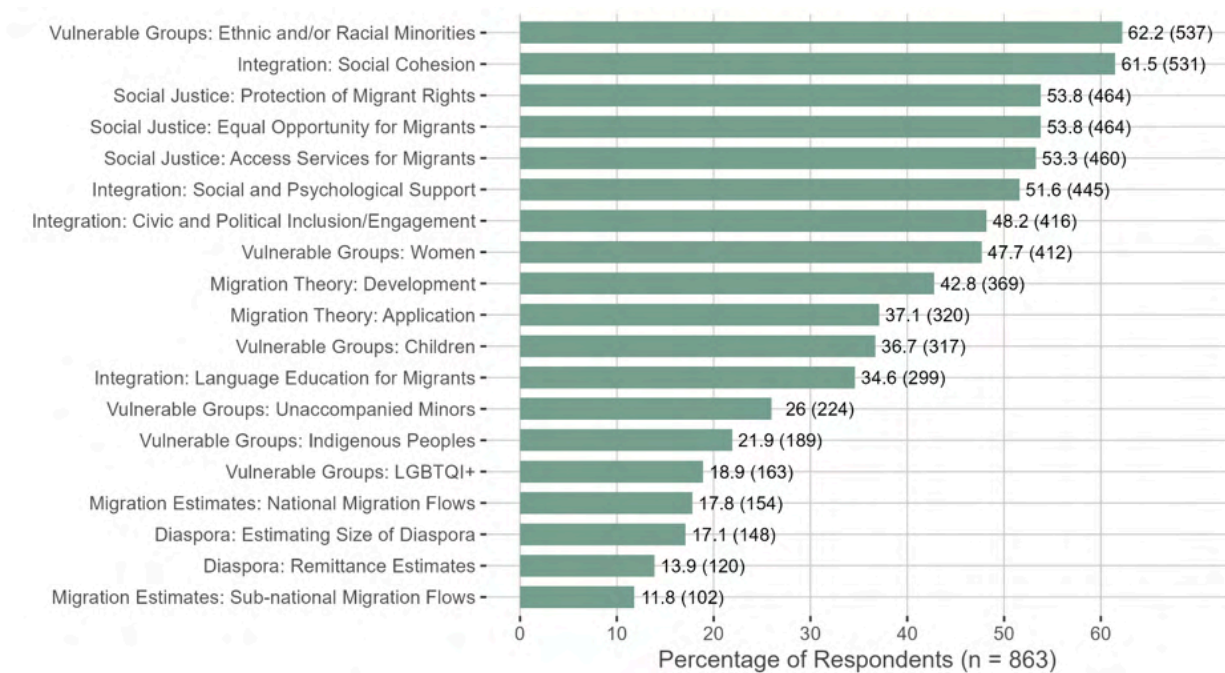
Among the researchers who selected a research area, the survey asked them which three topics they would like to pursue in the future. Researchers selected "Consequences of migration" most often. Within this research area, the largest percentage of researchers selected migrant adjustment/integration as a topic of interest (Figure FR_2). Sixty-nine percent of respondents selected this topic. The only other topic selected by more than half of the respondents was racism, xenophobia, and discrimination, which was selected 57% of the time. Approximately 45% of researchers focused on refugees, migration laws and policies, and migrant labor market participation. Thirty-seven percent selected diasporas, economic growth/decline, and educational outcomes. Roughly a third or less of respondents selected conflict-related topics. Thirty-five percent chose political change/unrest. 33% chose ethnic conflict, 27% chose violence and crime, and 24% chose war. Only 20% selected remittances, but with the decline of development assistance, there may be increased interest in that topic.

Figure FR_2: Which three “consequences of migration” are you interested in pursuing in your research?



Expressing their interest in specific topics, researchers chose “Migration special topics” second among the general topics. Ethnic and racial minorities, and social cohesion topped the list with 62% of researchers selecting these two topics (Figure FR_3). Social justice issues were also of interest, with 54% of respondents selecting protection of migrants' rights and equal opportunity for migrants and 53% selecting access to services for migrants. Integration-related topics rank next among topics of interest: 62% of respondents selected social cohesion, 52% selected social and psychological support, 48% selected civic and public inclusion/engagement, and 35% selected language education for migrants. In terms of vulnerable groups, 48% selected women, 37% chose children, 26% chose unaccompanied minors, 22% chose indigenous peoples, and 19% chose LGBTQI+. Perhaps because vulnerable groups are sub-populations, these topics did not garner as much interest as integration and social justice topics.

