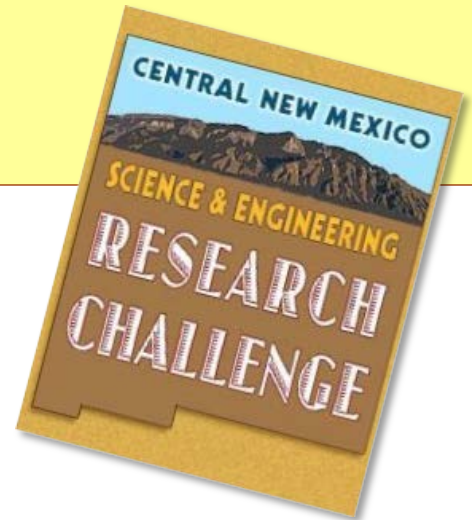


# Central New Mexico Science & Engineering Research Challenge



## Judging Criteria and Processes

The Central NM Science & Engineering Research Challenge adheres to the judging guidelines set forth by the **Intel International Science & Engineering Fair (Intel ISEF)**. The judges award points based upon the following criteria:

1. **Research Question** (scientific research) **or Research Problem** (engineering projects) – 10 Points Max
2. **Design and Methodology** – 15 points Max
3. **Data Collection** (scientific research) **or Construction & Testing** (engineering projects) – 20 Points Max
4. **Creativity** – 20 Points Max
5. **Presentation** (Display Board/Poster) – 20 Points Max
6. **Presentation** (Interview) – 25 Points Max

Each project is judged by *three* judges whenever possible. These judge scores are then averaged together and each project is ranked in its category based on this average score.

Once the judges have this **raw data** available, they meet (or “caucus”) with all the other judges in their category to discuss the projects and decide on the final category rankings. The rankings from the caucus meetings are the “official” place rankings for each category and take into consideration **BOTH** the original raw average scores AND the results of the judges’ caucus meeting discussions.

A copy of the judging rubric can be viewed [HERE](#) on our website.

## “To-State” Qualifier Selection

The NM State Science & Engineering Fair caps its participation at **300 total** projects and must equitably distribute those slots amongst the six regional fairs. Here is an example of the formula the State Fair uses to determine regional slots (updated annually):

REGION	# of projects in 2013	% of total amount	Guaranteed Slots	2014 Extra Slots	2014 Total Quota
Four Corners	105	7%	30	9	39
Northeast	382	26%	30	31	61
<b>Central</b>	<b>492</b>	<b>34%</b>	<b>30</b>	<b>40</b>	<b>70</b>
San Juan	120	8%	30	10	40
Southeast	236	16%	30	19	49
Southwest	132	9%	30	11	41
<b>TOTALS</b>	<b>1467</b>	<b>100%</b>	<b>180</b>	<b>120</b>	<b>300</b>
	Regional # of projects from last fair	Divide Regional # of projects / total # of projects	Subtract 180 from 300 = 120 available slots	Divide % of total amount / 120	Add guaranteed slots and extra slots = total quota

Once we know how many “To-State” slots we are getting each year, the Central NM Science & Engineering Research Challenge follows the following procedure to allocate those slots amongst the various categories/projects.

- Each category is allotted a percentage (usually around 17%) of the total projects in that category. **However**, the initial allotment is restricted to 7 slots for the larger categories and a small number of slots are held in “reserve” by the Master Judge Chairs to allow for allocation of additional slots during the final category chair caucus meetings dependent upon recommendations/requests from category chairs. So for example, a category with 25 projects will initially be given 4 slots for state; a category with only 5 projects will initially be given 1 slot; and so forth. ALL 1<sup>st</sup> Place Category Winners are given a “To-State” slot. 2<sup>nd</sup>, 3<sup>rd</sup>, and Honorable Mention award recipients are **NOT** guaranteed a spot at the NM State Science & Engineering Fair.

