

OntologySummit2010: Creating the Ontologist of the Future

Panel-5: **"Synthesizing the Community Input"**

Survey Results – first look: Ontologist Training Requirements

Amanda Vizedom

March 4, 2010

Overview

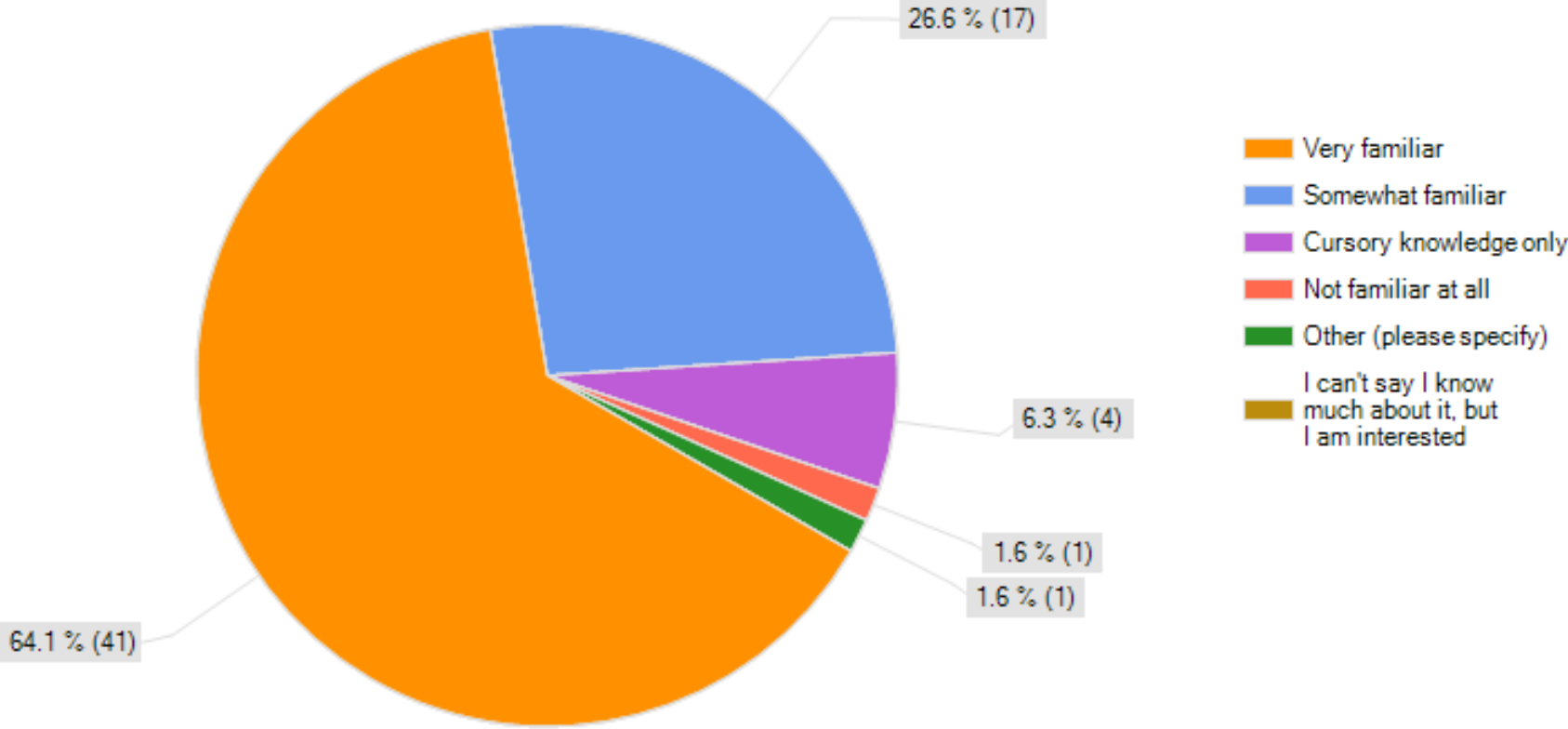
- Who is responding?
 - What sectors and disciplines do they come from?
 - What is their relationship to ontology research and development?
- What are they saying about what ontologists do?
 - Knowledge used, skills needed, most valuable characteristics
- What are they saying about training needs?
- Are there interesting patterns in the responses?

Who is responding?

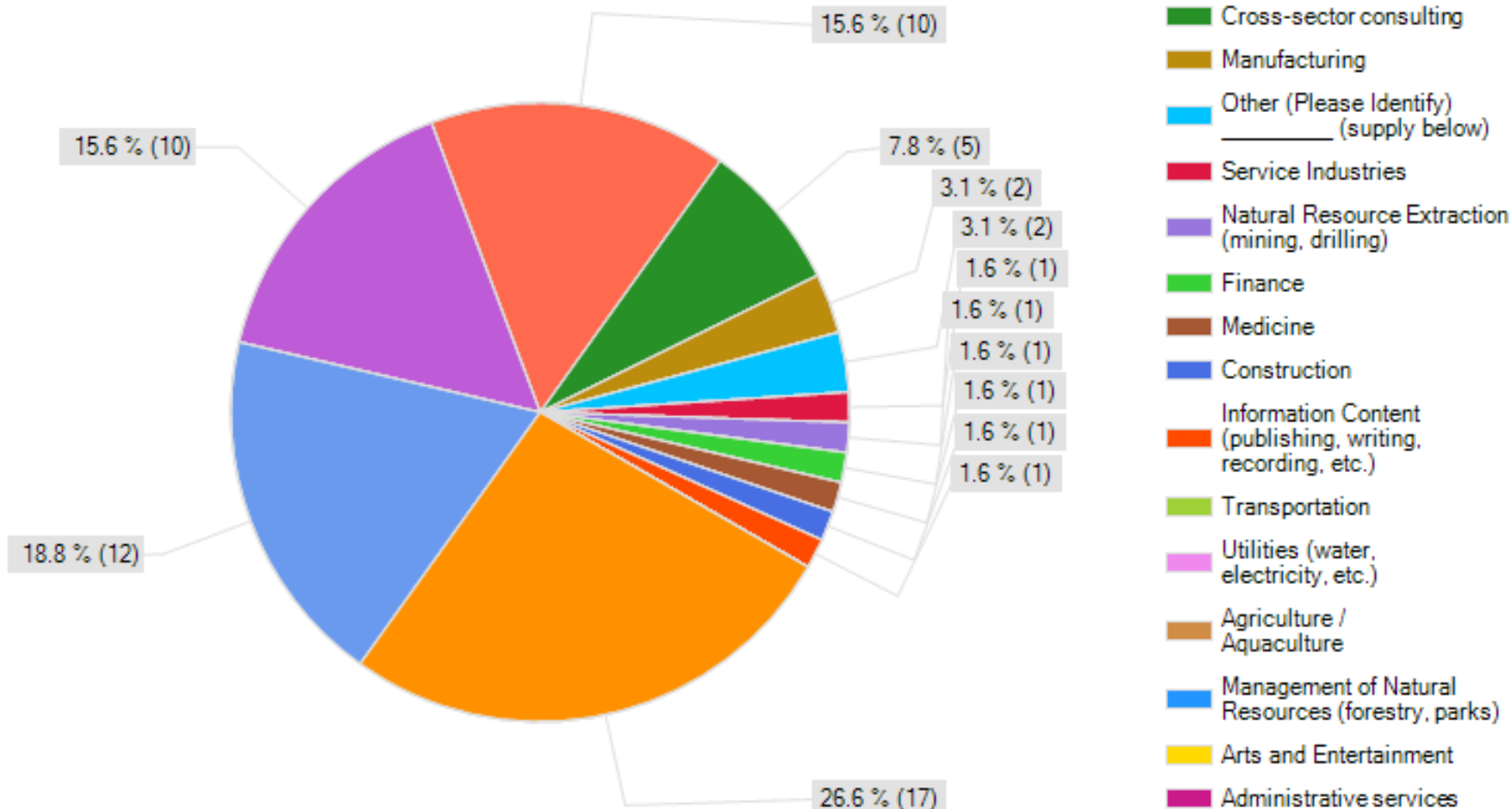
- Wide variety of fields
- Variety of roles
- Range of experience, but many very experienced
- Range of backgrounds.

CHARTS AND DATA - SIMPLE

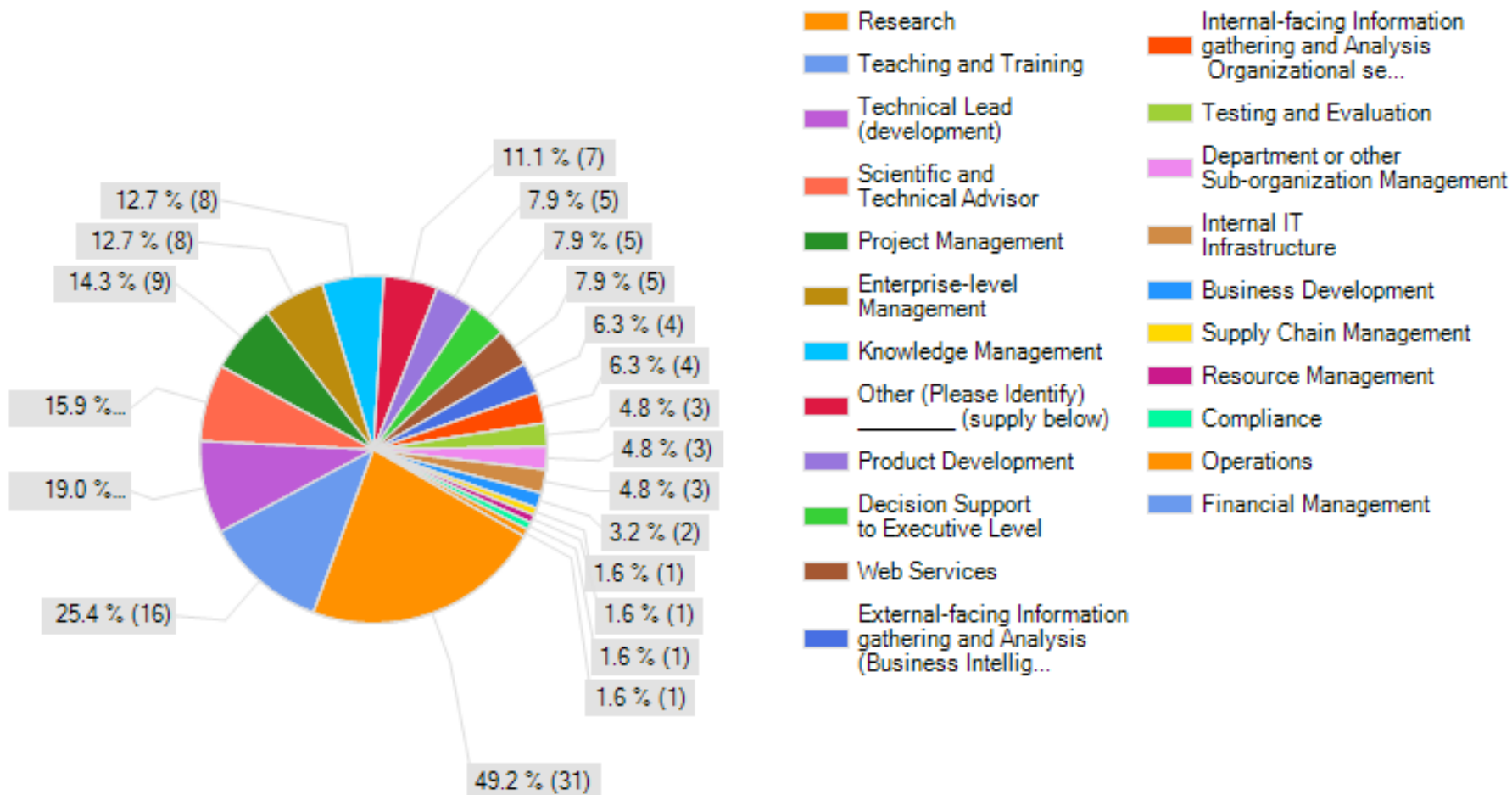
FamiliarityWithOntologyForInformationScience. How familiar are you with the field and the disciplines of Ontology for Information Science, Formal ontology and Ontological Engineering?



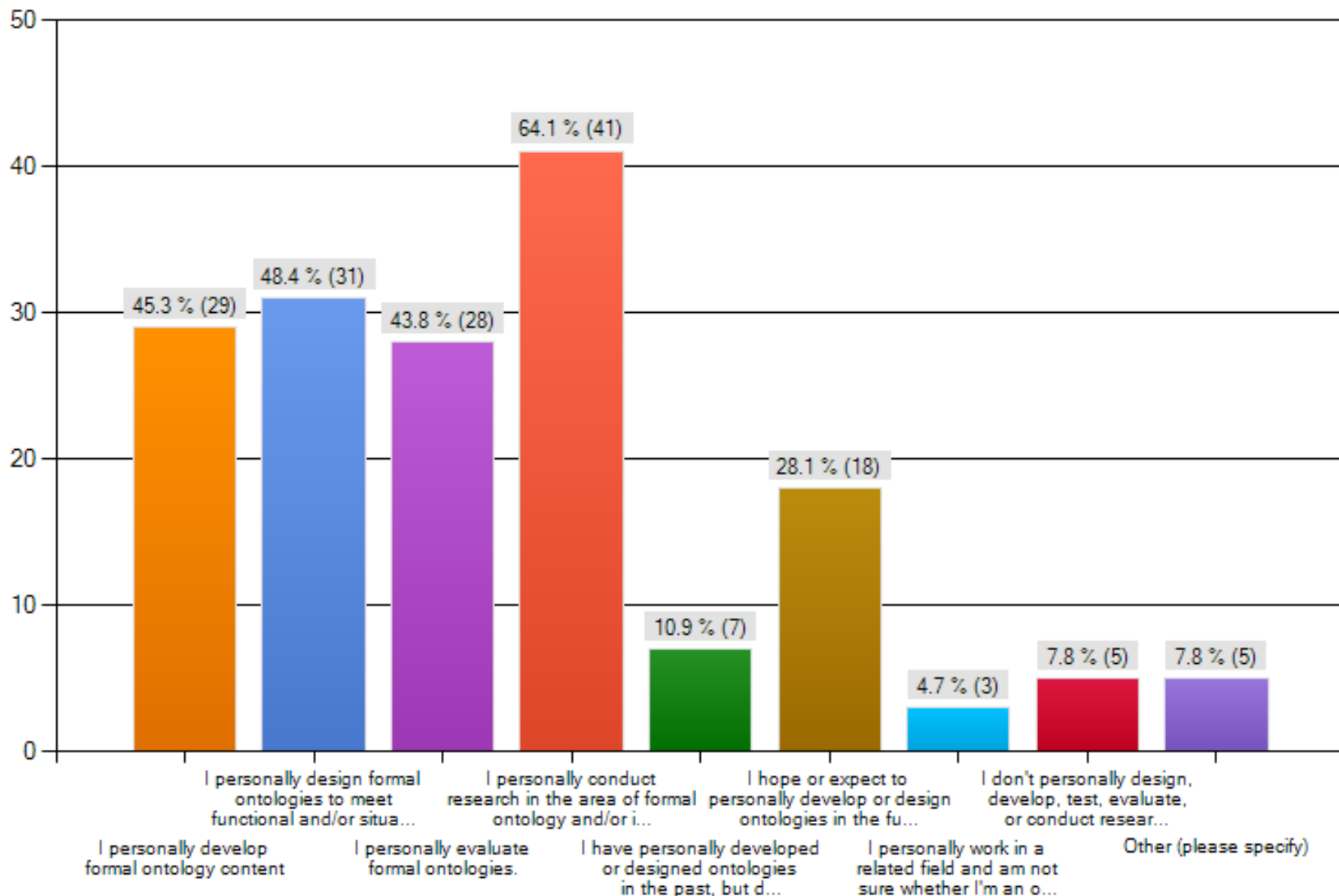
RespondantPrimarySector. What is your Organization's primary Sector of operation? Please answer with reference to the organization you identified in 1a. A small collection of very general Sectors is given here. Please remember that here you are characterizing your organization, rather than your own specialty or function within it.



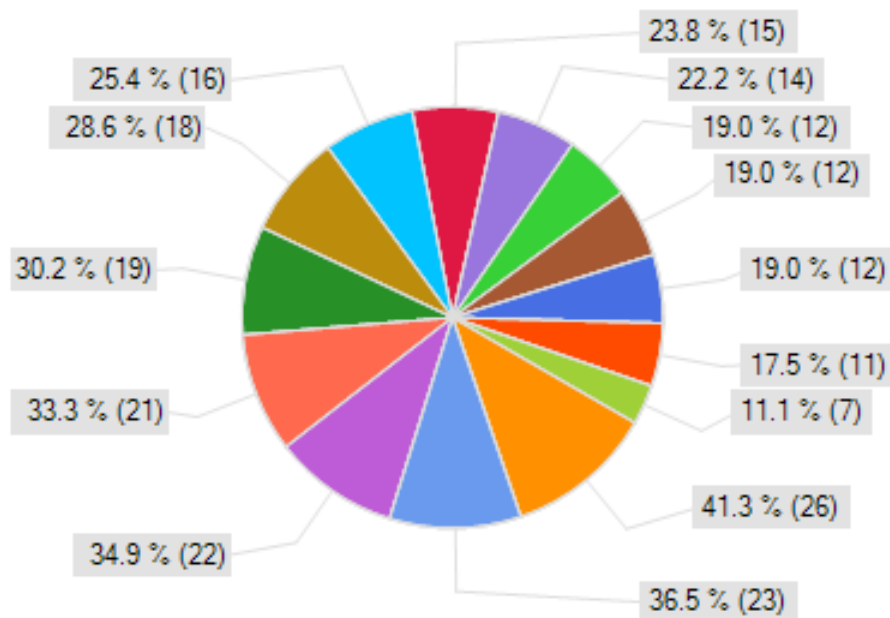
RepondantPrimaryFunction. What is your primary function within your organization? A small collection of common roles is given here; if none fit, please use the "other" option and specify,



RespondantPersonalOntologyWork. Do you personally design, develop, test, evaluate, or conduct research on formal ontologies? Or, have you done significant work of this sort in the past? If so, please indicate the nature of the work. If not, please select "I don't ..."

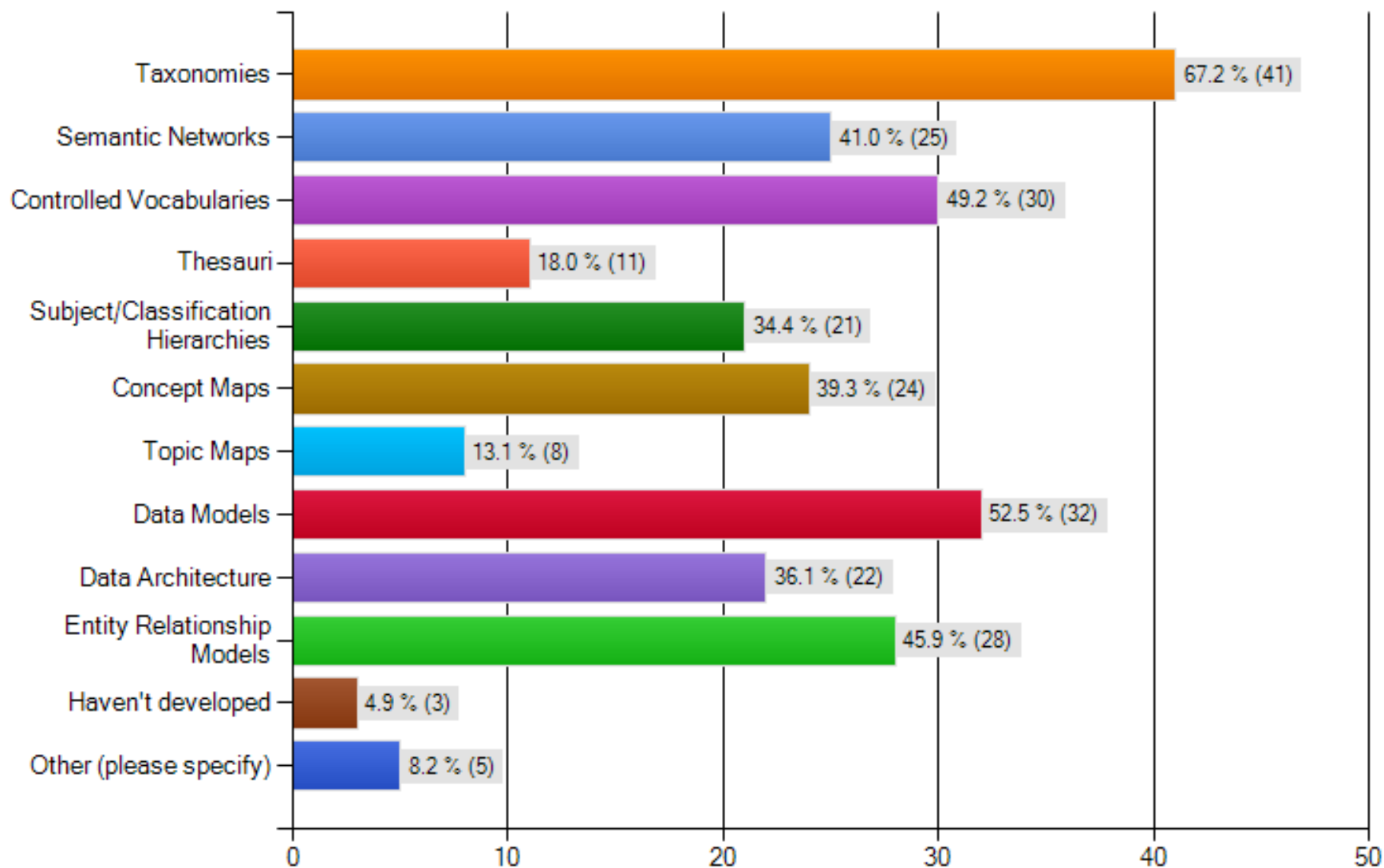


RespondantOtherRelationshipToOntologyWork.
Within the organization and role you identified, do you have a relationship to ontologist and/or ontology work, other than or in addition to personally performing work as described in 1d? Or, have you had a significant relationship to ontology work in the past? If so, please indicate the nature of this relationship. If not, please select "I don't have ..."

