



Report from the Young Physicists

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On behalf of the young particle
physicists at the LP03 Town Meeting
(Monday August 11th 8-10pm)



Thanks!

- LP03 has a record amount of ypp's representation (~130)!
 - ~ 63 Posters!
 - Many prominent young speakers!
- Would like to thank and congratulate Ben Kilminster, the LP03 organizing committee and all the staff!
- Hope this initiative will become a LP tradition! (and other conference's)



Why a town meeting?

- **We are the future!**
 - We need to be informed
 - May be we can provide inputs
- At Snowmass 2001:
 - Young Particle Physicists Forum
 - Survey
- YPP organization (<http://ypp.hep.net/>)
 - 10 Chapters with ~300 members world wide
 - Chapter Activities and participation at conferences

Ad-hoc group on HEP

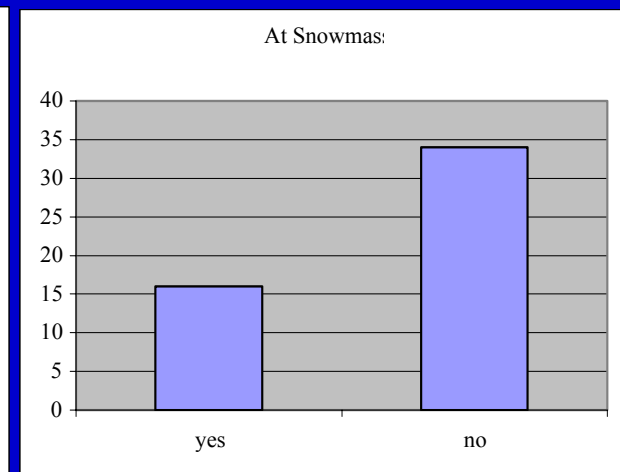
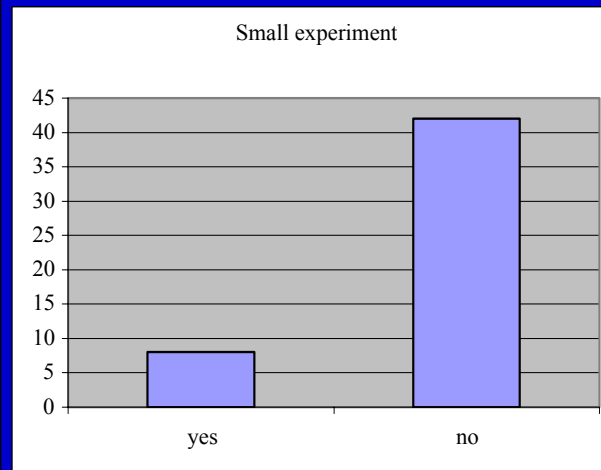
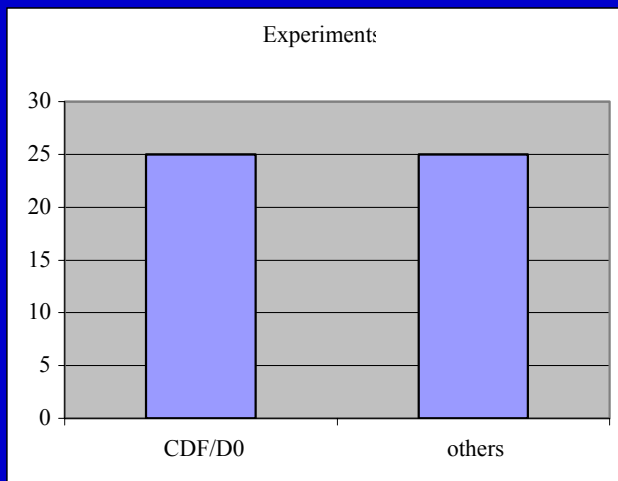
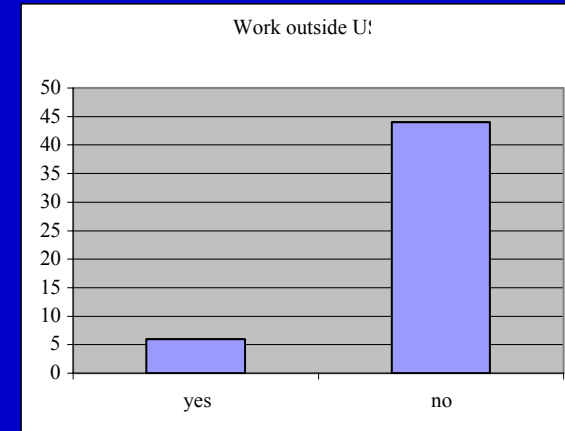
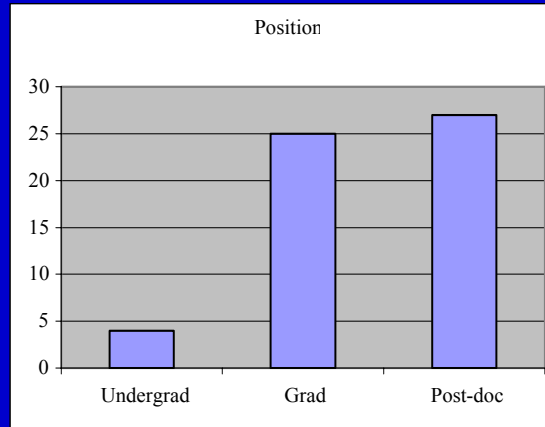
Demographics

