

Canadian Subatomic Physics

LONG RANGE PLAN 2022 - 26

Community Topical Townhall consultation

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Canadian Subatomic Physics

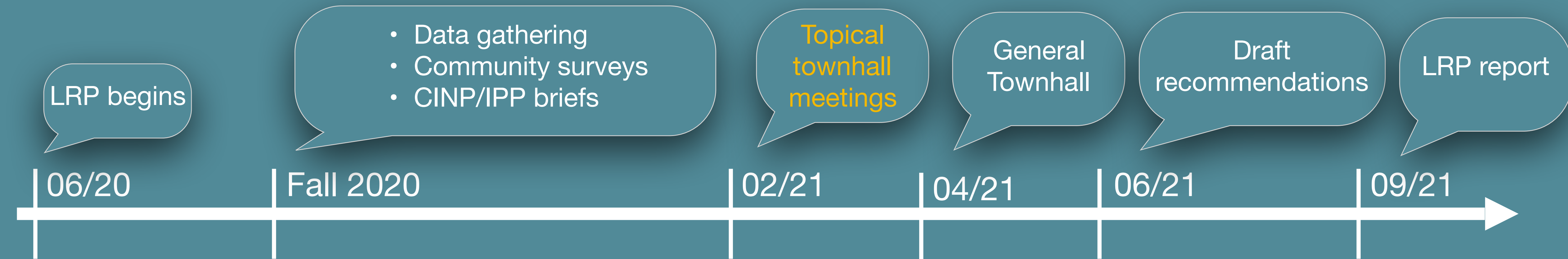
LONG RANGE PLAN 2022 - 26

Community Topical Townhall consultation

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- Welcome and land acknowledgement
- Public forum - respect, inclusion and courtesy are requested

SAP Long Range Plan 2022



Topical Townhall 1: SAP Community

- Tues Feb 16, 9am-11am PST [Education, Training and Careers]
- Wed Feb 17, 11am-1pm PST [EDI, Early Career Researchers, Community Org]

Topical Townhall 2: SAP Science Opportunities

- Mon Mar 8, 11:30am-1:30pm PST
- Wed Mar 10, 9am-11am PST

General Community Townhall

- Tues-Wed April 20,21

Canadian Subatomic Physics

LONG RANGE PLAN 2022 - 26

Topical Townhall 1 : SAP Community

Education, Training and Careers

LRP Committee Conveners

Chris Jillings (SNOLAB, Laurentian),

Rituparna Kanungo (St Mary's, TRIUMF),

Adam Ritz (Victoria)

February 16, 2021

SAP Education, Training & Careers

Aims

To identify realistic initiatives to improve SAP education, training and career prospects, and which could be recommended to community/agencies/universities/other stakeholders.

How to participate in this meeting

To comment or ask a question:

- Please raise your hand using the zoom feature.
- Send a Zoom Chat message to everyone
- Send a Zoom Chat message privately to Adam Ritz or Brigitte Vachon and your comment/question will be read out without your name.
- Slack is also available to continue the discussion after the meeting

Notes will be taken, but the meeting will not be recorded.

