

ICML 2010

Program Chair Report

Johannes Fürnkranz

Thorsten Joachims

Program Chairs

Overview of Reviewing Process

- Sep** Generate list of subject areas
- Oct 1** Recruit area chairs (42+4)
- Oct** Recruit reviewers (517, 80% accept)
- Feb 1** Submissions (594)
- Feb 3** Phase I: Bidding by AC and reviewers
→ 1 AC and 2 reviewers per submission
- Mar 5** Author rebuttal
- Mar 9** Phase II: ACs decide whether to
 - a) reject clear cases (13%)
 - b) manually assign at least 1 additional reviewer
- Discussion
- Apr 5** AC recommendation and meta-review
PC chairs clarify and make final decisions

Survey

- Many of upcoming slides will refer to the result of a survey
 - invited all area chairs, reviewers, authors
 - more than 550 responses!
- Will publish full survey.

Submissions Flowing in...

Date	#Papers	#PDF
06.1., 00.00	6	6
25.1., 08.30	39	21
26.1., 11.00	48	27
27.1., 11.00	62	38
28.1., 08.15	71	44
29.1., 08.15	87	58
30.1., 15.00	115	83
31.1., 08.05	129	97
31.1., 15.45	143	112

Date	#Papers	#PDF
01.2., 08.45	200	169
01.2., 16.40	250	214
01.2., 22.00	328	295
02.2., 00.30	366	334
02.2., 09.00	496	474
02.2., 11.25	568	558
02.2., 11.45	579	570
02.2., 12.00	599	592
02.2. 14.00	605	598

Submissions

- more or less the same as last years

	2008	2009	2010
Submissions	583	595	594
Accepted	158	160	152
Acceptance Rate	27.10%	26.89%	25.92%

Submissions

- more or less the same as last year
- ... not only in terms of numbers:

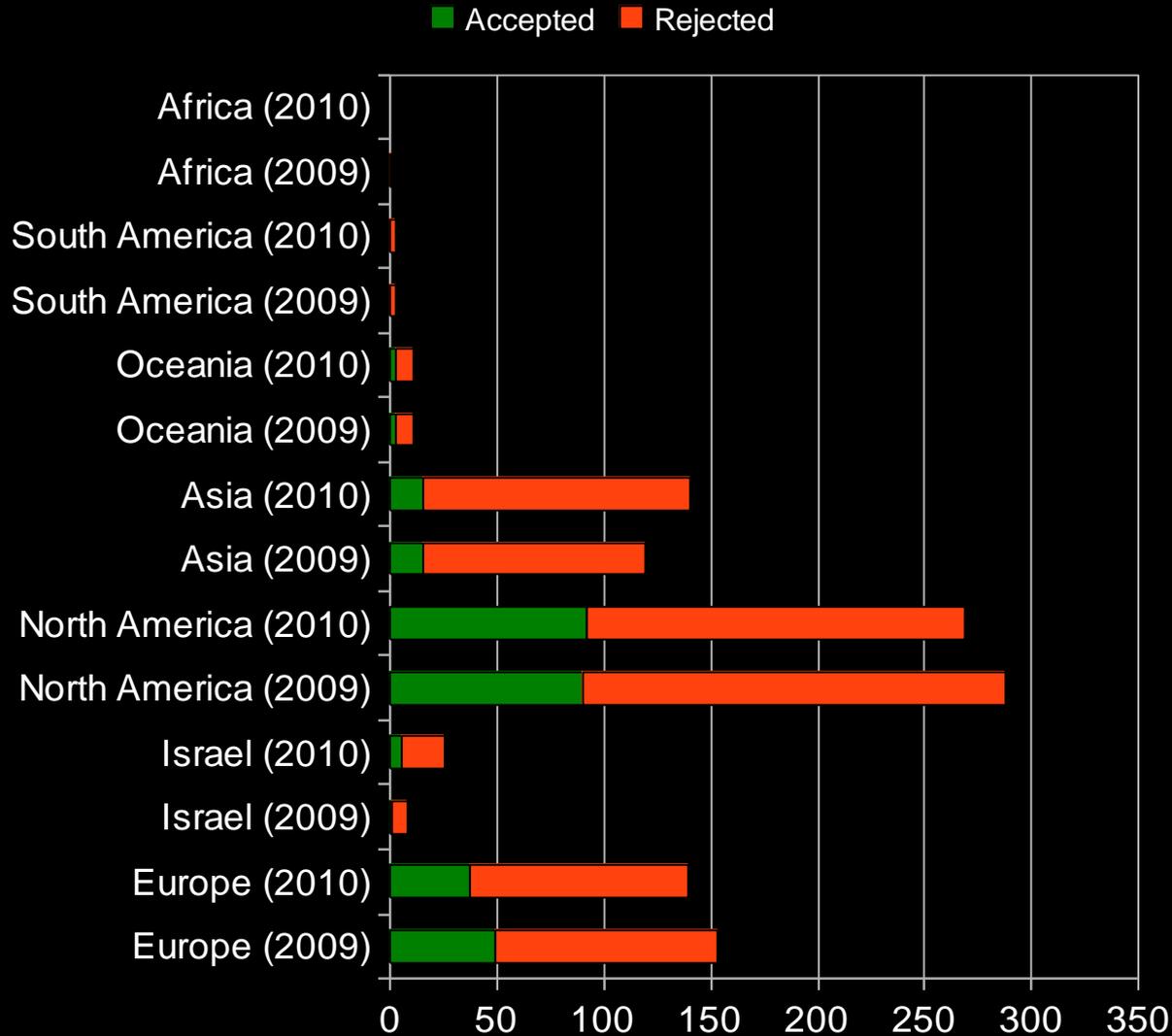
Average Title Length

	2009	2010
Accept	7.854	7.480
Reject	8.082	8.204
Total	8.021	8.012

Average Abstract Length

	2009	2010
Accept	141.92	139.40
Reject	140.09	142.15
Total	140.59	141.42

Submissions by Geographic Region



Supplementary Materials

- Submission of supplementary materials were allowed this year (as suggested last year)
 - ca. 20% of submissions had supplementary materials (121)
 - reviewers could choose whether to look at it or not
- did reviewers look at it?



Submission Areas

Most Popular

<i>Primary Subject Area</i>	acc	sub	%
Reinforcement Learning	16	49	32,65
Feature Selection and Dimensionality Reduction	9	31	29,03
Probabilistic Models	6	28	21,43
Kernel Methods	6	26	23,08
Clustering	8	26	30,77
Optimization Algorithms	9	25	36,00
Supervised Learning	3	23	13,04
Semi-Supervised Learning	6	22	27,27
Online Learning	6	20	30,00
Transfer and Multi-Task Learning	3	20	15,00

Highest Acceptance Rate

<i>Primary Subject Area</i>	acc	sub	%
Time-Series Analysis	5	8	62,50
Deep Architectures	6	10	60,00
Multi-Agent and Co-Operative Learning	4	7	57,14
Cognitive Models of Learning	2	4	50,00
Planning and Control	1	2	50,00
Graph Mining	1	2	50,00
Bayesian Inference	7	16	43,75
Learning Theory	6	15	40,00
Cost-Sensitive Learning	2	5	40,00
Optimization Algorithms	9	25	36,00

Diversity of Submissions

- We tried to attract papers from areas that have not seen many submissions lately
 - by nominating area chair in these areas
 - by announcing the keywords + AC in the Cfp
 - by instructing ACs to solicit papers in their area
 - by posting the cfp to lists in these subareas

Diversity of Submissions

- It did not work...

Area	Primary Subject Area			Primary or Secondary		
	acc	sub	%	acc	sub	%
Constructive Induction and Theory Revision	0	0	0.00	1	1	100.00
Case-Based Reasoning	0	0	0.00	2	2	100.00
Fuzzy Learning Systems	0	2	0.00	0	3	0.00
Knowledge-Intensive Learning	0	2	0.00	0	4	0.00
Evolutionary Computation	0	0	0.00	3	5	60.00
Pattern Mining and Inductive Querying	0	1	0.00	1	5	20.00
Meta-Learning	0	1	0.00	1	5	20.00
Discovery	0	0	0.00	1	6	16.67
None of the provided KW	0	5	0.00	0	5	0.00

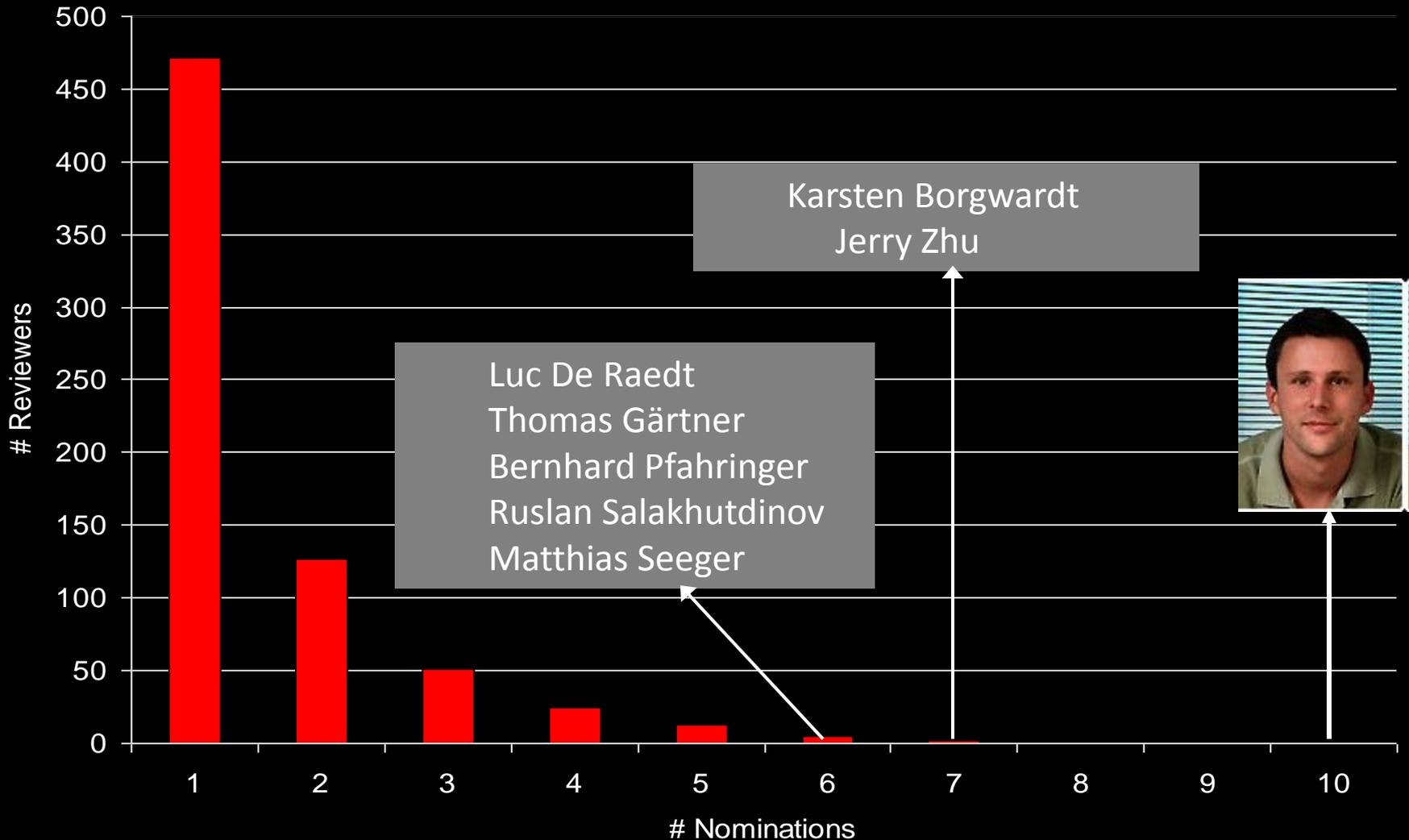
Diversity of Submissions

- It did not work...
- Possible reasons:
 - same time slot as KDD?
 - on the other hand: we also overlapped with AI-STATS and have many statistical papers
 - nobody is working in these areas?
 - no, many still have separate conferences
 - they think we are not interested in them?
 - we tried to convince them otherwise
 - they are not interesting in going to ICML?