- Members: Rocky Kolb, Usha Mallik, Helen Quinn, Frank Sculli, Maury Tigner, Michael Barnett (PDG), **Florencia Canelli and Stephen Richichi (YPP)**
- Issues?
 - Number and quality of students entering the field
 - Attrition of students and postdocs
- Regular presentations at HEPAP meetings
- Group is evaluating survey possibilities

Ypp Town Meeting: Demographics

Over 75 attendees
(some plots normalized to 50)

About 7 theorists





Globalization impact on ypp's

- The field is exciting!
 - B factories, CDF/D0, neutrinos, LHC coming up, etc...
 - Wide range of topics and technical aspects
- The trend is also:
 - Bigger collaborations
 - More traveling
 - More time to get to data
 - All these have impacts on ypp
 - Make the field either more or less attractive



Globalization impact on ypp's

- “Getting visas to US is harder now”
- Big author lists: sparked a lot of discussion
 - Important thing is collaboration/internal notes
 - Should they be refereed?
- “Is it hard to leave the US and come back?”
 - Personal experiences seem to indicate it is not a problem for coming back as a postdoc
 - It might be more of an issue for a permanent position?

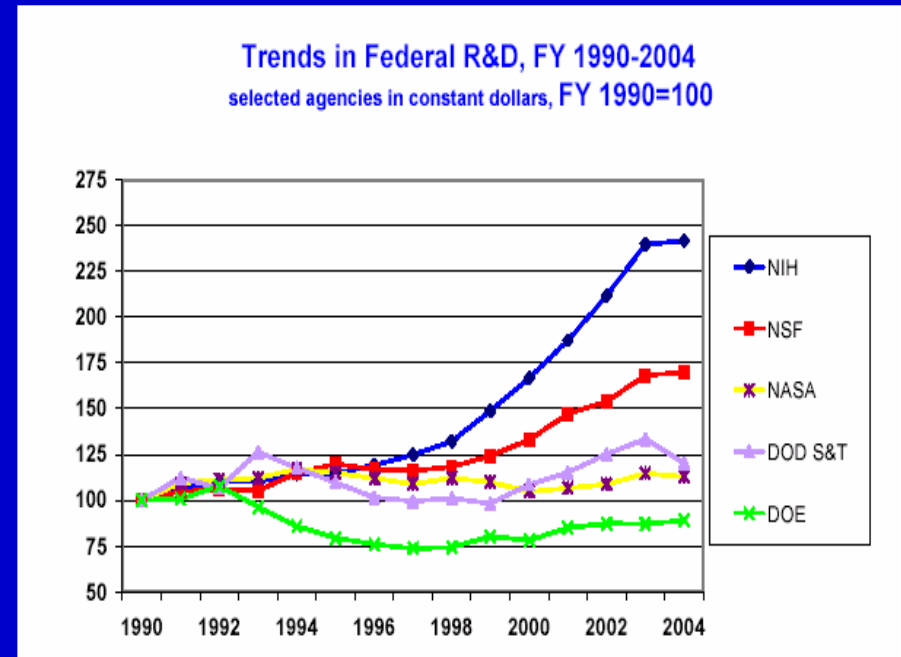


Globalization impact on ypp's

- Long lead time to data impacts the training of ypp's
 - “A physics PhD is about pushing the boundaries of current knowledge”
 - Can hardware and software projects accomplish this?
 - Is Test beam/Test bed data sufficient?
 - What about physics analysis on simulated data?
 - Not surprisingly majority felt access to data was very important
 - LHC members pointed out this was not always possible!
 - Countries have different requirements (eg UK has hard cutoff after 3 years)
 - Ypp's are concerned whether this is systematically taken into account for career advancement
 - Possible Solution?:
 - Encourage university groups to be involved in both building and data taking experiments at the same time
