



Membership

- MSCA Scoring Committee members:

1A	John Fogarty, Cannon Falls	3AA	Ceil McDonald, South St. Paul
2A	Roxy Janke, Fairmont	3AA	Cort Sylvester, Rosemount
3A	Shari Nelson, Round Lake-Brewster	3AA	Susi Sullivan, Rosemount
4A	Mike Vergin, Mounds Park Academy	3AA	Chris McDonald, Eagan
5A	Margaret Kitterman, Sauk Centre	3AA	<u>Polly Reikowski</u> , Eagan
5A	Bonnie Spohn, Eden Valley-Watkins	5AA	Mark Quinlan, Centennial
6A	Bob Shaffer, Staples-Motley	6AA	Scott Sieling, Bloomington Jefferson
7A	Jack Gritzmacher, Eveleth-Gilbert	7AA	Jill Lofald, Duluth Denfeld
8A	Stewart Wilson, Walker-Hackensack-Akeley	8AA	Dale Neuschwander, St. Cloud Tech
8A	Sam Gruenberg, East Grand Forks	8AA	Jody Waltman, Little Falls
1AA	Jody Saxton-West, Northfield	Unaffiliated	Randy Holland-Chair
2AA	<u>Bob Ihrig</u> , Mankato West	MSHSL	<u>Barb Seng</u>

Underlined names = 3 members of the State Tournament Scoring Committee

Revising MSHSL Speech Scoring

- State tournament recap:
 - In the last decade prelims have evolved from 2-rooms, to 3-rooms, to 4-rooms.
 - In 1998, “ranking out” past 5 began.
 - In 2002, the 3-room format began with 50% more competitors.
 - In 2007, the 4-room format began due to a speaking-order study and scheduling benefits (for both seeded competitors and “clean” judges).
 - Tabulation rules have remained basically the same.

<u>Speaking order:</u>	<u>1 rank (approx)</u>
First	8.0%
Second	10.0%
Third	12.0%
Fourth	15.0%
Fifth	16.5%
Sixth	16.0%
Seventh	13.0%
Eighth	9.5%
Total (approx)	100.0%

Revising MSHSL Speech Scoring

- Math fundamentals have changed:
 - Fewer competitors are faced during prelims.
 - Lower scores are needed to advance.
 - Scoring philosophy & math no longer complement each other.
 - Tournament evolution caused logical fallacies (what did work, no longer does after 25+ years of changes).
- Disclaimers:
 - One-person tab-room doing “what if” results.
 - Lots of information and applied math.
 - Focus is often on state champions to illustrate points, but the scoring issues apply to all competitors.
 - Attempting factual analysis of emotional issues.



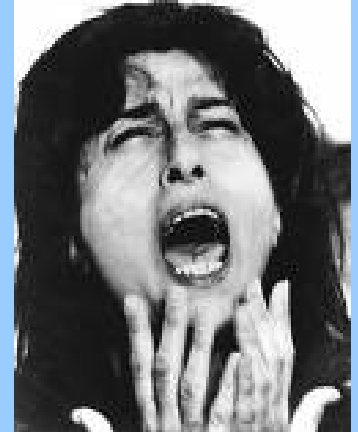
Revising MSHSL Speech Scoring

- Since 1998, 9 years of available data was analyzed for 5,100+ competitors and 1,850+ finalists.
- The tournament's evolution has impacted:
 - Ties.
 - Average scores.
 - Role of prelim ranks.
 - State Champion “switches.”



Ties

- 4-Room Unbreakable Ties (prelims only):
 - In 2007, 6 out of 17 prelim ties
 - In 2008, 1 out of 14 prelim ties
 - In 2009, 0 out of 15 prelim ties
- In 2008, Opponents Ranks was added as a 2nd prelim tiebreak method.
 - Used for 2 of 14 prelim ties in 2008, one tie still unbreakable.
 - Used for 4 of 15 prelim ties in 2009, none were unbreakable.