AC and Reviewer Recruiting

- Area Chairs (46, 4 after submissions)
 - Generated list of keywords to cover all areas
 - Invite area chairs to each cover 2-4 areas
 - Many Areas were covered by more than 1 AC
- Reviewers (517)
 - ACs +PC Chairs + Local Chairs nominated reviewers
 - 643 invitations (80% acceptance rate)

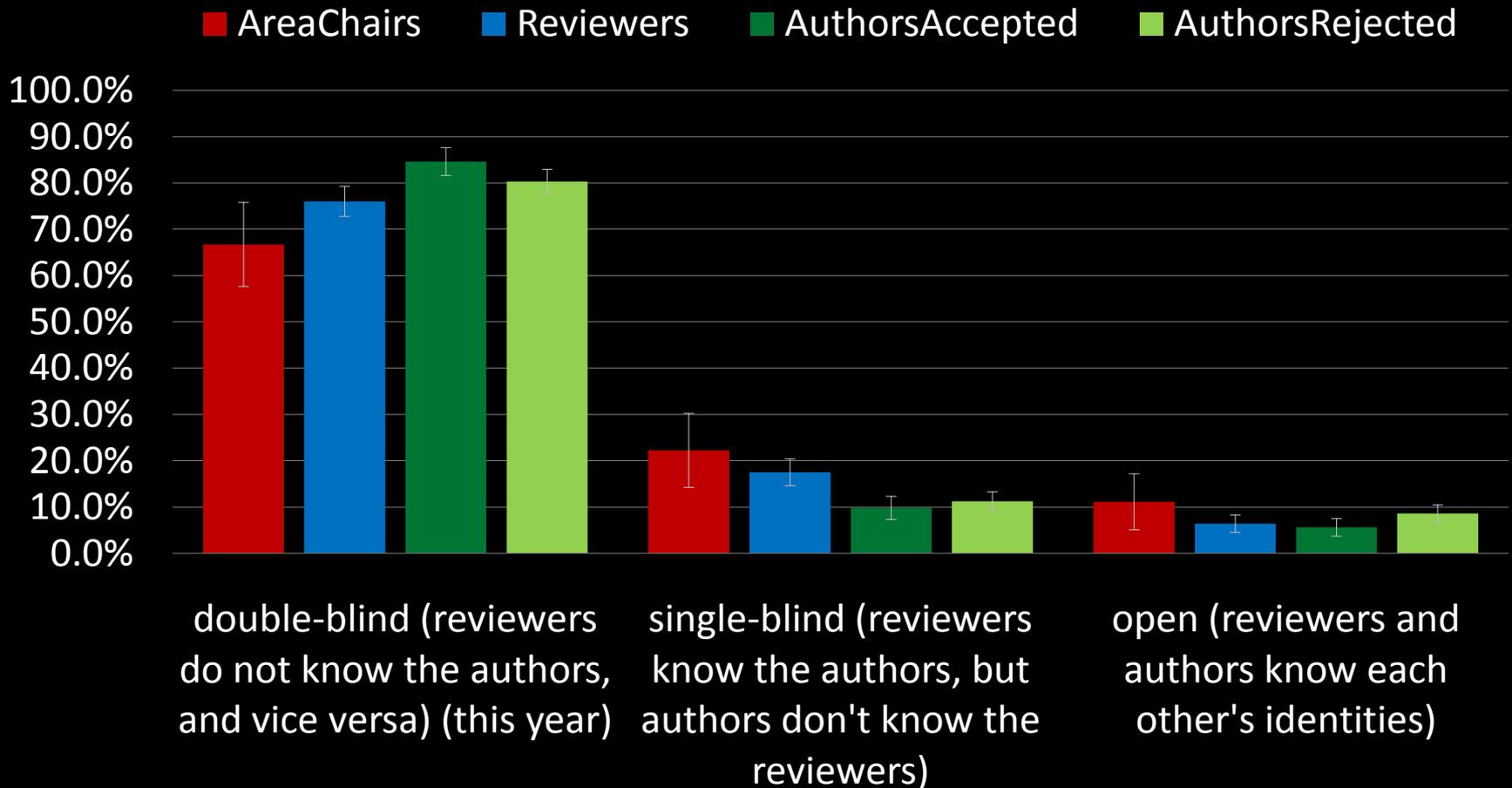
The ICML Reviewer Pageant



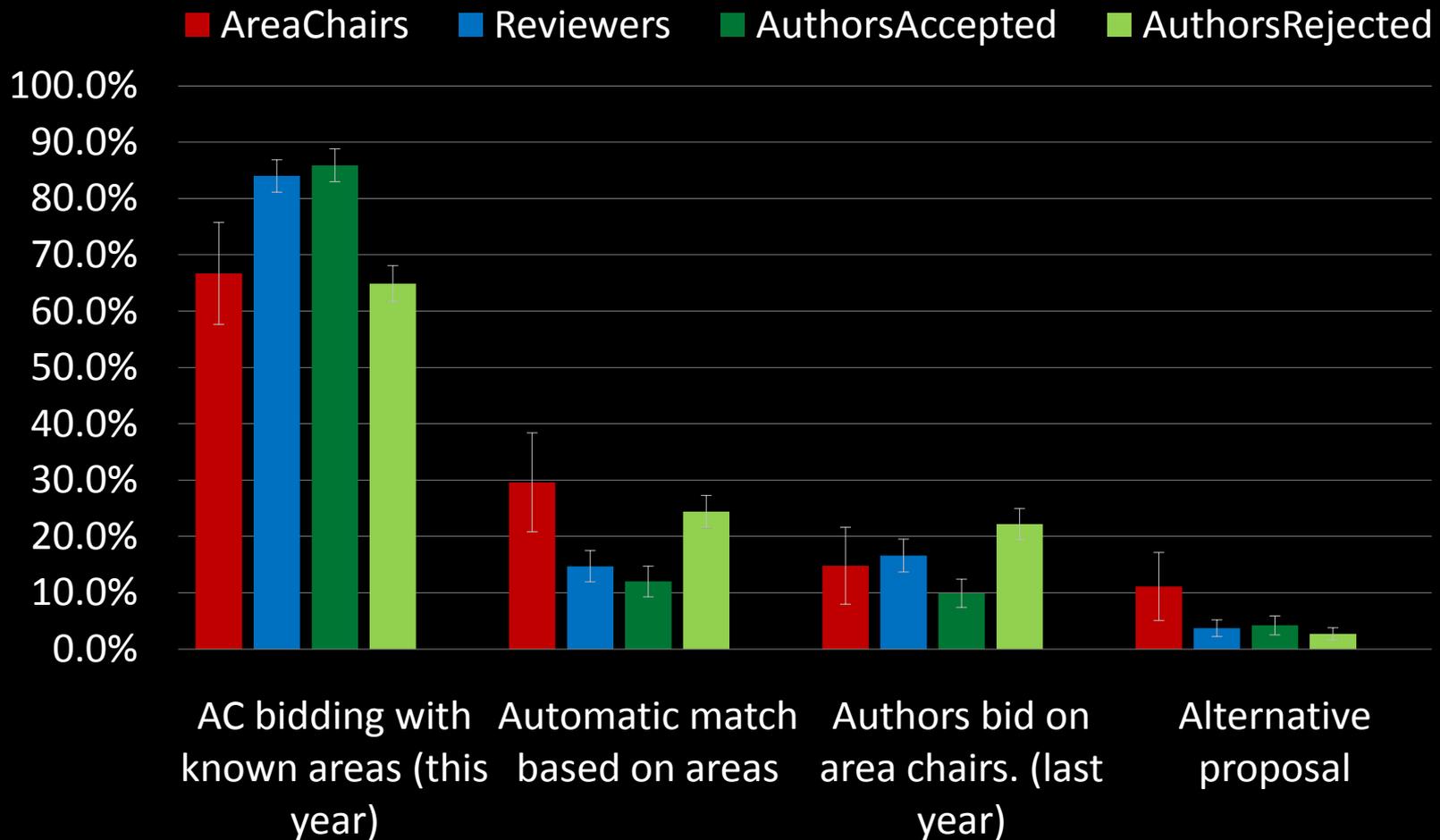
Reviewing Process

1. Blindness
2. Assigning area chairs to papers
3. Assigning reviewers to papers → 2 Phase
4. Author rebuttal
5. Reviewing quality
6. Reviewing load
7. Making decisions

What reviewing model do you prefer?



What model do you prefer for assigning area chairs to papers?



2-Phase Reviewer Assignments

Goal: Get the right reviewers to the papers.

Approach: Use everybody's input!