 - Means collaborations have to accept this

Outreach & Funding

- In many cases existing projects/laboratories have had to balance increasing costs against decreased budgets
- NIH and NSF have seen increases over same period

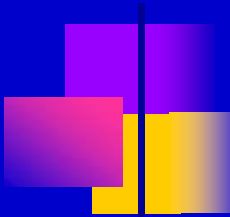


Source: AAAS 2002



Outreach & Funding

- Some ypp's felt it was important to get big projects or new initiatives to be **budget line items** to keep baseline funding stable
 - Europe situation similar: new initiatives take money from university grants
 - Direct impacts on ypp's
- Government outreach:
 - NIH vs DOE gap:
 - Some ypp's felt there was no point in playing one field over the other
 - Point out the interplays between health sciences and particle physics!



Outreach & Funding

- “Ultimately politicians support issues that the public is interested in”
 - Some ypp’s felt the emphasis should be on **public outreach**
- “Professional outreach activities need resources and outreach is expensive”
 - Focus on personal participation
 - Visit schools, get teacher to teach about particle physics, read about new ways to teach to non-physicists
 - Ypp’s recognize it’s a lot of hard work over many years: need everyone to do their part!
 - **YPP might focus a future town meeting on outreach**



Balancing the Field

- What is different since Snowmass01?
 - Physics case for a linear collider still compelling
 - German government decision
 - 9/11
 - Tevatron luminosity performance
 - Next 5 years are crucial in securing the next 20 years
- Discussion focused on the linear collider project

Balancing the Field: the LC

■ Need to push now!

- Focus the community
- Recruit accelerator physicists
- Secure funding + international participation
- Meet the challenges for an attractive field for public and ypp's

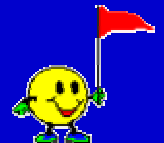
■ Need to wait!

- "We're driving blind"
- Field is more than about the energy frontier!
 - Breadth of the field is crucial!