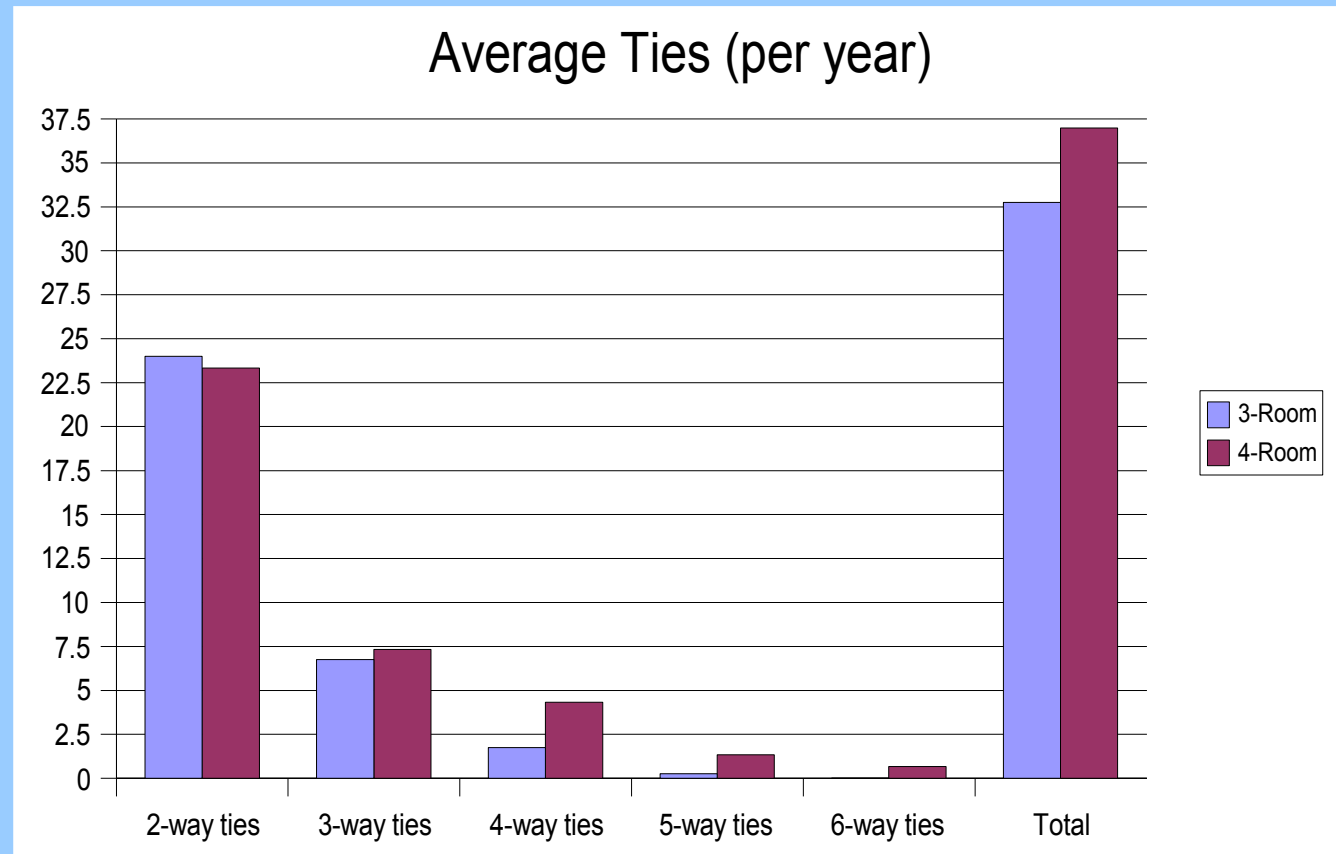


Ties

- Comparing 3-room & 4-room ties, total tie situations increased 12.98%.

Comparing Total Ties

	<u>3-Room</u>	<u>4-Room</u>
2-way ties	24.00	23.33
3-way ties	6.75	7.33
4-way ties	1.75	4.33
5-way ties	0.25	1.33
6-way ties	0.00	0.67
Total	32.75	37.00
Change		12.98%