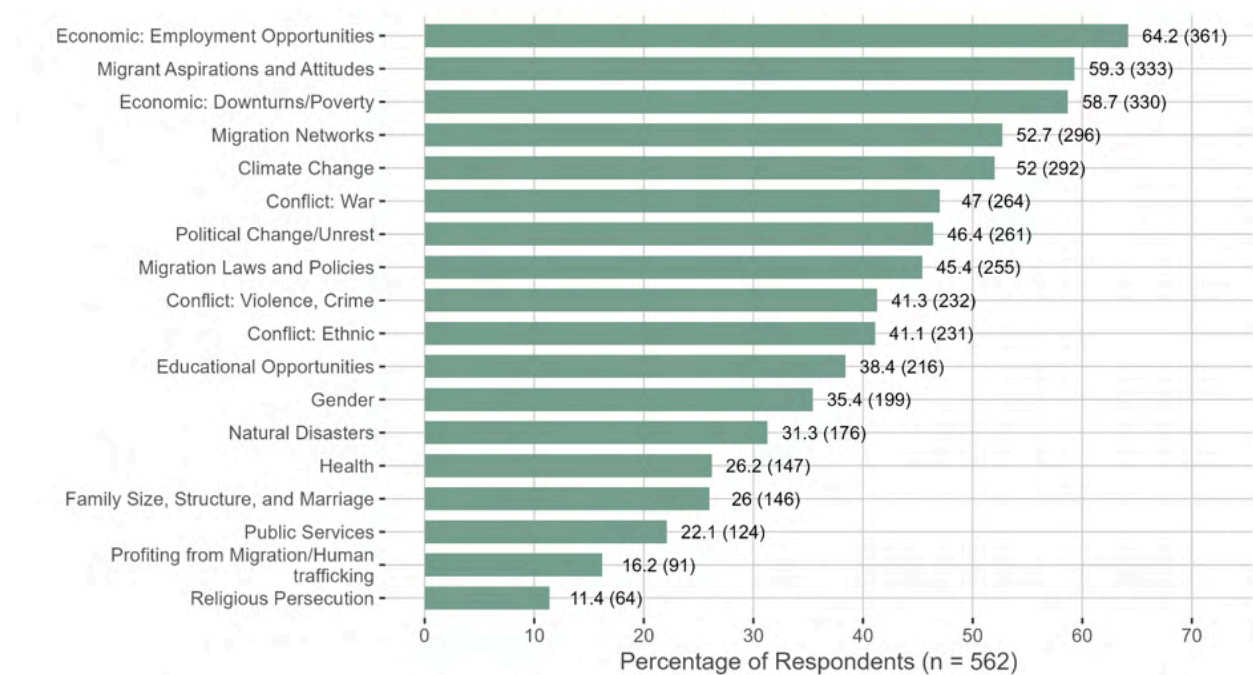
Figure FR_3: Which three “migration special topics” are you interested in pursuing in your research?



Less than 18% selected the data-related topics of national migration flows, the size of the diaspora, remittance estimates, and sub-national migration flows, although the platform may include such data as an innovation to the field. The low response rate for these topics could be due to most researchers being data consumers rather than producers, resulting in their limited interest in producing such data. When considering whether to include such data in the platform, we will separate out the interest in using these data in research from the interest in producing these data.

In the past, what drove individuals to migrate was a core area of migration research. Over time, the emphasis has shifted to the consequences of migration and special topics. Drivers of migration remain an important topic, although not as significant as in the past. Among researchers who chose this research area, employment opportunities topped the list of topics of interest, with 64% of respondents selecting this topic (Figure FR_4). Migrant aspirations and attitudes, as well as poverty, were next in the list, with 59% selecting these topics. Ranked below these, 53% selected migration networks and 52% chose climate change. Conflict-related topics occupy four of the next five most selected topics. Forty-seven percent of researchers selected war, 46% chose political change/unrest, and 41% chose violence and crime, and ethnic conflict. Migration laws and policies (45%) were wedged within these conflict-related topics. The least interest was for human trafficking (16%) and religious persecution (11%).

Figure FR_4: Which three “drivers of migration” are you interested in pursuing in your research?



Researchers who chose “Types of migration” as a topic were most likely to select long-term as a research topic they would like to pursue. Seventy-two percent of respondents chose this topic (Figure FR_5). In general, there was a preference for longer versus shorter durations of migration. Less than half (47%) chose short-term migration and only 35% chose circular migration. Researchers chose five other topics over half of the time. Fifty-nine percent chose forced migration and 58% chose immigration, international migration, labor migration, and refugees. A third or less chose internal displacement (33%), student migration (30%), chain migration (28%), and human trafficking (19%).