Career Aspirations - Q & A



What my mom thinks I do



What my friends think I do



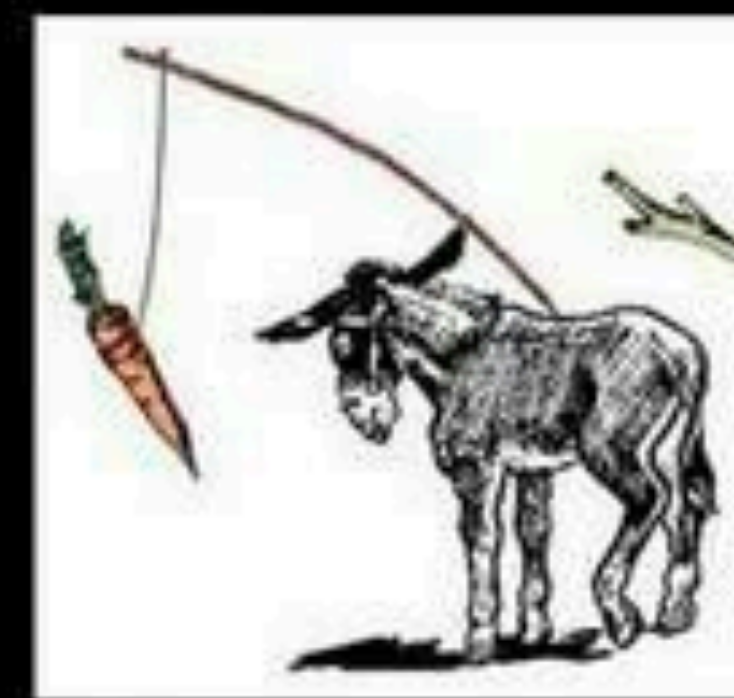
What society thinks I do



What my professor thinks I do



What I think I do



What I really do

Career Aspirations - Q & A

We (the LRPC and the community) would like to understand why people are attracted to Subatomic Physics, and how well grad school and postdoctoral positions deliver on those aspirations.

What attracted you to SAP research initially?

Has this attraction changed for those now in the field?

Education, Training & Careers

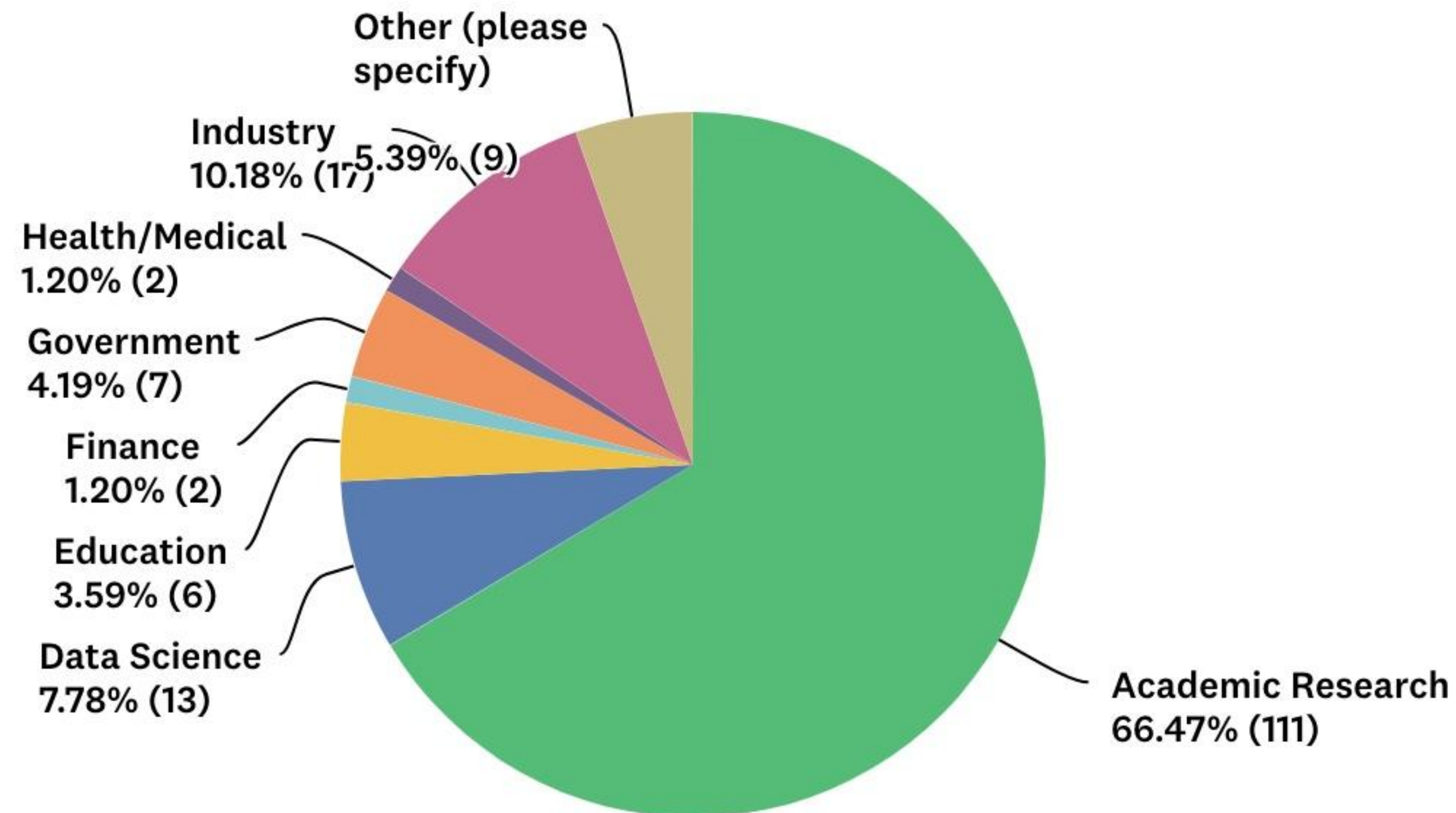
The aim of this part of the discussion is to understand what you find valuable in your SAP graduate education and postdoctoral experience, and what other components might be beneficial.