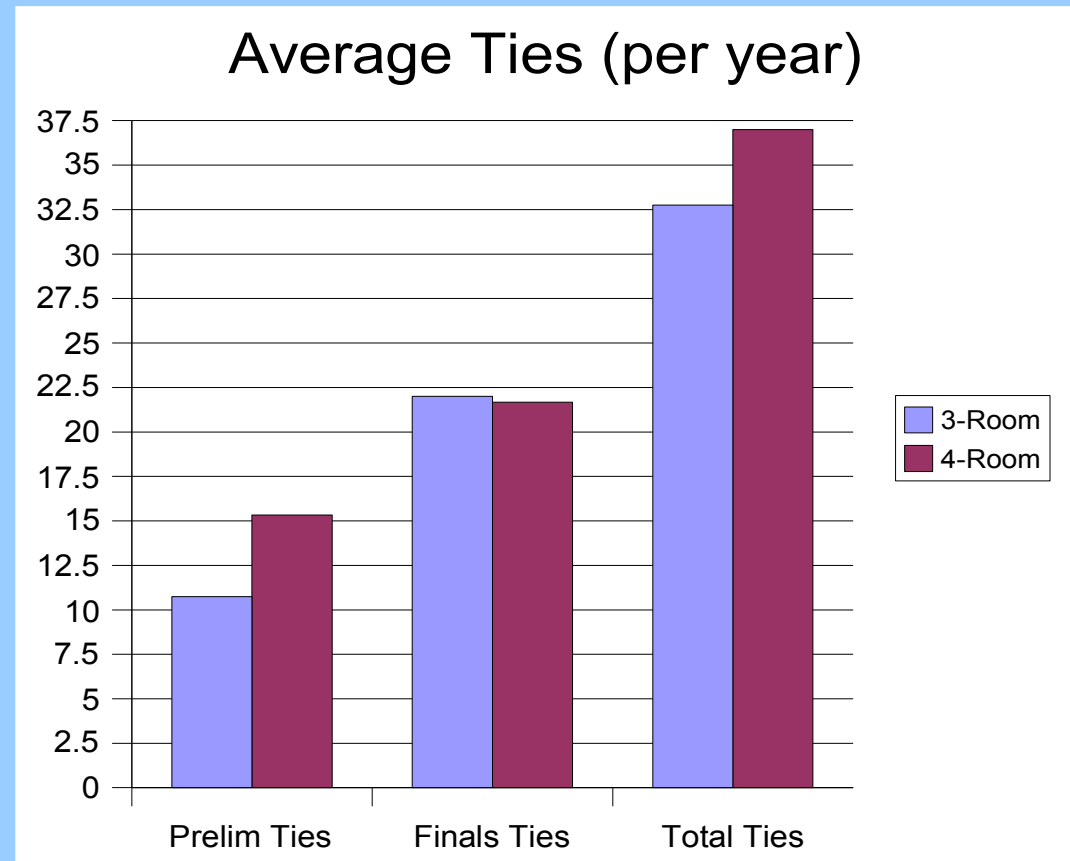


Ties



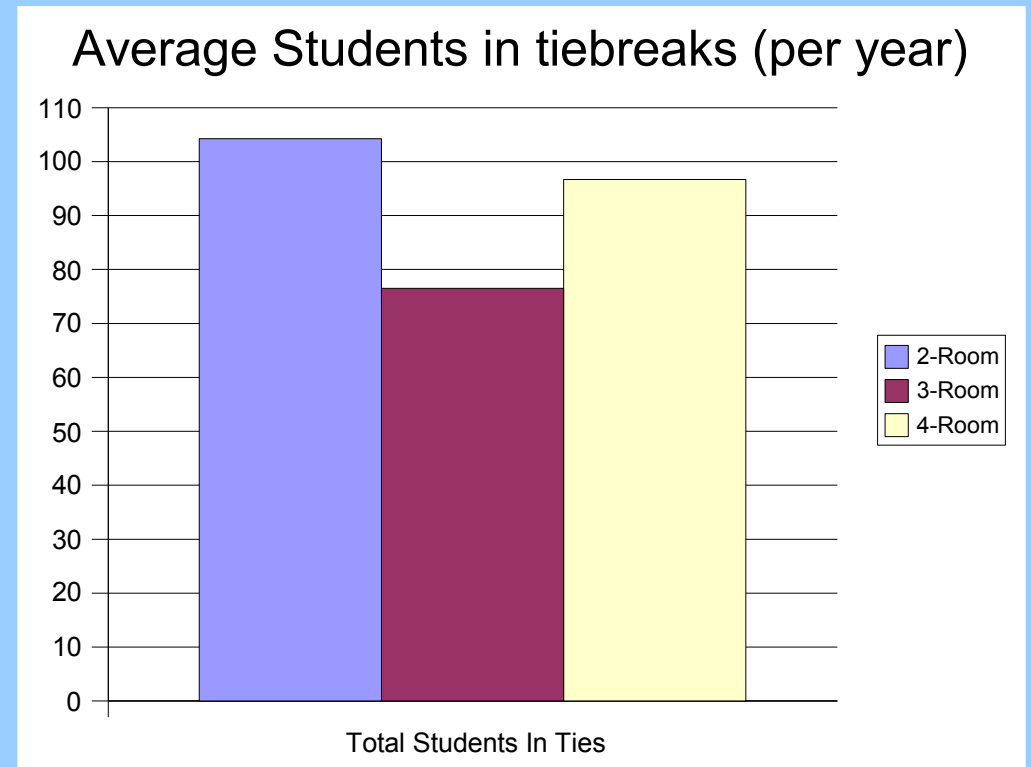
- Analyzing the 12.98% increase:
 - Prelim tie situations increased 42.6%.
 - Finals tie situations decreased -1.5%.

	<u>3-Room</u>	<u>4-Room</u>	<u>Change</u>
Prelim Ties	10.75	15.33	42.60%
Finals Ties	22.00	21.67	-1.50%
Total Ties	32.75	37.00	12.98%



Ties

- The increase in 4-room prelim ties increased the total students in ties by 26.4%.
- Comparing to the pro-rated 2-room format (pro-rated):
 - 2-room ties: 104.25 students
 - 3-room ties: 76.5 students
 - 4-room ties: 96.7 students



Ties

- Summary of 4-room ties:
 - Opponents Ranks has helped reduce unbreakable prelim ties.
 - Total-tie occurrences have increased 12.98% compared with the 3-room format.
 - Prelim-tie occurrences have increased 42.6%, in particular for 3-6 person ties.
 - The net effect is a 26.4% increase in total students in ties.
- Why *exactly* have ties increased?
 - A dramatic shift in prelim scores' standard deviation.

Average Scores

- Standard Deviation definition: The distribution of scores from the average score (i.e. the “bell curve” distribution).
- 4-Room standard deviation dramatically decreased by 24.93%.