Figure FR_5: Which three “types of migration” are you interested in pursuing in your research?

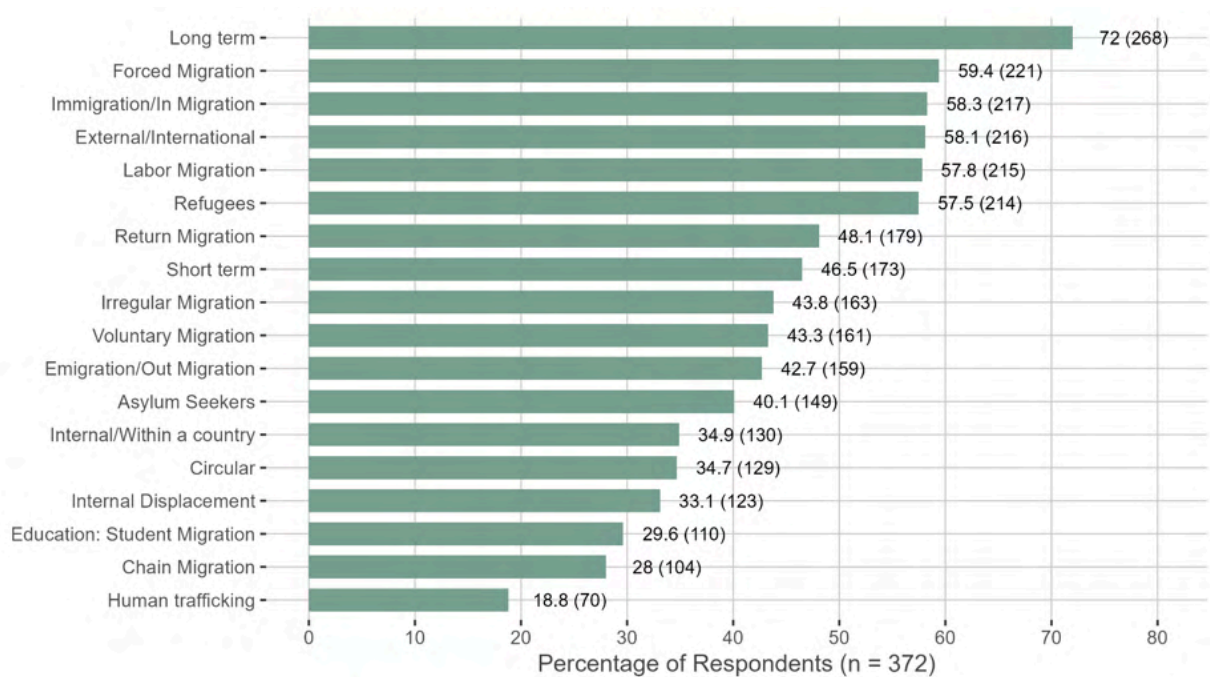
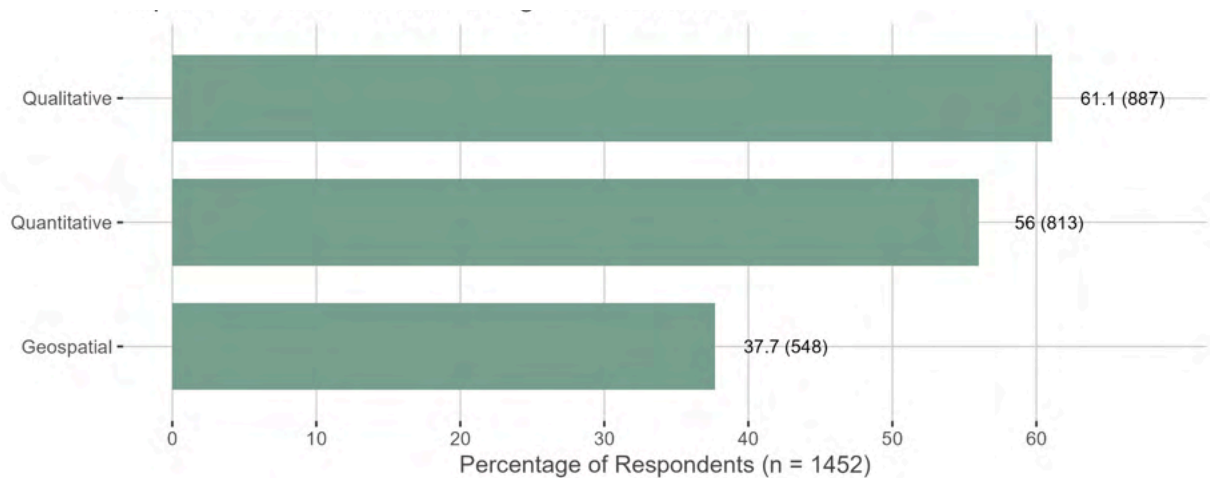


Figure FR_6: Which of the following methodological approaches would you like to expand into as new methods of migration research?