- Reviewers:
 - Bid on papers
 - Suggest other reviewers in their Phase I reviews
- Authors:
 - Focus AC and reviewer bidding via keywords
 - (Confidential) comments in rebuttal of Phase I reviews
- Area Chairs:
 - May manually assign any reviewer from global pool in Phase II
 - May recruit additional outside reviewers

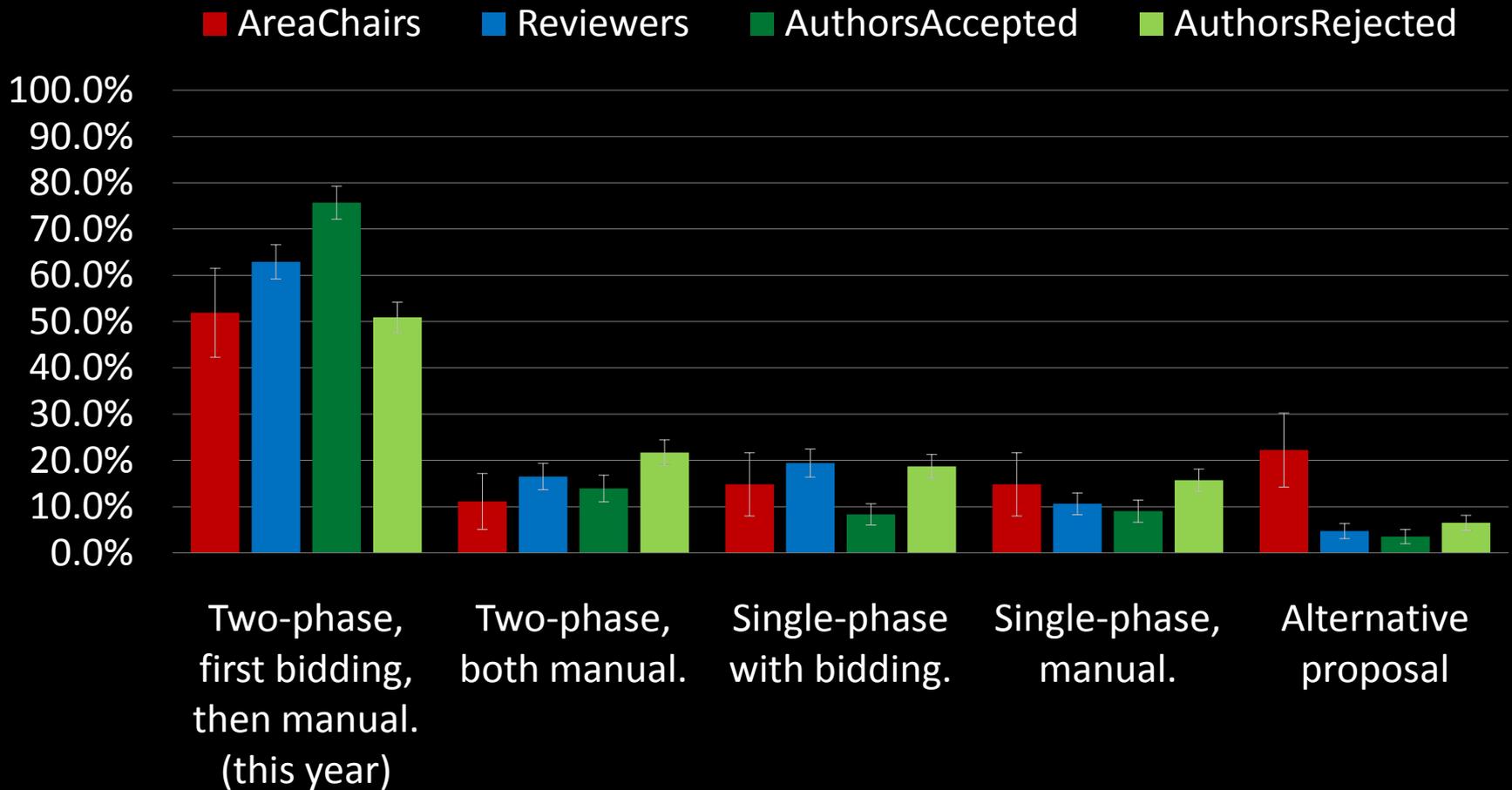
2-Phase Reviewer Assignments

Goal: Get the right reviewers to the papers.

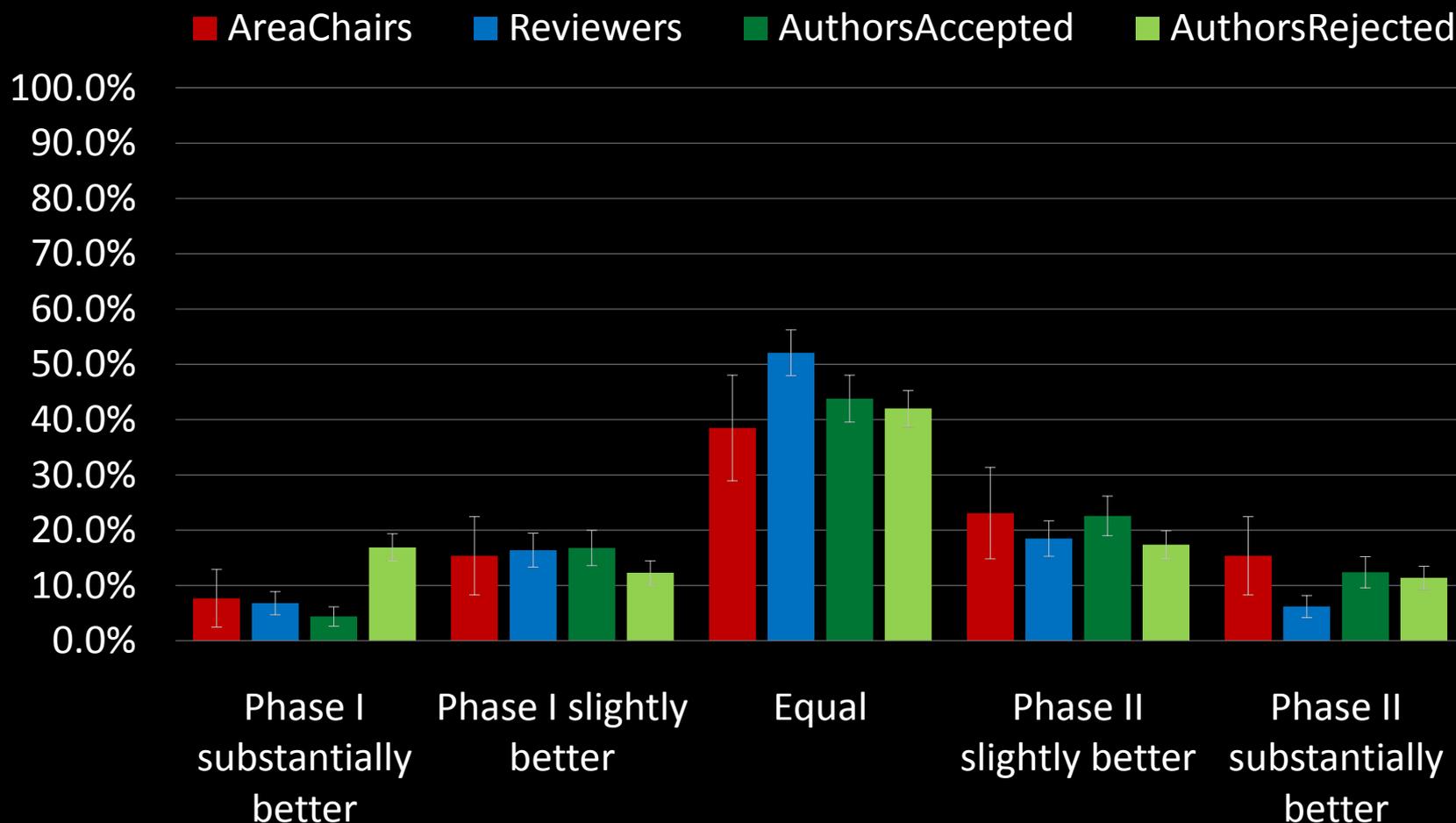
Approach: Use everybody's input!

- Reviewers
 - **For Phase II Assignments, AC knows:**
 - Phase I reviews
 - Reviewer suggestions by Phase I reviewers
 - Reviewer bids
 - Author rebuttal (confidential AC comments) *vs*
- Area Chairs:
 - May manually assign any reviewer from global pool in Phase II
 - May recruit additional outside reviewers

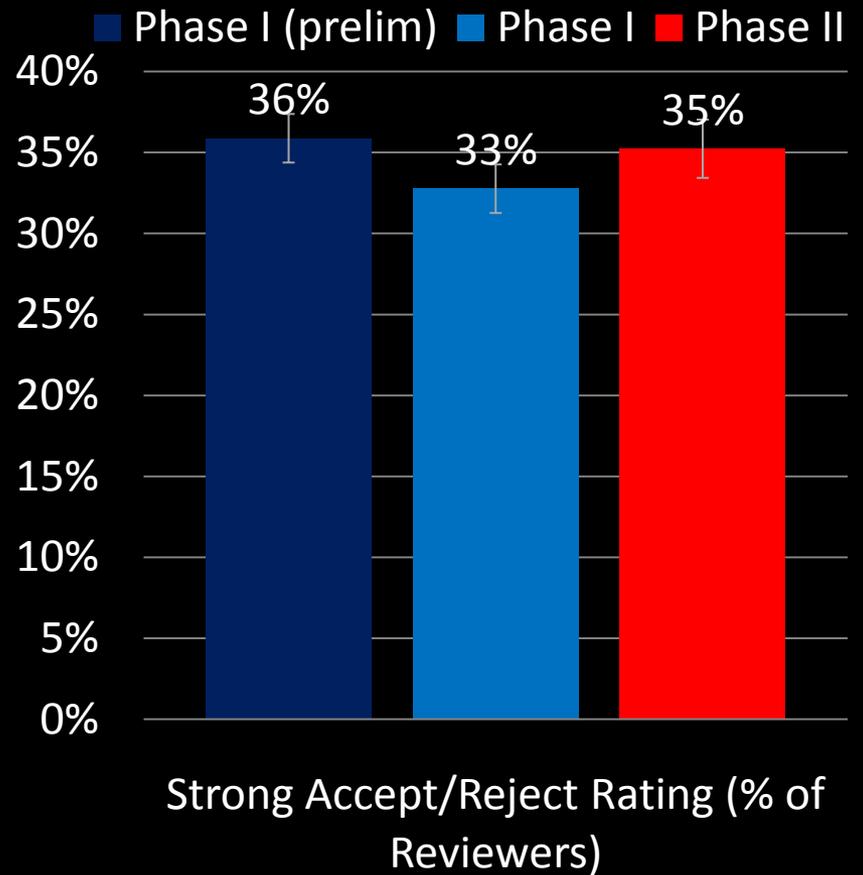
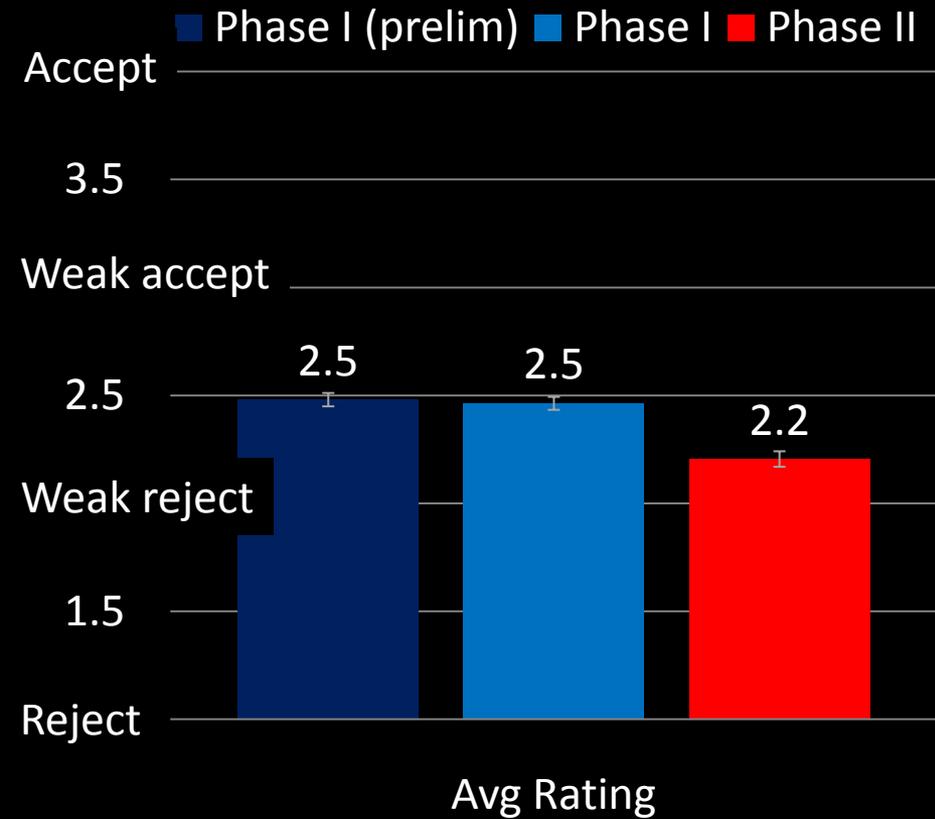
What model do you prefer for assigning reviewers to papers?