Background - graduate students and postdocs within subatomic physics go on to pursue a range of careers...

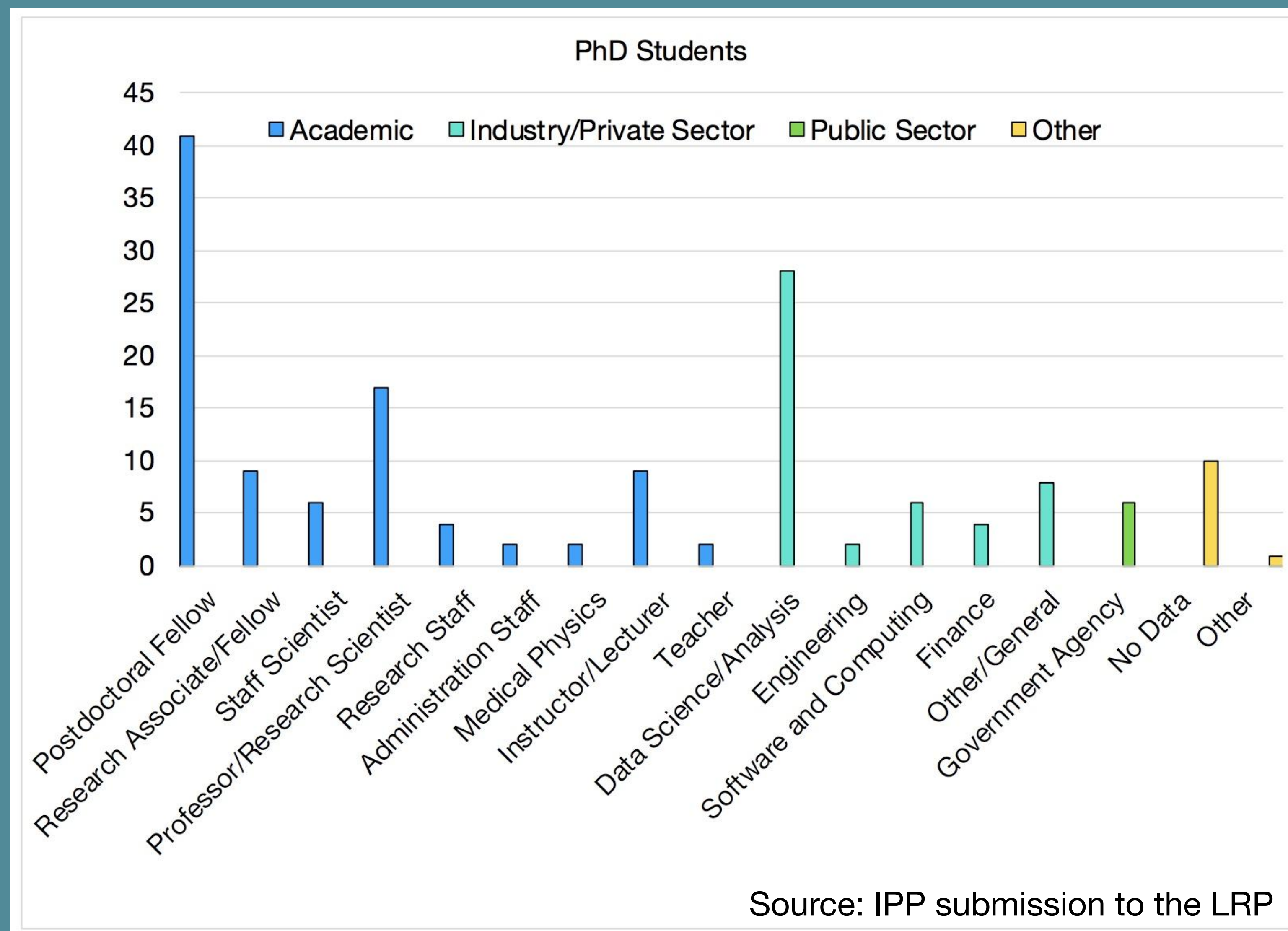
Career Aspirations

In which sector would you like to be working in five years from now?