FINALIST AVERAGES

	<u>3 Rooms</u>	<u>4 Rooms</u>	<u>Difference</u>	<u>Percent</u>
Average prelim score	7.395	6.118	-1.277	-17.26%
Standard Deviation	2.198	1.650	-0.548	-24.93%
Average total score	20.840	19.467	-1.373	-6.59%
Standard Deviation	6.238	5.952	-0.286	-4.58%



AVERAGE RANGE OF FINALIST SCORES (for 2 standard deviations, 95% of all scores)

	<u>3 Rooms</u>	<u>4 Rooms</u>	<u>"Shift"</u>
Prelim-score range	3.00 to 11.79	2.82 to 9.42	-2.37
Total-score range	8.37 to 33.32	7.56 to 31.37	-1.95

("Shift" = the change in the high end of the "bell curve" distribution of scores)

(For 3 standard deviations, which is 99.7% of all scores, the "shift" is -2.92 for prelim scores and -2.23 for total scores)

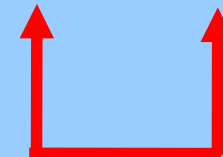
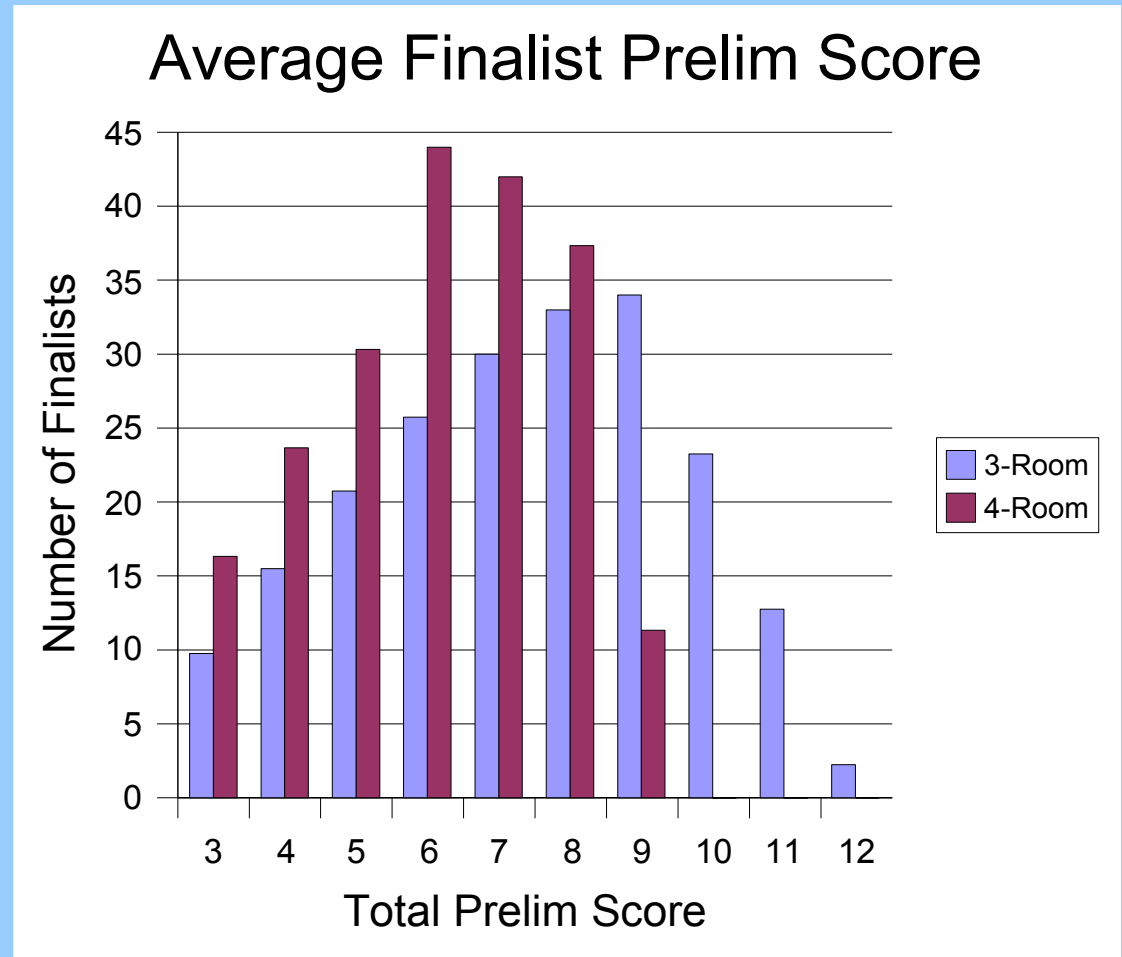
Average Score “Bell Curve” Shift

Average Finalist Prelim Score

Prelim Score	3-Room	4-Room
3	9.75	16.33
4	15.50	23.67
5	20.75	30.33
6	25.75	44.00
7	30.00	42.00
8	33.00	37.33
9	34.00	11.33
10	23.25	0.00
11	12.75	0.00
12	2.25	0.00
Total**	207.00	205.00

** = Doesn't equal 208 due to DQ's, unbreakable ties, etc.

- The bell curve shifted by 3 (because more 1s and 2s are awarded in the 4-room format).
- Net result: A 6 prelim rank is now harder to overcome than an 8 prelim rank in the 3-room format (speaking order and scheduling benefits still remain).
- Prelim-round “room difficulty” has become a major issue.