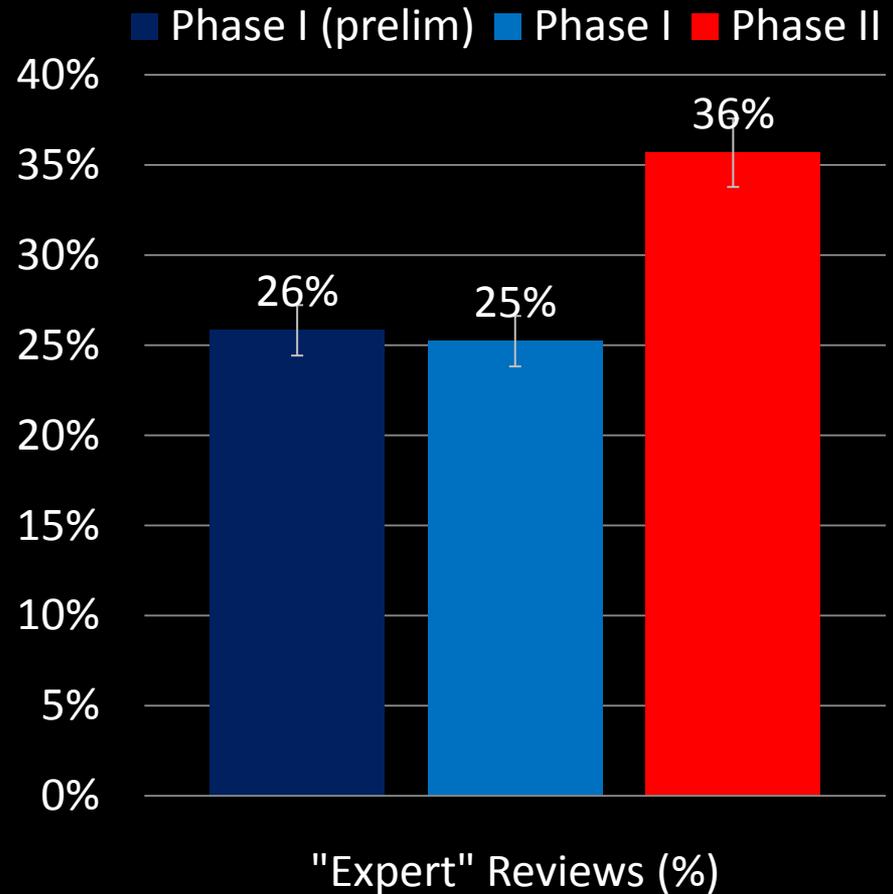
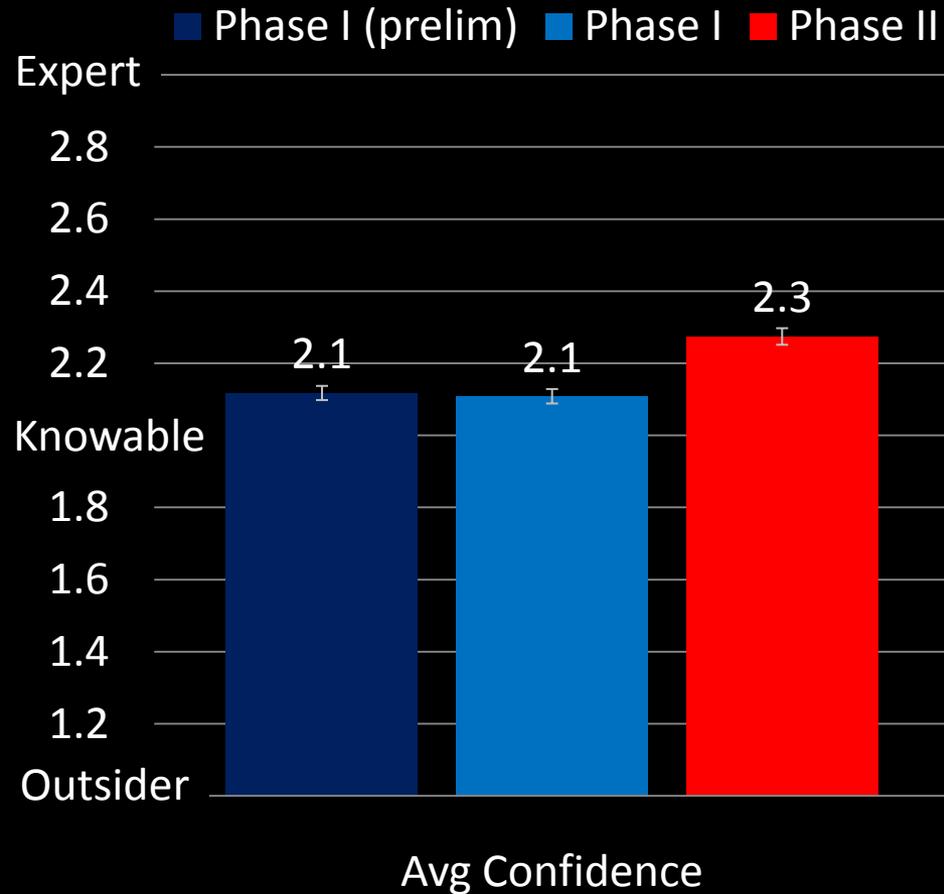
Do you think the Phase I reviews were different in quality from the Phase II reviews?



