Project Number: FRC3

FIRST ROBOTICS MANAGEMENT STUDY

An Interactive Qualifying Project Report
Submitted to the Faculty
of the
WORCESTER POLYTECHNIC INSTITUTE
as evidence of completion of the requirements for the
Degree of Bachelor of Science
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Date: May 18, 2016

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Abstract

This report describes a study in which the correlations between the makeup of a FIRST Robotics Competition team and their team's performance are explored. Each team's performance has been ranked and then compared to their responses to a survey. Data analysis has been performed on each of these comparisons in order to assess any correlations that may exist. The strongest correlations found by this study can help teams understand which areas correlate best with the performance they want to achieve.

Introduction

The purpose of this FIRST robotics management study is to perform an analysis on the different aspects of individual FIRST Robotics Competition (FRC) teams' performances through the years and attempt to correlate it to different characteristics that constitute that respective team. In order to measure any form of correlation between the makeup of a given team to their performance, we need a metric to determine their ranking with respect to all of the other teams in the FRC program. The metric we decided upon relies on various measures of performance in the team's' history, from longevity to qualification rank consistency and average awards per year. Given that metrics like averaging awards or qualification rank approach a more accurate estimator of the team's performance with a larger data set, this study will only be performing analysis on teams with a minimum of five (5) years of experience who are currently enrolled as FRC teams.

In order to determine the performance of each FRC team, this study will collect data from www.thebluealliance.com using their Application Programming Interface (API) to send requests for individual team data. Once all of the raw data on each team is collected, a function will be used to generate seven different numbers, one for each part of the finalized metric, as well as the weighted final metric itself. Using these seven numbers, the study could compare a team's performance to different characteristics of a team's makeup.

To capture the makeup of each FRC team, that meets the prerequisites to be considered for this study, each team, that is willing to participate, must fill out a survey that includes thirty-nine (39) primary questions about team structure, and organization.

Once enough teams have filled out the survey, this study can determine the correlation between each of the values obtained from the survey to the performance metric and its individual parts.

The ultimate purpose of this project is to report on the correlations, if any, between the different factors that make up teams and their respective performance. Teams can utilize the reported correlations as a guide to achieving higher performance as determined by our metric, with the caveat that there is no implication of causation from our study. If there are any values with very high correlations, then we can suggest teams to modify their operation with regards to the traits that correlate with greater performance. Additionally, the FIRST organization can utilize the data from this project to make further suggestions and perform their own additional analysis.

Background

FIRST was founded in 1989 by inventor and entrepreneur, Dean Kamen, with the mission in mind to inspire young people to go into Science, Technology, Engineering, and Math (STEM) fields, or as Dean Kamen would put it "To transform our culture by creating a world where science and technology are celebrated and where young people dream of becoming science and technology leaders."[1]

FRC, a subset of the FIRST organization is a competition in which over 3000 teams and over 78,000 high school students compete in a robotic game. These games or challenges change every year and students have roughly 6 weeks to build a robot, mostly from scratch, with only a few parts supplied to them.

[1] (USFIRST n.d.)

Surveys can be divided into two categories, a census and a sample survey. A census is a survey on the entire population of interest. This provides a very high confidence level, but has the downside of being very time consuming, hard to achieve, and dealing with a large amount of data. On the other hand a sample survey takes a sample of the population to survey. This gives a slightly lower confidence level, but makes the data to be dealt with smaller and easier to collect.

There are many ways to pick a sample from the population including simple random sampling, stratified random sampling, systematic sampling, and many more. Simple random sampling is where each person in the population has an equal chance of being picked for the sample. Stratified random sampling is where your population is divided into various groups and the amount of people randomly put into the sample from each group is proportional to the size of the group. Systematic sampling is where you chose your sample by every Kth member in your population, where K is your population size divided by your required sample.

When determining your sample size, you must account for the confidence level you want and the precision that is allowed for your study. Most studies require a confidence level of at least 90% to be statistically significant and must additionally have a precision of at least +/- 5%. The equation to calculate sample size is:

$$n = (P^2)/((A^2/Z^2) + (P^2/N^2))$$

Where n is the sample size required, N is the number of people in the population, P is the estimated standard deviation of the attribute of interest in the population, A is the

accuracy desired, and Z is the number of standard deviation units of the sampling distribution corresponding to the desired confidence level.

Past research at WPI into surveying FRC teams includes two IQP groups. One of the groups looked into the features of the 2013 FRC control system and conducted a survey to find out which features and software of the control system are helping teams succeed, what features could be improved, and which ones could be added. They interviewed teams at a post-season event to get a feel for the current control system. They then devised a survey off of their interview results and distributed it to teams via social media. The results of the survey showed that the current elements of the control system are high quality and do not hinder team success, but there needs to be better documentation and organization of the current system.

The other group determined why and how universities become involved with FIRST, including how universities support teams already, the benefits their support brings, and other examples of how universities get involved at any level. The group generated a ten minute online survey that they distributed to 93 universities across the United State. The results of the survey indicated that there was a variety of support from universities anywhere from giving out scholarships and hosting workshops, to sponsoring a team, and hosting a competition.

Procedure

As mentioned before, in order to accomplish our goal, there are a few primary tasks that must be completed. The first of which is to determine a metric that ranks teams on their performance and longevity. Secondly, is constructing a survey that asks questions that could correspond with a team's organization and structure. The third task is contacting as many of the current teams in FRC that have at least five years of experience and encouraging them to fill out our survey. Finally, the last task is to evaluate the results of the survey and find correlations between different factors of teams and performance as evaluated by the metric or a specific component of this metric.

After consulting with many peers, FRC professional mentors, and the current director of FRC, Frank Merrick, we constructed a performance metric that includes seven key measures of team performance that all have been weighted according to importance. These measures include Award, Qualification, Chairman's, Engineering Inspiration, Championship Wins, Hall of Fame, and Years of Experience Rankings. Each of these measures are weighted and calculated accordingly:

- Award Ranking - **20%**
    - Award * average teams at event (60 for Regional, 40 for District)
    - Sum and Normalize against the largest to calculate a Rank/Score
- Qualification Ranking - **20%**
    - Total teams - (team rank - 1) / total teams (has values between 1 and 0)
    - Data only goes as far back as 2006
    - Average qualification rank - 1 standard deviation
    - Normalized against the largest to calculate a Rank/Score
- Chairman's Ranking- **20%**
    - Number of Regional/District Chairman's
    - Normalized against the largest to calculate a Rank/Score
- Engineering Inspiration Ranking- **15%**

    - Number of Regional/District Engineering Inspiration
    - Normalized against the largest to calculate a Rank/Score
- Championship Wins- **5%**
    - Einstein Wins
    - Normalized against the largest to calculate a Rank/Score
- Hall of Fame - **5%**
    - Whether or not you are a Hall of Fame Team
    - Normalized against the largest to calculate a Rank/Score
- Years of Experience - **15%**
    - Number of Years in Experience/Max Number of Year (24)
    - Calculate a Rank/Score

The Award Ranking was devised in order to capture how well the team performs when it comes to presenting themselves to judges and others. A team's score in this category is calculated by looking at the team's history and adding 40 or 60 points for each award won, 40 if the award was won in a district event, and 60 if the event was won at a regional event. Once the sum has been calculated for each team, the scores are then normalized against the largest score attained by any of the qualifying 1569 teams. This normalized score is used for the weighted final score as well as for generating a ranking list for the teams for this component.

The Qualification Ranking was devised in order to capture a team's raw robot performance at an event as well as measure how consistent said performance is. This component's score is calculated by taking a team's rank at any given competition, subtracting one from it, then subtracting that result from the total number of teams there and dividing the resulting difference by the total number of teams there. This equation results in a score of 1.0 for qualifying first at an event, and a score of 1/N, where N is the number of teams in attendance at that event for qualifying last. These individual scores are then added together for each team, and divided by the total number of events that team has attended. Additionally, a standard deviation is computed for each

team. The standard deviation is utilized to capture a sense of consistency from each team, by subtracting one standard deviation from the average qualification rank score of each team. Once this is done the scores are normalized for use in the weighted final score and a component ranking is generated.

