

# Non-Physicists in the HEP Community: Inclusion, Recognition, and Valuing their Contributions

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P5 Town Hall at SLAC

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“We must invest in the members of our community. In the same way that systemic inequalities in matters of gender, race, or other minoritized identities add stress and stand in the way of better science and happier people, these distinctions in professional respect, inclusion, and appreciation inhibit communication, development, and the free flow of ideas.”

- Climate of the Field: Snowmass 2021,  
[arXiv/2204.03713](https://arxiv.org/abs/2204.03713)

# Who participates in science?

Physicists

Technicians

Engineers

Operators

Support staff

(and more...)



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# They want the same things

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Scientific discovery

Pride in their work

Recognition

Respect

Compensation

Feeling of belonging to community,  
that their contributions matter

# Who participates in science?

# They want the same things

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Scientific discovery

Pride in their work

**We are all part of the future of the field.**

Respect

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# Science is not done in a vacuum (unless that's what you're studying)

**There's more to physics than physics.** The HEP community isn't just writing papers and doing analysis in collaborations and at universities and national labs: there is a significant **social, mentoring, and networking** aspect. This is important at all stages, but particularly evident for those early in their careers.

# Dismantling the inequalities

Young technicians, engineers, operators, and physicists will experience very **different levels of support, inclusion, mentorship, recognition, professional development, and opportunities** of all kinds over their careers, and this divide continues and its cumulative effects multiply over the years.

**All contributions are necessary** to the success of the enterprise, but often, only some receive recognition. **All careers should be supported and developed**, but often, some are left to stagnate. This is a loss both to the field and to the skilled, professional individuals in it.

# Investment is necessary

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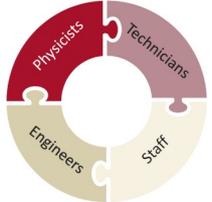
Institutions Collaborations Non-Scientists HEPA Software Throughlines

### Scientists & non-Scientists: Participatory Injustice

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**“Essential” technical and operational staff often found themselves vitally needed and completely forgotten at the same time.**

There are times when certain “scientist” / “non-scientist” distinctions are important and useful; but there are other times when this artificial caste system mainly serves to hurt communication, productivity, and morale.



Who is purposefully included?

- Email lists
- Slack / Communication platforms
- Authorship
- Social events
- Codes of Conduct

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From Erin Hansen’s talk immediately preceding

And there are so many potential benefits. **Better retention and recruitment, higher quality and happier workforce, better science.**

# How to improve?

- Recognize and value contributions, at all levels. Personal, institutional, community.
- Share resources—challenges faced by other groups apply here too! Collaborative and inclusive solutions.
- Support career development.
  - Give those in technical/operational/support roles what they need to pursue their professional paths
  - Lowering institutional barriers, paths to academic contribution
- Foster relationships, inclusion, and belonging. Diversity matters.
- More suggestions in the paper! “Climate of the Field: Snowmass 2021,” [arXiv/2204.03713](https://arxiv.org/abs/2204.03713).