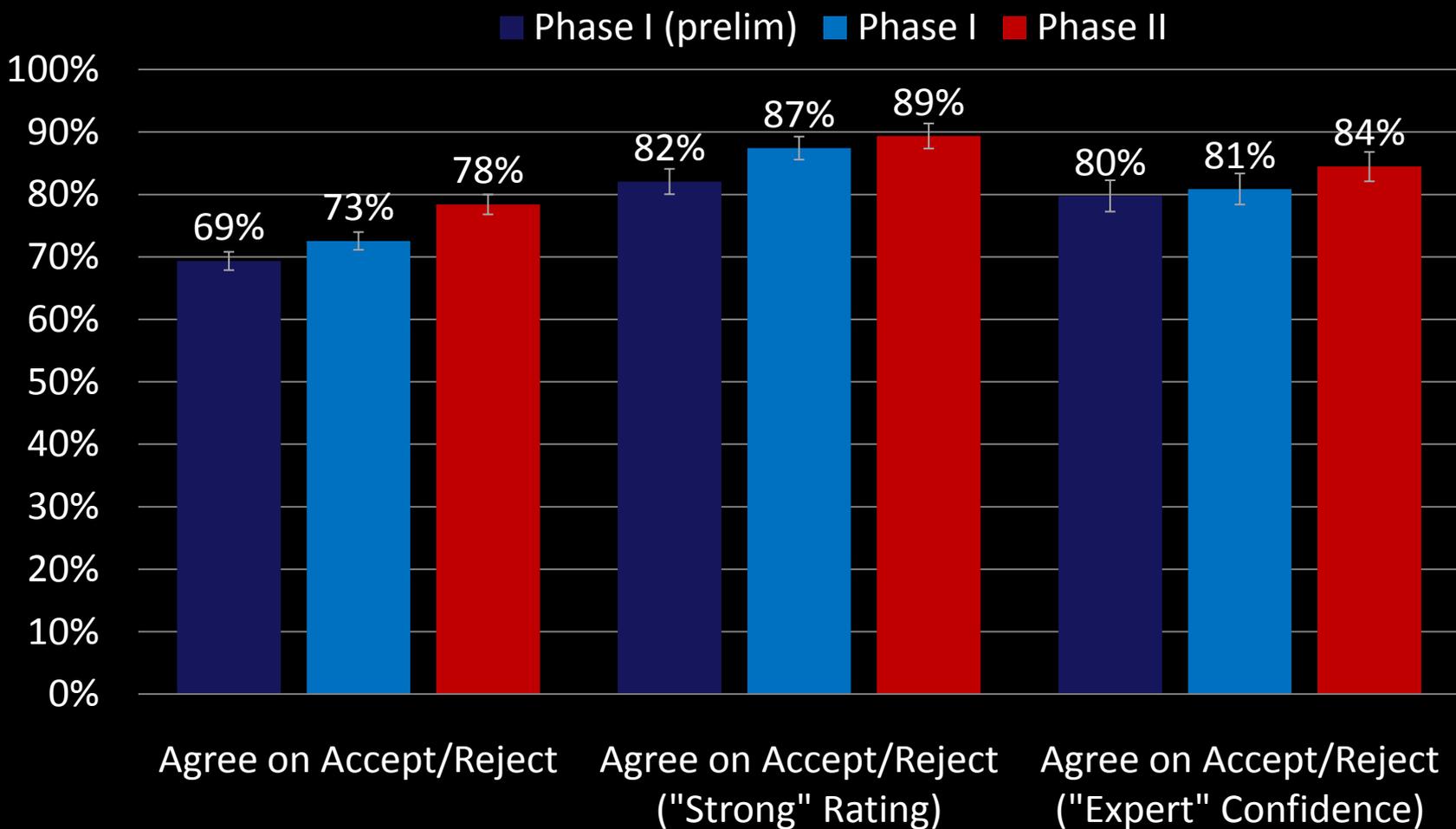
Ratings PI vs. PII



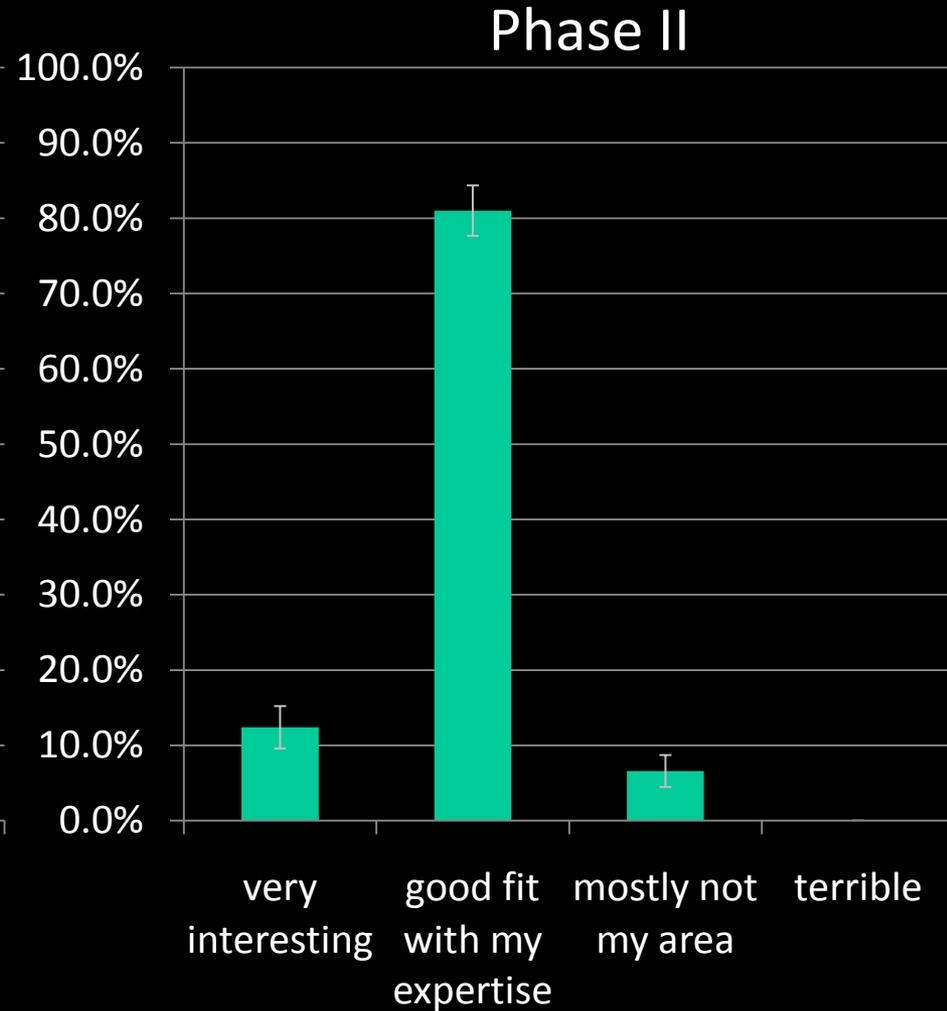
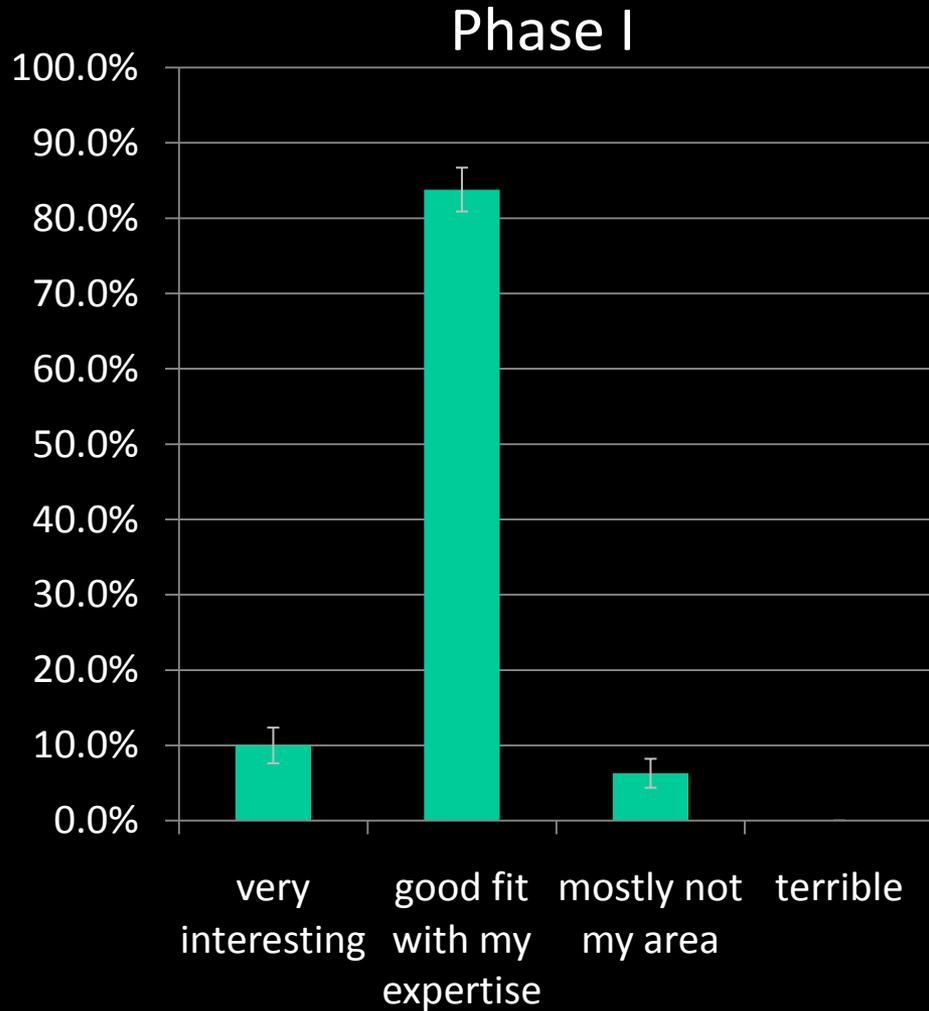
Confidence PI vs. PII



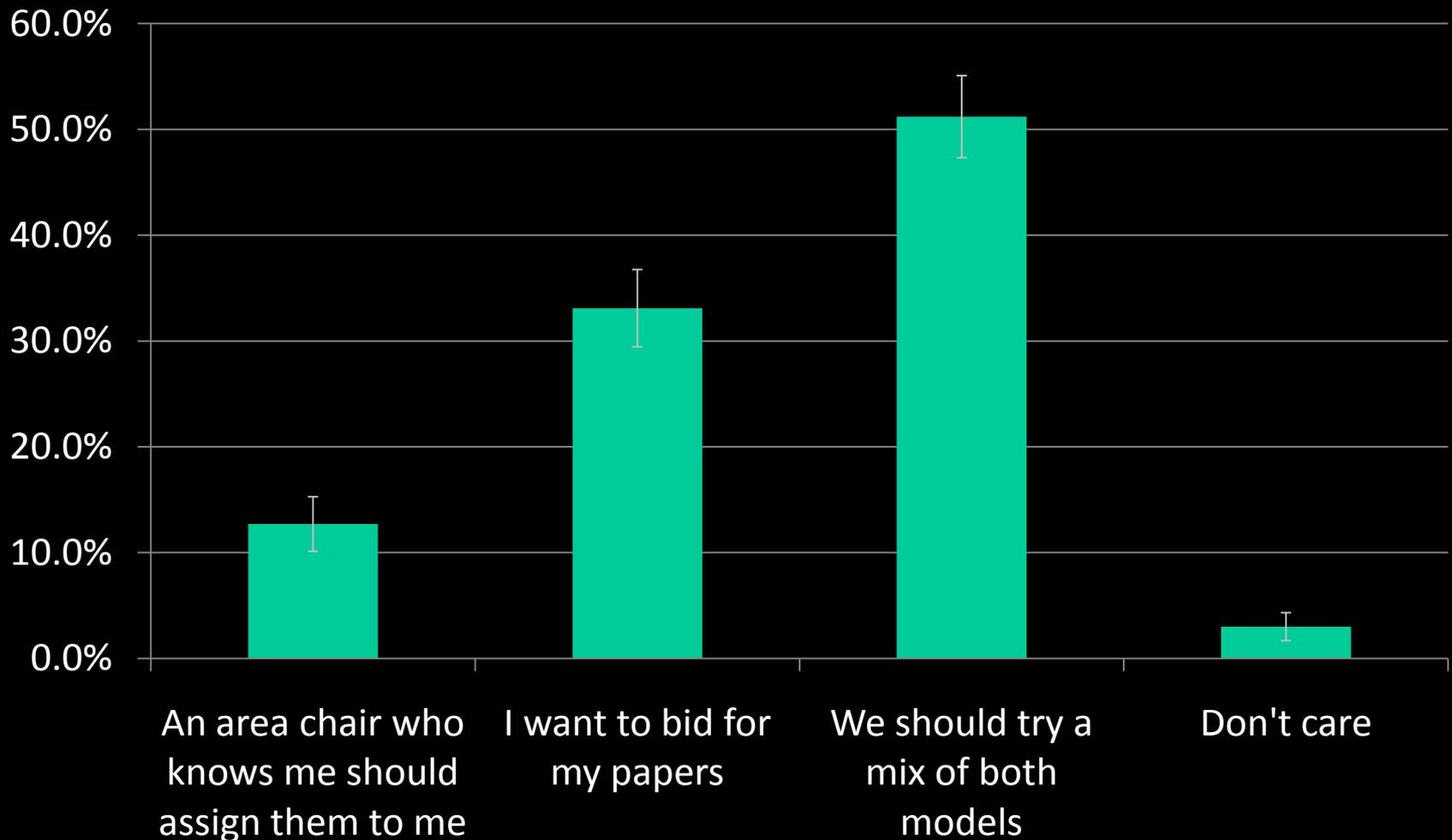
Predictiveness PI vs. PII



How did you like your reviewing assignments?

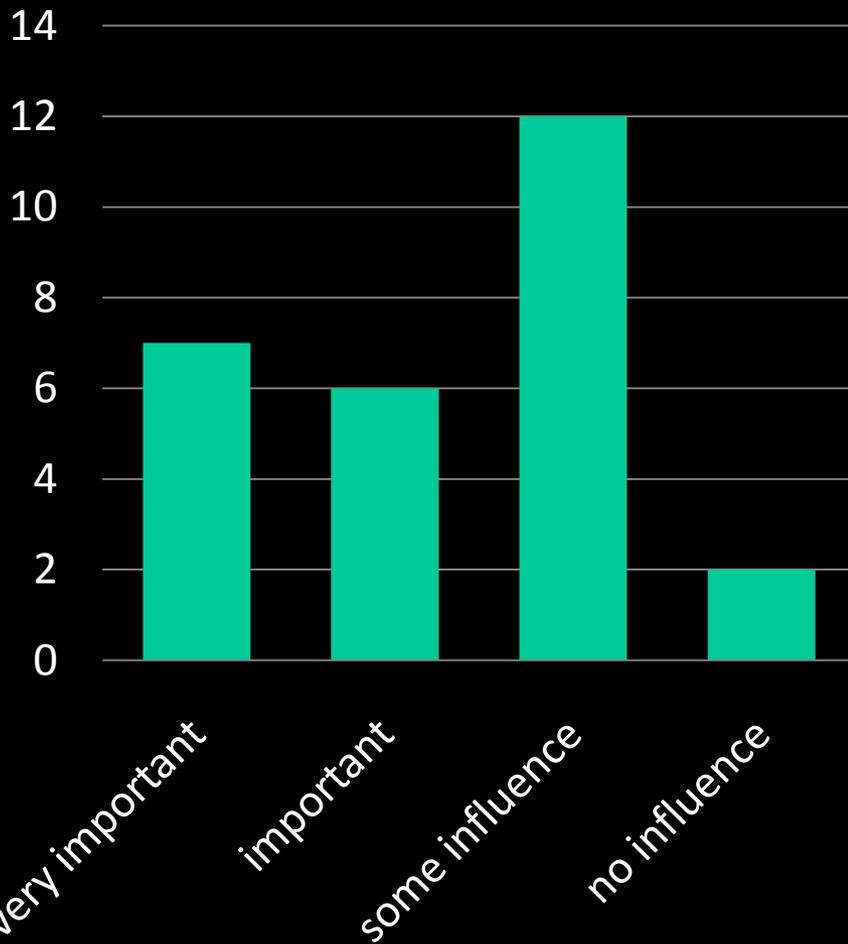


How would reviewers like to receive their assignments?