The Chairman's Ranking was included in the metric in order to gauge the success of team by how well they live up to FIRST's expectations and goals. This is important since the Chairman's Award is regarded as the most prestigious award in FIRST and is presented to the team that best lives out FIRST's mission. The score for this ranking is the sum of the number of time a team has won Chairman's which has been normalized against the max number of Chairman's wins any team has. This score is used in the final metric as well as for generating a ranking for this component.

The Engineering Inspiration Ranking was included for very similar reason, since many teams view it as a second place Chairman's Award. Similarly FIRST holds this award in high honor, as it is given to team whose behavior inspires the FIRST community. The score for this ranking is the sum of the number of time a team has won Engineering Inspiration which has been normalized against the max number of Engineering Inspiration wins any team has. The score is then used to generate a component ranking, as well as being passed on to the final metric.

The Championship Wins Ranking is meant to capture teams who have risen to the challenge and won the title of world champion at least once. Since there are few teams who have won the championship, let alone multiple times, this rankings' weight is fairly low at 5%. The score is generated by summing the number of times a given team

has won the world championship, and then normalizing the sum against the max number of times a single team has won the championship. This normalized score is then used in the final metric as well as to calculate the team's Championship Ranking.

Similarly, the Hall of Fame Ranking takes into account teams who not only have won the Chairman's Award, but have won Chairman's at the championship level. The act of winning Chairman's at the championship level, gets a team into the Hall of Fame, and is perhaps the most coveted honor in FIRST. Since this is a binary ranking, this too is only weighted at 5% for the final aggregate ranking.

Finally the Years of Experience Ranking was created in order to take into account the longevity of a team. A sustainable team allows the FIRST community to inspire more people, and as such FIRST honors the teams that have existed since the very beginning by giving them a title: legacy team. The score for this ranking is the number of years of experience for a team over the maximum number of years, which in the case of our data is 24. This score is then used to generate a ranking, in addition to being part of the Final Ranking score.

The Final Ranking is based on the aggregate of each of the seven individual component ranking scores, each multiplied by their respective weight. This gives a final number for each team, which is then used to rank each of the 1569 teams.

In order to obtain the data that we evaluated for our performance metric functions, we had to obtain the raw data that each factor is based on for every team we are analyzing. This was accomplished by collecting data from The Blue Alliance, and

utilizing their web API as briefly mentioned before. In order to automate the process of recording data for each team and event, we created a python script that would send requests to www.thebluealliance.com and aggregate the results from each team and event into a database, easily accessible by JavaScript Object Notation (JSON). We then took each team's data and event performance and ran those values through each part of the metric's function and outputted each value to a separate Comma Separated Value (CSV) file for each component that held each team number and the results for each of the seven separate parts of the metric. We then opened the CSV files in Microsoft Excel and aggregated each ranking according to the weight given by our metric to generate a final ranking. Once this was accomplished, each of the seven components' as well as the Final Ranking's scores and ranks were combined into one Excel file for easy sorting.

The survey, like the metric, was created with the help of various FRC mentors, and their beliefs as to what factors that make up a team could most influence or correlate with higher team performance. The survey is broken up into an introduction and seven main parts. The seven parts include, mentors, students, sponsors, workspace, time allocation, budget, and events. The survey consists of 39 main questions with 10 sub-questions depending on how the main questions are answered. *(See Appendix A)*

There are many surveying software options, a few of which include SurveyMonkey, Google Forms, and Qualtrics. Given the available choices, we decided to go with Qualtrics because of the number of options it had for different questions and display logic, and because WPI has a license with Qualtrics. SurveyMonkey on the

other hand only allowed 10 questions and 100 responses for their non-premium surveys, and Google Forms had far fewer options in questions and display logic than Qualtrics did.

Before the survey was sent out to FRC teams, it had to be approved by the WPI Institutional Review Board (IRB). After this approval process was completed the survey was sent out to the qualifying teams with at least five years of experience. The goal of the survey was to get enough data to have a 95% confidence level for our data analysis, this meant we needed at least 309 responses for a 5% confidence interval. As the survey results arrived, they needed to be looked over for completeness, and correctness; if there were any issues with the results, the team that submitted the survey was contacted for chance to correct any mistakes.

Our data analysis consists of comparing the bins (of size 100) from the Final, Award and Qualification Rankings, as well as the rankings of the Chairman's, Engineering Inspiration, Championship Wins, Hall of Fame, and Years of Experience Rankings against individual survey question results. In order to compare rankings and bins of our performance metric to the individual survey questions, we had to graph the two sets of data against each other and calculate the linear regression. Given the large amount of data we had to analyze, we looked into a variety of software solutions that would make the job easier. The first option we considered was utilizing Microsoft Excel to both sift through the data and generate the graphs, and while this usually works for most projects, we found we had too much data to be efficient in Excel. The second option we looked at, which we then decided to go with, was utilizing a software solution named Tableau. Tableau allows you to import various types of datasheets and makes

the generation of easy to read graphs fairly easy. Its suite of tools, includes multi-color split graph, and linear regression models with significance test results; both of which we found ourselves using on numerous occasions. As alluded to in the previous sentence, when possible we performed linear regressions on our data graphs in order to calculate the R-Squared values and p-values. This R-squared value is the based on Pearson product-moment correlation coefficient, which gave us a good idea of how well the data from the survey correlated with the different performance metrics, with values closer to 1.0 having the highest correlation between each other. An important distinction to remember, is even if the R-squared value has a value of 1.0, we cannot conclude causation, because correlation does not imply causation, and the R-squared value is a measure of correlation. The p-value generated from Tableau's calculations is a measure of significance, in that a p-value less than 0.05 means the results are considered to be significant and we can draw a conclusion from them. However if the p-value is greater than 0.05, no matter how close, then the results are insignificant and we cannot make any conclusions about them no matter how high the correlation would have been. We also generated intuitive graphs for the data which could not be analyzed through linear regressions. Although we did draw some of our own conclusions from these graphs, they are far too subjective to say anything concrete. As a result, all of the graphs we generated have been included in our appendix for additionally perusal.

Results

After the survey period from January 21th 2016 to March 10th 2016, we received a total of 403 responses that we could utilize in our analysis. We obtained more than that but filtered out the surveys that were duplicates and those that had data that made the survey look like an anomaly. This gives us a confidence interval of 4.21 with our population of 1569 teams and a confidence level of 95%.

Before delving into survey data and results, it is important to go over the demographics of the results of our survey, so as to aid anyone who is wishing to replicate this study. From the introductory questions asked to the survey taker we found that the average number of years the survey takers had been on the team was 6.837 years. Additionally, we found that 41.94% of survey takers were the head mentor of their team. The second highest percentage of survey takers were students in leadership with 21.09%, followed closely by general mentors at 18.86%. The fourth highest percentage of survey takers fell into the category of faculty members for their team, with lowest percentages going to general students and other with 4.22% and 3.47% respectively. Furthermore, our demographics questions found that 56.58% of teams surveyed had an official dedicated leader who fell into the category of educator. This was followed by the engineer category at 22.33% and the other category at 10.42%. Finally the last two categories for this question were the business person and technician with 8.44% and 2.23% respectively. While these results may be interesting the primary purpose of these results is not to be analyzed as part of our study. As a result these data sets were not compared to the rankings in anyway.

Given the nature of having over 400 distinct responses, the majority of our comparisons between the rankings and the data had too much noise and variation to give us any significant result. This is apparent by the R-squared values of the graphs we started generating in Tableau which were near or below 0.01 in most cases. In order to make any sort of conclusion from our data, we decided to try binning our rankings. Binning, in terms of data, is the act of placing multiple data point into one group which you then aggregate; for our analysis we decided to compute the average as the aggregate measure. The aggregate of the bin is then utilized as the data point for that bin. Given that for continuous rankings we had roughly 1600 ranks, we believed it best to bin those into groups of 100. As a result instead of having to perform linear regressions on 403 discrete data points, performed the majority of our analysis on 16 data points. The binning process worked well for the Final, Awards and Qualification Rankings, however, at the same time we found it was not necessary for all ranking components, as certain components were already grouped due to their discrete nature. Therefore, the Chairman's, Engineering Inspiration, Championship Wins, Hall of Fame, and Years of Experience Rankings were left in their predetermined bins.