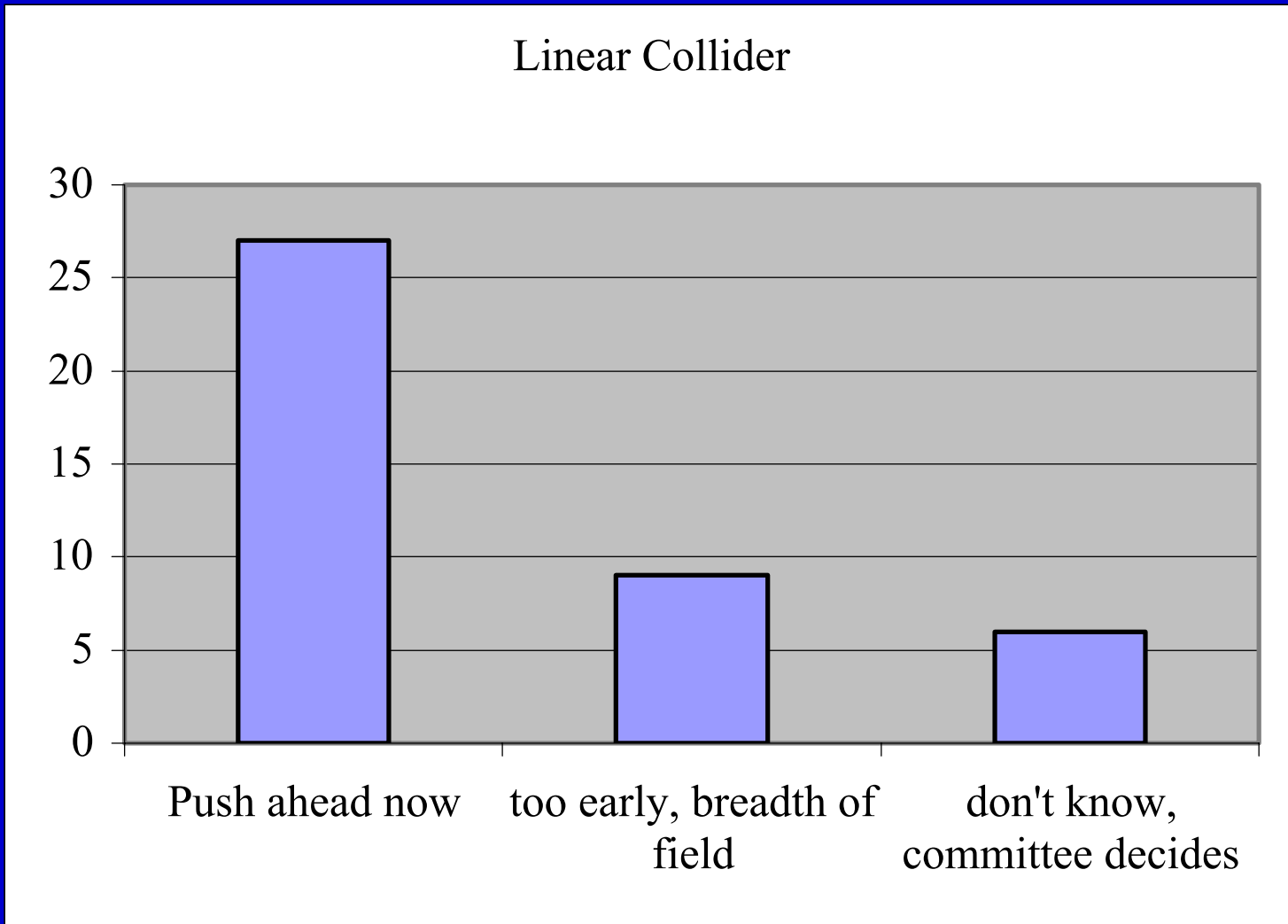
■ About the technology decision

- Some ypp's feel having the current committees study the issues is the right way to go
- Some ypp's feel that issues of funding and timing might outweigh scientific merit

Important that the community stays informed!



Balancing the Field: the LC





Take away Messages

(my own average)

1. Ypp's love the field and the physics!
2. The US is one of the leaders of HEP
3. Training is dependent on groups/experiments
4. Outreach to the public is important and every action counts
5. Most of us want a Linear Collider and we want to see more (visible) concrete actions in this direction