



# Membership

## Spring 2009 Informational Meeting State Tournament Scoring Committee Report (Revised 4/21/09)

### SUMMARY:

At last fall's CTAM conference a committee was tasked to study state tournament scoring. Statistics are helping understand the prelim-round change from 3 to 4 rooms. There's been 16% more total ties, 44.2% more prelim ties, and 28.8% more students involved in ties. Average prelim scores for finalists are lower and grouped tighter (prelim scores are 17.88% lower, standard deviation is 23.91% lower), which makes overcoming a "bad" prelim rank more difficult. Including prelim-round ranks in the total score, as compared to a finals-round-only score, switches 13.46% of state champions in both the 3 and 4-room formats (no change).

Ultimately, the 4-room format has many scheduling advantages, but magnifies some problematic scoring issues such as tiebreak methods and prelim-round room-difficulty (the randomness of "tough" and "easy" rounds). However, the root cause of these issues actually goes back to the 2 and 3-room formats, as well as the overall tournament scoring and "pooling" philosophy (how a pool of competitors is narrowed down to finalists). This committee will likely give an update at September's CTAM conference, and the MSCA membership would vote on any proposals then.

### GENERAL UPDATE:

As Speech's state tournament prelim format has evolved from the 2-room, to 3-room, to 4-room format, the scoring system has remained basically the same. *Yet the scoring math, logic, and pooling philosophy are different with each room format.* Some changes were expected, some were unexpected, and some are hard to quantify. Regardless, this committee is discussing what changes, IF ANY, might make a fairer and more logical state scoring system.

The committee's challenges range from practicality to education—many coaches are rules experts and are familiar with scoring logic, but when transferring scoring logic to a unique room format the fundamental math changes (causing logical fallacies). Further complicating matters, our state tournament uses a hybrid scoring system that combines several scoring philosophies. Hybrid cars, good. Hybrid scoring systems, not necessarily good.

It appears the root cause of many issues actually goes back to 2002, when more students advanced to state. The 4-room format has many advantages, but it has also aggravated some issues that began with the 3-room format. Based on analyzing available scores from 1997-2008, numerous statistics help better understand current scoring practices, as well as the evolution of the state tournament's scoring system.

## STATISTICS:

The equivalent of 8 years of results, 4,500+ competitors, and 1,600+ finalists were analyzed. When comparing available and relevant data of the 2, 3, and 4-room format, three statistics are interesting—the amount of ties, average finalist scores, and using prelim ranks in the total score. What follows is the simplified data, contact committee members below if you want more details.

## TIES:

Ties have increased significantly from the 3-room to 4-room format (16% more total-tie occurrences and 28.8% more students in ties). An increase was expected, but the most notable statistic is the 44.2% increase in prelim ties, which has caused lengthy discussions on whether prelim-round tiebreak methods should be revised. However, when compared to 2-room ties, the 4-room format has 5.5% fewer total students in ties (only a prorated, total students comparison was made given the fewer students and rounds in the 2-room format).

### COMPARING 3-ROOM AND 4-ROOM TIES:

- Finals-tie occurrences have increased by 2.3%.
- Prelim-tie occurrences have increased 44.2%.
- Total-tie occurrences have increased 16.0%.
- Total students in tie situations have increased 28.8%.

Note: The difference between total students in ties and total-tie occurrences is due to an increase in ties involving 3-6 competitors, primarily during prelims.

### COMPARING WITH 2-ROOM TIES (prorated):

	<u>2-room</u>	<u>3-room</u>	<u>4-room</u>
Total students in ties (prorated)	104.25	76.5	98.5
Percentage change from 2-rooms	n/a	-26.6%	-5.5%

## AVERAGE FINALIST PRELIM SCORES:

With 4 rooms, average finalist prelim-scores have decreased 17.88% due to awarding more low ranks (four 1s instead of three, etc.). Prelim-score standard deviation also decreased 23.91%. This combination results in a *dramatic* “bell curve” shift and tighter grouping of finalist prelim-scores (talk to a math teacher about this).

This is why more prelim ties occur with 4 rooms, but also means it's now more difficult to advance to finals if one gets a “bad” prelim rank. Thus, prelim-round room-difficulty becomes more of an issue. Plus, the “bell curve” shift means getting a 6 prelim rank now is actually worse than getting an 8 prelim rank with the 3-room format.

On a related note, with the available data since 1997, none of 208 state champions received a last-place ranking in either prelims or finals. In this regard, nothing is different between the 2, 3, and 4-room format. Only for 1996 and earlier, when 2-room last-place ranks were no lower than a 5, did state champions overcome a last-place rank in either prelims or finals.

There are many perspectives on this complex subject (whether to “rank out” competitors), and major math ramifications and/or trade-offs with any change.