Role of Prelim Ranks

- Since 1998, when “ranking out” past 5 began:
 - Out of 234 state champions, how many had a last-place ranking during prelims?

1



- Out of 234 state champions, how many had a last-place ranking during finals?

0



- Prior to 1998, when “ranking out” only went to 5 (except for tiebreak purposes), state champions often received a 5 in either prelims or finals.
- Dilemma: How much impact should one rank have?

Role of Prelim Ranks

- Tradition is “prelim rounds should matter,” particularly for draws and Discussion, so prelim ranks are added to finalists' total-score.
- For the 4-room-format's 78 state champions:
 - 16.67% didn't win finals round (13 “switches”).
 - 34.62% won prelims and finals round (27 undisputed).
 - 48.71% won finals round only (38).
 - 52.56% of state champions (38 plus 3 “switches”) overcame a negative handicap (i.e. didn't have the best prelim total-score).
 - 83.33% of the time (27+38) prelim ranks don't matter! Prelim ranks only create “switches.”

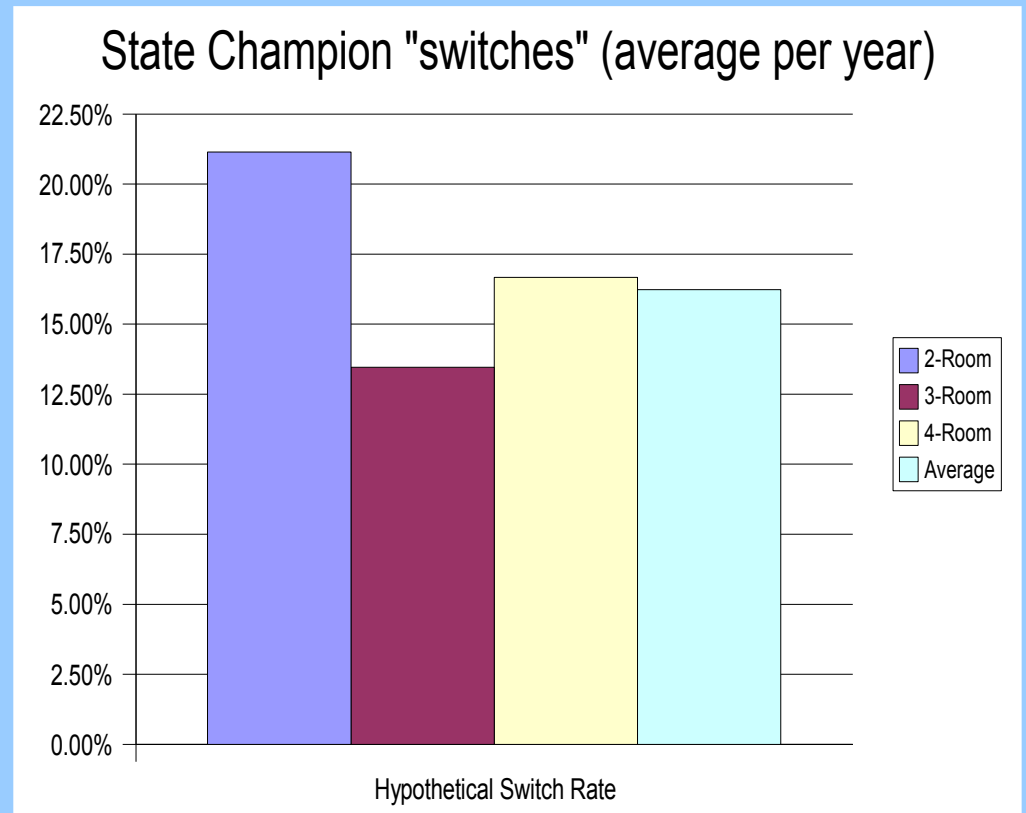


State Champion “Switches”

- A hypothetical “switch” occurs when a state champion doesn't win finals round, but has the best total score when their lower prelim score is added (regardless of prelim-round “room difficulty”).

Hypothetical “switches:”

- 2-room: 21.15%
- 3-room: 13.46%
- 4-room: 16.67%
- Average: 16.23%
(38 out of 234 champions)



State Champion “Switches” (by category)

• Great Speeches	6 of 18
• Discussion	5 of 18**
• Humorous	5 of 18
• Original Oratory	4 of 18
• Serious Prose	4 of 18
• Storytelling	4 of 18**
• Extemp Reading	3 of 18**
• Dramatic Duo	2 of 18
• Informative	2 of 18
• Creative	1 of 18
• Extemp Speaking	1 of 18**
• Serious Poetry	1 of 18
• Serious Drama	0 of 18
Total	38 of 234

** = “Prelim rounds matter”
(draw categories & Discussion)

- Average overall “switch” rate (38 of 234 champions): 16.23%
- Average “switch” rate for draws & Discussion (13 of 72): 18.05%
- Average “switch” rate for other 9 categories (25 of 162): 15.43%
- Conclusion: No real difference!
- Dilemma: Is a universal-scoring system the best way to score 13 different categories??