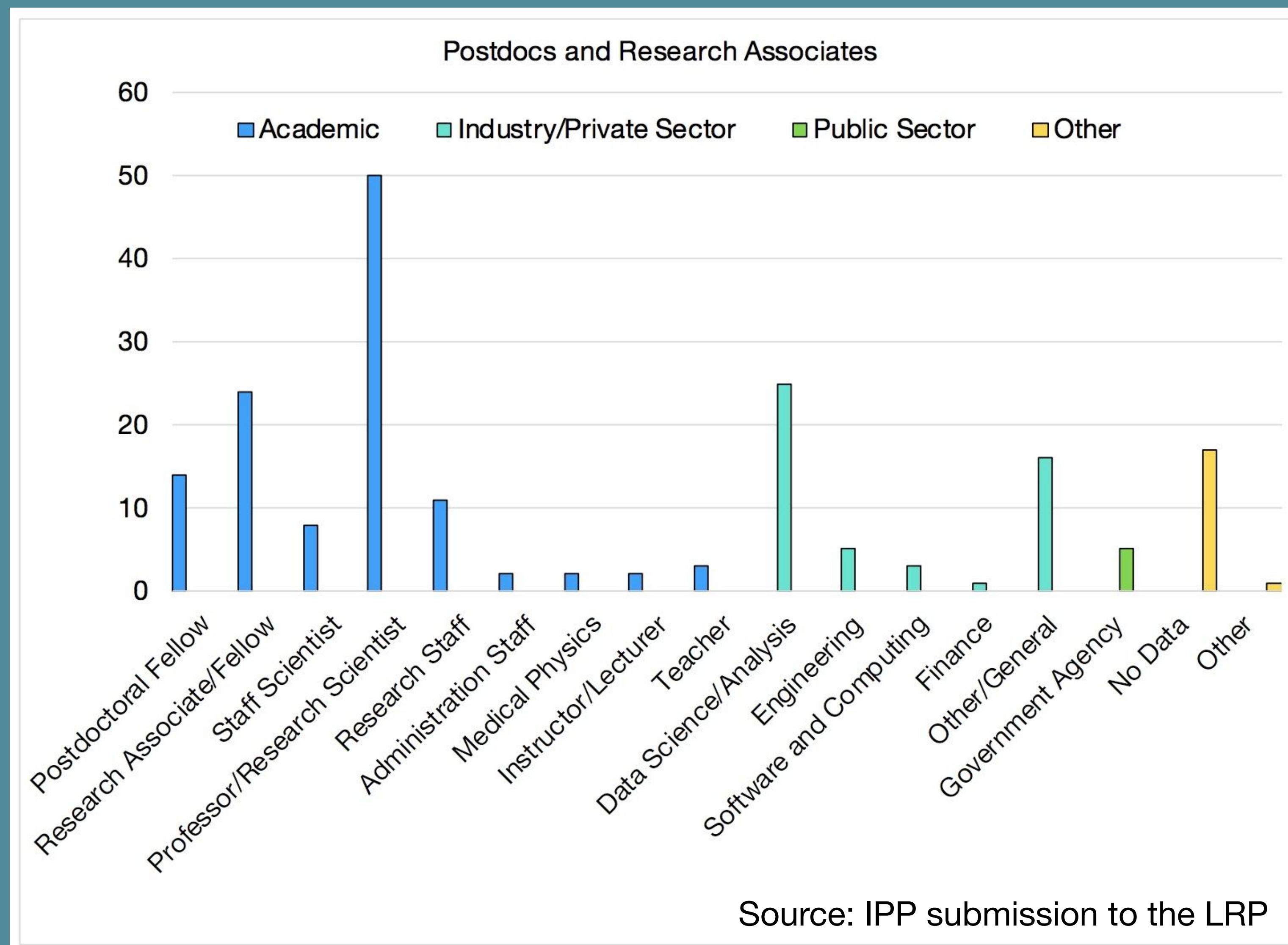
Answered: 167 Skipped: 4



Current Positions Held by Former PhD Students



Current Positions Held by Former Postdocs



Education, Training & Careers - Q & A

SAP graduate education aims to provide a number of skills and tools for future careers.

Starting with those specific to the field, which do you feel are most valuable?

Education, Training & Careers - Q & A

SAP graduate education aims to provide a number of skills and tools for future careers.

Starting with those specific to the field, which do you feel are most valuable?

- ◎ world-leading knowledge in a specific field
- ◎ engagement in international projects and opportunities for travel