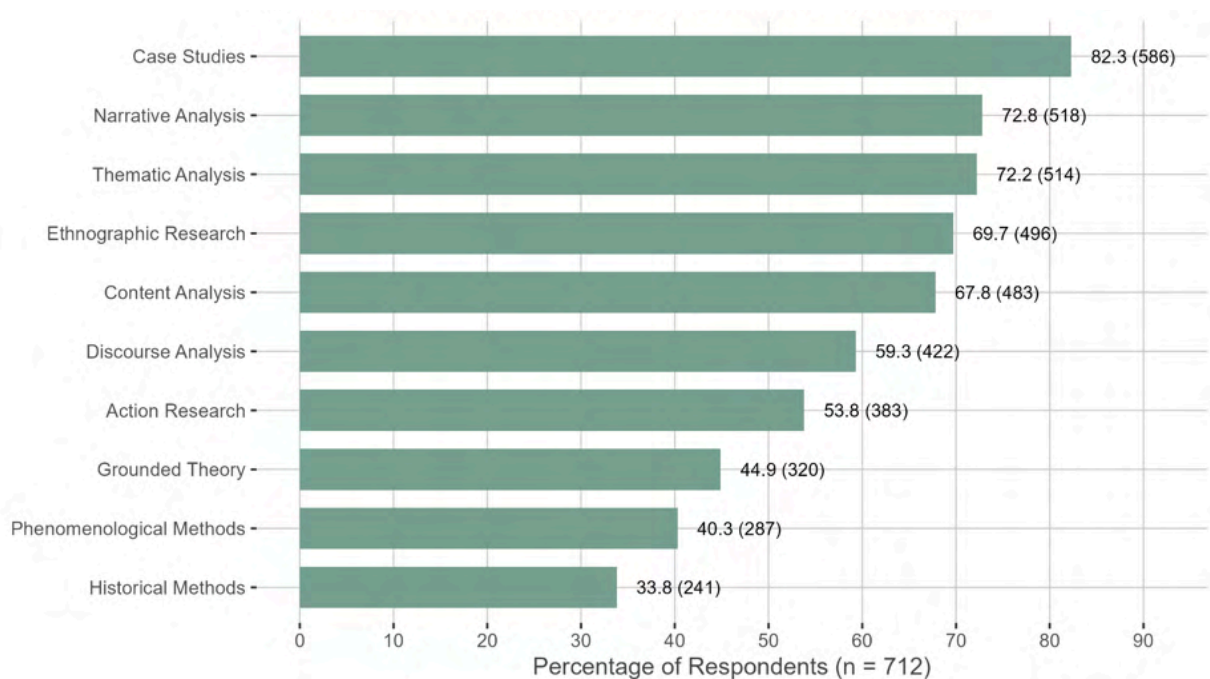


In addition to asking about the topics researchers would like to pursue, the survey also inquired about which methodological approaches researchers would like to expand into new methods in their migration research. Similar to the methods researchers currently use in their research, the ranking of these methods is qualitative at the top, followed by quantitative, and then geospatial (Figure FR_6). The differences between the methods were much less. At 56%, respondents' interest in learning new quantitative methods was much closer to qualitative

(61%) than their current use (59% compared to 76%). Likewise, interest in learning new geospatial methods fared much better. Thirty-eight percent of researchers would like to learn new geospatial methods compared to only 16% who use these methods.

The interest of migration researchers in qualitative methods follows a relatively similar ranking to the use of these methods (Figure FR_7) but the levels of interest are higher than use. The top five and the bottom five methods are the same for interest and use. Narrative analysis increases from fifth for use to second for interest. Except for case studies, levels of interest increase between use and interest. Case studies are at the top of the list, with 82% of respondents selecting this method. The top five methods increase in level. These methods are used between 41% and 65% of the time and have an interest rate between 68% and 82%. All of the bottom five methods also increase in terms of interest. These rates range from 17% to 35% for use and from 34% to 59% for interest. Over half the respondents are interested in the top seven methods, and 33% to 45% are interested in the bottom three methods. The high levels of interest necessitate prioritizing the methods to focus on for the platform. The recommendation is to first focus on the top three (case studies, narrative analysis, and thematic analysis). Over 72% of respondents are interested in these methods. Then add the next two methods (ethnographic research and content analysis) at a later time.