Summary of “Shockers”



- 4-rooms dramatically altered the “bell curve” of prelim scores.
 - Prelim ties increased 42.6%.
 - To advance, a 6 prelim rank is harder to overcome than an 8, which means “room difficulty” is a significant issue.



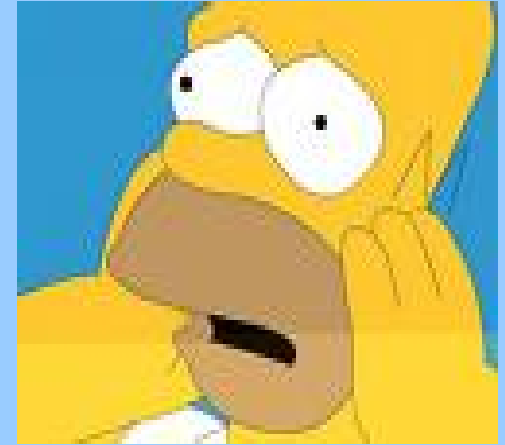
- Since 1998, ranking out past 5 has resulted in only 1 of 234 state champions with either a last-place prelim OR finals rank.



- The tradition that “prelim rounds should matter” is now problematic.
 - Prelim ranks negative handicap 52.56% of state champions.
 - 83.33% of state champions are not determined by prelim ranks.
 - Prelim ranks matter for only 16.67% of state champions, all of which are “switches.”
 - “Switches” for draw categories and Discussion occur at basically the same rate as the other 9 categories.

Solutions?

- What should we do?
- Do nothing?
 - “Is scoring really a problem?”
 - “No system is perfect.”
 - “You can never make everyone happy.”
- Do something?
 - The above reasons are logical fallacies for *never* making changes.
 - Historically the MSCA tries innovative ideas, always striving to improve scoring and fairness for a very subjective activity. Often good intentions have trade-offs and unexpected results.
 - Would students, parents, and our peers respect us if we did nothing to address KNOWN problems?



Solutions?

- Implement short-term and long-term proposals.
 - Purpose: Improve the state tournament's scoring math, logic, and fairness.
 - These proposals are NOT endorsed by everyone on the Scoring Committee (consensus is difficult on some ideas), but a list of pros & cons represents all views.
 - Each proposal will be discussed and a vote taken.
 - Proposals with “strong support” will then be voted on during Session 10's MSCA membership meeting.



Solutions?

- Short-term fixes (keep the 4-room format, but address problematic math issues):
 - Proposal #1 Revise prelim tiebreak rules.
 - Proposal #2 Return to ranking out to only 5.
 - Proposal #3 Revise total-score rules, dropping the lowest prelim rank (Advisory Committee proposal).

OR

- Proposal #4 Revise total-score rules, no longer adding prelim ranks into the total score.



Solutions?

- Long-term fix:
 - Proposal #5 Create a feasibility committee to study:
 - Future, significant improvements to the state tournament.
 - Having the tournament's scoring math and scoring philosophy better complement each other.



Proposal #1

- Solution: Revise prelim tiebreak rules.
 - Currently Reciprocals are used 1st, Opponents Ranks 2nd, then a tie is considered unbreakable. Instead:
 - Add Head-to-Head matchups as 1st tiebreak method.
 - Use Opponents Ranks as the 2nd method, ahead of reciprocals.
 - Use Reciprocals as the 3rd method (would rarely be used).
 - Add a 4th “draw straws” method to avoid unbreakable ties (would very rarely be used).
- Purpose: Improve logic and fairness for 42.6% more prelim ties, and more 3-6 person prelim ties (26.4% more students in ties overall).

Proposal #1

- Pros:
 - Using Head-to-Head prelim matchups first is a common tiebreak method (when competitors don't face all of their competition).
 - Opponents Ranks:
 - Factors in prelim-round “room difficulty” better than Reciprocals (meaning those facing “tougher” prelim competition advance before those facing “easier” competition).
 - Provides a wide spectrum of scores for competitors (a score range of 40+ instead of “fine hairs”).
 - For rare unbreakable ties, having a “draw straws” method ensures 8 medalists are always recognized (eliminating unbreakable ties).

Proposal #1

- Cons:
 - No prelim tiebreak method is completely fair when:
 - Competitors don't face all of the competition an equal number of times.
 - Rounds are ranked by different judges.
 - Due to a rise in 3-6 person prelim ties, Head-to-Head tiebreaks wouldn't be used much, meaning Opponents Ranks will resolve most prelim tiebreaks.
 - Opponents Ranks is still relatively new, and is done with computer software (i.e. Many don't understand it and it's not practical to calculate by hand).
 - “Drawing straws” is random, which makes it inherently unfair.
- Questions?