- ◎ development of an international network of colleagues for future job opportunities
- ◎ training in developing and using cutting edge instrumentation or computational tools
- ◎ mathematical, statistical, analysis skills
- ◎ others?

Education, Training & Careers - Q & A

What aspects of your education do you feel may have the most value in other areas of employment?

Transferable skills

Technical

system integration, drafting and technical design, machining, manufacturing, data acquisition, laser systems, microwaves, cryogenics, high vacuum systems, particle detectors, fast electronics

Analytical

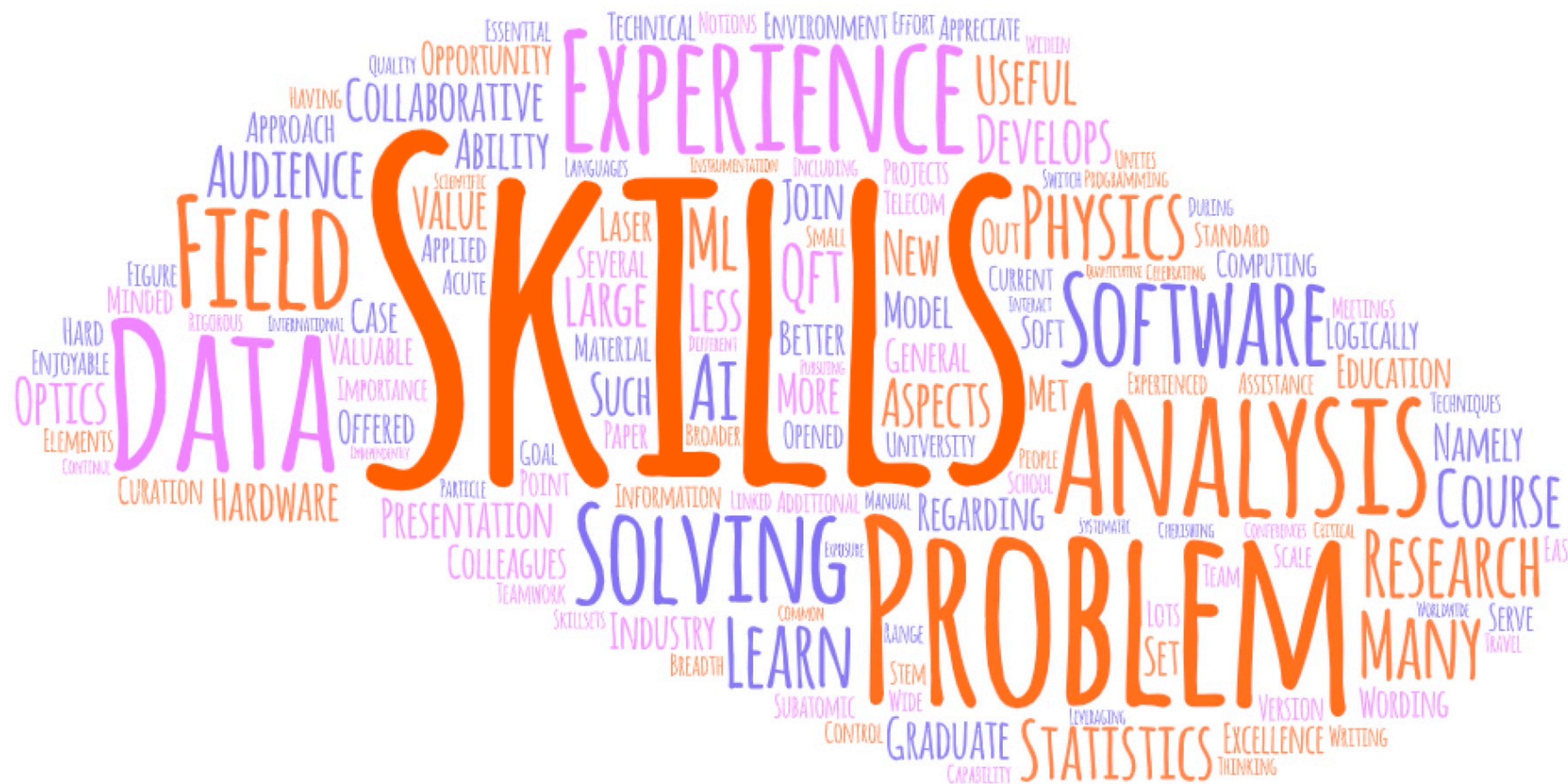
logical thinking, problem solving, computer programming, analysis, statistics, parallel computing, machine learning