Figure FR_7: Which three “qualitative methods” are you interested in pursuing in your research?

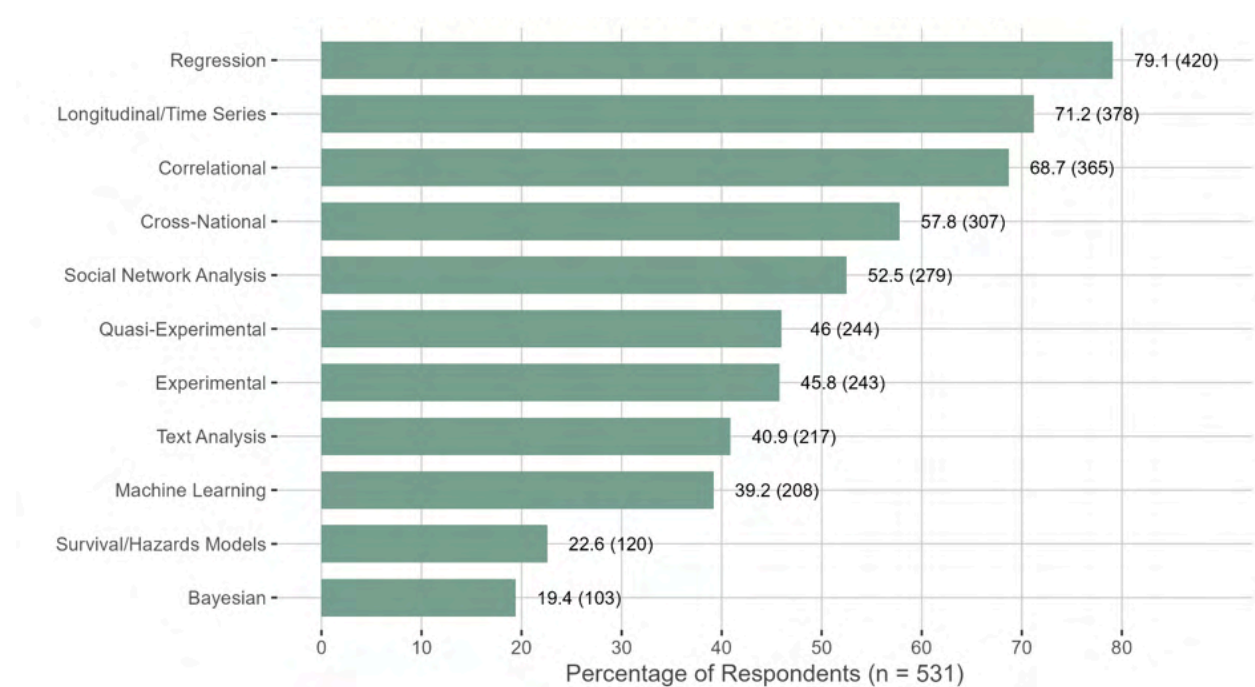


While the rankings for quantitative methods are relatively consistent between interest and use, the levels of interest are higher than for use. Regression is at the top and Bayesian is at the bottom for both use and interest (Figure FR_8). Social network analysis rises from eighth for use

to fifth for interest. Text analysis mirrors this, dropping from fifth for use to eighth for interest. Despite this drop in ranking, interest in text analysis (41%) is higher than use (26%). All of the methods increase in level from use to interest. The levels of use range from 7% to 71%, while those for interest range from 19% to 79%. Clearly, there is room for expanding researchers' knowledge of quantitative methods.

Like for qualitative methods, there will need to be prioritization of the quantitative methods to include in the platform. The platform should focus first on the top three methods (regression analysis, longitudinal/ time series, and correlational analysis). At a later time, the platform can incorporate the next two methods (cross-national and social-network analysis).