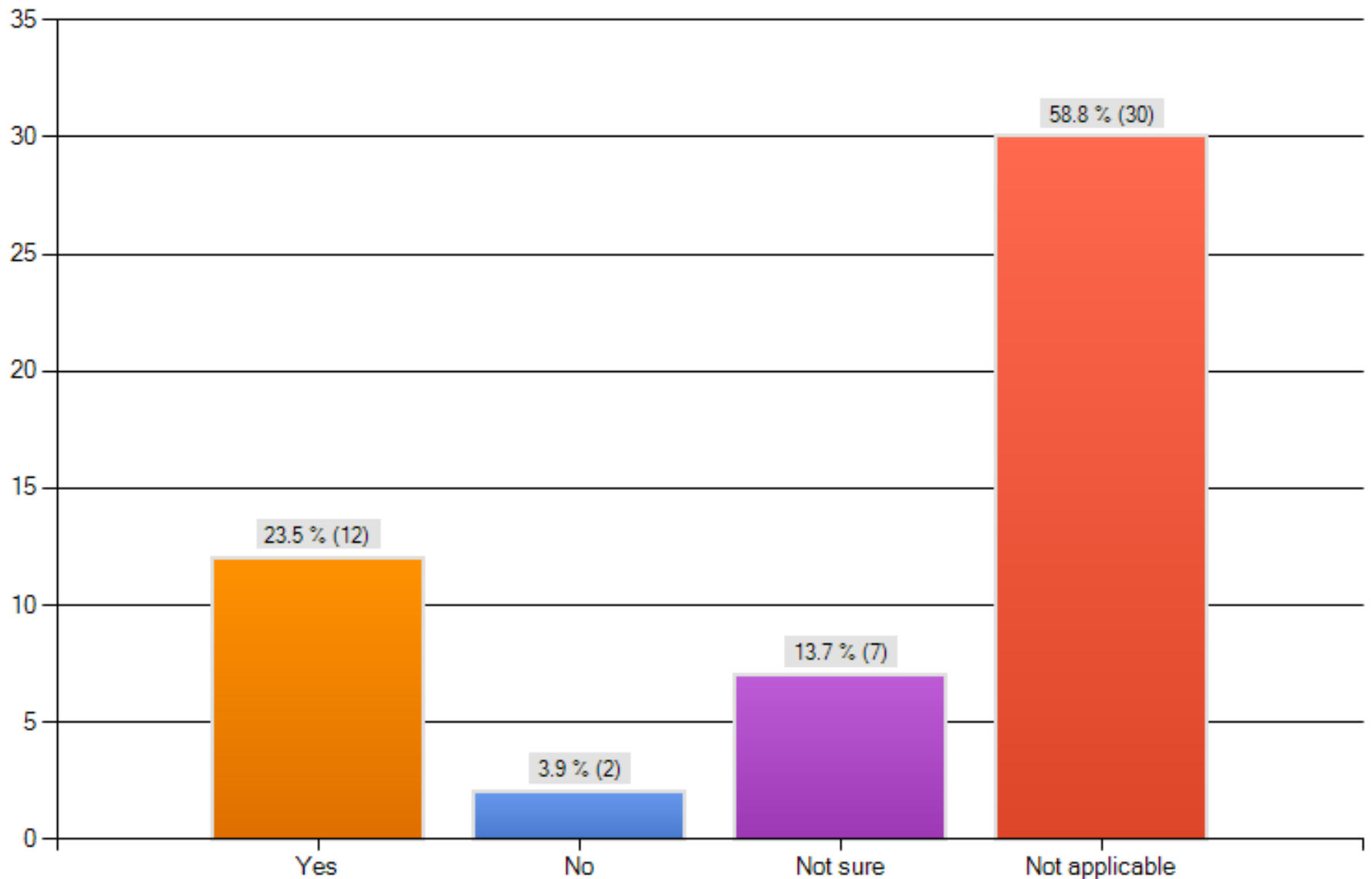


- I personally oversee a project or program that includes ontology desi...
- I personally am involved with a project, program, or team that depend...
- I personally design systems in which the system or one or more compon...
- I personally oversee a team whose responsibilities include ontology d...
- I am personally involved in the recruiting or hiring of ontologists
- I personally design applications that make use of ontologies
- I personally oversee an ontology design or development team
- I am personally involved in the training of ontologists
- I am personally involved in the assignment of ontologists to projects
- I personally develop systems in which the system or one or more compo...
- I am personally involved in the evaluation of ontologists
- I don't have a significant relationship to ontology work other than, ...
- I personally develop applications that make use of ontologies
- Other (please specify)

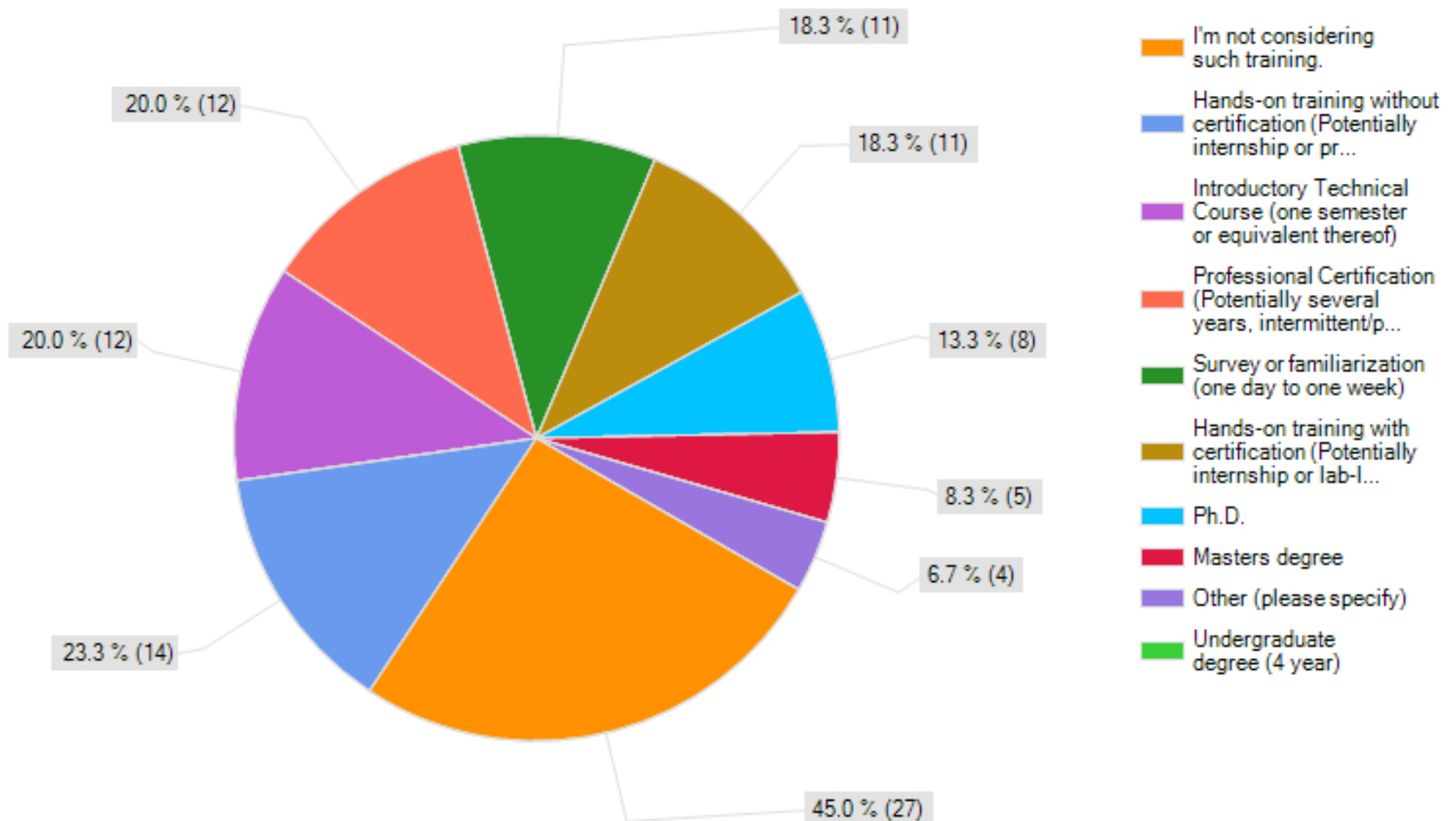
RespondantWorkInNeighboringField. Have you personally designed or developed taxonomies, thesauri, controlled vocabularies, classification systems, data models, knowledge models, category structures, or other Knowledge Organization Structures beyond (or in addition to) full formal ontologies? Or, have you done significant work of this sort in the past? If so, please indicate what kinds of KOS or models you have developed:



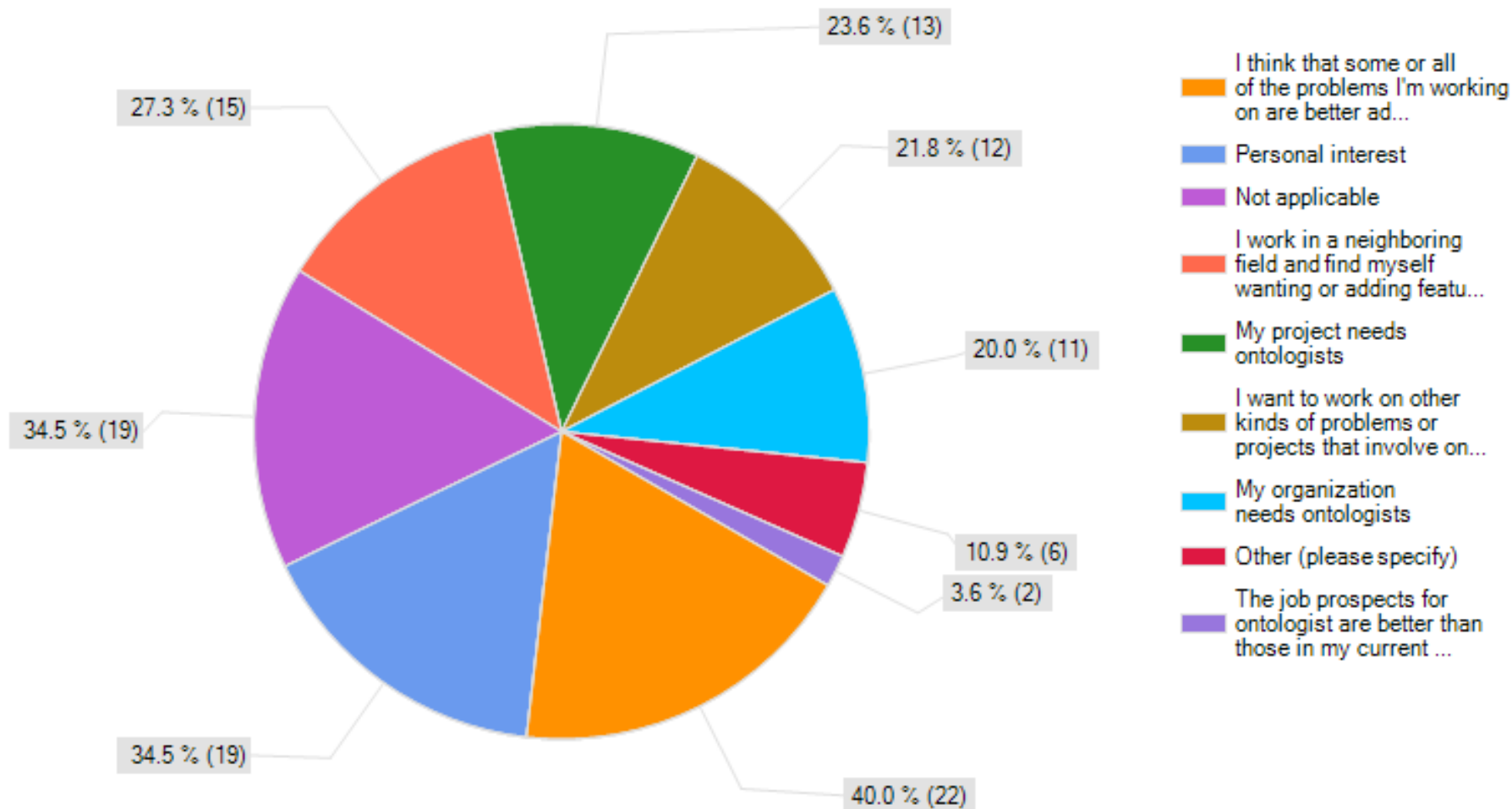
NeighborFieldRelationToOntology. If you answered no to 7 (RespondantPersonalOntologyWork) but yes to 9 (RespondantWorkInNeighboringField) above, do you consider this work to be ontology work, and yourself in this capacity to have worked as an ontologist? If this doesn't apply to you, please choose the last option.



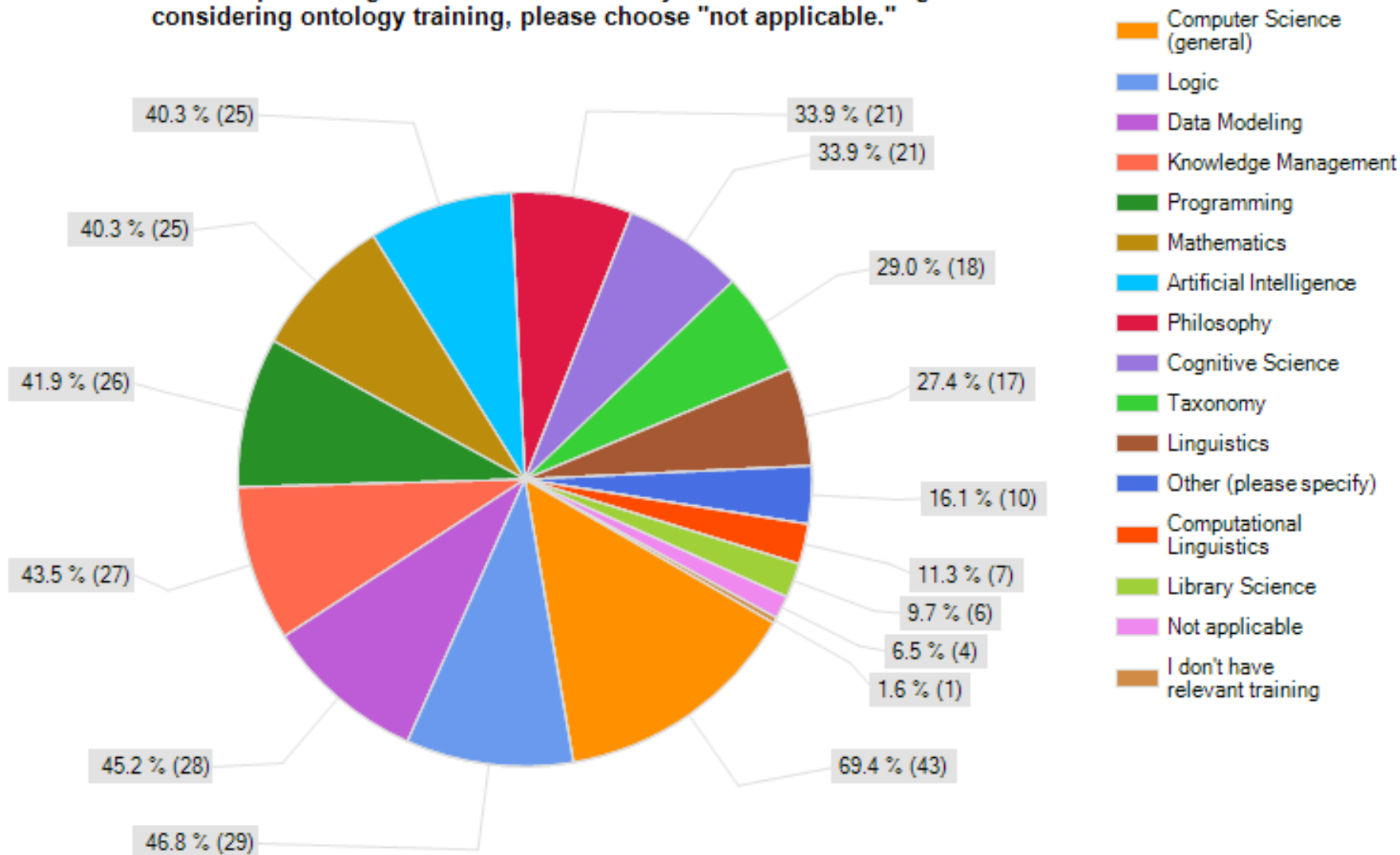
RespondantAsPotentialTrainee. Are you looking for or considering receiving training in ontology? If so, please indicate the level of training you are considering. If not, please choose "I'm not considering..."



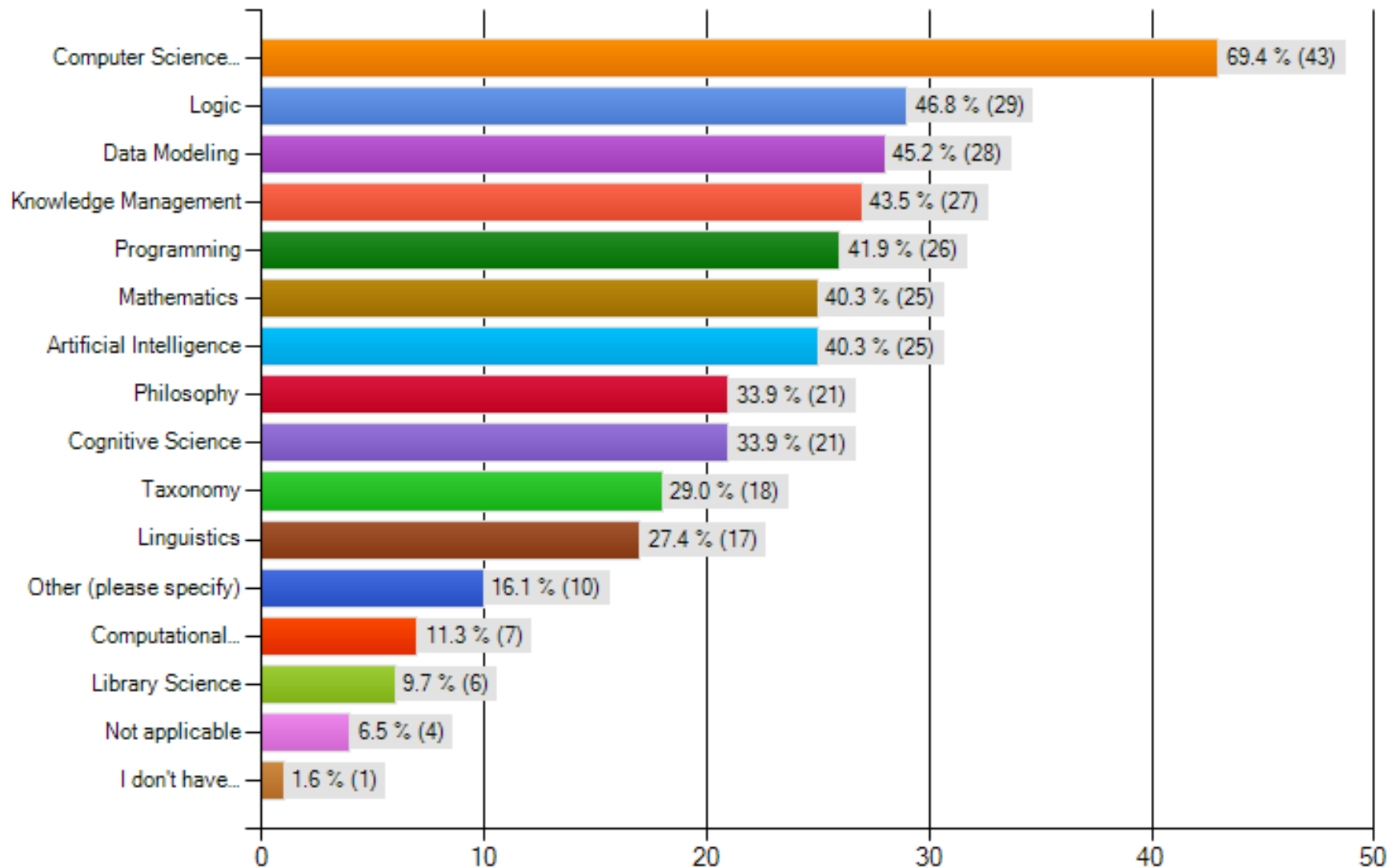
ReasonForInterestInOntology. If you are considering training in ontology, what is the reason for this interest? If you are not considering such training, please choose "Not applicable."