Managerial

project management, leadership, teamwork, mentoring, interfacing, (international) collaboration

Pre-townhall feedback

What aspects of your education do you feel may have the most value in other areas of employment?



- international collaboration
- networking/work in teams
- independent/flexible problem solving skills
- data analysis/big data
- computational skills
- experience with hardware and software

Education, Training & Careers - Q & A

Would the development of additional skills/tools be useful in other areas of employment?

- Computational tools, connections with modern computer science
- More direct hardware experience
- Science communication
- Statistics and data analysis
- Others?

Education, Training & Careers - Q & A

Do you have comments on some of the barriers to access and achieving success in SAP graduate education?

Here are some examples - what are your thoughts on these, and are there others that you would like to highlight?

- The time commitment required (now fixed work hours)
- The need to travel (global field)
- The long timelines for progress in some sub-fields
- The negative aspects of “big science” - e.g. work within large complex collaborations
- Uncertain career trajectory
- Others?

Education - Q & A

SAP is a global research field, which (COVID-permitting!) provides opportunities to work in a variety of locations and environments. How would you describe the value of the following components of graduate education and training?

- Short to medium term stays at other departments or universities
- More support for access to research labs
- Summer schools
- Internships outside academia

Equity, Diversity, and Inclusion

‘...Equity, Diversity and Inclusion (EDI) strengthen the scientific and engineering communities and the quality, social relevance and impact of research...’ [Source: NSERC Framework on EDI]

EDI will be discussed at tomorrow’s Townhall meeting on the SAP Community. Here we are mostly focusing on education and training, but please bring up other relevant aspects of EDI as you see fit.