**FINALIST AVERAGES:**

	<u>3 rooms</u>	<u>4 rooms</u>	<u>Difference</u>	<u>Percent</u>
Average PRELIM score	7.395	6.073	-1.323	-17.88%
Standard Deviation	2.198	1.673	-.525	-23.91%
Average TOTAL score	20.840	19.370	-1.470	-7.05%
Standard Deviation	6.238	5.983	-.255	-4.09%

**RANGE OF FINALIST SCORES:**

	<u>3 rooms</u>	<u>4 rooms</u>	<u>“Shift”</u>
Average prelim-score range	3.00 to 11.79	2.73 to 9.42	-2.37
Average total-score range	8.37 to 33.32	7.41 to 31.34	-1.98

(“Shift” = the change in the high end of the “bell curve” range. This uses two standard deviations, which is 95% of all scores. For three standard deviations, which is 99.7% of all scores, the “shift” is -2.90 for prelim scores and -2.24 for total scores. The 4-room low-range for prelim scores, 2.73, in reality is 3.0)

**USING PRELIM RANKS:**

Including prelim ranks in the total score is a touchy subject for many! This method obviously creates different results compared to finals-round-only ranks. Adding prelim ranks in the total score is a long-standing tradition, and for draw events and Discussion there is significant merit to this scoring philosophy. However, for the other nine categories, prelim-round room-difficulty is an issue (One question raised was, “Do all 13 categories need the same scoring philosophy?”).

“Pooling” logic is how a pool of competitors faces off and is reduced to finalists. “Pooling” is a complex issue for ANY tournament format. With the 2, 3, or 4-room format, competitors cannot face all their competition, and face some competition more than once. Arguably, pooling logic is more problematic with the 4-room format (the Opponents Ranks tiebreak method attempts to address this). To better understand how often prelim ranks effect who the state champion is, hypothetical results were done. *This data is NOT meant to endorse any particular philosophy!*

There's been no change between the 3 and 4-room formats, where state champions would hypothetically “switch” 13.46% of the time if only finals-round ranks were used. However, the two years of 4-room data is volatile. Regardless, since 2002 it appears hypothetical “switches” would happen less than in the 2-room format. Of note, draw events and Discussion would NOT “switch” significantly more or less than the other nine categories.

Only state champions were analyzed, but the main issue is whether using prelim ranks in the total score still works with the evolving room format. Including prelim ranks is complicated by examples that both support and refute different views. Addressing this would likely involve major changes (more panel judging, semi-finals, different ranking philosophy, etc.), but not necessarily changing from 4 rooms (which has scheduling advantages).

HYPOTHETICAL STATE CHAMPION “SWITCHES” IF PRELIM RANKS WERE NOT PART OF THE TOTAL SCORE (for available data):

	2 Rooms		3 rooms		4 rooms	
	<u>1997-2001</u>	<u>Percent</u>	<u>2002-2006</u>	<u>Percent</u>	<u>2007-2008</u>	<u>Percent</u>
Draws & Disco	4	25.0%	4	12.5%	2	12.5%
Other 9 Categories	7	19.44%	10	13.89%	5	13.89%
Sub-total	11	21.15%	14	13.46%	7	13.46%

TOTAL: 32 out of 208 champions (15.38% average)

Since 1997, a breakdown by category is intriguing. One can speculate on these statistics, but arguably the results have to do with the subjective nature of judging specific categories.

HYPOTHETICAL STATE CHAMPION SWITCHES, BY CATEGORY

<u>Category</u>	<u>“Switches”</u>	<u>Category</u>	<u>“Switches”</u>
Great Speeches	5 of 16	Extemp Speaking	2 of 16
Humorous	4 of 16	Creative	1 of 16
Original Oratory	4 of 16	Extemp Reading	1 of 16
Storytelling	4 of 16	Informative	1 of 16
Discussion	3 of 16	Prose	1 of 16
Duo	3 of 16	Drama	0 of 16
Poetry	3 of 16		

TOTAL: 32 of 208 state champions (15.38% average)

**QUESTIONS, COMMENTS, OR CONCERNS:**

Contact any committee member below, or the committee's chair Randy Holland at 612-840-6914, or storyshark-2@yahoo.com.

<u>Section</u>	<u>Name and School</u>	<u>Section</u>	<u>Name and School</u>
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	Polly Reikowski, Eagan
5A	Bonnie Spohn, Eden Valley-Watkins	4AA	Randy Holland, Roseville
6A	Bob Shaffer, Staples-Motley	5AA	Mark Quinlan, Centennial
7A	Jack Gritzmacher, Eveleth-Gilbert	6AA	Scott Sieling, Bloomington Jefferson
8A	Stewart Wilson, Walker-Hackensack-Akeley	7AA	Jill Lofald, Duluth Denfeld
8A	Sam Gruenberg, East Grand Forks	8AA	Dale Neuschwander, St. Cloud Tech
1AA	Jody Saxton-West, Northfield	8AA	Jody Waltman, Little Falls
2AA	Bob Ihrig, Mankato West	MSHSL	Barb Seng, MSHSL