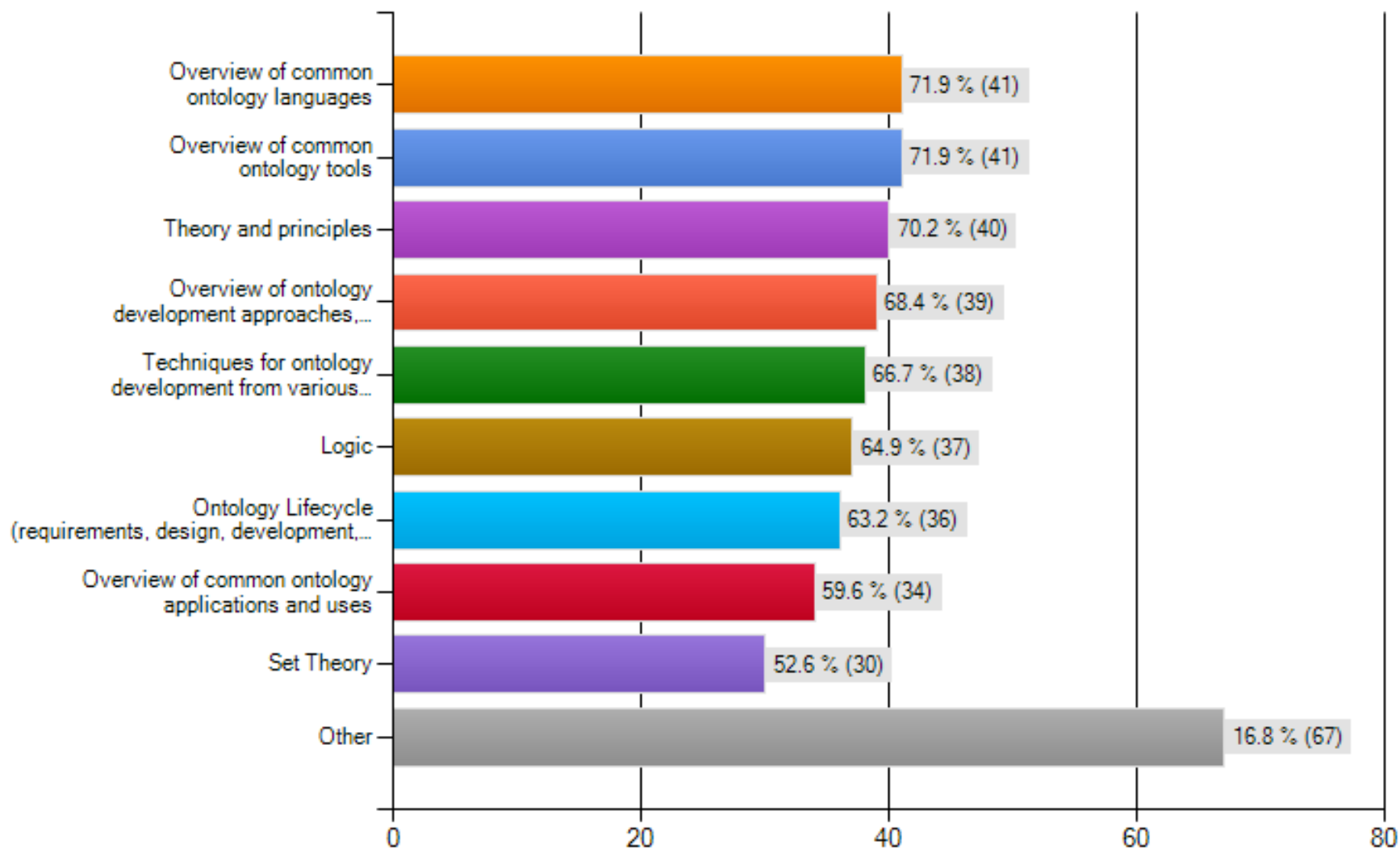
RespondantRelatedBackgroundArea. If you are currently an ontologist or are considering training in ontology, do you have prior background (formal training and/or experience) that, in your view, helps you understand or perform ontology work? If so, please state the nature of this background. A small sample of fields sometimes considered related is given; please use the "other" field to name helpful background not on the list. If you are not an ontologist or considering ontology training, please choose "not applicable."



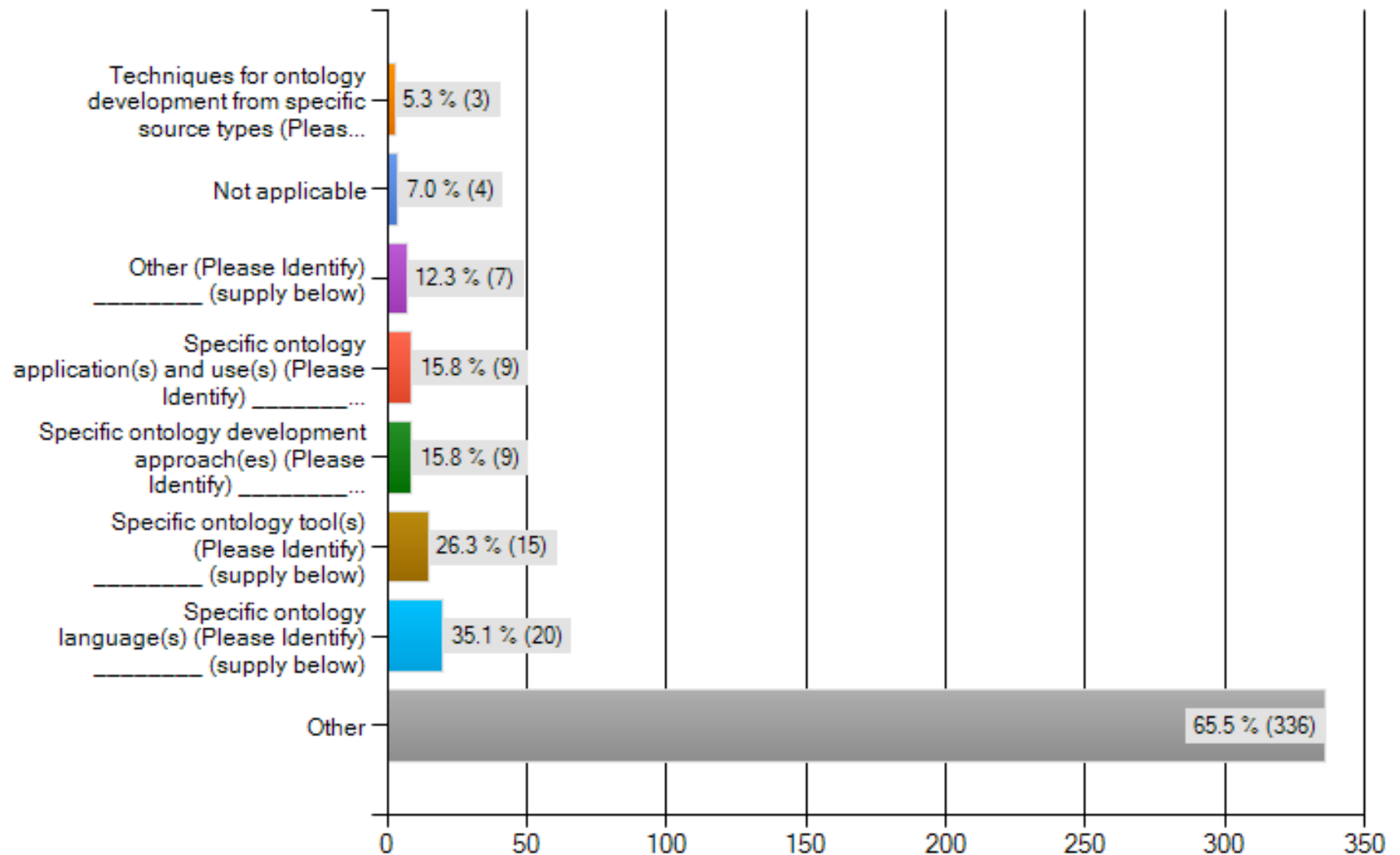
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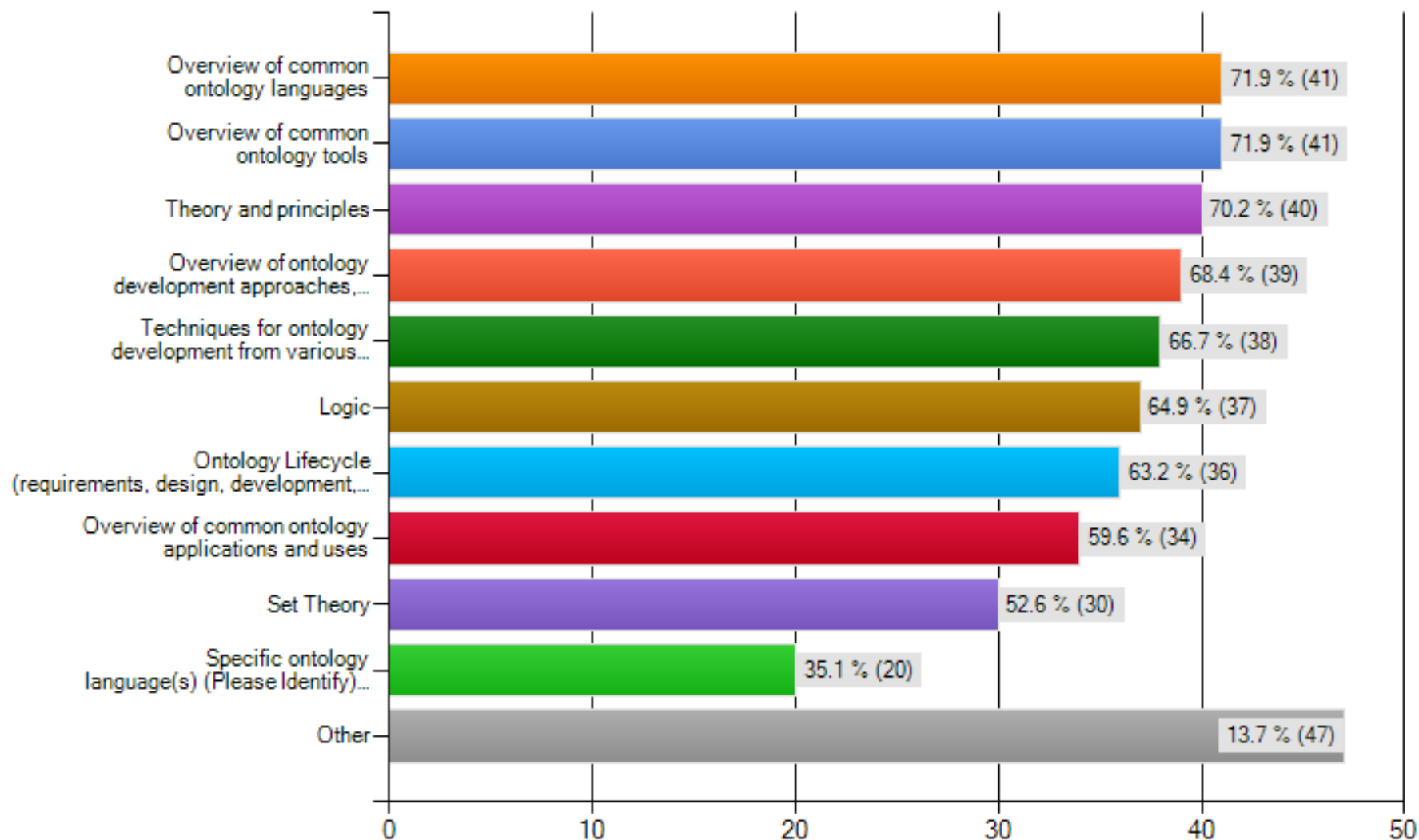
PotentialTraineeNeeds. If you are considering training in ontology or are looking for training for your current or future employees, which of the following areas of knowledge or skill are you looking for? In other words, if you were selecting a training program today, what content would you expect it to have? A small set of commonly mentioned content areas is given, but is not exhaustive. Please use the "other" option to specify additional areas needed. If you are not considering training, for your self or others, please choose "not applicable."



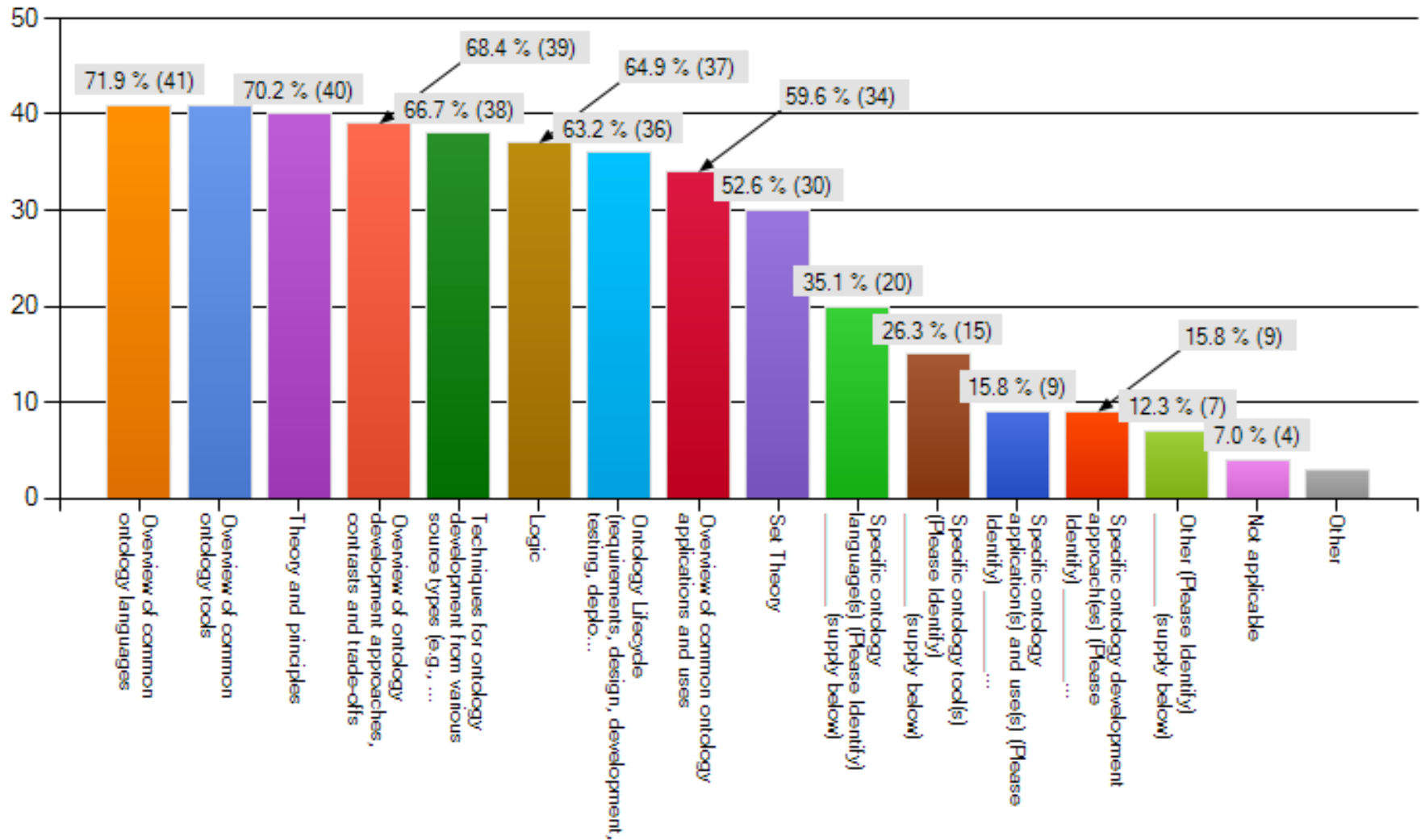
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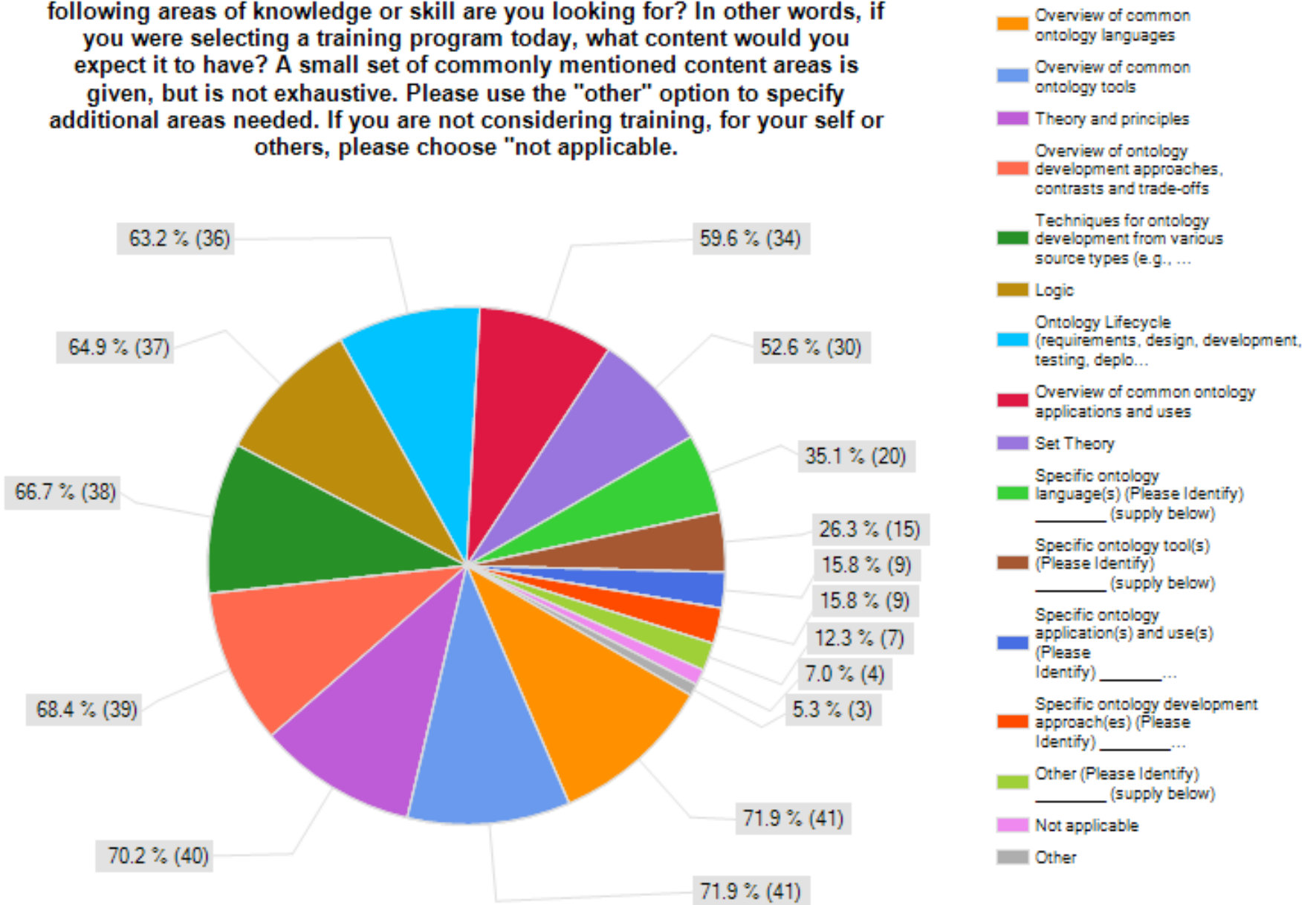
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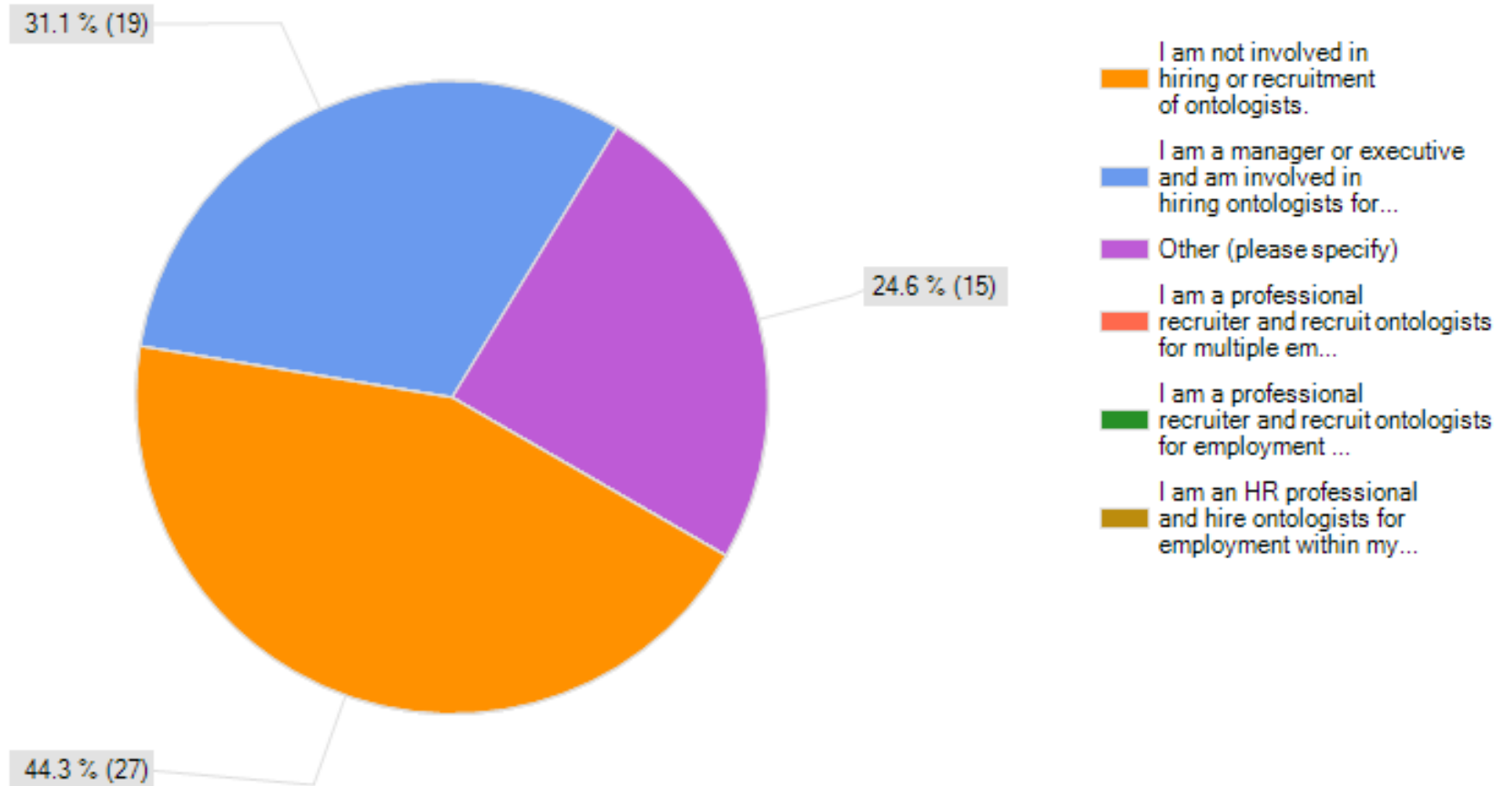
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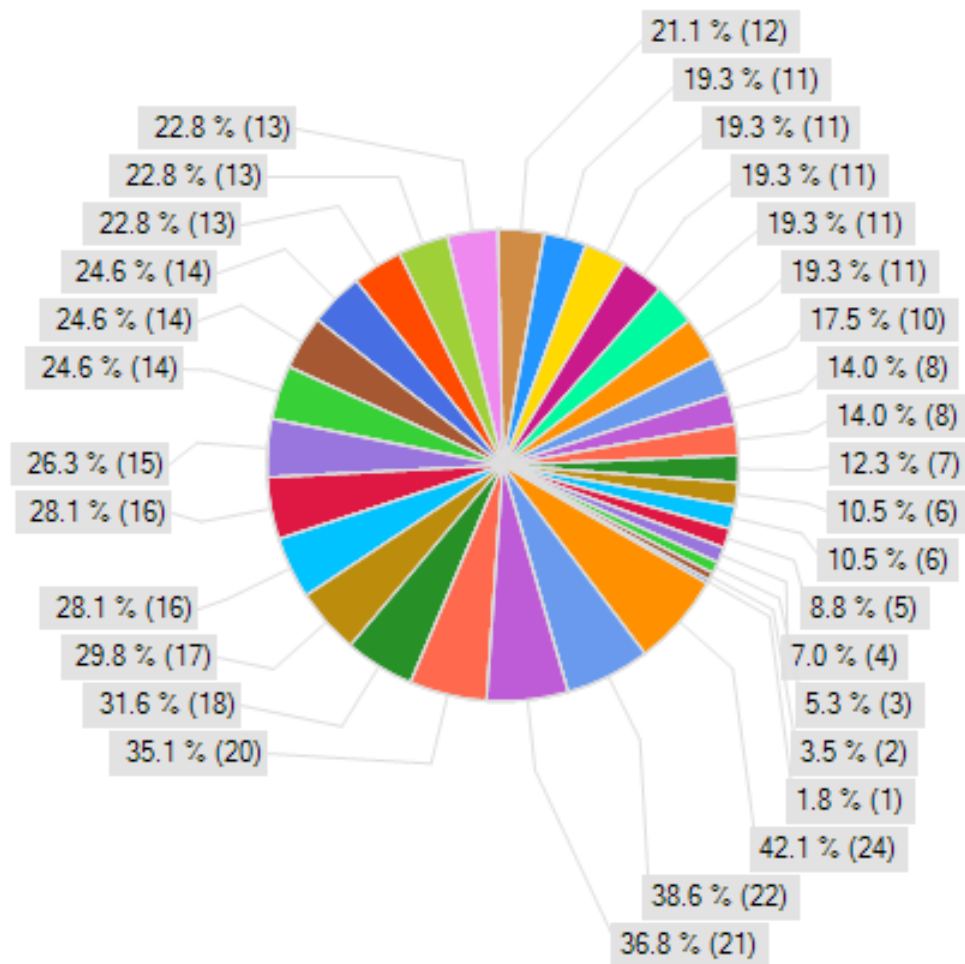
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RespondantHiringOfOntologists. Are you involved in the hiring or recruitment of ontologists? Or, have you done so in the past? If so, please indicate nature of this activity. If not, please choose the last option.