Context (in Canada)

NSERC's EDI Framework and the Dimensions Charter



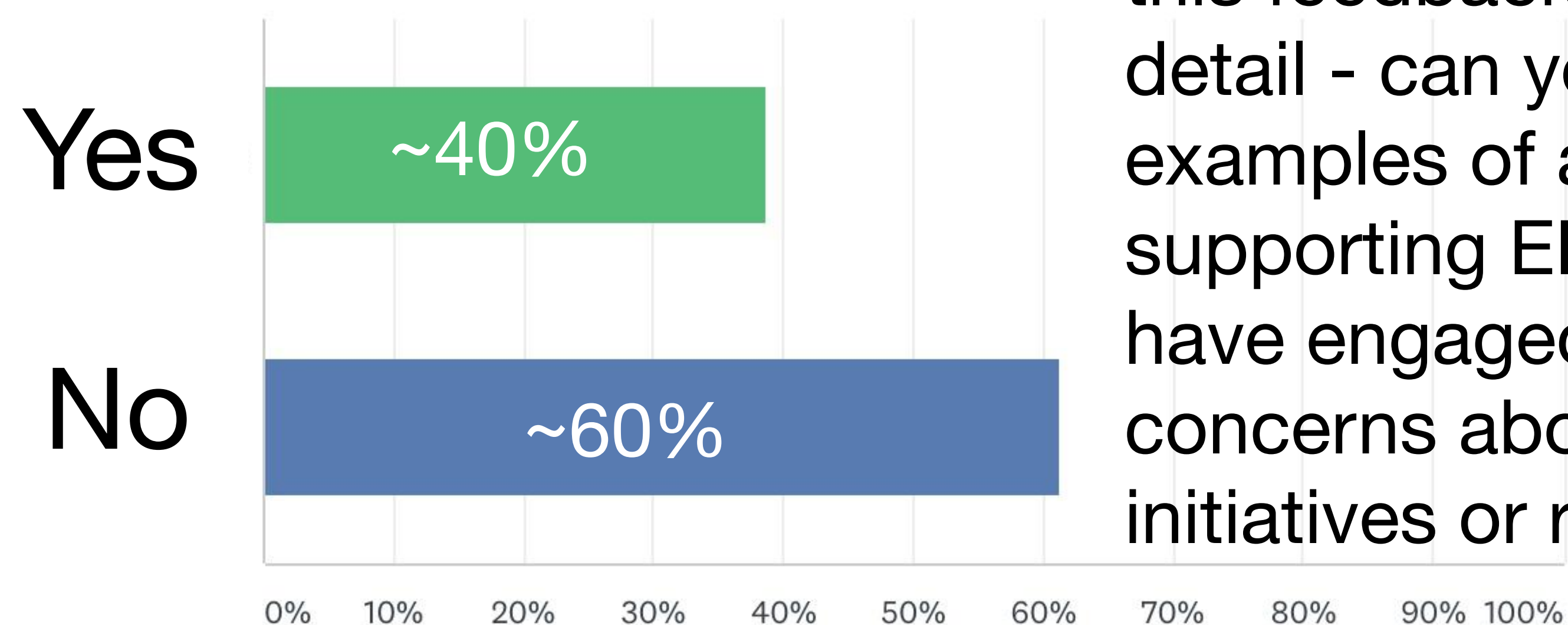
CAP EDI Survey



LRP Survey (EDI) - Q & A

Have you participated in activities to support Equity, Diversity and Inclusion (EDI) in science?