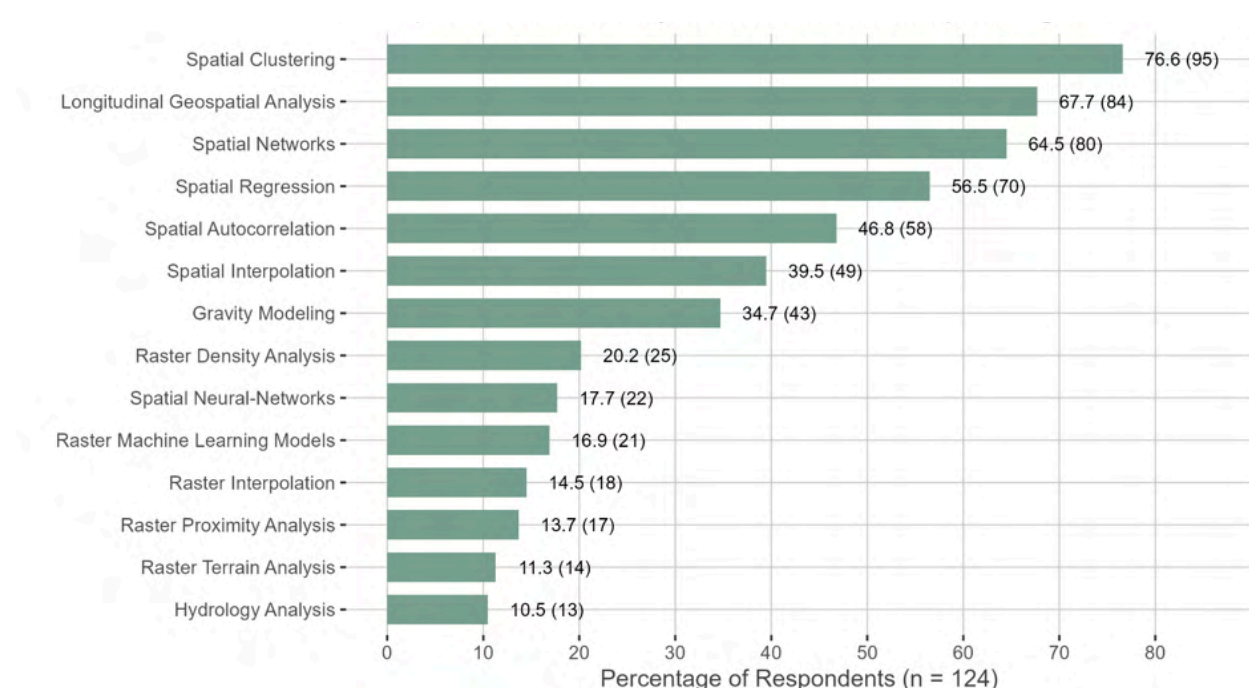
Figure FR_8: Which three “quantitative methods” are you interested in pursuing in your research?



The survey queried respondents who were interested in expanding their geospatial methodological knowledge on their interest in 14 methods. The platform will initially be able to focus on a limited number of these in the early stages of its release. Seven of the 14 have less than a third of respondents who are interested (Figure FR_9). To simplify the discussion, the focus will be on the top seven. The top seven for use match those for interest, although there are some differences in ranking. Like for qualitative and quantitative methods, interest exceeds use in all cases. Spatial clustering, the highest ranked method for use and interest, is used by 54% of respondents, compared to 77% who are interested. Sixty-five percent or more of respondents selected the top three methods (spatial clustering, longitudinal geospatial analysis, and spatial networks). These should be the primary focus of the early platform

versions. The next two (spatial regression and spatial autocorrelation) can be added to the platform at a later date.

Figure FR_9: Which three “geospatial methods” are you interested in pursuing in your research?



Theme 6: Barriers to Research

The migration platform will assist users in overcoming barriers to their pursuing new topics and methods in their research. The survey asked questions about these barriers. Table BR_1 lists findings for the most common barriers researchers face and Table BR_2 presents recommendations to mitigate these barriers.

Table BR_1: Barriers to research experienced by migration researchers

Categories listed from highest to lowest percent of respondents

Barriers to research on new:	Categories
Topics	<ul style="list-style-type: none"> • Funding (72%) • Time (54%) • Limitations in relevant data (30%) • Lack of potential research collaborators (29%)
Methods	<ul style="list-style-type: none"> • Funding (72%) • Time to learn methods (58%) • Limited understanding of methods (30%) • Lack of peers to answer questions on methods (26%)

Table BR_2: Recommendations on how the online platform can assist researchers to overcome barriers to their pursuing new research topics and methods