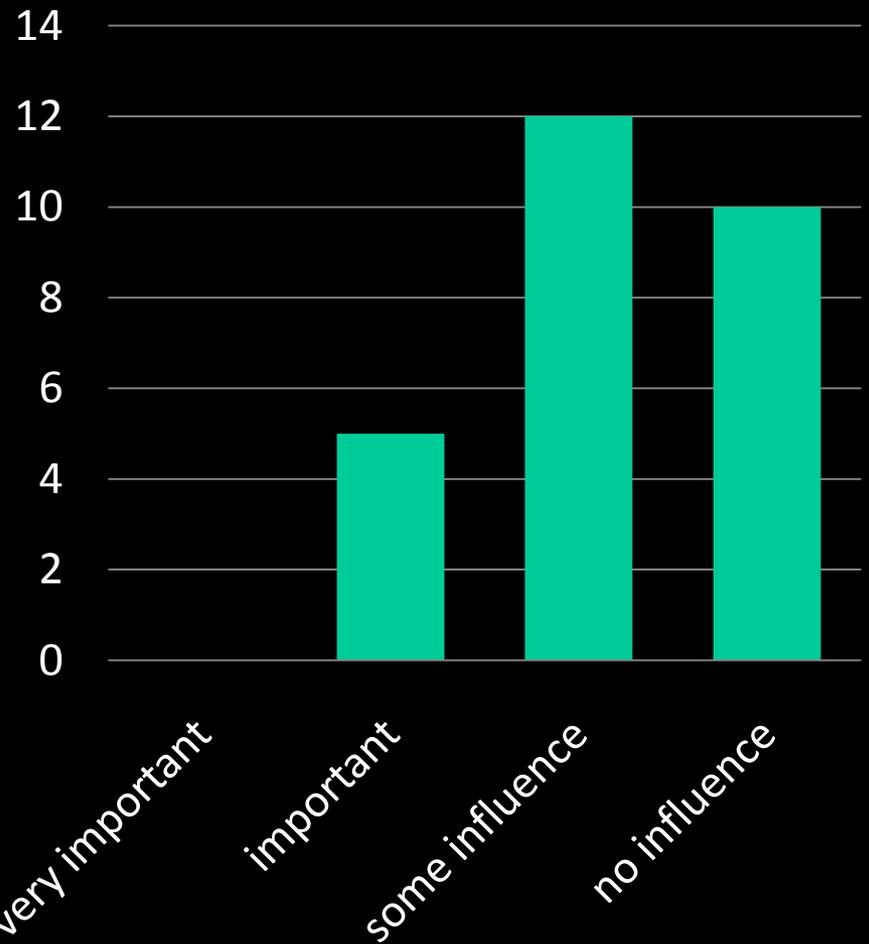


AC Selection of Phase II Reviewers

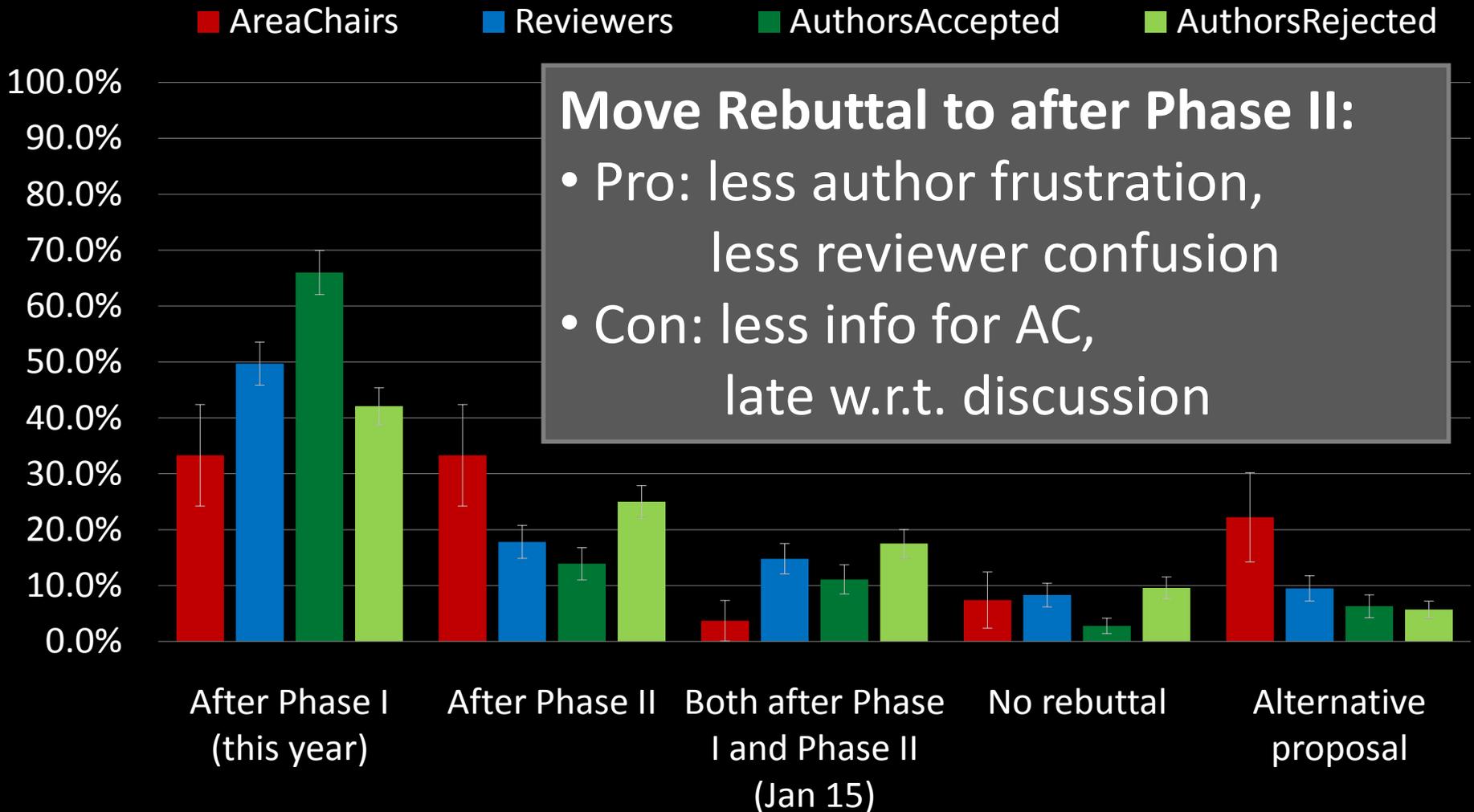
Phase I Reviews



Author Rebuttal



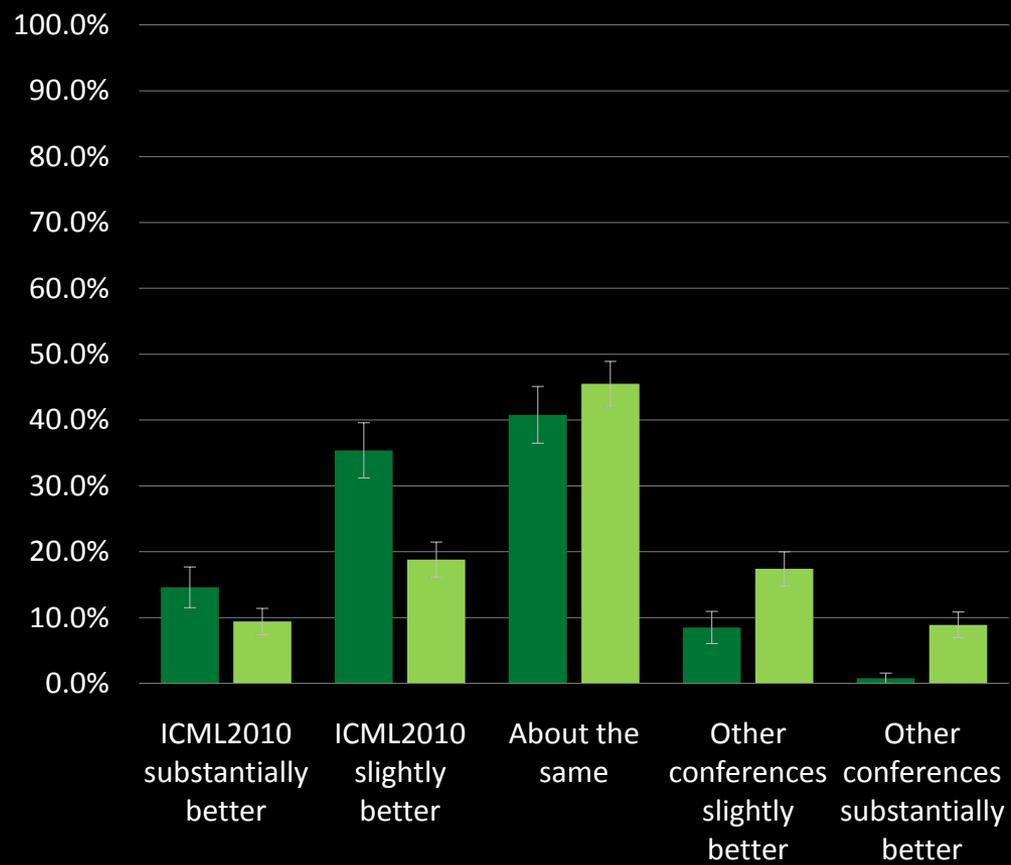
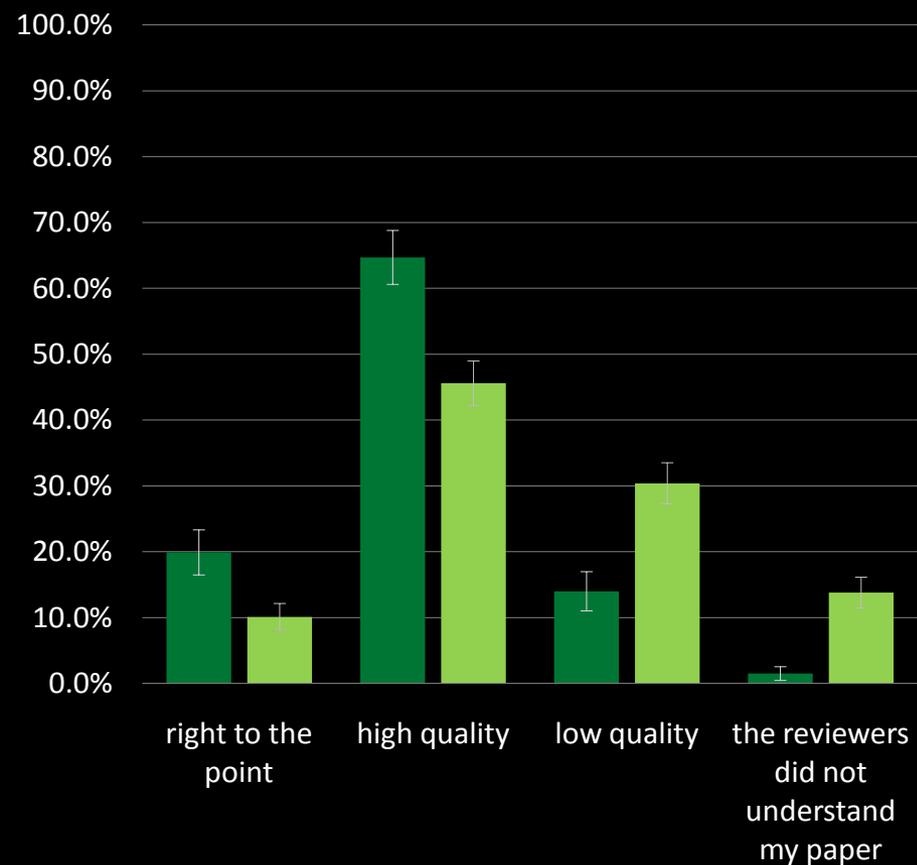
Author Rebuttal Timing