For our analysis, we looked at 44 of the survey question results and created approximately 436 graphs that compared the data from the aforementioned questions to our final ranking as well as each individual ranking component. For each graph we generated, we had Tableau calculate both the R-Squared value for the linear regression, and the p-value of the graph. As mentioned before the p-value tells us whether or not the comparison is significant, and as a result whether or not we can draw a conclusion from the R-Squared value. A p-value less than 0.05 means the data is

significant whereas a p-value greater than 0.05 means the data is insignificant. The results of our linear regression analysis are presented in the following tables, broken up into different sections based on which ranking they are being compared to. Each table features every survey questions whose results have a significant p-value, and their respective R-Squared values; each table is listed in descending order based on the R-Squared value. Additionally, there are explanations for the four highest correlations for each of the rankings, which go more in depth as to why that result may exist.

Final Ranking Linear Regression Analysis

Survey Data	R-Squared Values (*descending order)*
Percentage COTS vs Custom Robot Materials	0.865561
Total Number of Sponsors	0.837195
Number of Monetary Sponsors	0.829087
Number of Students	0.803065
Number of CAD/Programming Computers	0.755408
Number of Official Events Attended	0.749805
Total Team Budget	0.728555
Number of Mentors	0.72111
Team Travel Budget	0.703297
Number of Students in Leadership	0.685373
Practice Robot	0.670251
Hours per Week (Off-Season)	0.625802
Number of Professional Mentors	0.612322

Percent of Robot CADed	0.606099
Hours per Week (In-Season)	0.589853
Robot Budget	0.565423
Square Footage of Lab Space	0.512802
Pit Supplies Monetary Value	0.510825
Robot Design (Iterative)	0.446763
Robot Design (Blank Slate)	0.433358
Hours of Driver Practice	0.389452
Programming Design (Research)	0.0112663

Figure 1: Final Ranking R-Squared Values

The highest correlation for the Final Ranking is between it and the percentage of Commercial-Off-The-Shelf (COTS) vs custom parts on the robot, with an R-Squared value of 0.865561. Teams within the first bin of 100 for the Final Ranking have an average of 58.61% custom parts and 41.39% COTS parts, and teams in the last bin of 100 have an average 20.20% custom parts and 79.80% COTS parts. This shows that if a team can increase the number of parts that they manufacture themselves instead of relying on COTS parts in order to build their robot, then in general it will help them increase their performance. Even a small increase of five percent in the amount of custom parts used correlates with an increase in rank by at least one bin in most cases. *(Appendix C, 355)*

The second highest correlation for the Final Ranking is between it and the total number of sponsors, with an R-Squared value of 0.837195. Teams within the first bin of 100 for the Final Ranking have an average of 12.378 sponsors, while teams in the last

bin of 100 have an average 4.33 sponsors. However, the maximum average for any bin is 13.613 sponsors which is the average for teams with a Final Ranking in-between 200-299. Based on the average values for the bins of this graph, it is hard to say what the correlated increase in performance will be by adding another sponsor to a team's list. However if you look at the trend line, it shows that increasing the number of sponsors your team has by one or two, correlates with an increase in rank by one to four bins. While sometimes it may be hard to get sponsors, it makes quite a bit of sense why they matter so much when it comes to a team's performance, since they can provide invaluable support and resources to a team. *(Appendix C, 171)*

The third highest correlation for Final Ranking is between it and the number of monetary sponsors, with an R-Squared value of 0.829087. Teams within the first bin of 100 for the Final Ranking have an average of 8.378 monetary sponsors, while teams in the last bin of 100 have an average 4.000 monetary sponsors. However, the maximum average for any bin is 9.270 monetary sponsors which is the average for teams with a Final Ranking in-between 100-199. Similarly to the last correlation, if you follow the trend line you can see that increasing the number of monetary sponsors correlates with a large jump in Final Ranking. This also makes sense, since not only is this measure contained within the previous correlation, but also monetary sponsors provide a team with the money that keeps a team sustainable and able to make the necessary acquisitions. *(Appendix C, 183)*

The fourth highest correlation for the Final Ranking is between it and the number of students, with an R-Squared value of 0.803065. Teams within the first bin of 100 for the Final Ranking have an average of 43.53 students, while teams in the last bin of 100

have an average 19.67 students. However, the maximum average for any bin is 49.13 students which is the average for teams with a Final Ranking in-between 200-299. This data demonstrates that the number of students on your teams has a high correlation with how well your team performs, which makes sense because students are required to make a team run. The more students a team has the more man hours that team is able to put into any number of activities, from outreach to building the robot. Luckily, the increase in performance due to this correlation is far easier to attain than a new sponsor, as getting kids interested in STEM and joining a team is mainly about getting the word out. A small increase in two to three students on your teams correlates a sizeable increase in rank by one or two bins. *(Appendix C, 83)*

Award Ranking Linear Regression Analysis

Survey Data	R-Squared Values (*descending order)*
Total Number of Sponsors	0.911202
Total Team Budget	0.905135
Number of Mentors	0.900489
Number of Official Events Attended	0.864857
Percentage COTS vs Custom Robot Materials	0.842268
Number of Professional Mentors	0.840018
Hours per Week (Off-Season)	0.826087
Percent of Robot CADed	0.825567
Number of Students	0.816459
Team Travel Budget	0.805775

Practice Robot	0.799894
Number of Monetary Sponsors	0.791672
Hours per Week (In-Season)	0.773151
Number of CAD/Programming Computers	0.70953
Pit Supplies Monetary Value	0.692711
Robot Budget	0.683852
Number of Students in Leadership	0.67317
Hours of Driver Practice	0.625511
Robot Design (Iterative)	0.592524
Square Footage of Lab Space	0.51182
Percent Decrease of Hours per Week	0.419986
Robot Design (Blank Slate)	0.321881

Figure 2: Award Ranking R-Squared Values

The highest correlation for the Award Ranking is between it and the total number of sponsors, with an R-Squared value of 0.911202. Teams within the first bin of 100 for the Award Ranking have an average of 13.525 sponsors, and teams in the last bin of 100 have an average 4.425 sponsors. As written above in the Final Ranking on sponsors, increasing the number of sponsors your team has by one or two, correlates with an increase in rank by one to four bins, thus increasing the chance of awards to be won at events. *(Appendix C, 172)*

The second highest correlation for the Award Ranking is between it and the total team budget, with an R-Squared value of 0.905135. Teams within the first bin of 100 for the Award Ranking have an average total budget of $50,813, while teams in the last bin of 100 have an average total budget of 14,107. Following the trend line shows that

increasing the total team budget your team has, correlates with an increased chance of awards that can be won at events. An increase to a team's total budget makes sense in terms of a team being able to accomplish more without a budget restriction, but is hard to obtain a bigger budget, especially for a new team. *(Appendix C, 395)*

The third highest correlation for Award Ranking is between it and the number of mentors, with an R-Squared value of 0.900489. Teams within the first bin of 100 for the Award Ranking have an average of 13.850 mentors, while teams in the last bin of 100 have an average of 6.815 mentors. However, the maximum average for any bin is 14.442 mentors which is the average for teams with an Award Ranking in-between 200-299. The correlation, as shown by the trend line, between the Award Ranking and the number of mentors shows an increase in number of mentors, increases the chance of awards that can be won at events. This makes sense due to the fact that mentors play a big role in educating their students to be their best, which aligns with what is looked for when presenting awards to teams. *(Appendix C, 52)*

The fourth highest correlation for the Award Ranking is between it and the number of official events attended, with an R-Squared value of 0.864857. Teams within the first bin of 100 for the Award Ranking have an average of 3.175 events, while teams in the last bin of 100 have an average of 1.692 events. However, the minimum average for any bin is 1.609 events which is the average for teams with an Award Ranking in-between 1100-1199. This data demonstrates that the number of events your team attends has a high correlation with the chance of winning an award at an event, which makes sense because teams need to attend events to even win awards. *(Appendix C, 432)*

Interestingly, only one of the top four correlations for the Award Ranking is in the top four correlations for the Final Ranking. The shared correlation is with the total number of sponsors. Nevertheless, in the top ten of both Final and Awards Rankings, seven of the correlations are shared with each other, with highest correlation of the Final Ranking being the fifth highest of the Award Ranking, and the highest correlation of the Award Ranking being the second highest of the Final Ranking.