Answered: 158 Skipped: 13



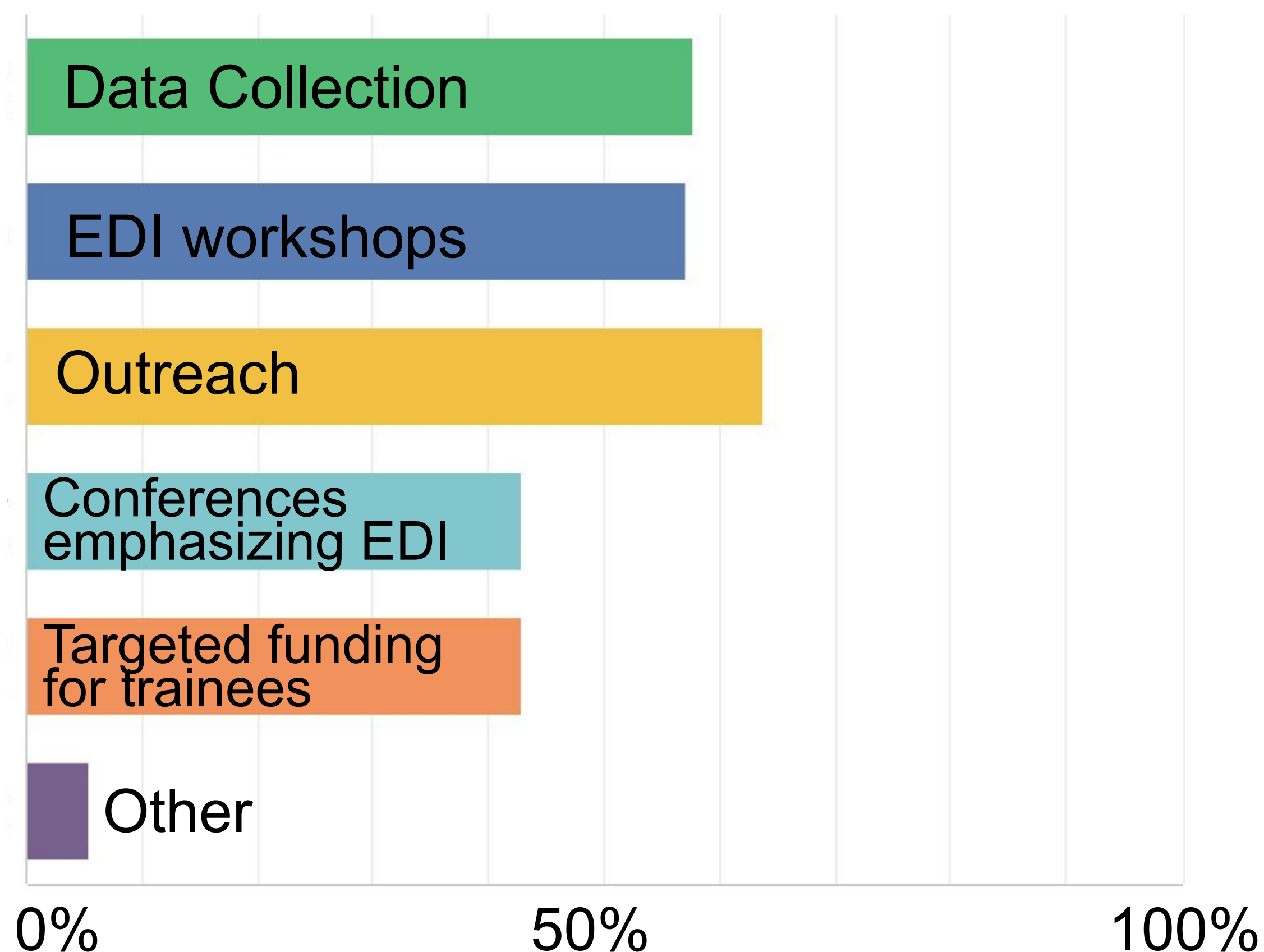
We'd like to understand this feedback in more detail - can you provide examples of activities supporting EDI that you have engaged in, and/or concerns about a lack of initiatives or resources?

Graduate student and postdoc responses

LRP Survey (EDI) - Q & A

Which initiatives would you like to see supported by the Subatomic Physics community to further improve EDI?

Answered: 149 Skipped: 22



Can you suggest examples of successful initiatives in these categories that you feel would be valuable to support further?

[E.g. in the University context, NSERC Dimensions, AIP Team Up, or other?]

AOB

We're interested in your thoughts and feedback on all of these issues. Are there other topics or questions that anyone would like to raise?

Wrap-up

Thank you for your participation!

Further feedback is welcome

- ▶ Email: lrpc@subatomicphysics.ca
- ▶ Slack: <https://canadian-sap-lrp-2022.slack.com>
- ▶ Anonymous Survey: <https://www.surveymonkey.ca/r/STHSK3D>

Topical Townhall 1: SAP Community

(Please attend tomorrow's second meeting!)

- ▶ **Wed Feb 17, 11am–1pm PST [EDI, Early Career Researchers, Community organization]**