

In the Statistical Universe, Slutskaya Won the Short (Most of the Time)

Officially, Sasha Cohen won the short program by a margin of 0.03 points, narrowly beating Irina Slutskaya. But in the new judging system, this is just one of 220 possible outcomes.

The system leaves open the possibility of alternate endings because it randomly throws out the marks of 3 of the 12 judges. Depending on which three judges are excluded, the total points for each skater could vary, probably not by much, but enough to change the rankings if the point totals are close.

Devra Pitt Getaz, a spokeswoman for the International Skating Union, said that the new process is equivalent to the random selection of judges used in the old system. In the past, the nine judges for an event were drawn from a pool of nominees.

But all the scores of those nine judges were counted. John W. Emerson, an assistant professor of statistics at Yale,

uses the new system in his introductory statistics class as an example of "throwing away useful information."

He analyzed the results from last week's pairs competition and found that about one-eighth of the possible scenarios would have resulted in a different bronze medalist. His analysis calculated the 220 possible outcomes for the short program and the 220 for the long, for a total of 48,400 possible scenarios for the two-part event.

Emerson estimates that if there are skaters whose totals are within one or two points, their rankings could be different depending on which three judges' scores are randomly thrown out. It may even be possible that a spread of five points or more could have alternate endings.

He is, however, hoping that today's results are not close: "It's better for sports and for the Olympics to have a clear winner."

What Could Have Been

An analysis by The Times of scores from Tuesday's short program shows that Slutskaya won more than half of the 220 possible judging combinations for that portion of the event. Scores for all 12 judges are published, even though 3 of the 12 did not count. Officially, the top three skaters in the short were separated by only 0.71 points, which was close enough even to provide alternate endings for third-ranked Shizuka Arakawa of Japan.

NUMBER OF JUDGING SCENARIOS PRODUCING RESULT	92	33	3	67	25
1.	Slutskaya	Slutskaya	Slutskaya	Cohen	Cohen
2.	Cohen	Arakawa	Arakawa	Slutskaya	Arakawa
3.	Arakawa	Cohen	Cohen tied	Arakawa	Slutskaya