Qualification Ranking Linear Regression Analysis

Survey Data	R-Squared Values (*descending order)*
Total Number of Sponsors	0.803821
Number of Monetary Sponsors	0.792207
Number of Mentors	0.755094
Number of Students	0.747108
Team Travel Budget	0.718434
Number of Official Events Attended	0.717936
Number of CAD/Programming Computers	0.706317
Hours per Week (Off-Season)	0.666953
Number of Professional Mentors	0.661323
Total Team Budget	0.644426
Percentage COTS vs Custom Robot Materials	0.624699
Hours per Week (In-Season)	0.624605
Robot Design (Iterative)	0.542105
Practice Robot	0.511535

Percent of Robot CADed	0.511124
Robot Budget	0.509647
Hours of Driver Practice	0.465175
Number of Students in Leadership	0.454655
Pit Supplies Monetary Value	0.323849

Figure 3: Qualification Ranking R-Squared Values

The highest correlation for the Qualification Ranking is between it and the total number of sponsors, with an R-Squared value of 0.803821. Teams within the first bin of the Qualification Ranking have an average of 12.861 sponsors, and teams in the last bin have an average of 4.900 sponsors. Similarly to the number of sponsors in both the Final and Award Rankings, the data shows that the more sponsors a team has the more likely they will increase their qualification rank. This is an interesting correlation, because it shows that the support that sponsors give to their teams can affect how well a team's robot does in the competitions. *(Appendix C, 173)*

The second highest correlation for the Qualification Ranking is between it and the number of monetary sponsors, with an R-Squared value of 0.792207. Teams within the first bin of the Qualification Ranking have an average of 9.778 monetary sponsors, and teams in the last bin have an average of 3.400 monetary sponsors. Similar to the previous correlation between the Qualification Ranking and the total number of sponsors, the data shows that the more monetary sponsors a team has the more likely they will increase their qualification rank. Again, this demonstrates how useful any resource a sponsor can give, in this case money, can be in terms of a team's robot performance at an event. *(Appendix C, 185)*

The third highest correlation for the Qualification Ranking is between it and the number of mentors, with an R-Squared value of 0.755094. Teams within the first bin of the Qualification Ranking have an average of 13.556 mentors, and teams in the last bin have an average of 7.800 sponsors. However, the maximum average for any bin is 14.861 mentors which is the average for teams with Qualification Ranking in-between 200-399. These results show how the backbone to a team is their mentors, and with more mentors, and their help, teams can expect a correlative increase in their performance in qualifications. This is due in large, because the larger number of mentors a team has, the more work they can do and split up into various parallel tasks with the students, which allows for better prototyping, manufacturing, coding, and the like. *(Appendix C, 53)*

The fourth highest correlation for the Qualification Ranking is between it and the number of students, with an R-Squared value of 0.747108. Teams within the first bin of the Qualification Ranking have an average of 40.61 students, and teams in the last bin have an average of 25.10 students. However, the maximum average for any bin is 42.97 students which is the average for teams with Qualification Ranking in-between 500-599. Additionally, the minimum average for any bin is 23.64 students which is the average for teams with Qualification Ranking in-between 1400-1499. Related to the prior correlation, a large number of students on a team increases the amount of work that can be done at a given time, and allows more parallel tasks. Thus, it is no surprise that an increase in students correlates with an increase in the Qualification Ranking. *(Appendix C, 85)*

When comparing the top correlations of the Qualification Ranking to those of the Final Ranking, we find that they both share three out of their top four correlations. Additionally, the highest correlation for the Qualification Ranking corresponds to the second highest correlation for the Final Ranking. However, on the other hand, the highest correlation of the Final Ranking does not even make the top ten highest correlations of the Qualification Ranking.

Chairman's Ranking Linear Regression Analysis

Survey Data	R-Squared Values (*descending order)*
Number of CAD/Programming Computers	0.747486
Number of Official Events Attended	0.611518
Hours per Week (Off-Season)	0.533897
Percent of Robot CADed	0.485297
Total Team Budget	0.437056

Figure 4: Chairman's Ranking R-Squared Values

The highest correlation for the Chairman's Ranking is between it and the total number of CAD and programming capable computers, with an R-Squared value of 0.747486. Teams with a Chairman's Ranking of 3 have an average of 11.000 CAD and programming capable computers, whereas teams with a Chairman's ranking of 303 have an average of 6.323 CAD and programming capable computers. The maximum of 11.00 CAD and programming capable computers is not only shared by the team with rank 3, but also with teams whose Chairman's Ranking is either 4 or 16. This result is

quite interesting, as there is no direct correlation we can see between increasing the number of CAD and programming computers and having an increase in the Chairman's Ranking. One possible explanation however is that this correlation is just related to the percent of the robot that has been CADed correlation, however, for some reason this one has a far stronger correlation at an R-Squared value of 0.747486, as compared to the percent of robot that has been CADed R-Squared value of 0.485297. *(Appendix C, 286)*

The second highest correlation for the Chairman's Ranking is between it and the number of official events attended, with an R-Squared value of 0.611518. Teams with a Chairman's Ranking of 3 attend an average of 4.000 official events, whereas teams with a Chairman's ranking of 303 attend an average of 2.195 official events. The maximum of 4.000 official events attended is not only shared by the team with rank 3, but also with teams whose Chairman's Ranking is either 4 or 9. This correlation can be explained simply, in that the more events a team attends, the higher likelihood they have at winning the Chairman's award, since at each subsequent event they are more prepared for their presentation. *(Appendix C, 434)*

The third highest correlation for the Chairman's Ranking is between it and the average number of hours per week, once the build season has ended, with an R-Squared value of 0.533897. Teams with a Chairman's Ranking of 3 have an average of 24.00 hours per week after the build season ends, whereas teams with a Chairman's ranking of 303 have an average of 13.93 hours per week after the build season ends. However, the maximum average for any rank is 28.00 hours per week after the build season ends, which is the average for teams with ranks of either 4 or 16. This

correlation seems to also have a simple explanation, which is, that the more time the team spends preparing for the Chairman's presentation after the build season ends, the more prepared they are when they present to the judges, and better chances they have of winning Chairman's. *(Appendix C, 466)*

The fourth highest correlation for the Chairman's Ranking is between it and the percent of the robot that is CADed, with an R-Squared value of 0.485297. Teams with a Chairman's Ranking of 3 have an average of 82.50% of the robot CADed, whereas teams with a Chairman's ranking of 303 have an average of 50.50% of the robot CADed. The average of 82.50% of the robot CAD is not only by the team with rank 3, but also with teams whose Chairman's Ranking is either 4 or 9. Additionally, the maximum average for any rank is 88.75% of the robot CAD, which is the average for teams with a rank of 16. Also the minimum average for any rank is 50.00% of the robot CAD, which is the average for teams with a rank of 26. This result demonstrates how being able to show a prepared and good looking robot during the Chairman's presentation, can help the team show the judges how good their team is. As a result, being able to do this correlates with an increase in the Chairman's Ranking. *(Appendix C, 346)*

When comparing the top correlations of the Chairman's Ranking to those of the Final Ranking, we find that they share none of the same top four highest correlations. This is likely due to the fact that the Chairman's Award is more focused on outreach, showmanship, and the preparedness of the presentation from the team than the other raw performance measures. As a result, 45% of our final metric focuses more on raw

performance and technical aspects than outreach, which explains why there are no shared top correlations between the two.

Engineering Inspiration Linear Regression Analysis

Interestingly the Engineering Inspiration Ranking was the only one to not have a single significant R-Squared value. This may be a result of the non-uniform groups, as well as the more holistic nature of this award. Whereas Chairman's, other awards and qualification ranks are influenced more so by specific factors than others, it seems the Engineering Inspiration Award is influenced by many things very slightly, such that nothing really correlates well with it. Another possible explanation, is that judges differ in what type of team should win the Engineering Inspiration Award, which makes it so that there is not concrete correlation to winning it.