Reviewing Quality

■ AuthorsAccepted ■ AuthorsRejected

■ AuthorsAccepted ■ AuthorsRejected



Reviewing Load

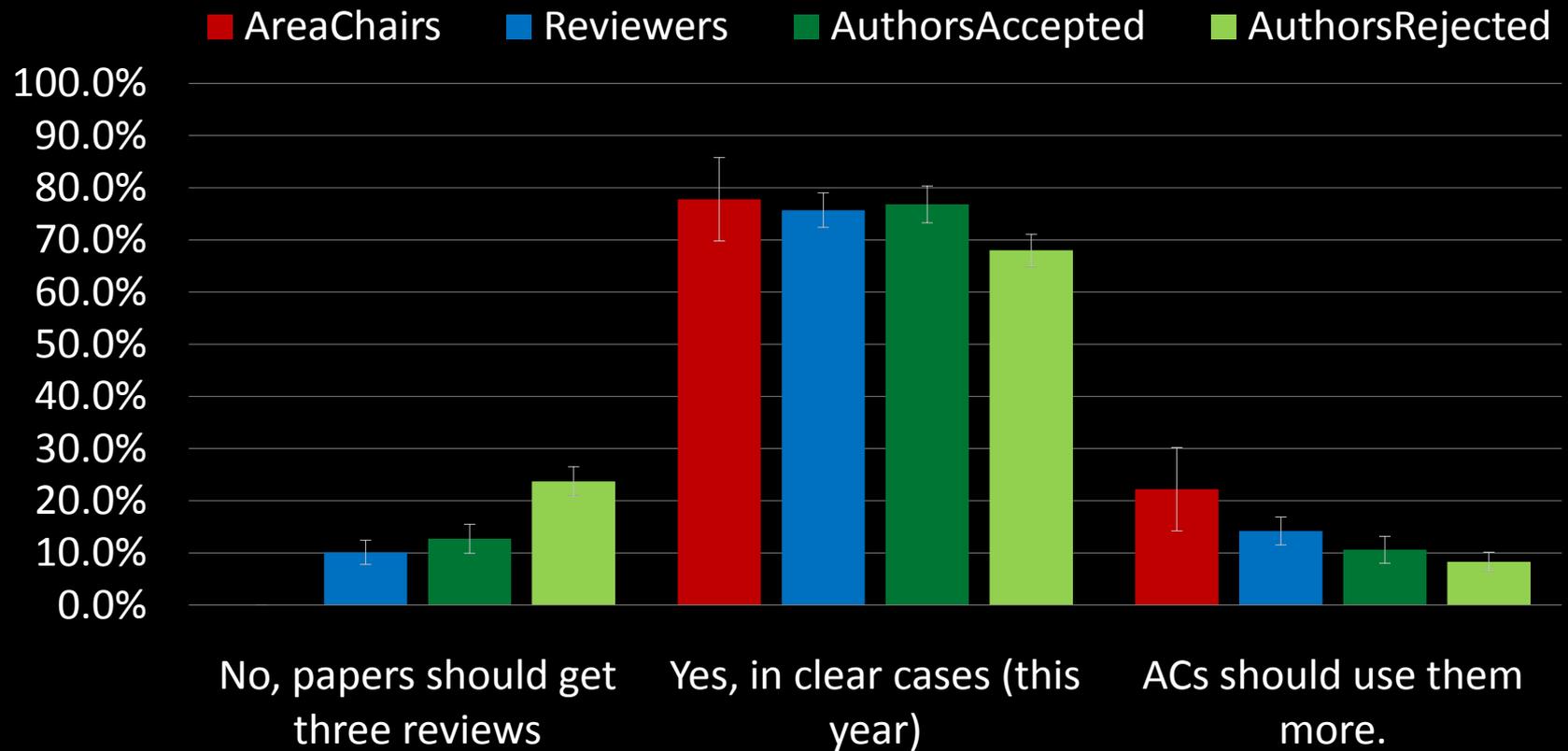
- Submissions: 594
- Reviewers: 517
- Reviews: 1860

- Min # of reviews per reviewer: 2
- Avg # of reviews per reviewer: 3.6
- Max # of reviews per reviewer: 7

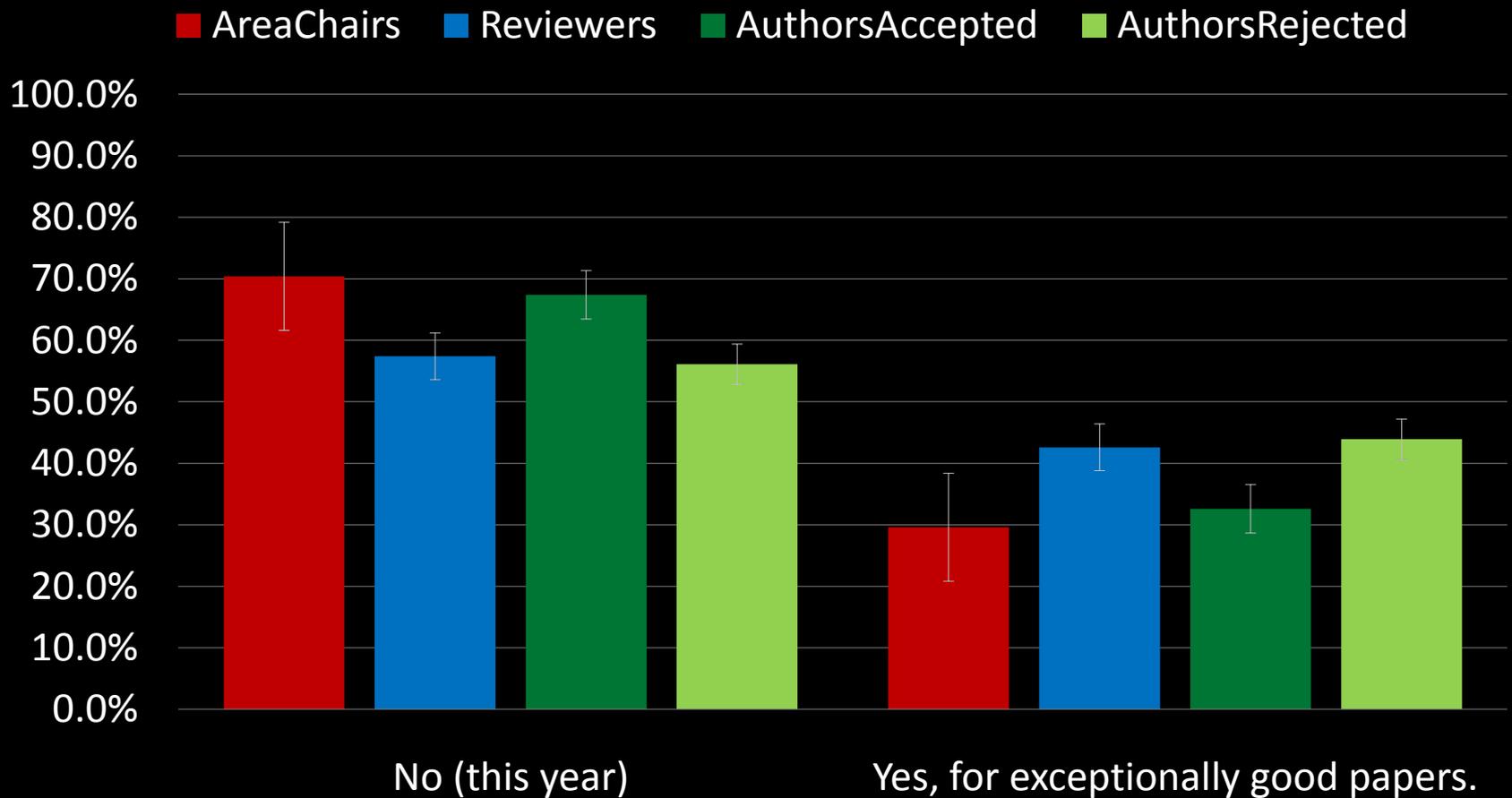
Decisions

- Recommendations by area chairs
- Final decisions by PC chairs
- Decisions entirely based on quality of papers
 - no comparison between papers
 - no satisfying a given capacity
- Regular accept/reject (after Phase II)
 - at least 3 reviews
- Early reject (after Phase I, 13% of papers)
 - 2 reviews

Should we have early rejects?



Should we have early accepts?