Proposal #2

- Solution: Return to only “ranking out” to 5 (judges would still fully rank out to help break ties).
- Purpose: Create more competitive final rounds.
- Pros:
 - This lessens pressure on judges, in particular for tough rounds where judges are in categories they're not as proficient in.
 - Due to the recent MSHSL ruling that eliminates alternates, for rooms with no alternate and where a DQ occurs (leaving 4 competitors), ranking out to only 5 is fairer to rooms with six competitors.
 - More finalists will compete for state champion since one low rank (in prelims or finals) won't eliminate finalists from contention (since 1998, just 1 out of 234 state champions overcame a last place rank).

Proposal #2

- Cons:
 - More ties will result.
 - This proposal's support is probably contingent on revising prelim tiebreaks.
 - This proposal's support may change depending on support for Proposal #3 or #4, dropping one or all prelim ranks from the total score. Finalists score would then be either 3 to 15 (like a many invitationals) or 6-24 (estimate), compared to 6 to 33 now.
- Questions?

Proposal #3

- Solution: Drop the lowest prelim rank from finalists' total-score (Advisory Committee proposal).
- Purpose: Reduce state champion “switches.”
- Pros:
 - Hypothetically:
 - 4-room switches would decline by 53.8% (from 13 to 6, and this past year alone from 6 switches to 1).
 - Projected 4-room switches would happen 7.69% of the time (compared to 16.67% currently, and 16.23% since 1998).
 - Makes final rounds more competitive.
 - Doesn't penalize those in one highly competitive prelim round.

Proposal #3

- Cons:
 - Dropping the lowest prelim rank undermines the credibility of every judge unless, in fairness, a high prelim rank is also dropped from the total score.
 - Expect finals-round ties to increase slightly.
 - This proposal's intentions are philosophical, not mathematically based.
 - For 4-room state champions, the negative-handicap rate going into finals would rise from 52.56% to 61.54%.
 - For 4-room state champions, the rate that finals-round winners become state champion—regardless of prelim ranks—would rise from 83.33% to 92.31% (so why count prelim ranks at all?).
 - Prelim ranks would still only matter when they caused controversial state champion “switches.”
- Questions?

Proposal #4

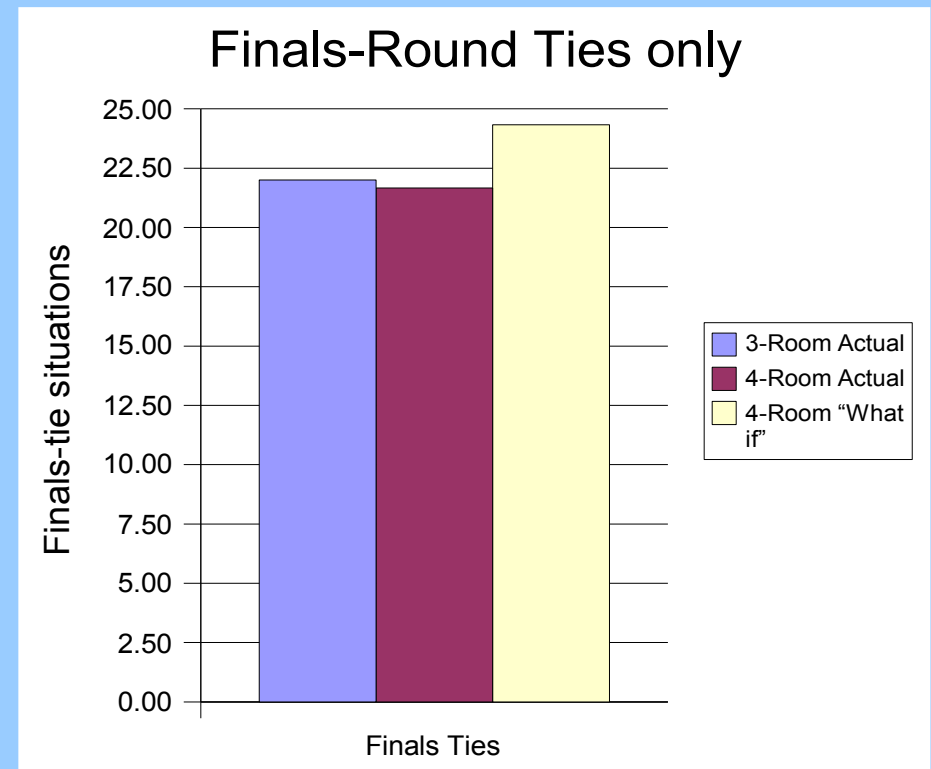
- Solution: Drop all prelim ranks from finalists' total-score.
- Purpose: Improve the overall logic and fairness of the 4-room-format's scoring-math.
- Pros:
 - Eliminates state champion “switches.”
 - Reflects the reality that 83.33% of the time the winner of finals round becomes state champion (regardless of prelim ranks).
 - Avoids negatively handicapping finalists with more difficult prelim rounds (52.56% of 4-room state champions).
 - Eliminates the “apples and oranges” dilemma of adding prelim ranks into the total score (i.e. prelim “room difficulty”).

Proposal #4

- **Cons:**

- This would be a dramatic break from the decades-long tradition of adding prelim ranks to the total score.
- Using 4-room data, “what if” finals-round ties should increase 12.28 % due to the new range of finals scores being 3 to 24 (instead of 6 to 33 currently).