Championship Wins Linear Regression Analysis

Survey Data	R-Squared Values (*descending order)*
Team Travel Budget	0.953904

Figure 5: Championship Wins Ranking R-Squared Values

The only and highest correlation that resulted from Championship Wins Ranking was between it and the team travel budget, with an R-Squared value of 0.953904. Teams with Championship Wins Ranking of 2 have an average travel budget of $20,000, and teams with a Championship Wins Ranking of 44 have an average travel

budget of $10,230. However, the maximum average for any rank is a travel budget of $21,000 which is the average for teams within the Championship Wins Ranking of 4. This shows that the more a team spends on travel the more likely they will win FRC Championships. This may not be that great of a correlation as a team that would end up going to championships would be required to spend money to travel there. Whereas it would not be in the team's travel budget otherwise if they did not attend Championships. *(Appendix C, 426)*

Years of Experience Linear Regression Analysis

Survey Data	R-Squared Values (*descending order)*
Number of Official Events Attended	0.432565
Number of Mentors	0.395292
Number of Professional Mentors	0.391585
Percent of Robot CADed	0.287726
Number of CAD/Programming Computers	0.285694

Figure 6: Years of Experience Ranking R-Squared Values

For the linear regression analysis of the Years of Experience Ranking, we found that there were no high correlations existing, with the highest correlation being 0.432565. This actually makes quite a bit of sense, as the secret to a team's longevity may indeed differ largely from team to team. Some teams may rely on funding, while others the dedication and number of their mentors.

That said, the highest correlation for the Years of Experience Ranking is between it and the number of official events attended, with an R-Squared value of 0.432565. Teams with a Years of Experience rank of 1 have an average of 4.000 events, while teams with a Years of Experience rank of 1343 have an average of 2.077 events. However, the minimum average for any rank is 2.000 events which is the average for teams with a Years of Experience Ranking of 8. This correlation likely exists because teams with more experience want to attend more events to have more practice time. This is also influenced by the fact that a large number of older teams started in the New England area, an area which has moved to the district system which allows teams to attend more events. Therefore it may be hard to recommend that teams increase the number of events they attend to help increase their longevity, especially since it is a fairly weak correlation to begin with. *(Appendix C, 441)*

The second highest correlation for the Years of Experience Ranking is between it and the number of mentors, with an R-Squared value of 0.395292. Teams with a Years of Experience rank of 1 have an average of 18 mentors, while teams with a Years of Experience rank of 1343 have an average of 9.82 mentors. However, the maximum average for any rank is 19.00 mentors which is the average for teams with a Years of Experience Ranking of 25. It is difficult to determine what aspect influences the other for this correlation, as it could go either way. The first, is that a team with larger number of mentors has more support and dedication, which allows them to continue existing throughout the years. However the second way of looking at this, is that a team that exists for a long time, continues acquiring more mentors as they age, leading to a larger number of mentors being present in older teams. Additionally, with only an R-Squared

value of 0.395292, it seems this correlation is quite weak, although nevertheless significant, since it has a low enough p-value. *(Appendix C, 58)*

The third highest correlation for the Years of Experience Ranking is between it and the number of professional mentors, with an R-Squared value of 0.391585. Teams with a Years of Experience rank of 1 have an average of 12.333 professional mentors, while teams with a Years of Experience rank of 1343 have an average of 7.308 professional mentors. However, the maximum average for any rank is 14.333 professional mentors which, similar to the total number of mentors' correlation, is the average for teams with a Years of Experience Ranking of 25. The analysis for this correlation, is again similar to that of total number of mentors, where the influence could come from the number of professional mentors or from a team's past years of existence. Once again, this correlation like the previous one is quite weak, but given that the p-value was less than 0.05, it is still significant. *(Appendix C, 70)*

The fourth highest correlation for the Years of Experience Ranking is between it and the percent of the robot that is CADed, with an R-Squared value of 0.287726. Teams with a Years of Experience rank of 1 have an average of 71.67% of their robot CADed, while teams with a Years of Experience rank of 1343 have an average of 39.17% of their robot CADed. However, the maximum average for any rank is 76.13% of the robot CADed which is the average for teams with a Years of Experience Ranking of 43. Further, and more strangely, the minimum average for any rank is 37.50% of the robot CADed, which is the average for teams with a Years of Experience Ranking of 8. Much like the rest of the top correlations with the Years of Experience Ranking, it is difficult to determine the logic between the correlation between the percent of robot that

has been CADed and the Years of Experience Ranking. It's possible that, as teams gain more experience, they see the usefulness of CADing and thus design a larger percent of their robot through it. This correlation like the other ones related to the Years of Experience ranking, is again weak, yet still significant. *(Appendix C, 353)*

When comparing the top correlations of the Years of Experience Ranking to those of the Final Ranking, we find that they share none of the same top four highest correlations. This is likely due to the fact that there are many small factors that contribute to the longevity of a team, many of which may have nothing or little to do with the other performance rankings. As a result, none of the top four correlations for the Years of Experience Ranking coincide with the top four correlations of the Final Ranking.

Other Data Analysis

Higher mentor and student availability seem correlate with higher rankings, but it is hard to say whether or not there is enough difference to warrant calling it a correlation. However, combined with the fact that the raw number of students and mentors correlated highly with some of our rankings, having both mentors and students available more often may very well correlate with higher performance.

When looking at students in leadership we found a trend opposite to what we were expected, with more survey responses saying they did not have students in leadership around higher ranks. However at a second glance, this does actually make sense, since a mentor in a leadership role may have an easier time organizing the team

and their respective activities. Despite this, in both the Chairman's and Engineering Inspiration Rankings, we found that the only bins that had survey results of no, were bins on the lower end (more so for the Chairman's Ranking than the Engineering Inspiration Ranking). However, this too makes sense, since both the Chairman's and Engineering Inspiration Awards are awarded to teams that best inspire kids about STEM, and having students leaders would indeed show that. Contrastingly when looking at whether or not students in leadership organize activities, there doesn't seem to be much of a significant trend in either direction, with only false visual trends where a bar has only one response attributed to it.

For the drive team assignments responses, there does not seem to be any correlation to it, with similar results across all rankings. However, this may actually be the case because of a misunderstood questions, since many of the other write in responses described what we meant by a holistic process. As a result, we are not sure whether we made each of the responses clear enough. Drive team assignment length, also seems to have no trend or correlation, as the bars looks virtually the same across most bins, or if different seem to be outliers more so than part of a trend. Initially, we would have expected there to be some correlation between drive team assignment length and Qualification Ranking, because driver experience can play a big part in robot performance. While there does seem to be a trend with higher ranked bins have more responses with the answer until vacated, the trend does not seem high enough to be anywhere close to a correlation, especially with a secondary peak at bins 800-899 and 900-999.

With regards to the lab space survey question, although there seems be somewhat of a trend towards a higher percentage of yes responses at higher ranks, it does not seem definitive enough to call it a correlation, since there are too many deviations from any trend. Similarly, the location of the lab space seems to run the whole gamut, for each ranking. This second part makes sense, because as long as the lab space has enough space, and the necessary tools, then it does not really matter where said lab space is.

One area where there does seem to be some correlation is in the results for whether or not a team has access to a practice field. For both the Final and Qualification Rankings, there seems to be a pretty be trend in the percentage of response yes going up as the rankings go up. This is not terribly surprising, since a practice field would allow a team to get ready for upcoming events and the like, by getting some practice in. Having a practice field enables a team to practice until the last minute, especially when combined with a practice robot, which also had a moderate correlation with both Final and Qualification Rankings. Surprisingly however, whether or not the practice field is a full or half field, official or hand built, and internal or external seems to have no bearing on any ranking whatsoever.