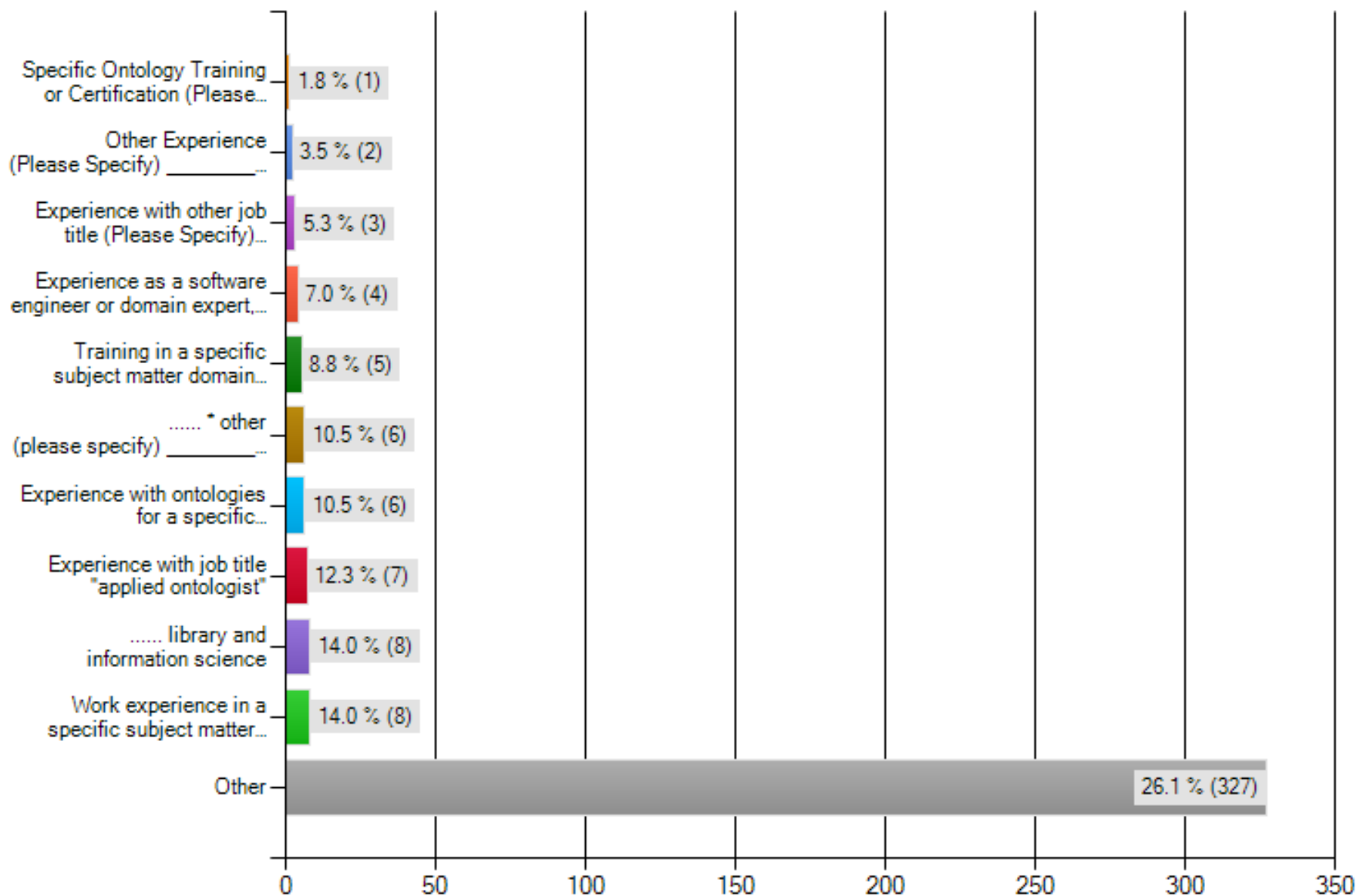


DesiredDepthOfTraining. If you are involved in hiring or recruiting ontologists, or have been so in the last several years, please indicate what level of training or experience you look for in an ontologist candidate. If you are not and have not recently been involved in hiring or recruiting, please choose "not applicable."

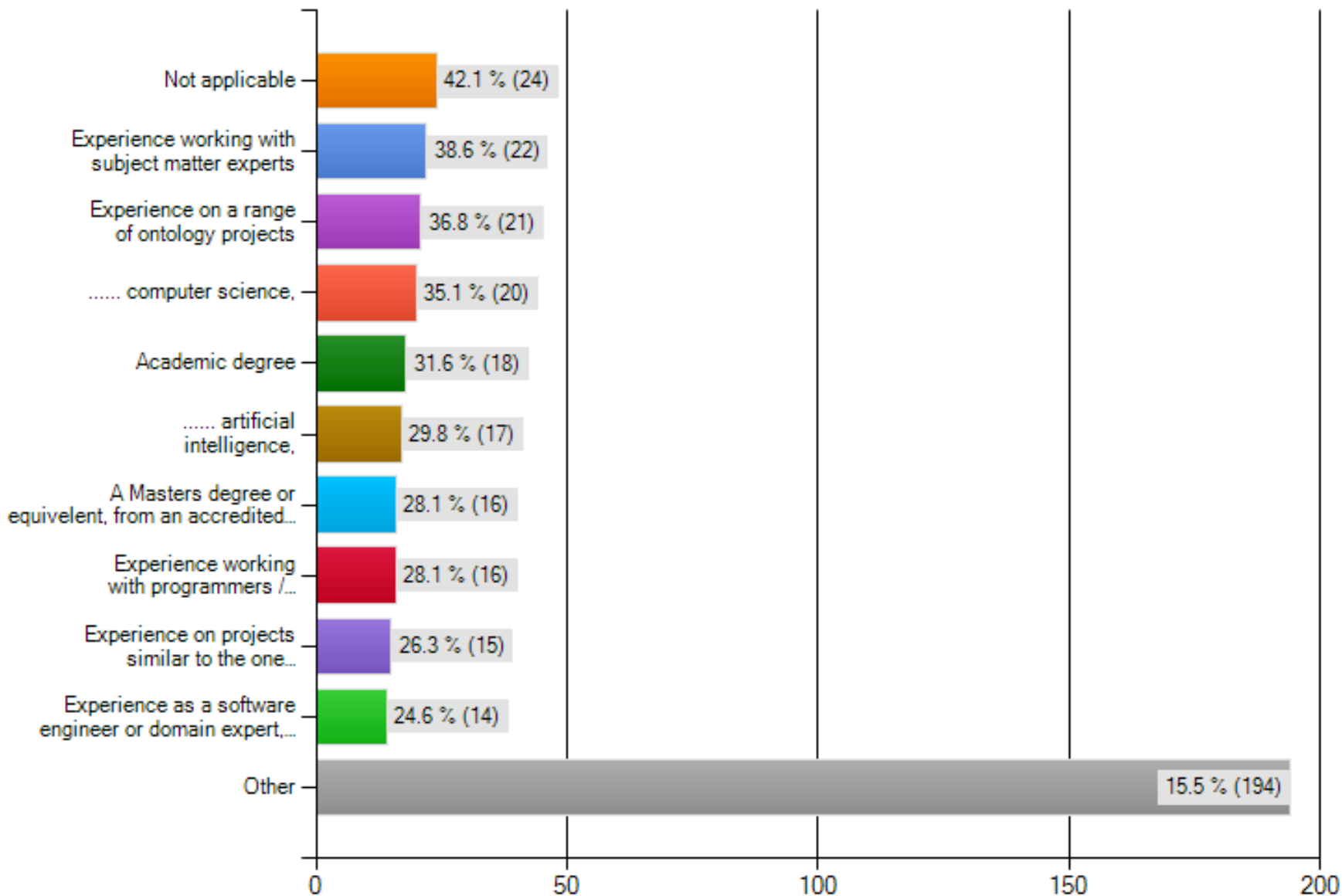


- Not applicable
- Experience working with subject matter experts
- Experience on a range of ontology projects
- computer science,
- Academic degree
- artificial intelligence,
- A Masters degree or equivalent, from an accredited school with a good...
- Experience working with programmers / application developers
- Experience on projects similar to the one for which I am hiring
- Experience as a software engineer or domain expert, plus 1 year of ad...
- A PhD or equivalent, from an accredited school with a good reputation
- Experience working in teams with other ontologists
- Experience with job title "knowledge engineer"
- A degree specifically in a directly relevant field, possibly includin...
- formal logic
- An undergraduate degree, from an accredited school with a good reputa...
- Experience with job title "ontologist"
- linguistics
- philosophy
- cognitive science
- Experience with the full ontology lifecycle
- A degree specifically in the field of applied ontology / applied onto...
- library and information science
- Work experience in a specific subject matter domain (domain expertise)
- Experience with job title "applied ontologist"
- * other (please specify) _____ (supply below)
- Experience with ontologies for a specific subject matter domain.
- Training in a specific subject matter domain (domain expertise)
- Experience as a software engineer or domain expert, plus certified pa...
- Experience with other job title (Please Specify) _____ (supply below)
- Other Experience (Please Specify) _____ (supply below)
- Specific Ontology Training or Certification (Please Specify) _____

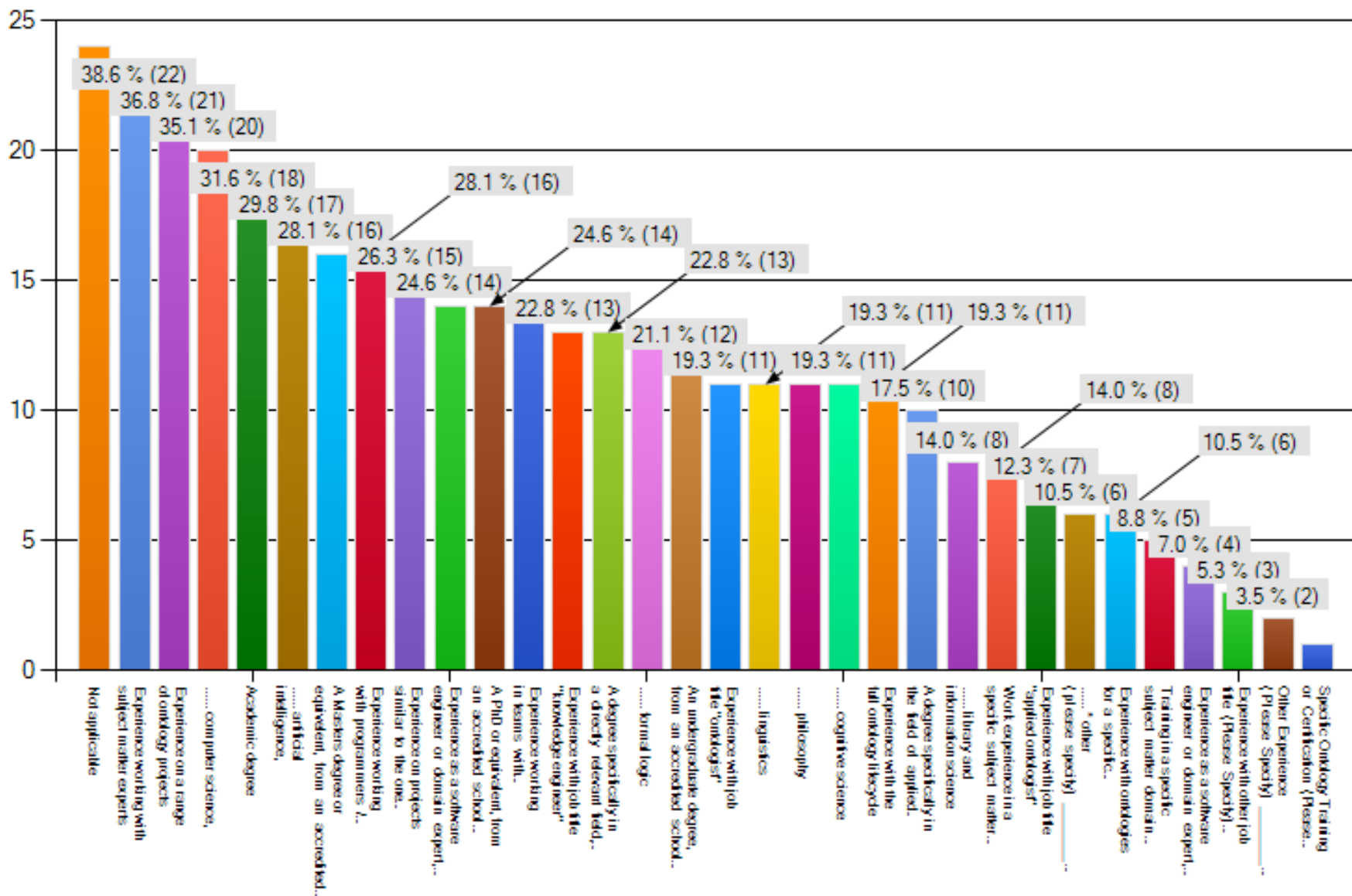
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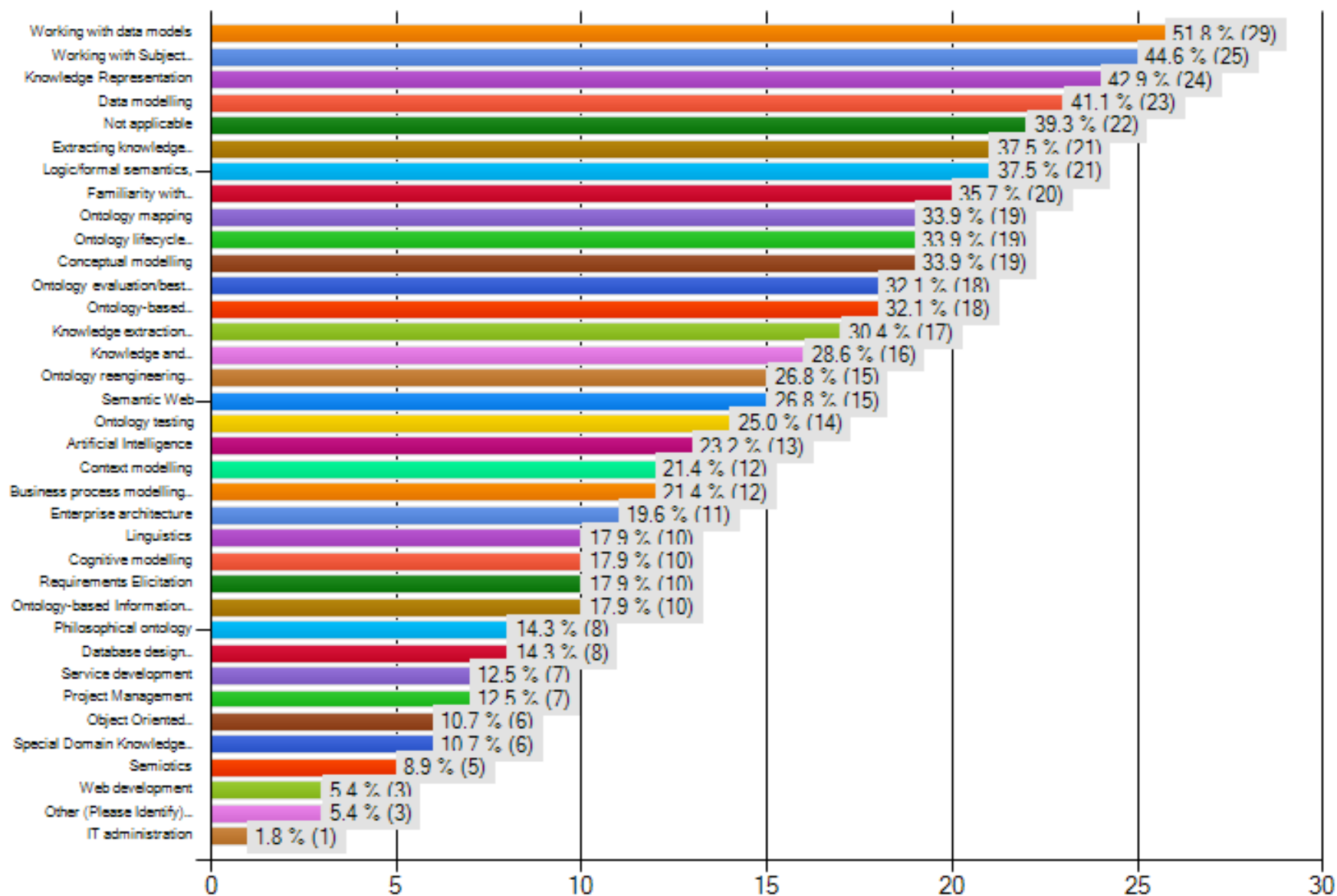
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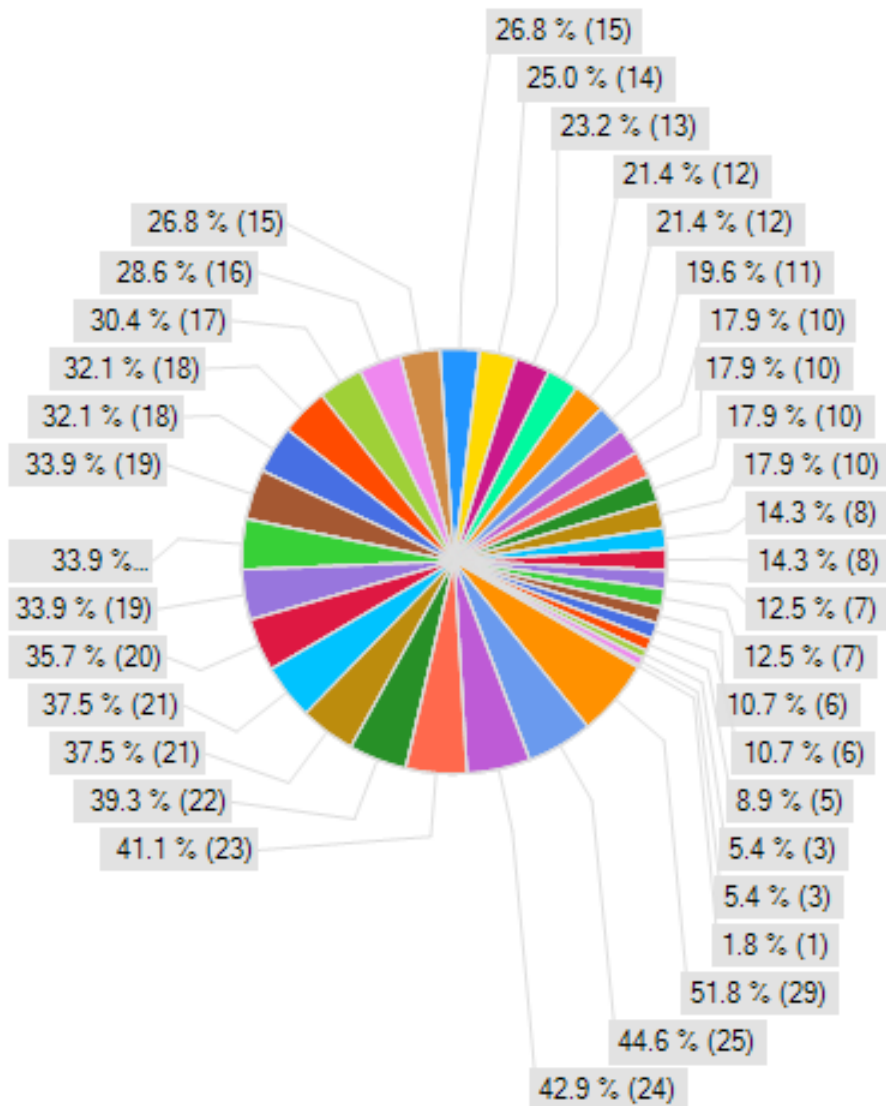
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DesiredAreasOfTrainingOrExperience. If you are involved in hiring or recruiting ontologists, please indicate what knowledge, skills, experience, and/or characteristics you look for in an ontologist candidate. If you are not involved in hiring or recruiting, please choose the last option.