Barrier	Version timing	Recommendations to mitigate barriers
Funding	Early	<ul style="list-style-type: none"> • Links to funding websites
	Later	<ul style="list-style-type: none"> • Ability to post migration research funding opportunities
Time	Early	<ul style="list-style-type: none"> • Easy access to relevant data and literature
	Later	<ul style="list-style-type: none"> • Recommendation systems for data, literature, and collaborators
Limitations in relevant data	Early	<ul style="list-style-type: none"> • Curated lists of migration datasets • Links to key data sources
	Later	<ul style="list-style-type: none"> • Recommendation system for relevant data • Access to data repositories
Lack of potential research collaborators	Early	<ul style="list-style-type: none"> • Recommend potential collaborators • Emphasize priority skills when recommending collaborators • List conferences where researchers can meet potential collaborators • List researchers from the same institutions/department
	Later	<ul style="list-style-type: none"> • Discussion groups on migration topics • Recommend relevant conferences
Limited understanding of methods	Early	<ul style="list-style-type: none"> • Links to websites with documentation/advice on methods
	Later	<ul style="list-style-type: none"> • Content/documentation in the platform to teach about methods
Lack of peers to answer questions on methods	Early	<ul style="list-style-type: none"> • Links to websites where researchers answer questions on methods
	Later	<ul style="list-style-type: none"> • The platform hosts discussion forums on methods

The survey asked researchers to select the top three barriers in their pursuit of new topics and methods in migration research. Researchers most often encounter funding and time barriers. Over half of the researchers experience these barriers (Figures BR_1 and BR_2). Seventy-two percent of researchers listed funding as a barrier to their pursuing new topics and methods. Fifty-four percent of researchers reported experiencing time constraints when adopting new topics. Furthermore, 58% experience time constraints when adopting new methods.

The platform can have features that alleviate both of these barriers. To reduce funding constraints, the platform can have links to sources of funding for migration research. The platform can also add the ability to post migration research funding opportunities as a means to reduce the funding barrier. The platform can help researchers with time constraints by providing easy access to relevant data and literature. Recommendation systems for data and literature will reduce time constraints by streamlining the process of finding relevant data and literature. The recommendation system for collaborators will also reduce time constraints by helping researchers identify collaborators who can implement part of the research workload.

Less than a third of researchers experienced other kinds of barriers. Thirty percent of respondents listed limitations in relevant data as a barrier to pursuing new research topics. Recommendations for accessing data in the platform features section of this report will help mitigate this barrier. Two key recommendations include links to migration datasets and a system to recommend relevant data. Twenty-nine percent of respondents selected a lack of potential research collaborators as a barrier. This barrier can be mitigated by the recommendations for collaboration presented in the sections on platform features and collaboration.

Figure BR_1: What barriers do you experience to pursuing research on new types of drivers, consequences, and special topics of migration research?