When it comes to machine shops, it seems there is a skew left for teams that responded neither for every ranking. With lower rankings having more neither responses, and few if any neither responses in the first few bins. This seems quite logical, as having access to a machine shop is helpful when it comes to manufacturing and assembling a robot. Additionally, without access to one, it is hard to create custom

parts, which are the highest correlation with the Final Ranking. Thus, it is easy to see why this skew exists, even if it is not large enough to be a correlation by itself.

Internet access additionally, seems like it has no link to rankings, given that the only graphs which seem to have a visual representation of a trend are ones where the sample size of higher groups are too low to be conclusive. Take for instance the comparison to Chairman's Ranking, the bulk of the data is concentrated in the last two groups, and the only reason there seems to be a trend is because of a handful a yes responses spread through the 3 highest ranked groups. As a result, we believe there not to be any trend or correlation for internet access and any ranking.

Similarly, technical workshops seem to have all the same visual signs as the graphs of internet access, which means that there is no link between it and the rankings.

Time spent on brainstorming has a couple interesting graphs for some its graphs. The first is on the graph comparing it to the Final Rankings, it seems that the response "Between a day and 3 days" has a skew left, with more responses being noted a lower ranked bins. Unfortunately, given the noise with the rest of the data, it is hard to say anything about what the nature of this skew implies. Strangely, on the graph comparing brainstorming to the Hall of Fame Ranking, you see that both of the rankings have a very similar composition. The rank 1 group has 25% responding each answer besides "Less than or up to a day", similarly, the rank 20 group has an approximate 25% dedicated to each of the same four responses with only a small percentage going to "Less than or up to day." While this graph is interesting, it tells us nearly nothing, as the

rank 1 group only has a sample size of four, whilst the rank 20 group has a sample size of nearly 400.

When comparing CAD utilization to any of the rankings, it is quite apparent that there is a skew left for the response no, with a clear majority in the lower ranked bins or groups in all cases. This skew could really easily be due to one of two things the first is teams using CAD to rank higher: CAD can help a team win awards (included Chairman's and Engineering Inspiration) by allowing teams to wow judges and present the robot is a more pleasing manner; CAD can lead teams to make a more robust robot, which can help it perform well at events. But the second is that teams use CAD because of their performance: teams who have existed longer, are part of the hall of fame, or have won championships, know the benefits to CAD and have learned to implement it in their design process.

There is no clear trend when it comes to comparing a team's chosen programming language to their rank in any of the rankings. This may indeed be because every programming language available in first is proficient enough to handle the tasks required for an FRC robot, and each has enough support. If this is the case, then changing coding language would just be a matter of preference of the team.

Scouting data seems to skew slightly to left for both the questions whether or not a team scouts at an event and whether or not they utilize the scouting data they generate. These trends seem to exist in all but the Years of Experience Ranking where there is any outlier response of "no" to whether or not the team scouts at rank 8. Additionally, the comparison to Years of Experience Rankings seems to be the most evenly spread out, and as a result has the least skew to the left. That being said the

skew to the left on other graphs is quite small in all other cases, so it would be hard to conclusively say that scouting correlates highly with any ranking.

Conclusion

As mentioned in the results section above, six out the eight rankings we compared our survey results to seemed to have significant correlations with our data. The rankings on Hall of Fame, and Inspiration awards had small R squared values and were unviable to obtain correlations from. It is important to note that in the case of the Hall of Fame Ranking, since it is a binary ranking measurement, any linear regression would return an R-Squared value of 1.0, however this does not tell us anything conclusive. Their results however are important to influence the Final Ranking metric, and their graphs are interesting to look at, if nothing else. The Final, Award, Qualification, Chairman's, Championship Wins, and Years of Experience Rankings, on the other hand, resulted in some fairly high R squared values, from which we can we can draw significant correlations from. However, just because there is a strong correlation between the following traits and rankings, does not mean that said traits directly affect the corresponding performance attribute.

For teams that want to improve their overall performance as a FRC team, a team might look toward increasing the number of students and sponsors they have, in addition to using more custom parts on their robot.

For teams that want to increase the amount of awards they receive, a team might look into increasing the number of sponsors for their team, their team travel budget, the number of mentors on their team, and the number of events they attend.

For teams that want to improve their Qualification rank, a team might look towards increasing the amount of sponsors they have both in general and monetary ones, as well as the number of mentors and students on the team.

For teams that want to improve their Chairman's rank, a team might look towards increasing the amount of CAD and programming capable computer they have access to, attending more events, increasing the work hours after the build season ends, and CADing a larger percent of the robot.

For teams that want to increase their chances of winning FRC Championships, a team might look towards increasing the team travel budget.

Finally for teams looking to extend their longevity in the coming years, a team might look into attending more events, and increasing both the number of general and professional mentors, as well as CADing a higher percent of their robot.

In most cases, by looking at the trend lines, it becomes apparent that increasing the number of sponsors or mentors by a couple correlates with a large increase in rank. Similarly, increasing the student population of the team by even a handful has a noticeable correlative increase. Acquiring a couple additional CAD and programming capable computer also seems to correlate with an increase in the Chairman's Ranking. Furthermore when it comes to aspects like CADing the robot or utilizing custom parts, it appears that a small increase of 5-10% correlates with a significant boost in their respective performance areas. Moreover, increasing the work hours after the build season ends by only five hours per week, has a moderate correlation with an increase in rank. On the other hand, traits like the total team budget as well as the travel budget

seem to need a larger increase of at least a couple of thousands of dollars to notice any increase in ranking. That being said, the R-Squared values for budget as compared to both the Award and Championship Wins Rankings are quite strong, at 0.805775 and 0.953904 respectively. Finally when it comes to events attended, an increase of just one event has a fairly high correlation with increasing both the Award and Years of Experience Rankings.

Nevertheless, some of these traits might not be lead to the increases in performance as their correlations might suggest. For instance, a team that wins the world championship or other awards would likely end up going to more events and thus have a bigger team travel budget because they go to these event. Which is why it is important to note that the correlations found through this study, no matter how strong do not imply causation.

When attempting to analyze the other graphs where we could not use linear regression, we found that in most cases we could not say anything conclusively that is no immediately apparent otherwise. Additionally, we could not find a very objective approach to drawing conclusions from these graphs since the results are really quite subjective. Additionally, in most cases the trends did not seem strong enough to be called correlations, if such a subjective measure could ever be called a correlation. That being said, some of the measure seemed to be linked to other measures that we could perform linear regression on, which led us to believe they could be somewhat significant.

Improvements for Next Time

If this study were to be performed again there are some alterations that should be made to our current method to improve results, eliminate hassle, and prevent false surveys from being submitted. Some of the issues we encountered while running our survey was that our survey had no indication of ending and there were a lot of errors within the data such as team's budgets being too low to qualify for registration. The survey having no indication of ending was an oversight on our part. We did not expect teams to click through the questions to see them all, resulting in them ending the survey when they click next on the last page. We needed a final page for a survey, which we ended up adding about halfway through the survey, to indicate that the survey was ending. For all the data errors, most of them could be fixed by adding thought out logic to the questions. We had logic that required a certain answer on some questions but required the question to have an answer. We were mostly afraid of this logic not being able to pass through the Institutional Review Board, as we had not been through that process and felt that requiring questions would infringe on the surveyor's right to abstain from certain questions in the survey. So we ended up scrapping most of our logic, but it seems that having this logic is not really an issue with the Institutional Review Board.

Besides reflecting on our survey and seeing how we could improve it, we also received feedback from teams taking the survey. Team 980 suggested that we add systems engineering as a category to question 4 about what areas mentors focus in and suggested that we include question about outreach and off-season activity. Outreach and off-season activity was something we looked at but decided against because we found it hard to quantify into results, but should be looked at for a future FRC study.

Team 1584 suggests that we add more question about the workspace such as is the workspace shared with another activity, what kind of activity is the workspace shared with, and how much of the workspace is available for use. These are both good critiques and references to look upon if the study were to be performed again.

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Appendix A: The Survey

Introduction

- What is your Team Number?
- What best describes the profession of the official dedicated leader for your team?
- What relation do you have to the team?
- How many years have you been on the team?