Application Papers

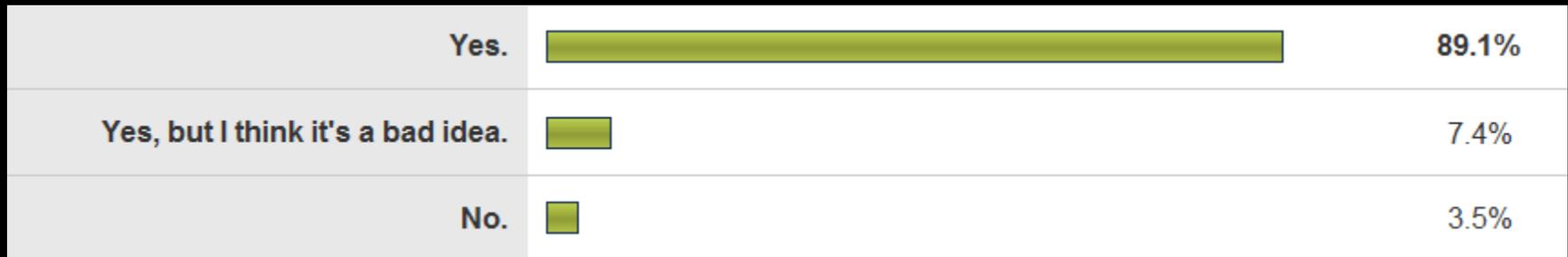
- Application Papers do receive rather low scores in reviewing
 - „this is nice, but no real contribution to science“
- Invited Application Track
 - was suggested at last year's meeting for attracting application papers
 - committee looked for good application papers that were published elsewhere
 - speakers got free entry to conference (no travel)
- Other ideas: Separate submission track?

Proceedings

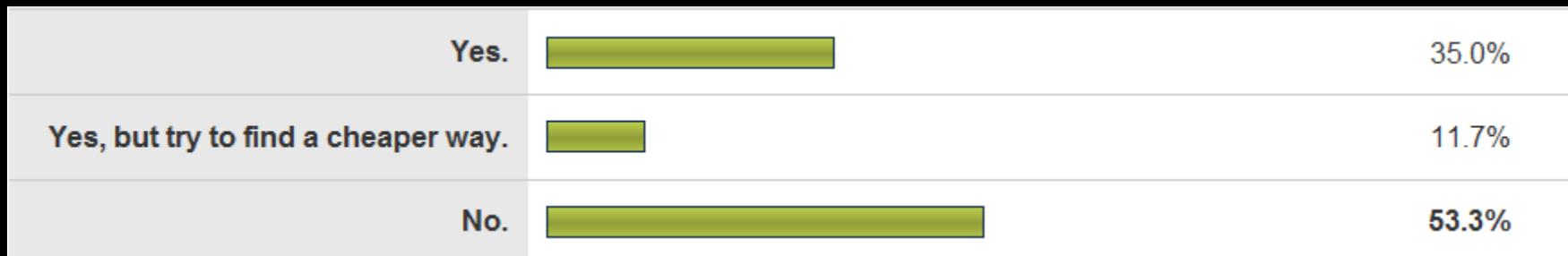
- Omnipress offers packages for
 - order minimum number of printed proceedings (75 for \$80 each, 50 for \$106.50 each)
 - order proceedings on USB (\$13.40) or CD (\$7.30)
 - no order, available by print-on-demand
- Last year: 75 books and 580 CDs
 - < 10 copies of books were sold on site
- This year we chose the last option
 - cheapest total price (\$2910), but no immediate gain (gain is addition to ICML series in omnipress program)

Proceedings

- on-line only proceedings seem to be o.k.



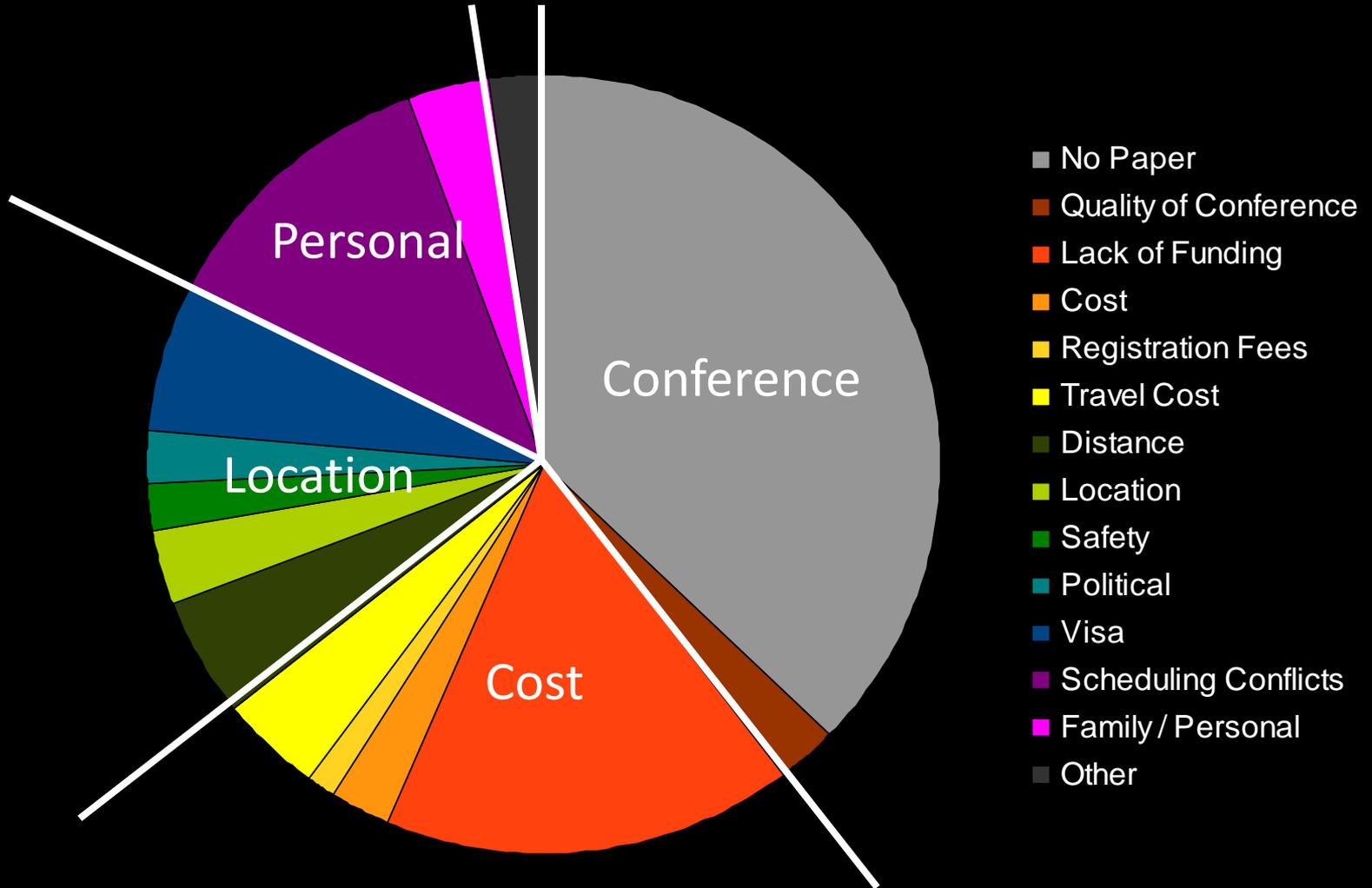
- opinions on printed proceedings are diverse



Videotaping

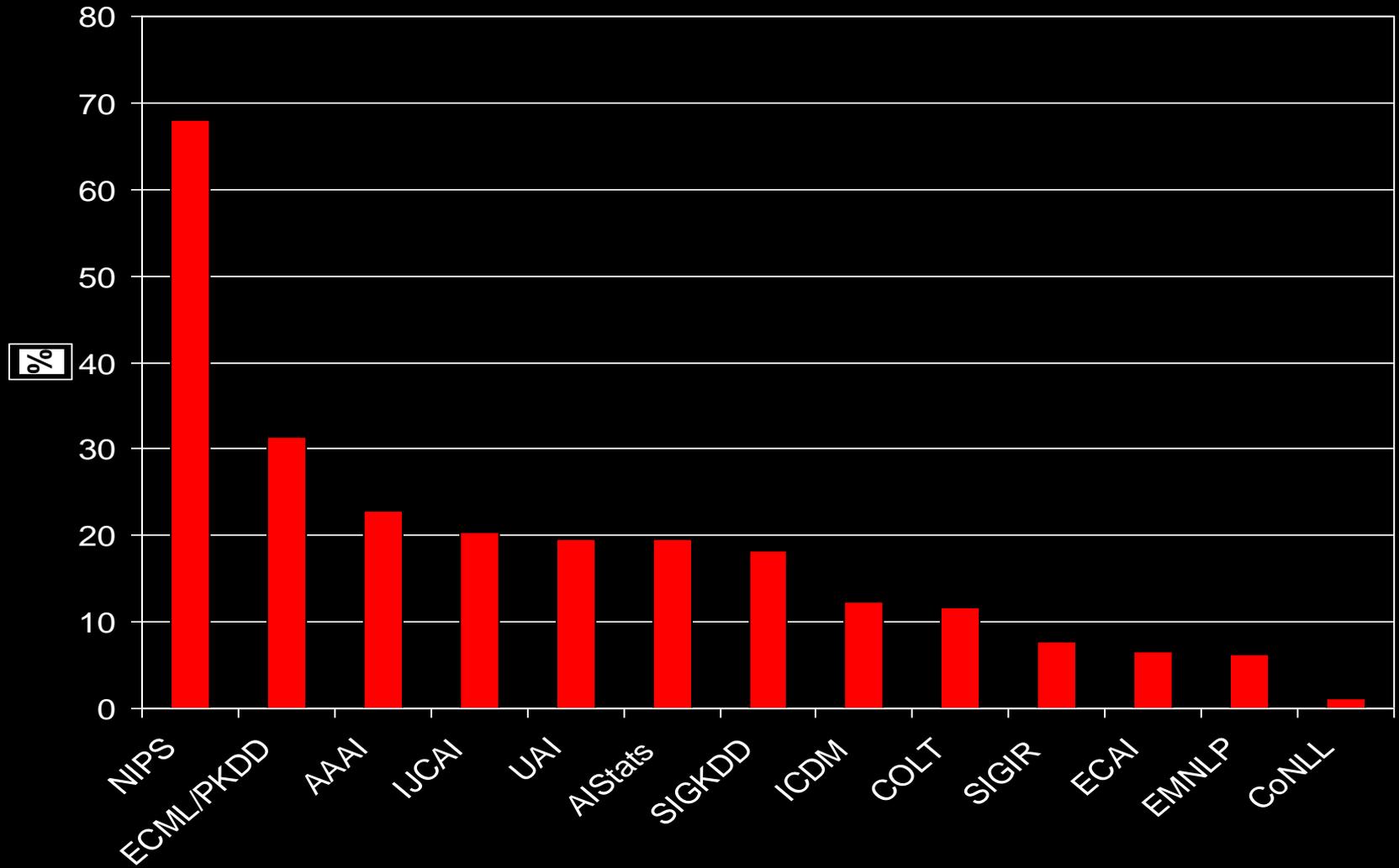
- We didn't hire videolectures.net this year
- Reason:
 - Cost:
 - only invited talks: € 2560,-
 - invited talks + 1 track: €5800,-
 - Funding from PASCAL network was not as in previous years
 - Plenary talks will be filmed by local staff

Why people don't attend



Based on manual processing of 285 free-text replies

What else do we attend?



Discussion

- Phase I vs. phase II author rebuttal
- Benefit of Invited Application Track
- Usefulness of supplementary material
- Cost/benefit of videotaping
- Cost/benefit of printed proceedings
- ...