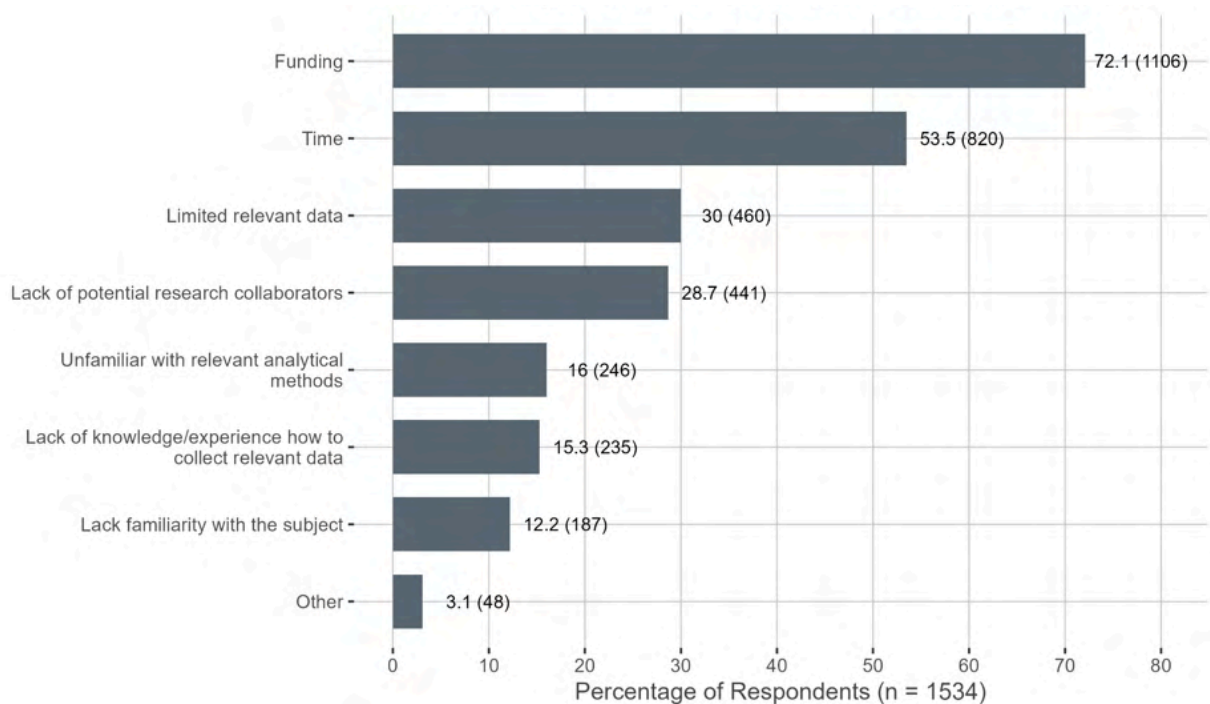
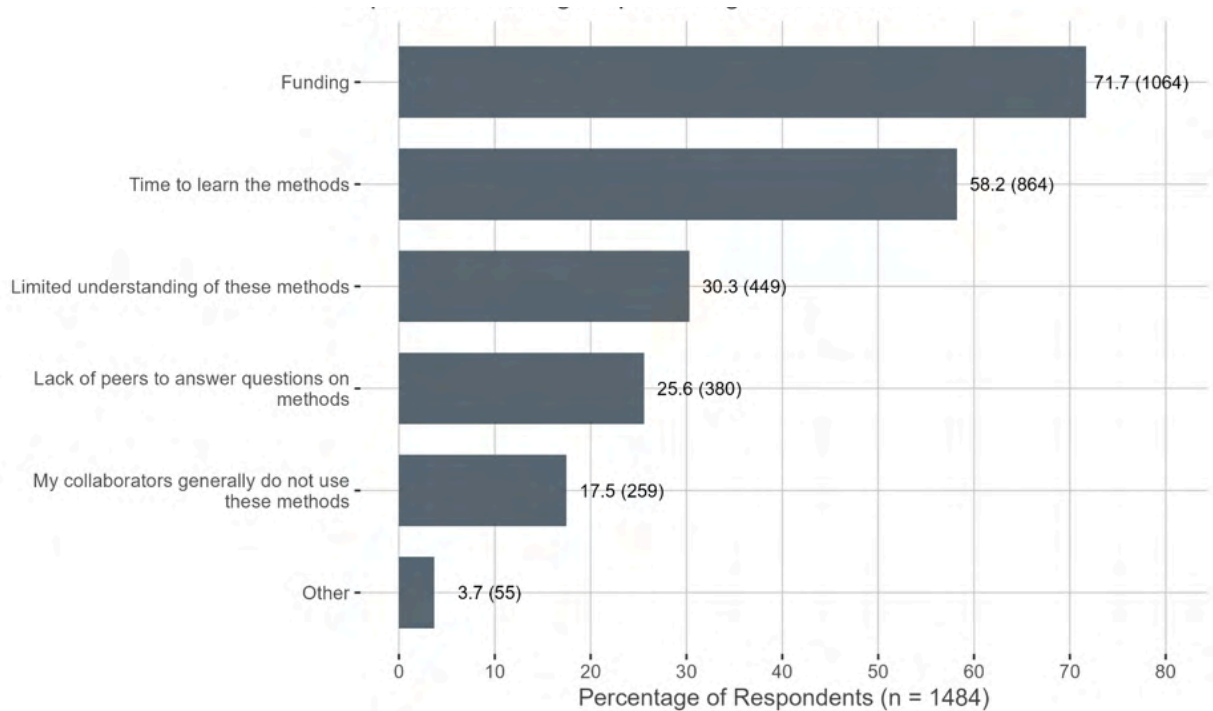


Figure BR_2: What barriers do you experience to pursuing research on new methods of qualitative, quantitative, or geospatial migration research?



Thirty percent of researchers selected limitations in their understanding of the methods as a barrier to their implementing those methods, while 26% listed the lack of peers to answer questions on the methods as a constraint. The platform can reduce the barrier of a lack of understanding of methods by posting links to websites with documentation and advice on methods, and hosting documentation on methods. The lack of peers to answer questions on methods can be addressed by the platform containing links to websites where researchers explain methods and answer questions. The platform can also host forums where researchers discuss methods.