Mentors

1. Total number of mentors
2. Number of mentors who hold professional occupations
3. On average how many mentors are available at any given time during season work hours?
4. Percentage of mentors whose focus is in each of the following areas: *(Mechanical, Electrical, Programing, Non-Technical)*

Students

5. Number of students
6. Percentage of students whose gender is *(Male/Female)*
7. Percentage of students who are ethnic minorities.
8. On average how many students are participating at any given time during season work hours?
9. Do students have roles in your leadership structure?
    - 9.1. How many students have roles in leadership?
    - 9.2. Do students in leadership organize a significant amount of the team activities *(including but not limited to work hours, workshops, meetings)*?
10. How are your drive team assigned?
11. How often do you assign new members to the drive team?
12. On average how many hours of driver practice do drivers' get each week after bag day?

Sponsors

13. Number of total sponsors for your team *(only includes sponsors who contribute money, hardware, machinery or manufacturing resources whose value exceeds $500)*
14. Number of sponsors who contribute only money *(in excess of $500)* to your team
15. On average what percentage of your robot is supported by your sponsors?

Work Space

16. Do you have Dedicated Lab Space? *(i.e. available to you whenever you want during the season)*

17. What is the location of your lab space?
18. What is the approximate square footage of your entire lab space?
19. Do you use a practice field outside of competition?
    19.1. Is it a full field or half field?
    19.2. Is the construction of field official or built by hand?
    19.3. Is the location of the practice field at your facility or external/belonging to another team?
20. What types of machine shops do you have access to?
    20.1. How many of each of the following machines are available in your in house machine shop?
    20.2. How many of each of the following machines are available in your external machine shop?

    Following machines: Mill, Lathe, CNC Mill, CNC Lathe, Waterjet, Laser Cutter, Drill Press, Vertical Bandsaw, Horizontal Bandsaw, Miter Saw, Table Saw, Shear, Bending Brake, MIG Welder, TIG Welder, Arc Welder, Oxy Acetylene Torch, Plasma Cutter, CNC Plasma Cutter, 3D Printer, Grinder, Sander, Arbor Press, Electronic Discharge Machine, Spot Welder

21. Do you have regular unrestricted access to the internet at your facility during build season?
22. How many computers do you have routine access to that are capable of programing, CADing, and other FRC related tasks?

Build Season

23. Do you have technical workshops before the season begins?
24. On average how many hours does your team work per day of the week during the build season?
25. How long do you on brainstorming, strategy, and design?
26. What percentage of following do you utilize to design your robot? *(Research, Iterative Design, Blank Slate Approach)*
27. What percentage of following do you utilize when coding your robot? *(Research, Iterative Design, Blank Slate Approach)*
28. Do you utilize CAD in your design process?
    28.1. Do you CAD your entire robot prior to its manufacture and assembly?
29. What percentage of each of the following materials is used to build your robot? *(Commercial Off-The-Shelf Parts, Custom Parts)*
30. What coding language do you use?
31. Do you build more than one robot for a given year's game?
    31.1. How much does your practice robot resemble your entire competition robot?
32. Do you usually attend a scrimmage event?
33. On average how many hours does your team work per day of the week after bag day?

Budget

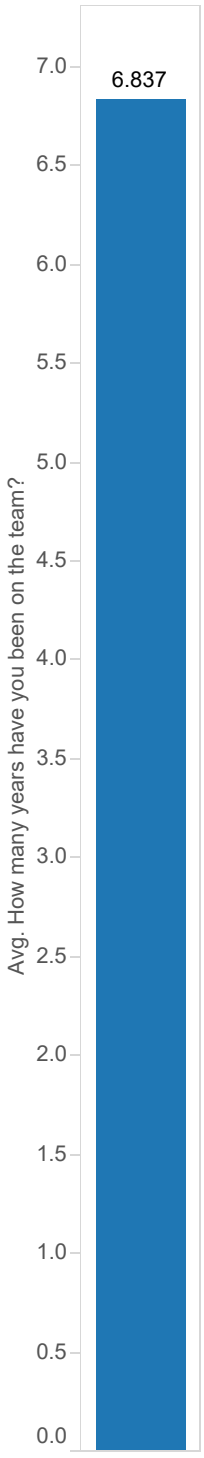
34. What is your total team budget in USD?
35. What is the budget spent on building the competition robot?
36. What is the budget spent on team travel?

Events

37. Average number of Official FRC events you attend during the season
38. Do you do scouting at Official FRC events?
    38.1. Do you utilize said scouting data to create a pick list for your team at that event?
39. What is the estimated value in USD of the pit supplies you bring to Official FRC events?

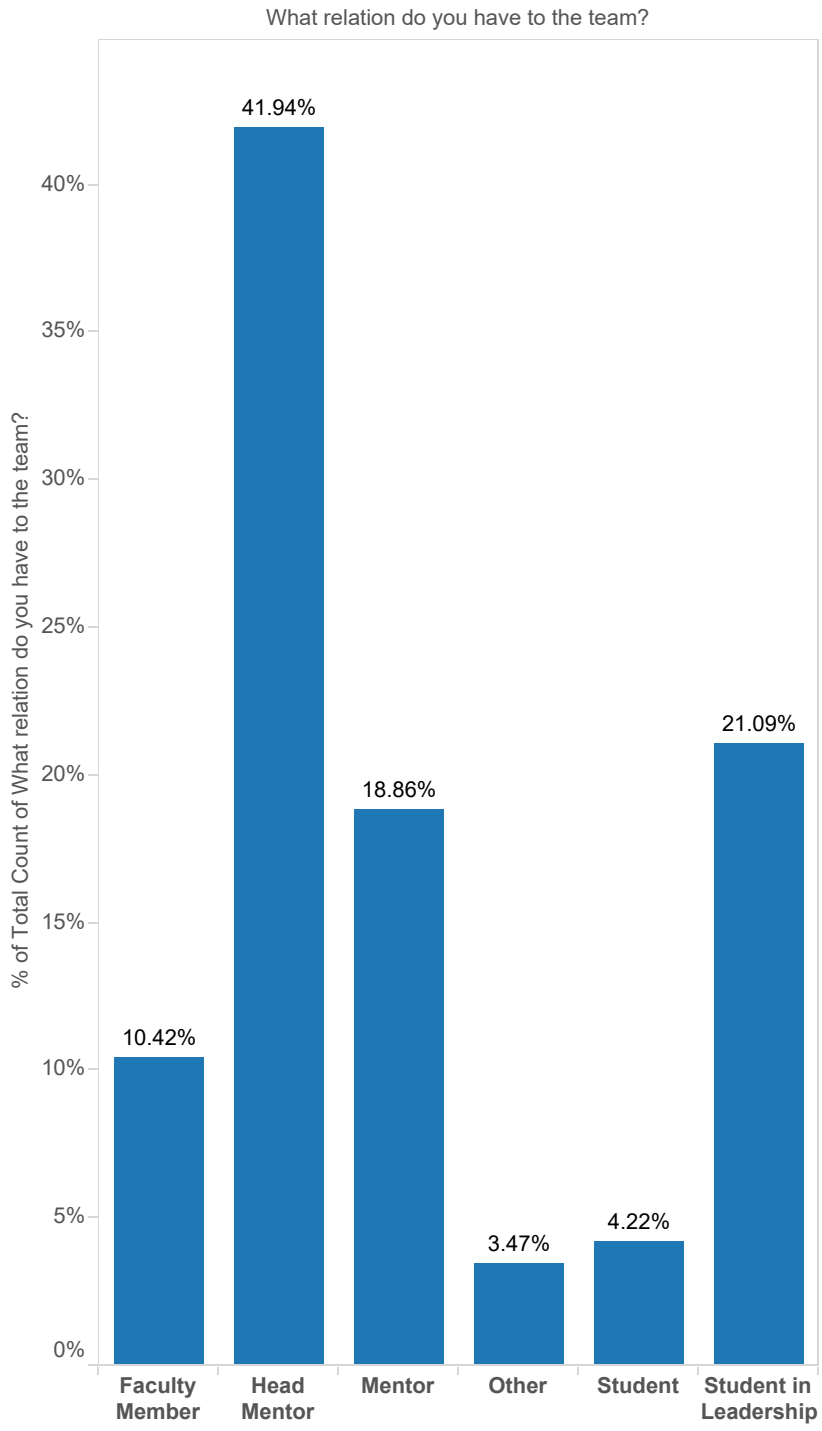
Appendix B: Demographics

Demographics of Survey Taker (Years on Team)