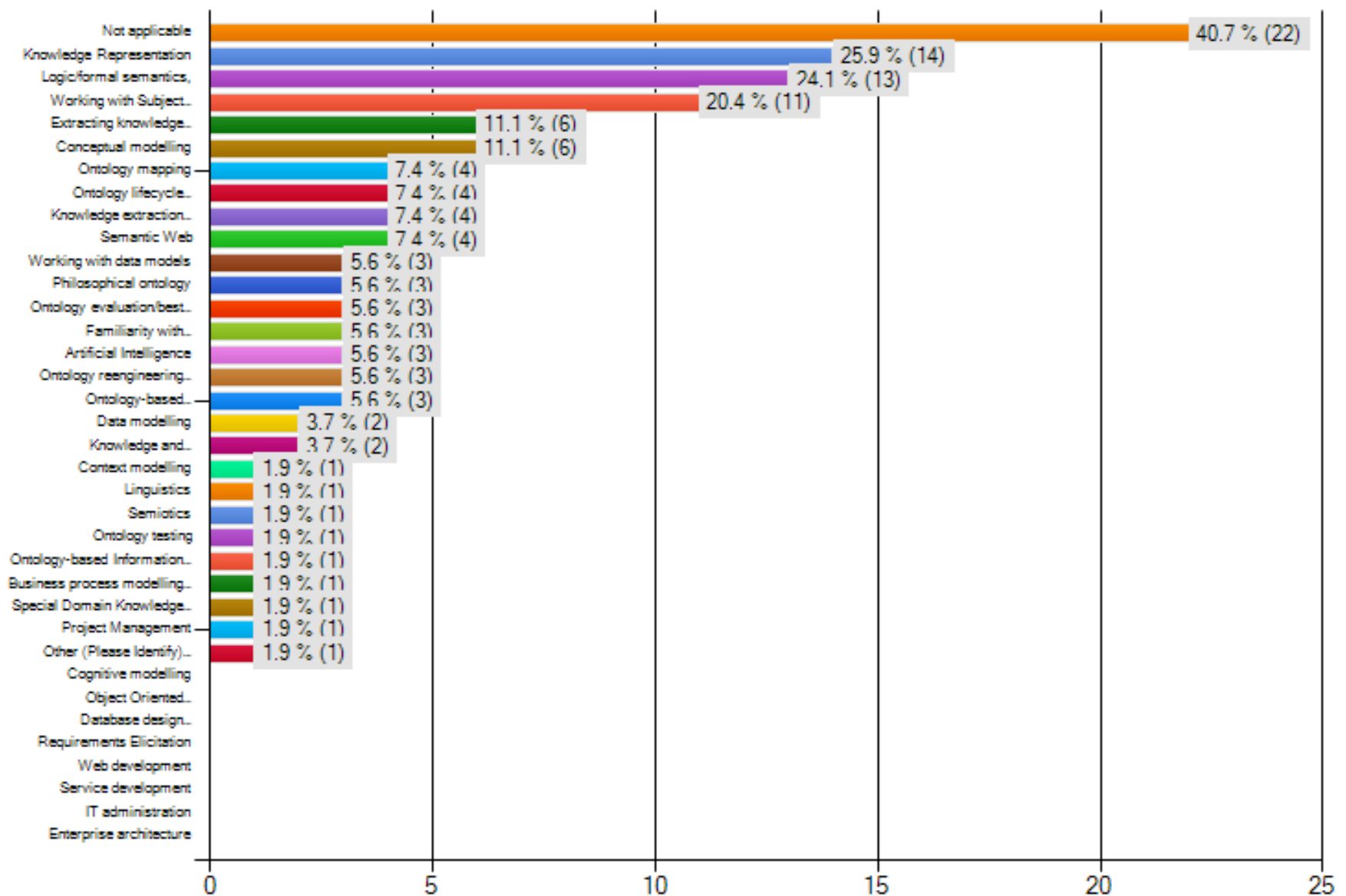


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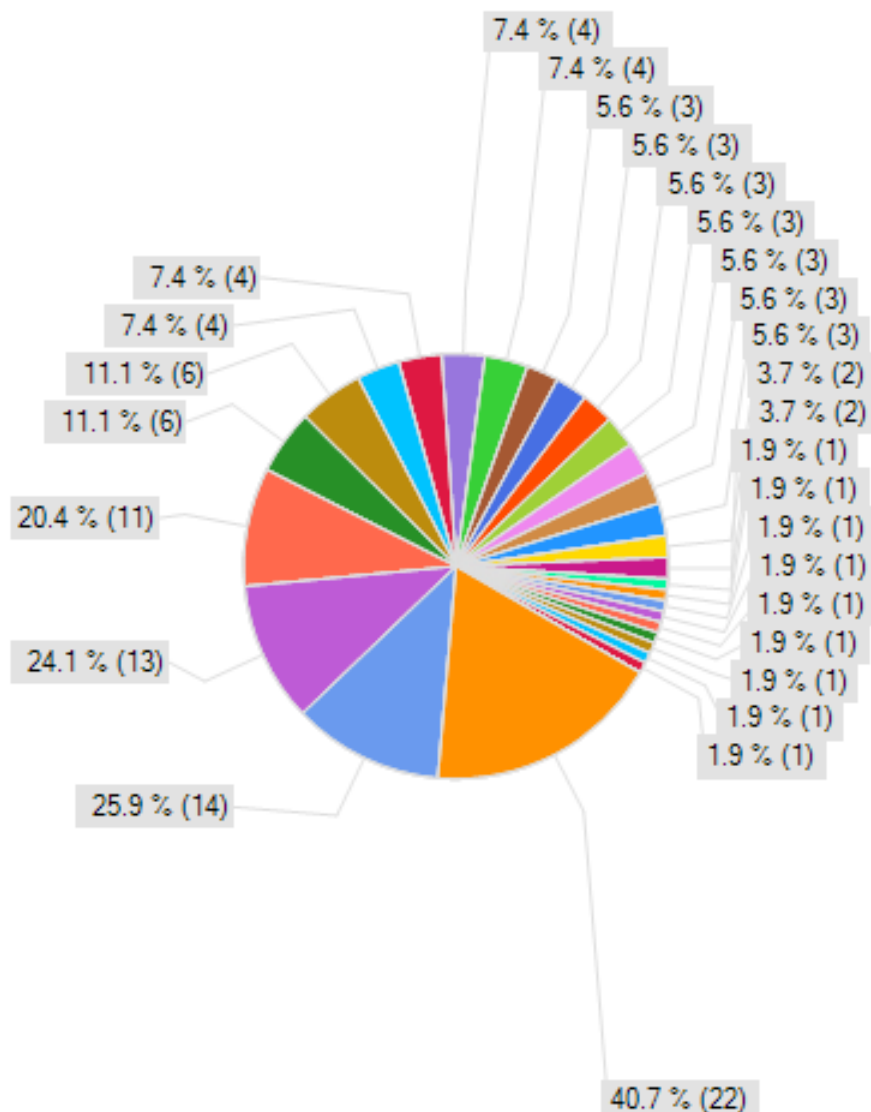


- Working with data models
- Working with Subject Matter Experts (SMEs)
- Knowledge Representation
- Data modelling
- Not applicable
- Extracting knowledge from existing corpora of documents
- Logic/formal semantics,
- Familiarity with Ontology tools
- Ontology mapping
- Ontology lifecycle management,
- Conceptual modelling
- Ontology evaluation/best practices
- Ontology-based data integration
- Knowledge extraction and elicitation
- Knowledge and information management
- Ontology reengineering and refactoring
- Semantic Web
- Ontology testing
- Artificial Intelligence
- Context modelling
- Business process modelling and/or analysis
- Enterprise architecture
- Linguistics
- Cognitive modelling
- Requirements Elicitation
- Ontology-based Information Indexing and/or Search and Retrieval
- Philosophical ontology
- Database design or administration
- Service development
- Project Management
- Object Oriented Programing
- Special Domain Knowledge (Please Identify) _____ (supply below)
- Semiotics
- Web development
- Other (Please Identify) _____ (supply below)
- IT administration

TopPrioritiesWhenHiringOntologists. If you identified some areas as desirable in 21 (DesiredAreasOfTrainingOrExperience), please select *just three* that you would rank as most important in your hiring decisions. If you are not involved in hiring, please select the last option.

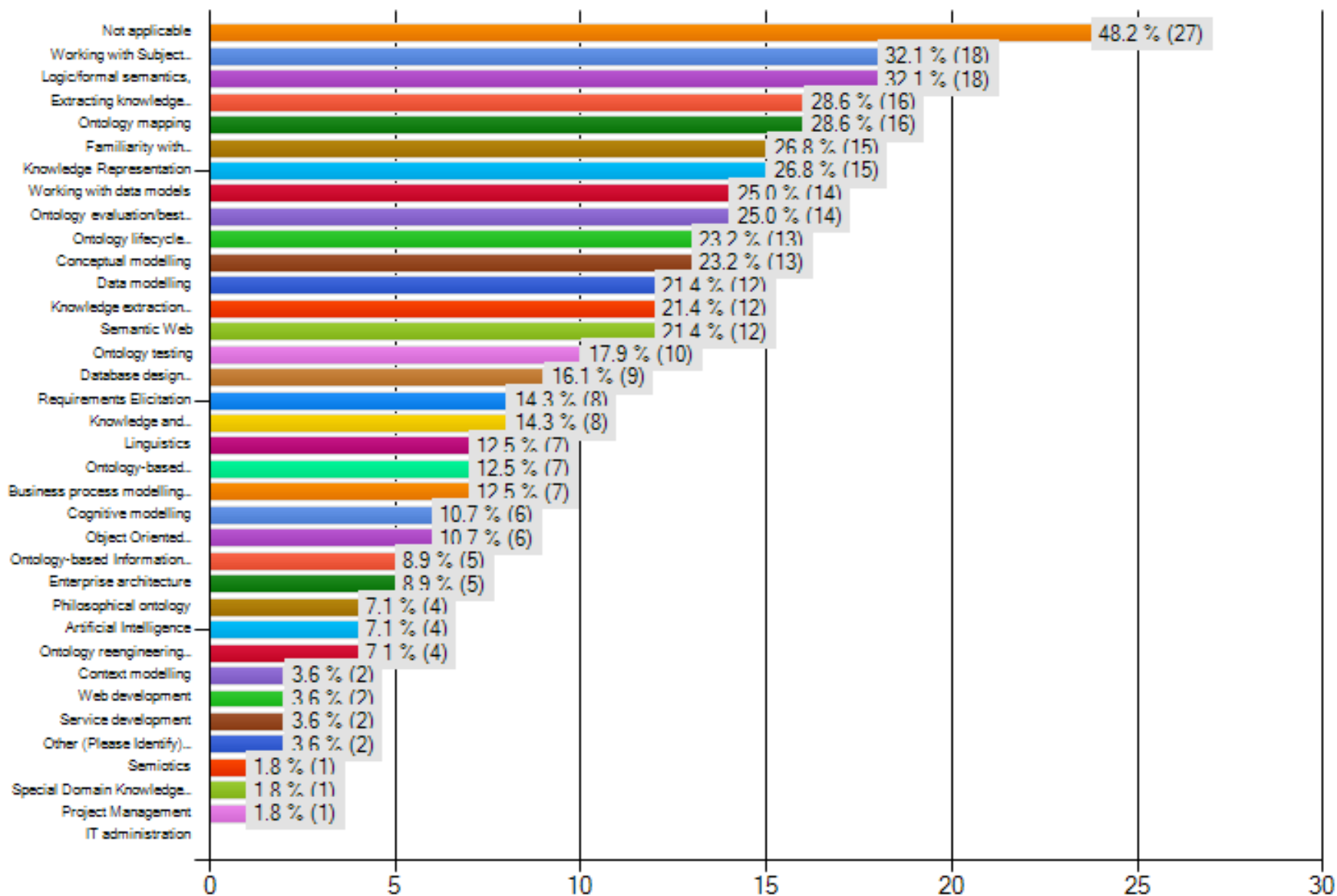


TopPrioritiesWhenHiringOntologists. If you identified some areas as desirable in 21 (DesiredAreasOfTrainingOrExperience), please select *just three* that you would rank as most important in your hiring decisions. If you are not involved in hiring, please select the last option.

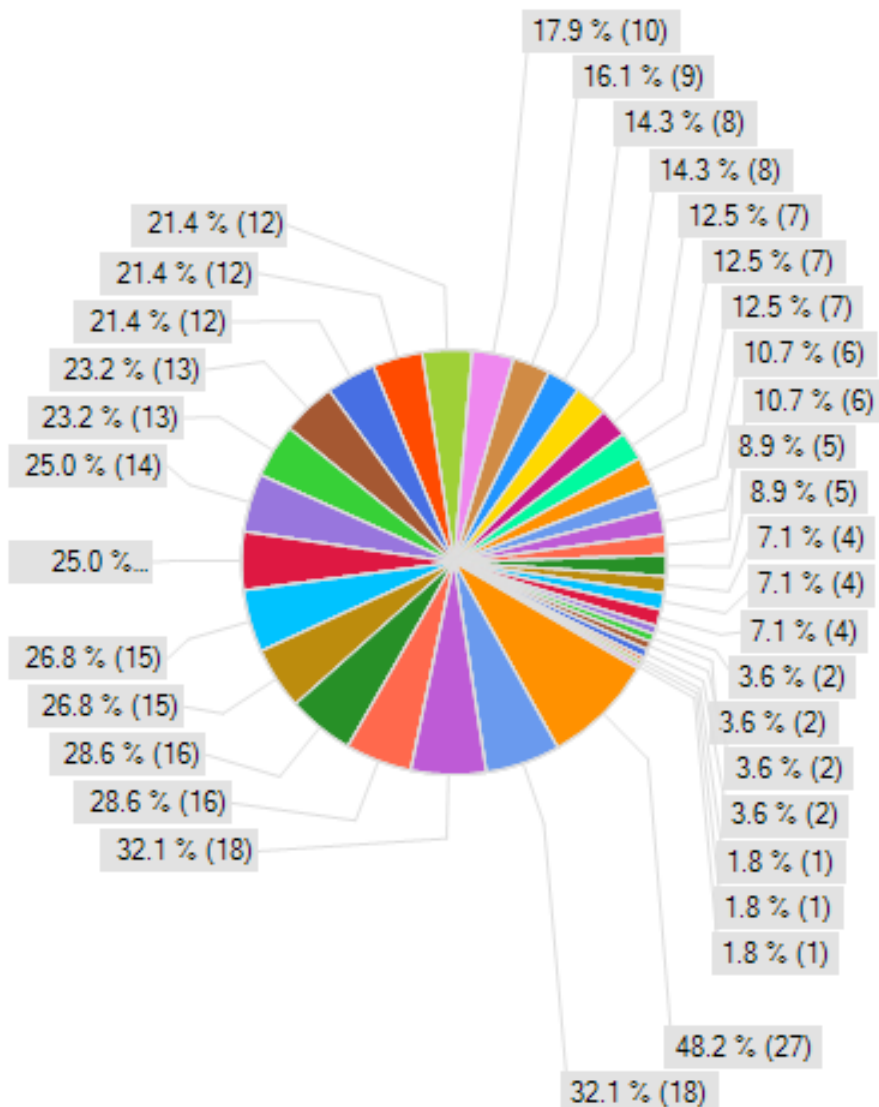


- Not applicable
- Knowledge Representation
- Logic/formal semantics, Working with Subject Matter Experts (SMEs)
- Extracting knowledge from existing corpora of documents
- Conceptual modelling
- Ontology mapping
- Ontology lifecycle management, Knowledge extraction and elicitation
- Semantic Web
- Working with data models
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- Special Domain Knowledge (Please Identify) _____ (supply below)
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- Other (Please Identify) _____ (supply below)
- Cognitive modelling
- Object Oriented Programming
- Database design or administration
- Requirements Elicitation
- Web development
- Service development
- IT administration
- Enterprise architecture

RespondentEvaluationOfOntologists. Are you involved in the evaluation of ontologist skill, knowledge, and/or performance? If so, please indicate what knowledge, skills, and characteristics you think are important for ontologist quality and success. If not, please choose the last option.

