

## 2017 *FIRST* Championships Allocations for Districts

This is the long version of the blog. Original blog text is highlighted in yellow. All other text is supplemental.

There has been a concern raised about the fact that Districts get both a guaranteed percent representation at *FIRST* Championship and are allowed to send non-qualified teams from the waitlist to *FIRST* Championship. For the majority of Districts, this means over-representation at Championship from a strictly percent-of-teams approach, compared to Regional teams. While the District allocations are essentially guaranteed to be filled (with lots of work from the teams and the Districts, of course), as a team declining a slot just means the next ranked team in line gets invited, Regional slots are not guaranteed. At Regionals, if a team declines to attend Championship, or a District team earns their way to Championship from that Regional, or a Regional has more wildcard slots than they have eligible Finalist alliance teams, a slot that otherwise would have gone to a Regional team essentially goes back to the waitlist pool.

As an example, imagine Michigan is allocated 80 slots to their Championship. Two teams originally offered slots decline. Michigan then moves to the next two in rank order on the list, inviting them, and so on, until all slots are filled. Over the course of the entire invite process, any Michigan teams who already have accepted a non-qualified waitlist slot earlier in the season are skipped. They still get to attend Championship, but do not count as part of Michigan's allocation. Conversely, imagine at the Las Vegas Regional, three Wild Cards are generated, but only two teams on the Finalist alliance are eligible for those Wild Cards. Also, one of the teams on the Winning alliance declines to attend Championship. Those two slots that otherwise would have been taken by Regional teams instead become available as waitlist slots, to which both Regional and District teams have access.

Providing 'fair' access to Championship for teams attending Regionals is challenging, as the events are designed to be self-contained, with teams learning during the event whether or not they have earned a slot at Championship. To make this more fair, we would likely need to accordion the number of Championship slots depending on the size of the regional (leading to significant differences between events) and even this would not address the issue of some Regional teams only attending a single event and others attending several. While there are solutions to this, they add complexity.

*FIRST* HQ values the opportunity for non-qualified teams to attend *FIRST* Championship, so we want to keep that option in place for Districts, but we do need to make an adjustment. So, for 2017, the initial value of the 'available slots' calculation used to determine District allocations, rather than being full Championship capacity, will be 10% less than full Championship capacity. In other words, instead of starting at 402 (the target number of teams at each Championship in 2017), it will start at 362. Just as in prior years, the number of pre-qualified teams assigned will further reduce this number of 'available slots' at each event.

As we currently expect more than 10% of the slots total across both Championships to be waitlist slots, even with this change, there's still a good chance Districts will be sending more teams to Championship than would have been indicated strictly by their percentage representation. This depends heavily, of course, on the number of District teams that sign up for the waitlist and the luck of the draw.

Also, if we were to use the percentage of teams from each District compared to all FRC, along with the total number of available slots at both *FIRST* Championships combined, in determining the number of

District slots available at each of the two Championships, the St Louis Championship would be over-subscribed, or very close to it. Instead, the formula for 2017 will use the percent representation of each District compared to the number of FRC teams just within the geography assigned to the District's home Championship, and that percentage will be applied just to the number of available slots at that particular Championship. You can think of the home Championship for each geography as being a limited resource intended to primarily serve the teams within that geography. From that perspective, it does seem reasonable to assign 15% of the available slots at a specific Championship to a District that has 15% of the teams within that specific geography. If the number of available slots at that specific Championship was 350, that District would get 15%, or 53 slots.

As a practical matter, though, with there being more FRC teams total assigned to St Louis than Houston, this does mean a District in the St Louis geographic area will have fewer guaranteed slots at the St Louis Championship than a District of the same size in the Houston geographic area will have at the Houston Championship. Seen from this perspective, this could be considered unfair, yet we had to make some adjustment to optimize the system based on the constraints we have.

Even with these changes in place, if 2017 were to look like 2016 with respect to team counts, all Districts will have at least one more guaranteed slot at their designated *FIRST* Championship than they did in 2016. In addition, as noted above, they will still have access to non-qualified waitlist slots.

Estimates are below. Please note these values will of course shift with the actual numbers for 2017:

District	Guaranteed Slots 2016	Estimated Guaranteed Slots 2017 (assuming 2016 counts)
Chesapeake	25	26
Indiana	9	10
Israel (not a District in 2016)	N/A	16
Michigan	76	79
Mid-Atlantic Robotics	22	24
North Carolina	10	14
New England	34	35
Ontario (not a District in 2016)	N/A	27
Pacific Northwest	30	41
Peachtree	12	17

As with all things in this very new situation in 2017, we will be reviewing results and considering additional changes for 2018 and beyond.

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