	<u>3-Room</u> <u>Actual</u>	<u>4-Room</u> <u>Actual</u>	<u>4-Room</u> <u>“What if”</u>	<u>Percent</u> <u>Change</u>
Finals Ties	22.00	21.67	24.33	12.28%



Proposal #4

- Cons continued:

- Since 1998, 87-97% of all finals-round ties have been 2-way ties. Making this change wouldn't increase 3-way ties (9.59% estimate).
- Finals-round 2-way ties are broken using judges preference, arguably the fairest tiebreak method. So, more ties is probably acceptable.

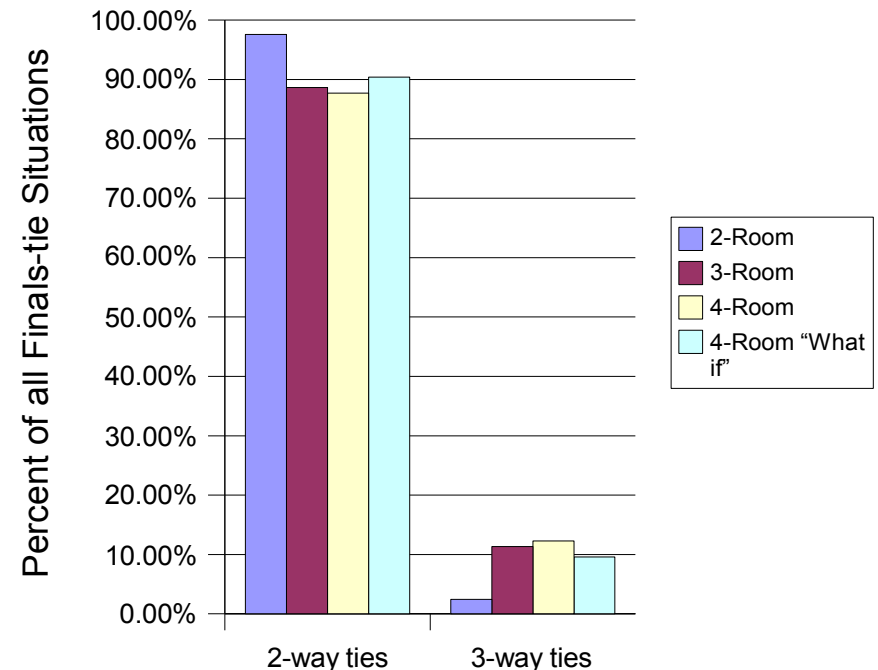
Comparing Finals-Round Ties Only

	<u>2-Room</u>	<u>3-Room</u>	<u>4-Room</u>	<u>4-Room "What if"</u>
2-way ties	97.56%	88.64%	87.69%	90.41%
3-way ties	2.44%	11.36%	12.31%	9.59%
Total Ties	100.00%	100.00%	100.00%	100.00%

Notes:

- Of the results analyzed, none had more than a 3-person finals-tie.
- 4-Room "What If" data uses 2007-2009 tournament data.

Comparing Finals-Round Ties



Proposal #4

- Cons:
 - Finals-round ties would increase further if Proposal #2 is also implemented (no longer ranking out past 5). All finalists would then have scores of 3-15 instead of 6 to 33 currently. (However, for tiebreak purposes, competitors would still be fully ranked out to 8, and the vast majority should be 2-way ties that are broken through judges preference)
- Note: *This isn't a radical idea!* Using only finals-round ranks is common at regular tournaments, as well as at many Sub-Section and Section tournaments. Ultimately, we need a much different room-format if we want “prelim rounds to matter” (e.g. Round-robin format or similar).
- Questions?

Proposal #5

- Solution: Create a new MSCA committee to study future state tournament improvements.
- Purpose: Proactively explore innovative tournament ideas such as:
 - Panel judging for all rounds.
 - Many, many, other ideas, from small to big to radical (e.g. distributing Opponents Ranks software for other tournaments, a different scoring system for draws and Discussion, 5-judge panels for finals, etc.).
 - Reconcile the scoring math and scoring philosophy of “prelim rounds should matter.” (e.g. Round-robin format?)
 - Would work with the existing State Tournament Committee.

Proposal #5

- Pros:
 - Address long-standing logistical, budgetary, and scoring-philosophy issues.
 - Study any of the rejected short-term proposals that the MSCA membership is intrigued by, but wants more information on before supporting.
- Cons:
 - Needs a chairperson and members.
 - Geographic distances make communication and progress slow.
- Questions?

Discussion and Vote

- Short-term fixes (keeping the 4-room format):
 - Proposal #1 Revise prelim tiebreak rules.
 - Proposal #2 Return to ranking out to only 5.
 - Proposal #3 Revise total-score rules, dropping the lowest prelim rank (Advisory Committee proposal).

OR

- Proposal #4 Revise total-score rules, no longer adding prelim ranks into the total score.
- Long-term fix:
 - Proposal #5 Create a feasibility committee.