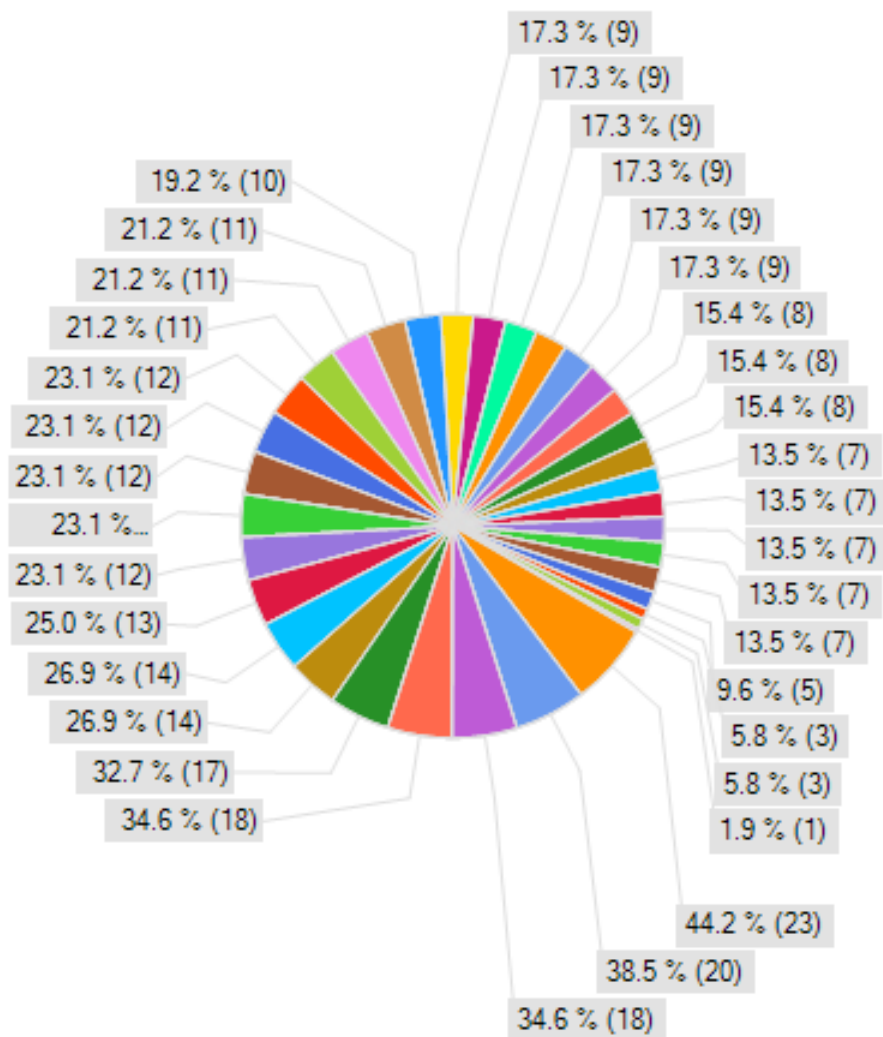


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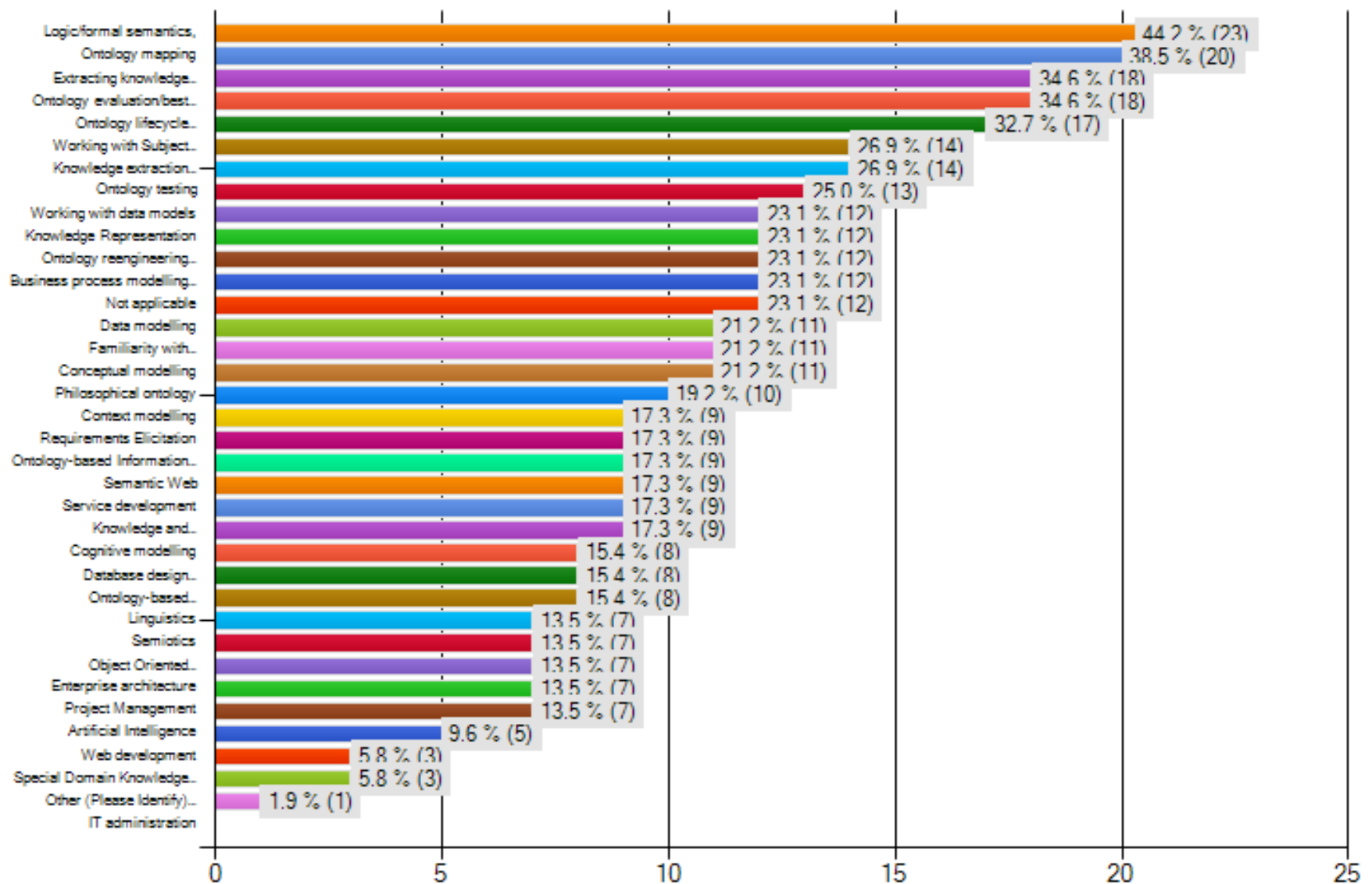
- Not applicable
- Working with Subject Matter Experts (SMEs)
- Logic/formal semantics, Extracting knowledge from existing corpora of documents
- Ontology mapping
- Familiarity with Ontology tools
- Knowledge Representation
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- Other (Please Identify) _____ (supply below)
- Semiotics
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- Project Management
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OntologistSelfIDTrainingNeeds. If you are a working ontology developer, are there areas of training you wish you had, for current, past, or possible future ontology positions? If so, please identify them from the list below or add under "Other" if they are not listed. If you do not personally perform ontology work, please select the last option.

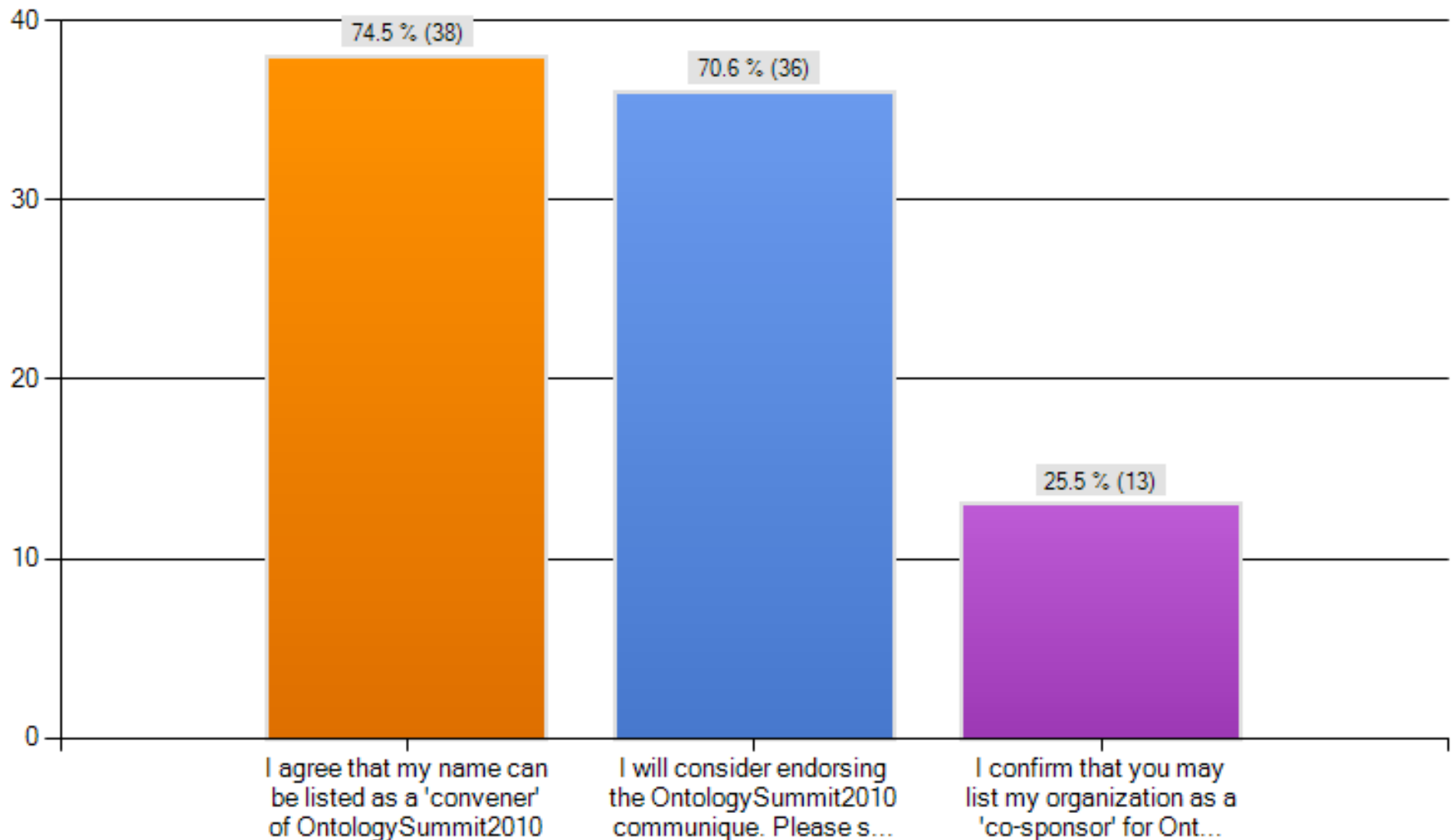


- █ Logic/formal semantics,
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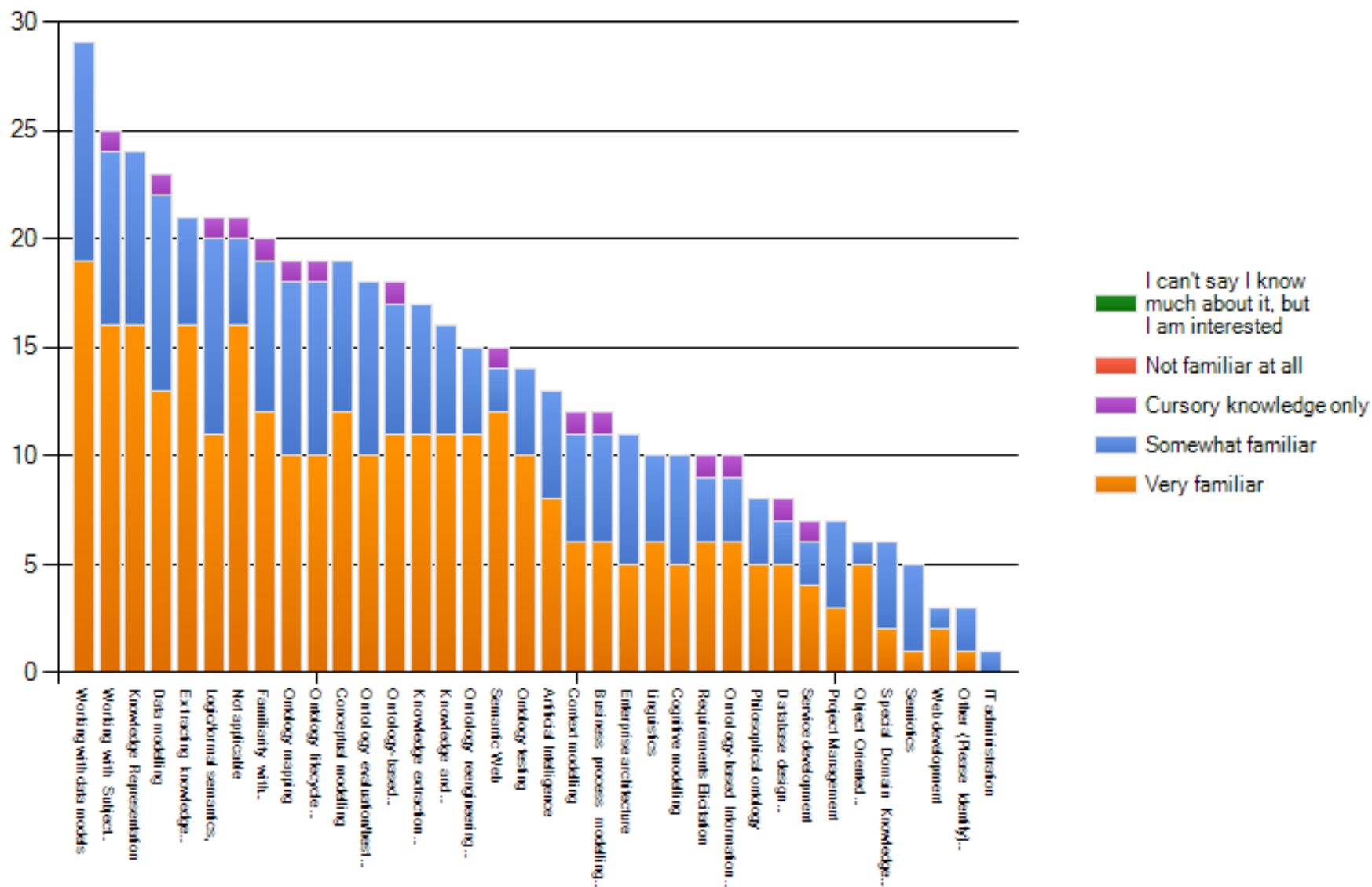


ConfirmationOfSupport. WHEREAS, * a 'convener' is a participant who provides substantive contribution to the `OntologySummit2010` initiative (through the online discourse, providing input to this survey, and other virtual or face-to-face events leading to our creation of the `OntologySummit2010` communique), and * a 'co-sponsor' is an organization who is providing technical or funding support (e.g. supporting member (s) of its technical staff to participate as a 'convener' ... i.e. if your organization allows you to complete this survey or join our activities during work hours, it already qualifies), and/or endorsing the objective of this `OntologySummit2010`,