- After judging and interviewing the exhibitors, the judges have category caucus meetings in which they decide on the final rankings for projects in their category (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>) and how many projects they would like to **recommend** for "To-State" slots. *This number could very well be different than their allotted slots based on the strength or weakness of the projects in their category.*
- After the individual category caucus meetings, the judge chairs from each category meet in a final caucus (Junior Division Chairs meet together & Senior Division Chairs meet together) to discuss, among other things, which projects should advance "To-State". At this time, based on what was decided in the category caucus meeting, judge chairs can either a) give up one or more of their allotted spots b) request and lobby for additional spots or c) keep the number they were allotted
- In this Final Caucus Meeting, the judges come to a consensus about who will advance "To-State" and agree that the process has been equitable to the best of their abilities.

We are not able to add more projects to our allotted number of "To-State" slots predominantly because the State Science & Engineering Fair has a cap of 300 projects. We understand that there are always students who make the choice not to participate at the State level even after selected. However, due to the incredibly tight turnaround time between our competition and the State competition along with all of the logistical planning involved, it is not feasible or practical to identify alternates. No alternates have been allowed from any regional competition in over 8 years.

## International Science and Engineering Fair (ISEF) Finalist Selection

During the category caucus meetings (following the interviewing/judging of exhibitors) the judges in the **Senior** categories decide whether they want to recommend any of their projects for consideration as potential ISEF Finalists. The judge chair for each category takes these recommendations to the **Final Senior Caucus Meeting**. The judge chairs, in two groups, then re-interview all exhibitors recommended for ISEF consideration after which they re-caucus and come to a consensus about who they will name as ISEF finalists. Those recommendations are provided to Research Challenge staff in ranked order. The top projects are selected as our region's representatives to the Intel ISEF for that year.

It is possible for runners up to move up to qualify as Intel ISEF Finalists IF one of the top projects qualifies for Intel ISEF out of the NM State Science & Engineering Fair. It is also entirely possible for runners up or even projects that did not make it on the Regional Research Challenge potential ISEF qualifier list to qualify directly out of the NM State Science & Engineering Fair as ISEF Finalists.

## Questions / Complaints about the Regional Judging Process

We want all of the exhibitors participating at the Regional Research Challenge to have a fun, fair and meaningful experience. Should an exhibitor or parent have any concerns about the judging process (or the competition in general), our office may be contacted following the event. We will do our best to investigate and insure that the project was judged in accordance with our rules and the process was fair. We do not provide the actual scorecards, raw average score rankings, or final ranking sheets to the exhibitors, parents, teachers, or other individuals outside our organization. However, we do ask judges to fill out comment cards which we give to the exhibitors after the Research Challenge.

*\*\* Please be aware that although we very strongly recommend judges complete feedback forms for ALL of the projects they score, we are unable to enforce mandatory completion so it is possible that participants may only receive one or two forms... occasionally none depending upon whether or not their judges completed the forms and turned them in.\*\**

*Furthermore, we WILL NOT give out our judges' personal information including, but not limited to, name, phone number, address, or e-mail address. The Research Challenge staff will act as intermediaries between the exhibitor/parent and the judge(s) should there be any problems or concerns with the judging process. Our very experienced and knowledgeable Junior & Senior Division Master Judge Chairs assist with any requests to investigate possible scoring/judging issues.*

Should there be a question or complaint about a specific project we will check the score cards and the database to be sure that the scores were read correctly. We will also confer with the Category Judge Chair(s) involved as well as individual judges (when necessary) of a project to get their insights as to how and why the project was scored, evaluated and ranked as it was. If we find that a project was judged in accordance with our rules, we (meaning the Research Challenge staff) will **NOT** change a score or ranking or otherwise overturn a judging decision. If we find any irregularities in the judging process, we will address each instance on an individual basis to ensure a fair outcome is reached.

For more information, please don't hesitate to contact us at (505) 277-4916.