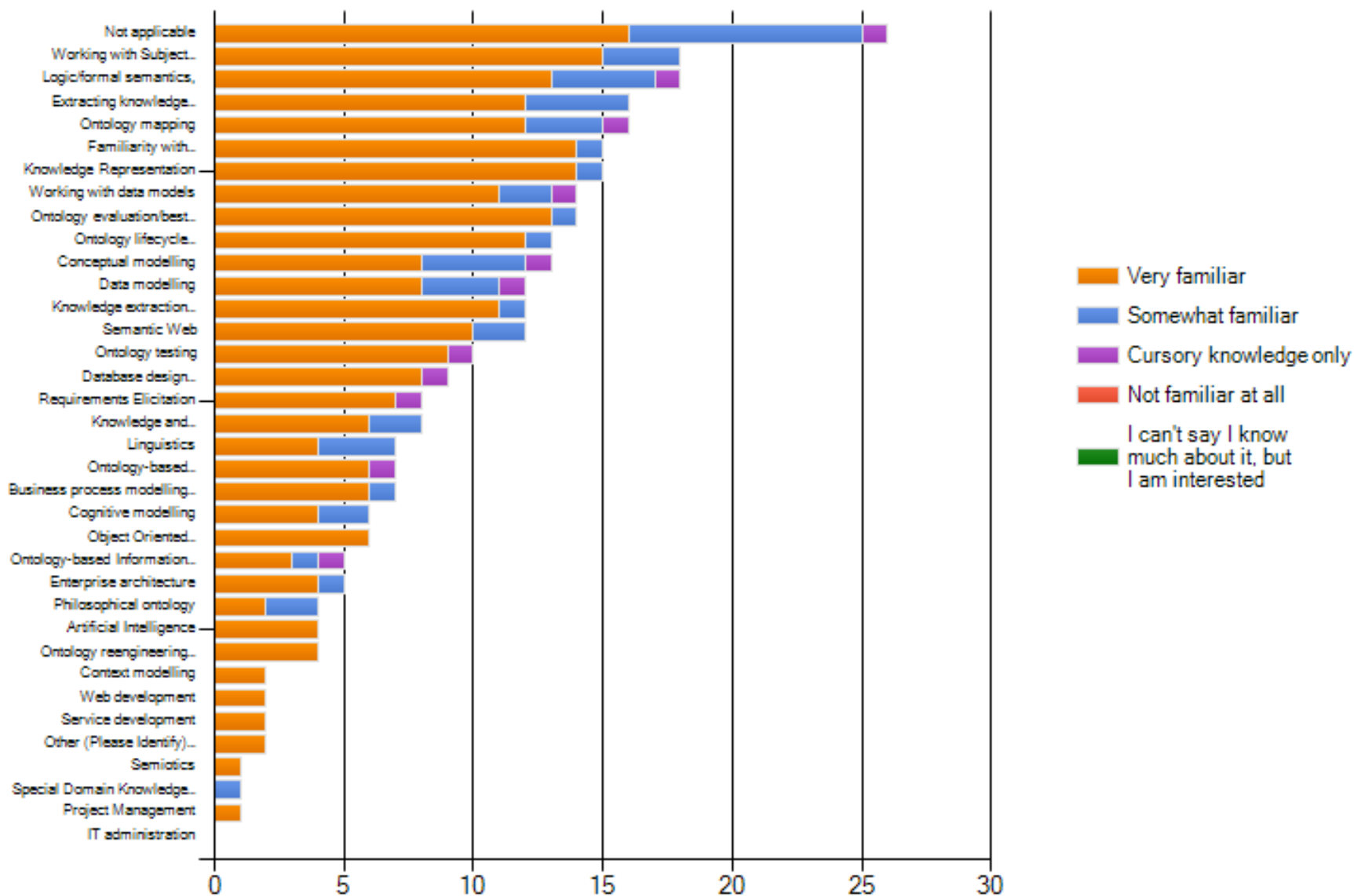


CHARTS AND DATA – CROSSTABS

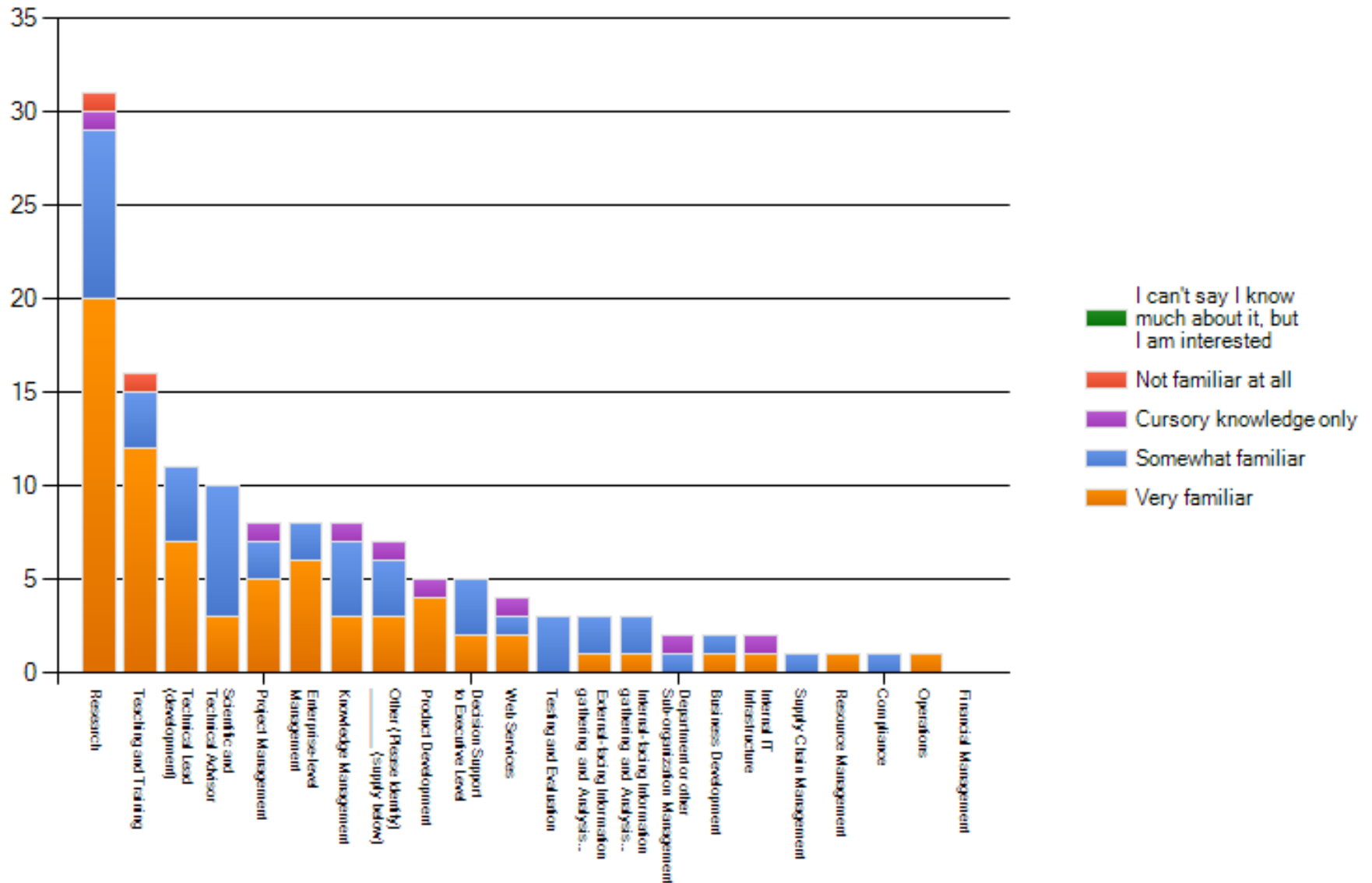
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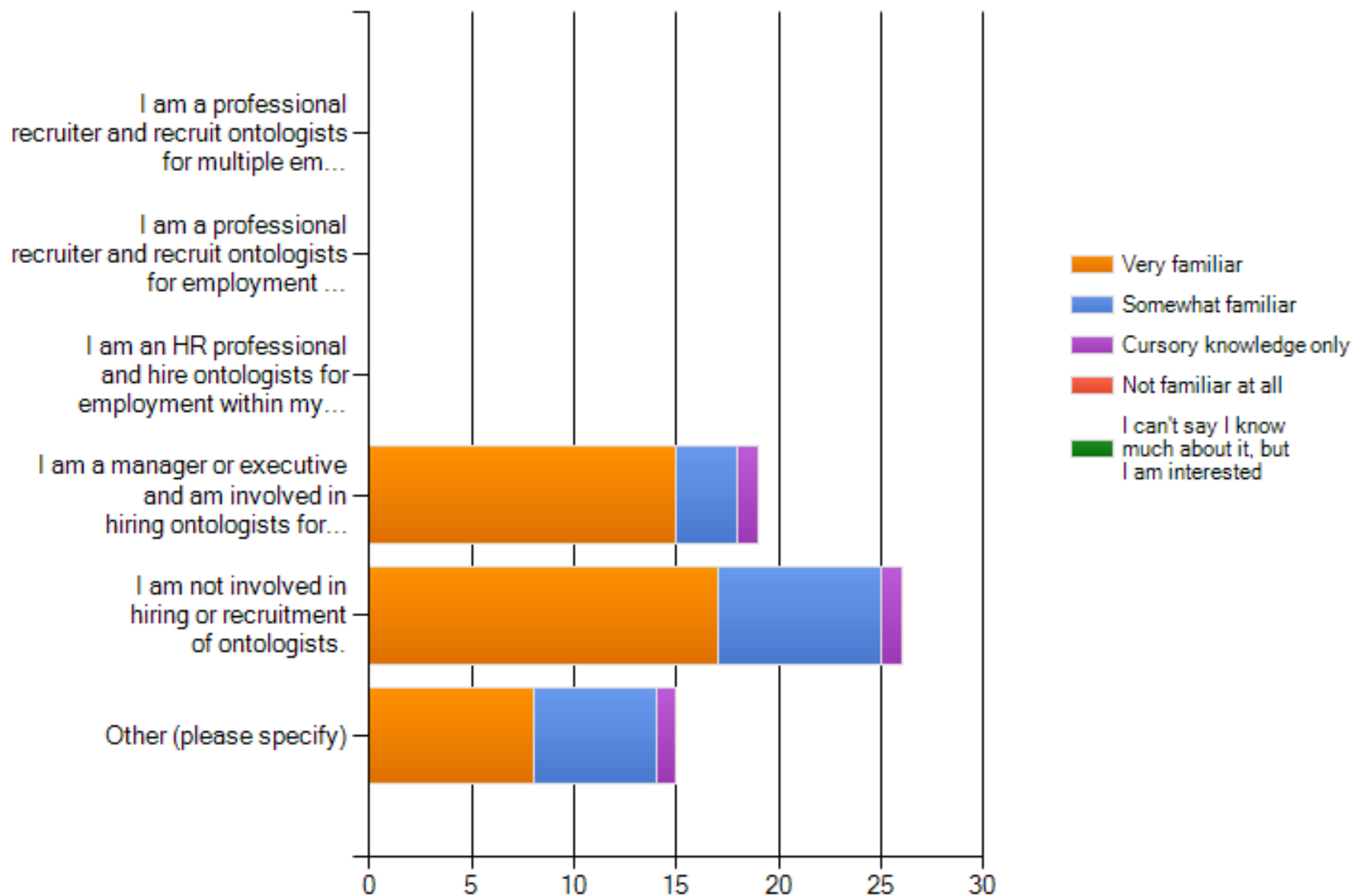
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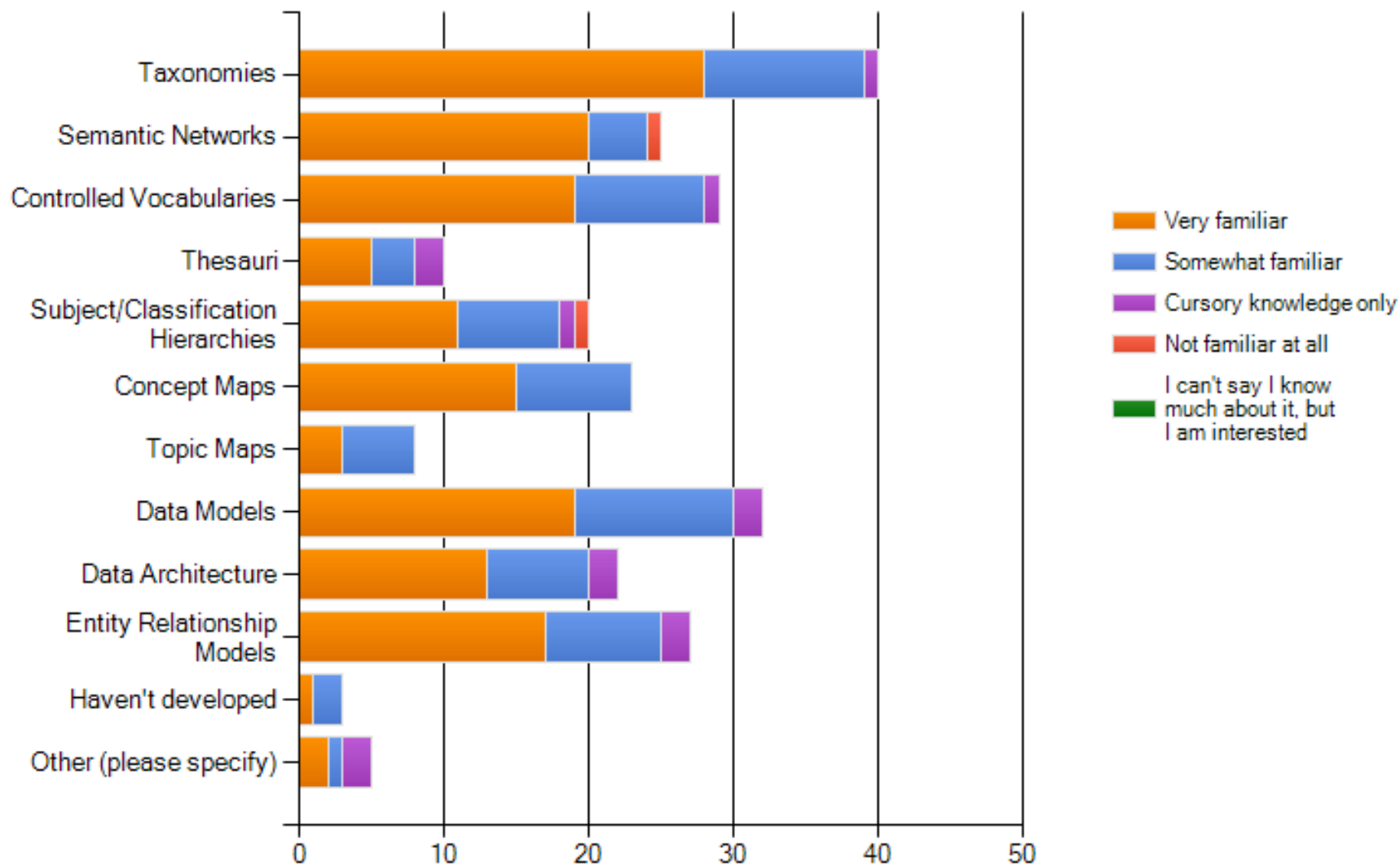
RepondantPrimaryFunction. What is your primary function within your organization? A small collection of common roles is given here; if none fit, please use the "other" option and specify,



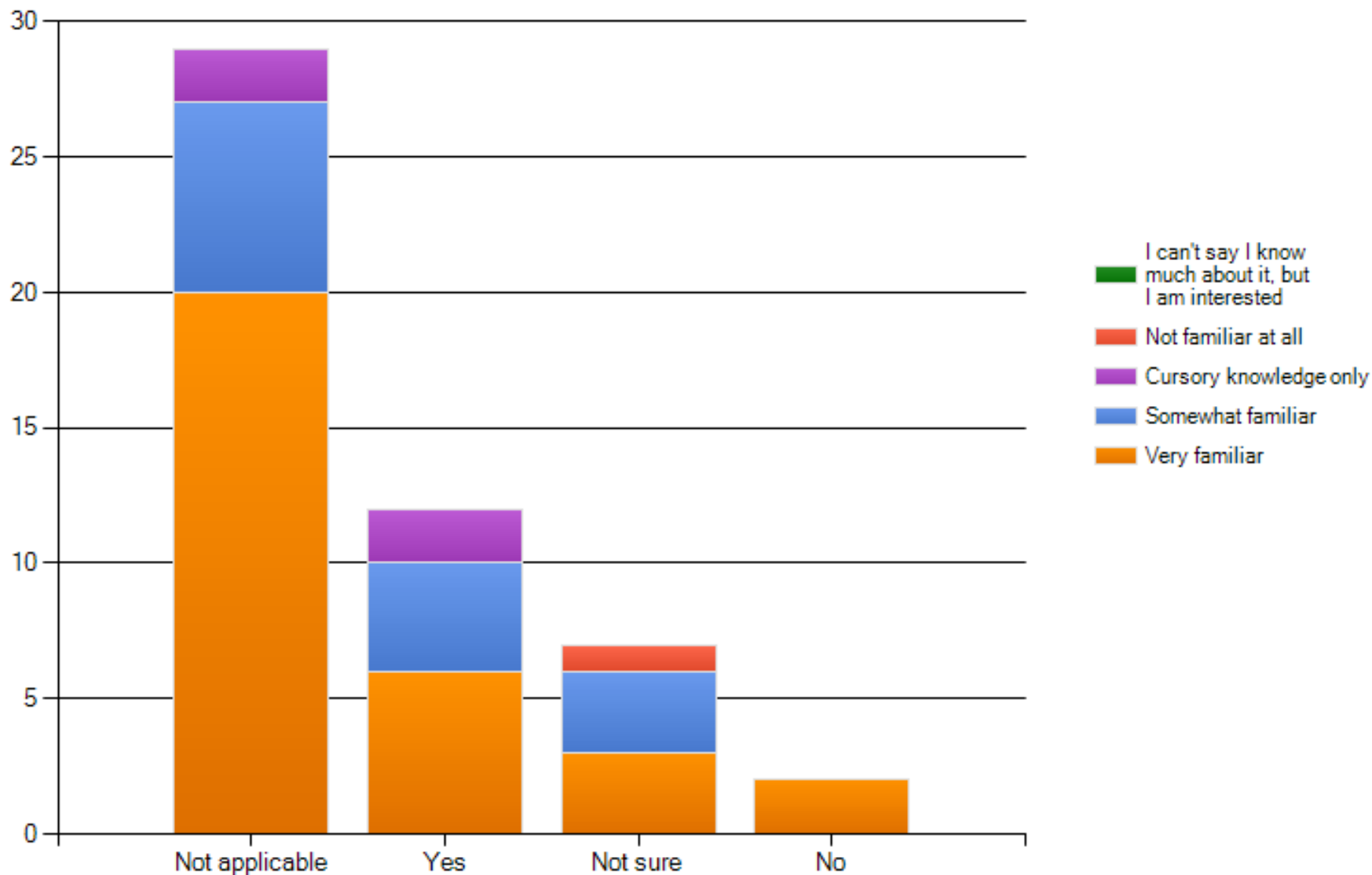
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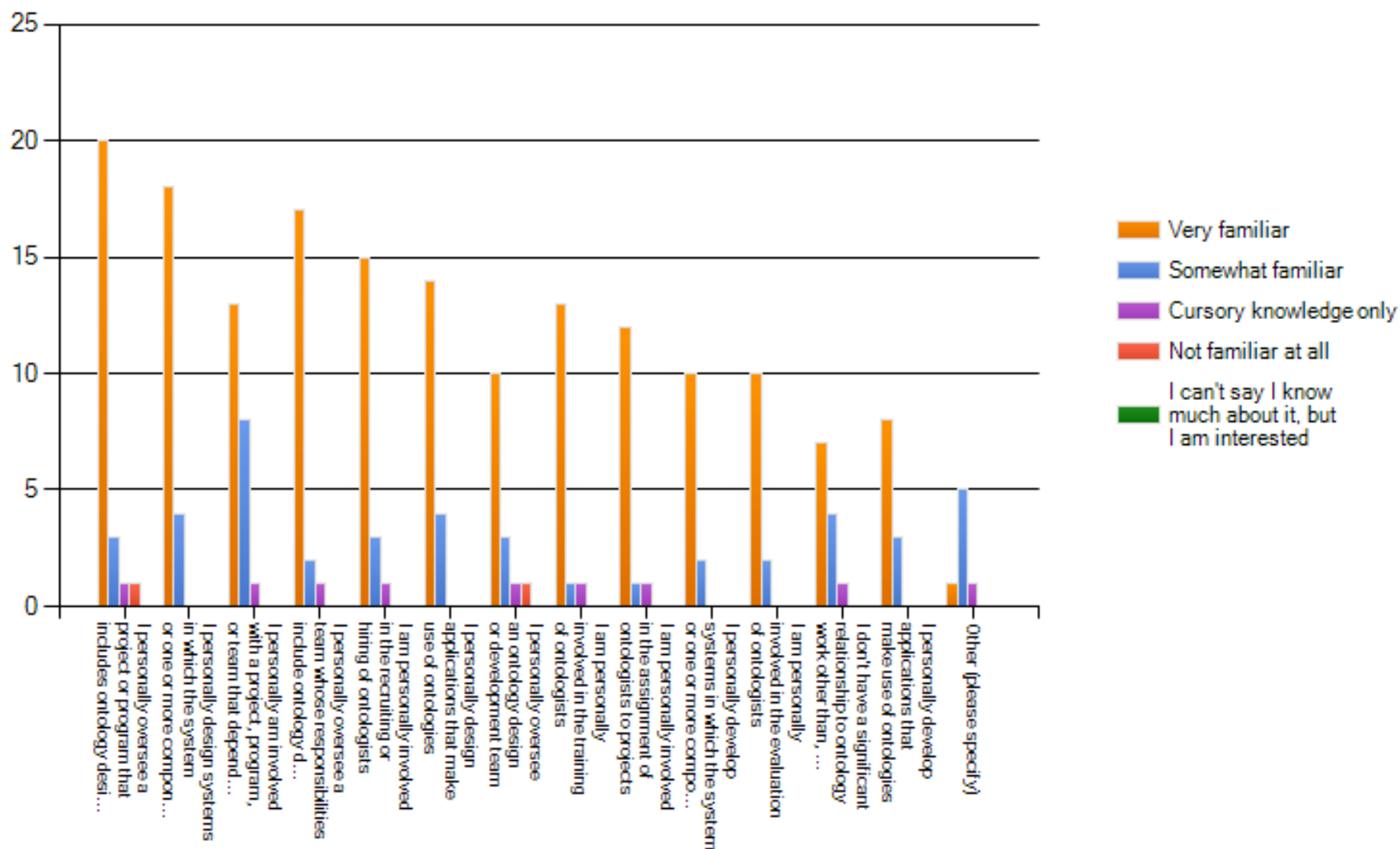
RespondantWorkInNeighboringField. Have you personally designed or developed taxonomies, thesauri, controlled vocabularies, classification systems, data models, knowledge models, category structures, or other Knowledge Organization Structures beyond (or in addition to) full formal ontologies? Or, have you done significant work of this sort in the past? If so, please indicate what kinds of KOS or models you have developed:



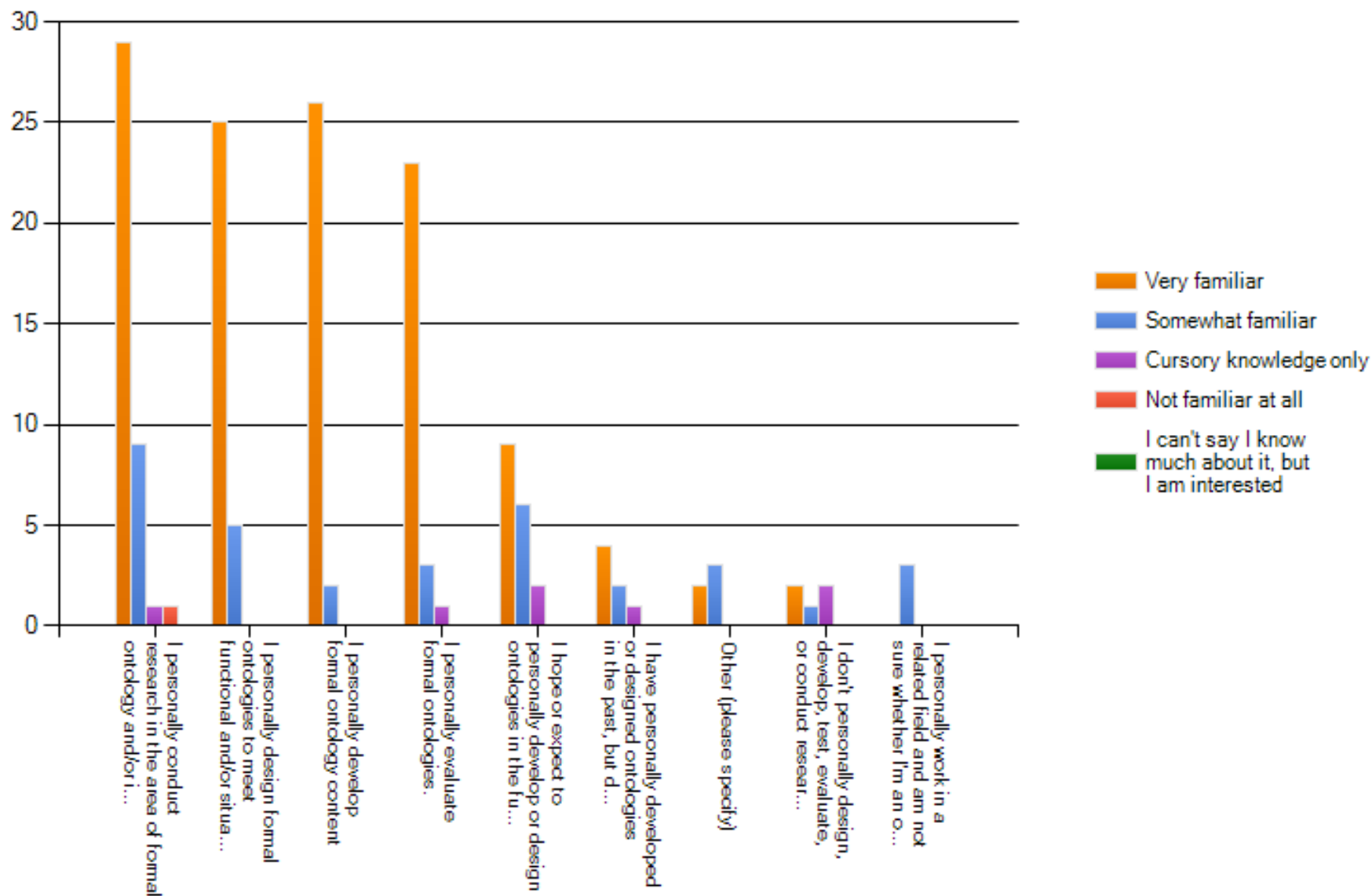
NeighborFieldRelationToOntology. If you answered no to 7 (RespondantPersonalOntologyWork) but yes to 9 (RespondantWorkInNeighboringField) above, do you consider this work to be ontology work, and yourself in this capacity to have worked as an ontologist? If this doesn't apply to you, please choose the last option.



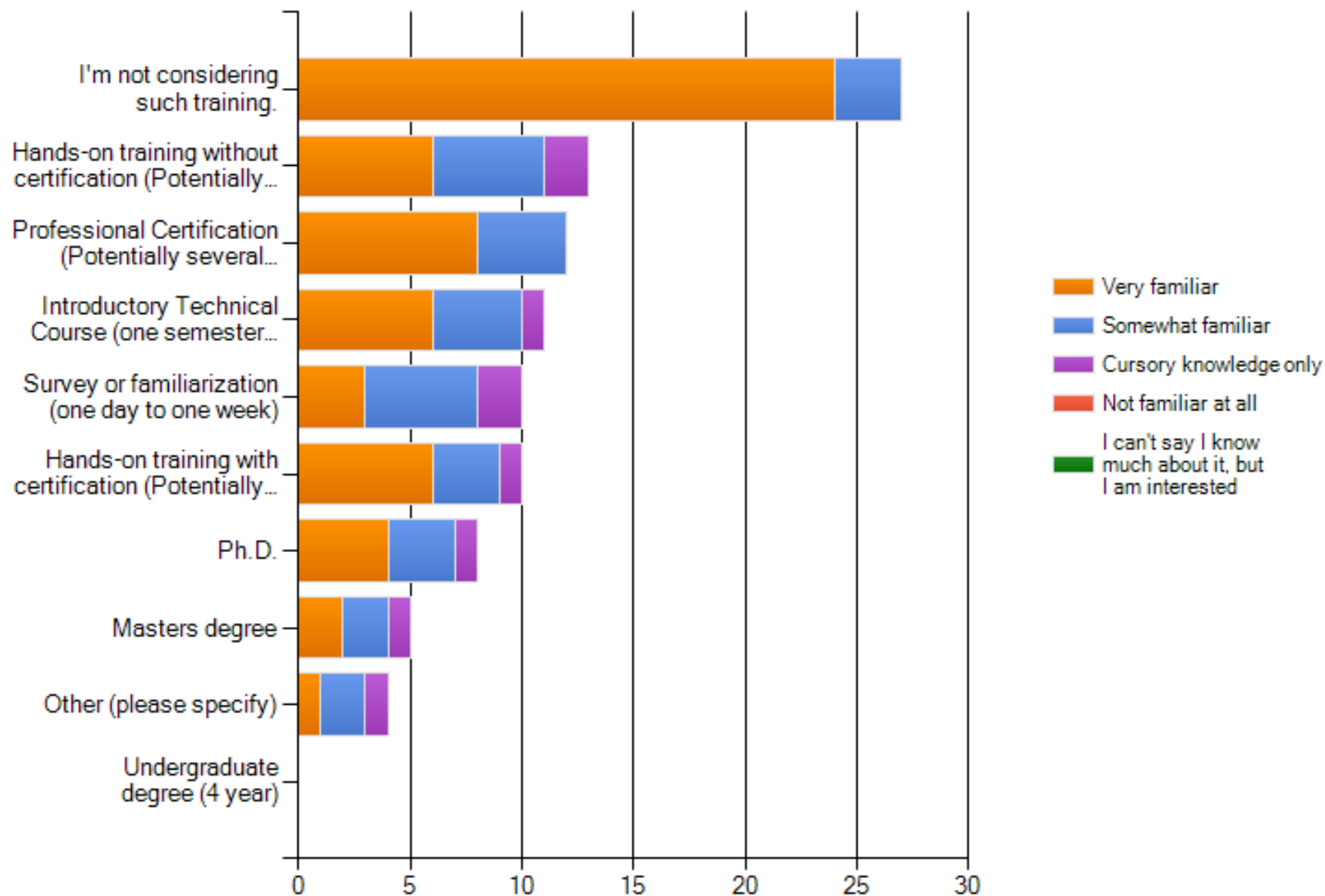
RespondantOtherRelationshipToOntologyWork. Within the organization and role you identified, do you have a relationship to ontologist and/or ontology work, other than or in addition to personally performing work as described in 1d? Or, have you had a significant relationship to ontology work in the past? If so, please indicate the nature of this relationship. If not, please select "I don't have ..."



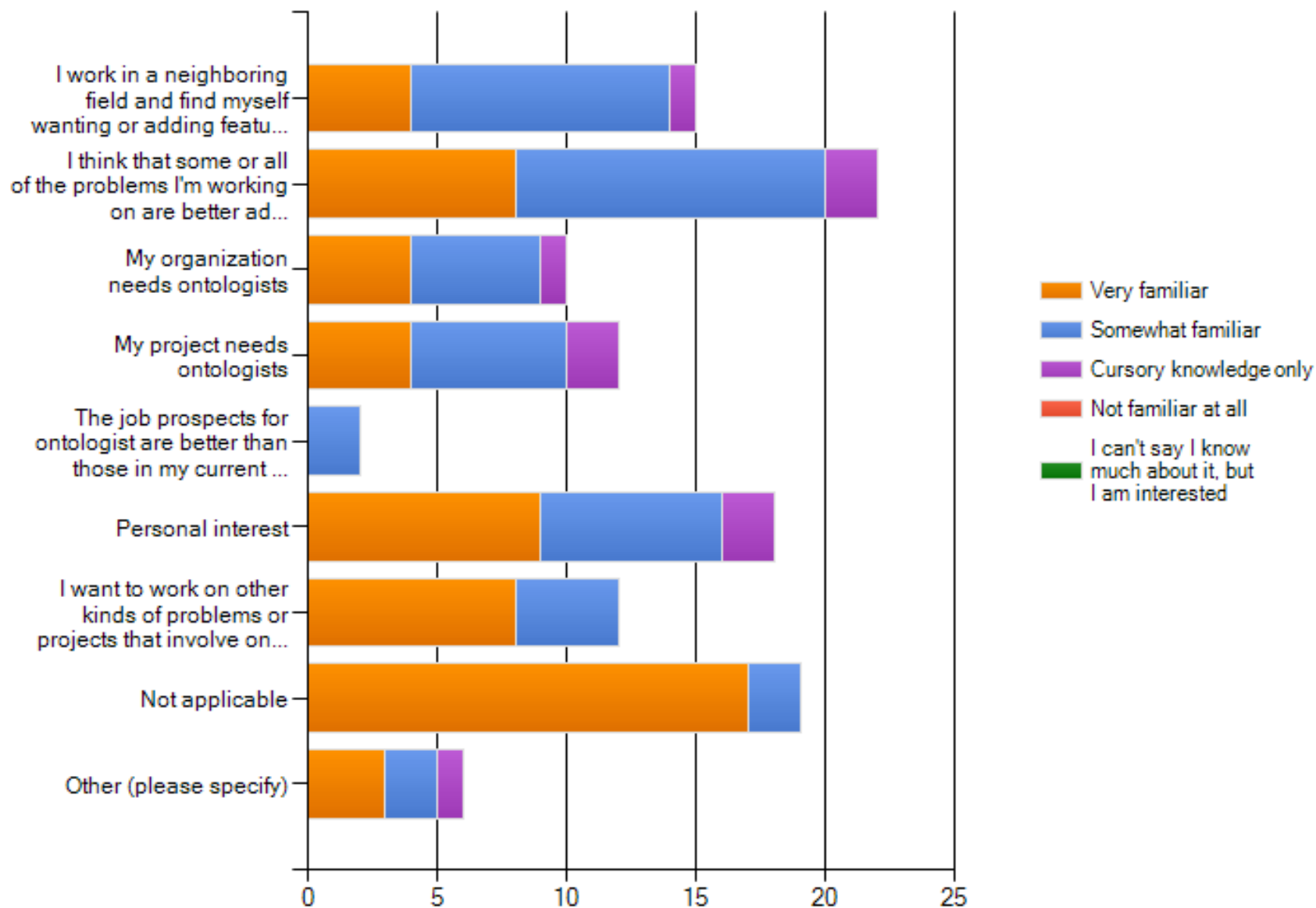
RespondantPersonalOntologyWork. Do you personally design, develop, test, evaluate, or conduct research on formal ontologies? Or, have you done significant work of this sort in the past? If so, please indicate the nature of the work. If not, please select "I don't ..."



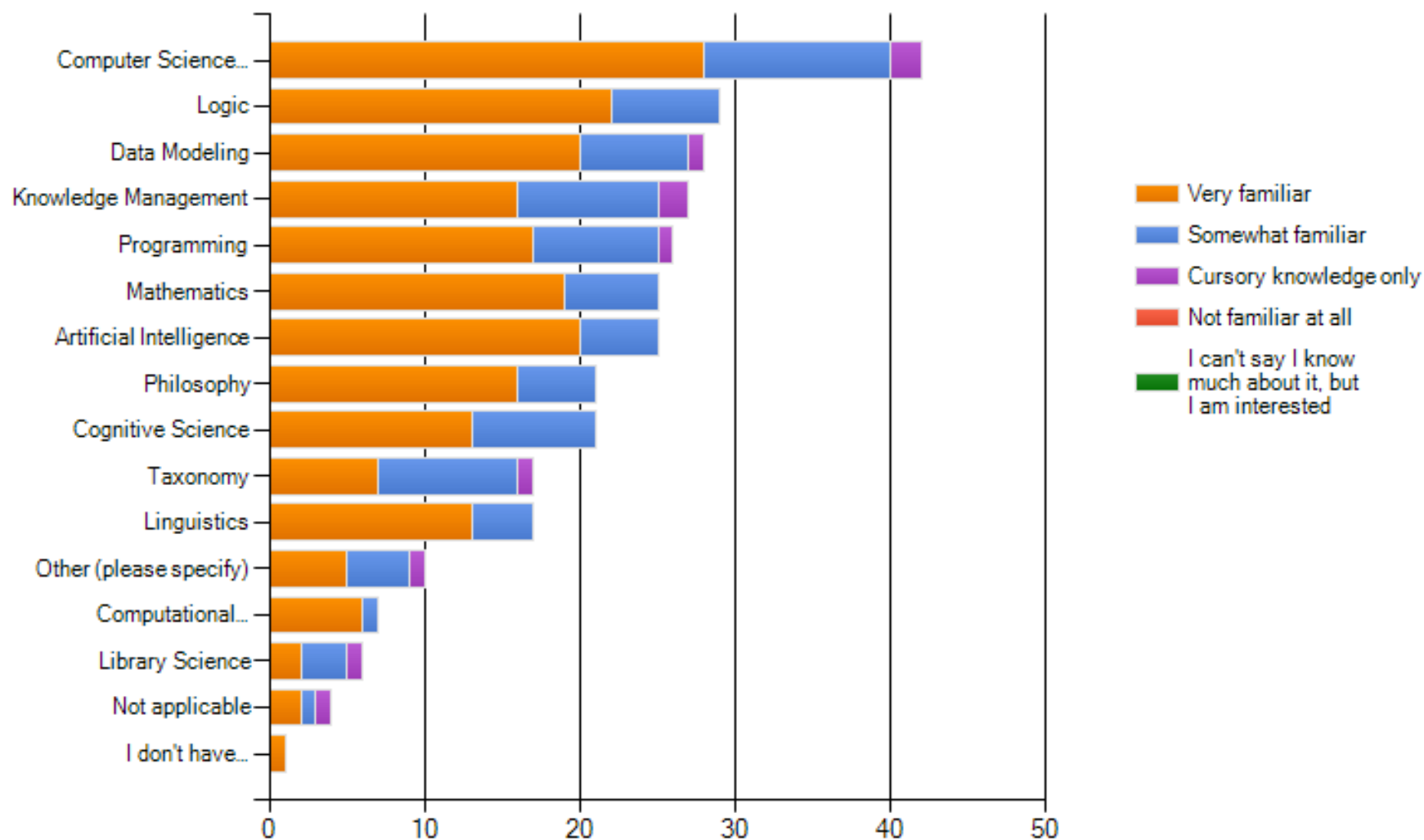
RespondantAsPotentialTrainee. Are you looking for or considering receiving training in ontology? If so, please indicate the level of training you are considering. If not, please choose "I'm not considering..."



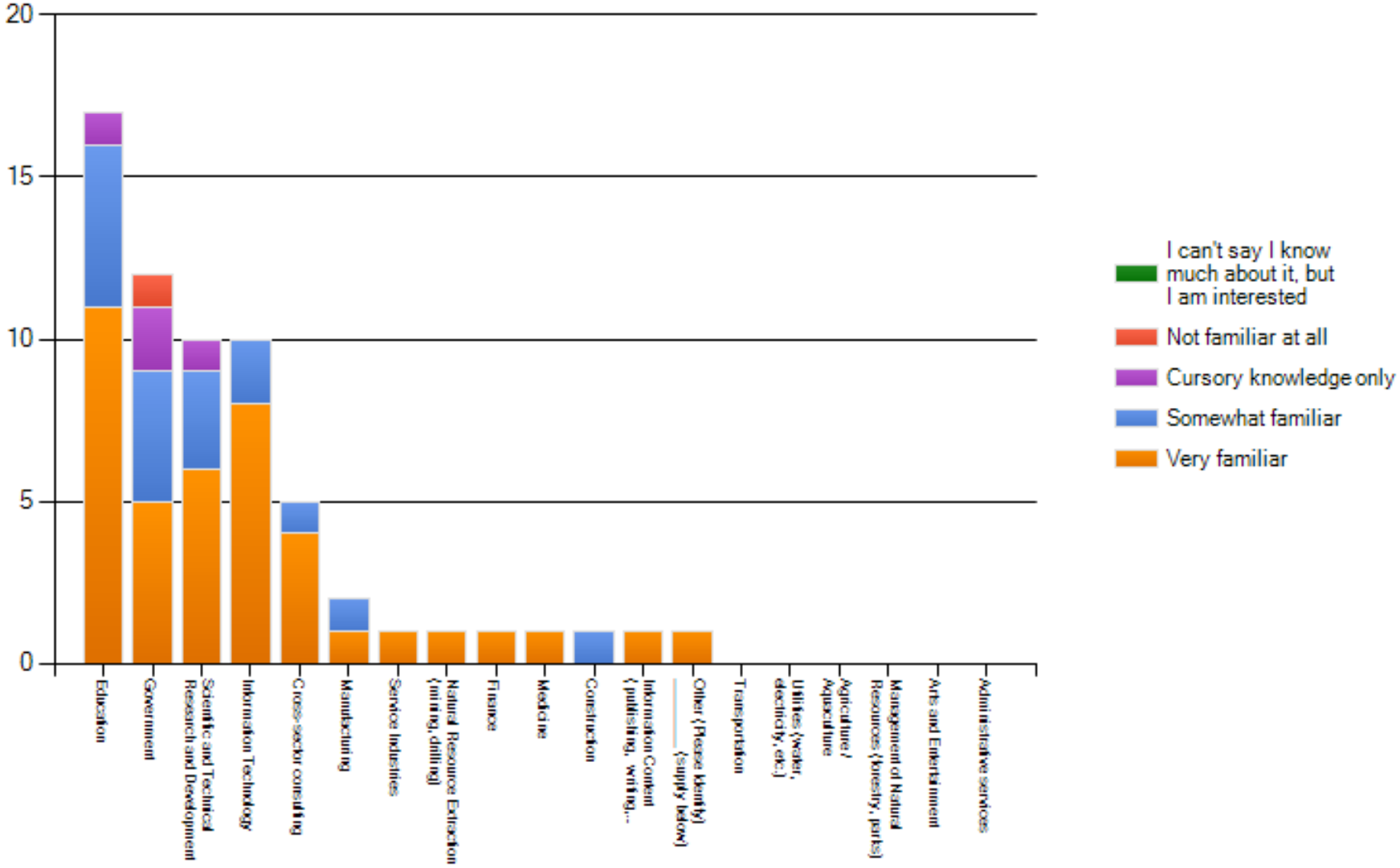
ReasonForInterestInOntology. If you are considering training in ontology, what is the reason for this interest? If you are not considering such training, please choose "Not applicable."



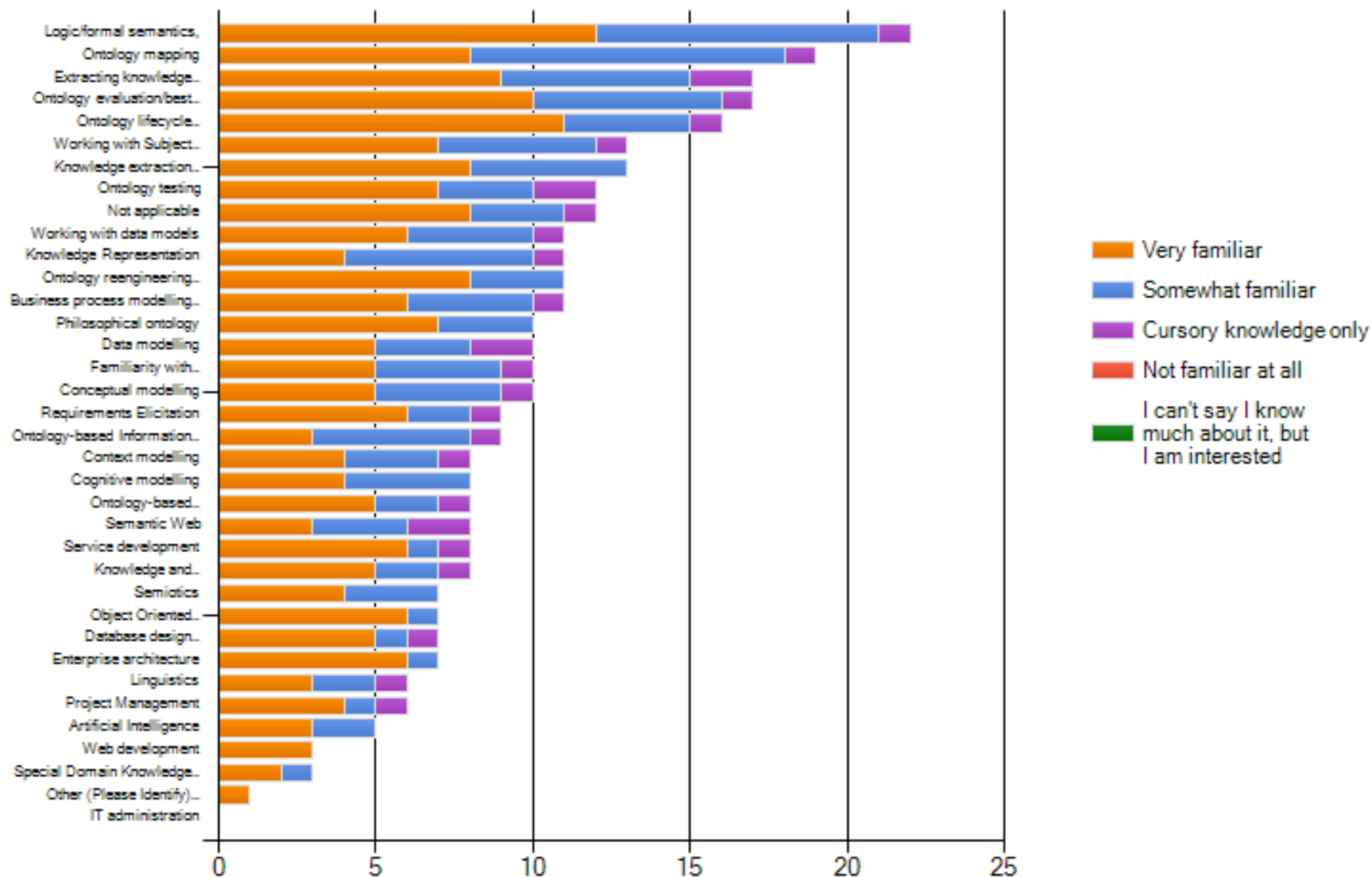
RespondantRelatedBackgroundArea. If you are currently an ontologist or are considering training in ontology, do you have prior background (formal training and/or experience) that, in your view, helps you understand or perform ontology work? If so, please state the nature of this background. A small sample of fields sometimes considered related is given; please use the "other" field to name helpful background not on the list. If you are not an ontologist or considering ontology training, please choose "not applicable."



RespondantPrimarySector. What is your Organization's primary Sector of operation? Please answer with reference to the organization you identified in 1a. A small collection of very general Sectors is given here. Please remember that here you are characterizing your organization, rather than your own specialty or function within it.



OntologistSelfIDTrainingNeeds. If you are a working ontology developer, are there areas of training you wish you had, for current, past, or possible future ontology positions? If so, please identify them from the list below or add under "Other" if they are not listed. If you do not personally perform ontology work, please select the last option.



TopPrioritiesWhenHiringOntologists. If you identified some areas as desirable in 21 (DesiredAreasOfTrainingOrExperience), please select *just three* that you would rank as most important in your hiring decisions. If you are not involved in hiring, please select the last option.