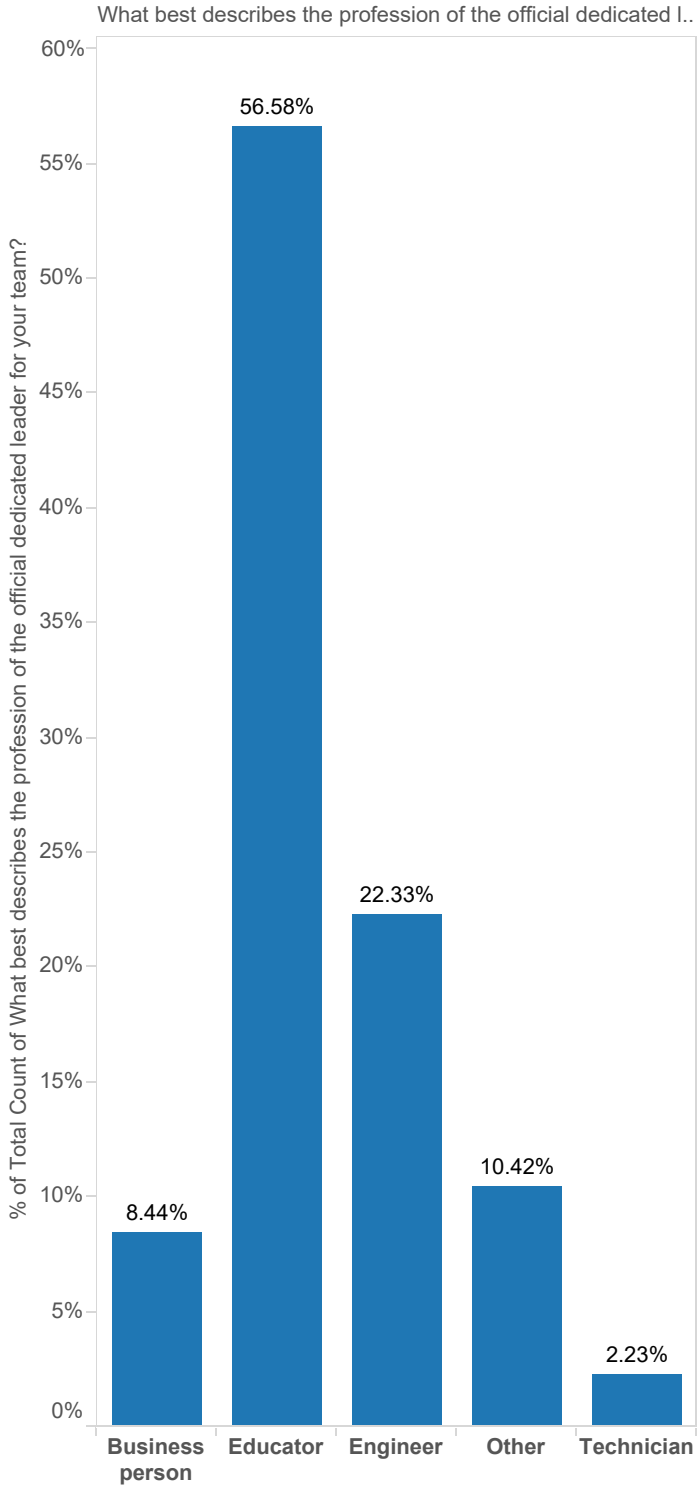
Average of How many years have you been on the team?. The marks are labeled by average of How many years have you been on the team?.

Demographics of Survey Taker (Position on Team)



% of Total Count of What relation do you have to the team? for each What relation do you have to the team?. The marks are labeled by % of Total Count of What relation do you have to the team?.

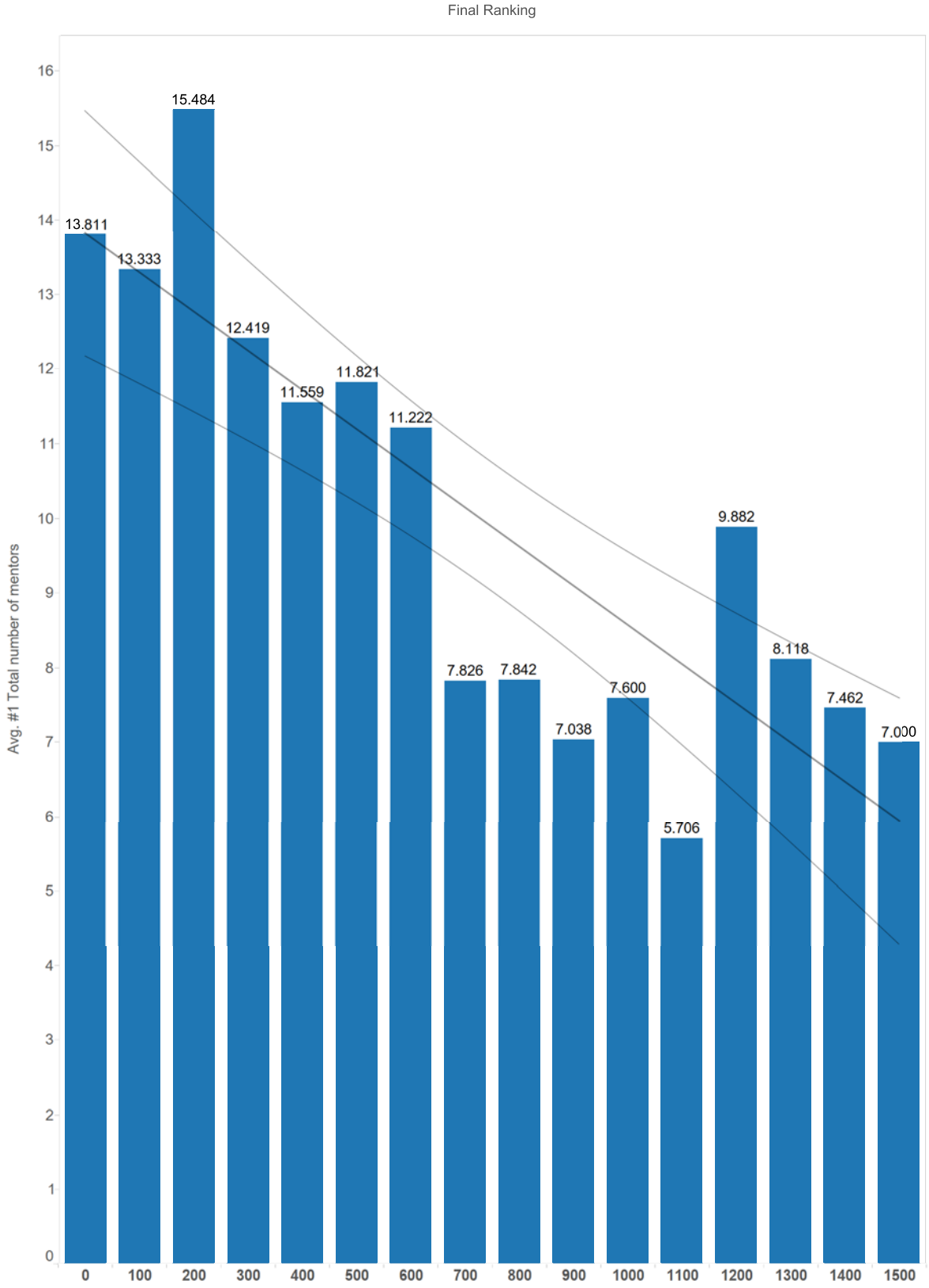
Demographics of Team (Team Leader)



% of Total Count of What best describes the profession of the official dedicated leader for your team? for each What best describes the profession of the official dedicated leader for your team?. The marks are labeled by % of Total Count of What best describes the profession of the official dedicated leader for your team?.

Appendix C: Graphs

Number of mentors (Final)



Trend Lines Model

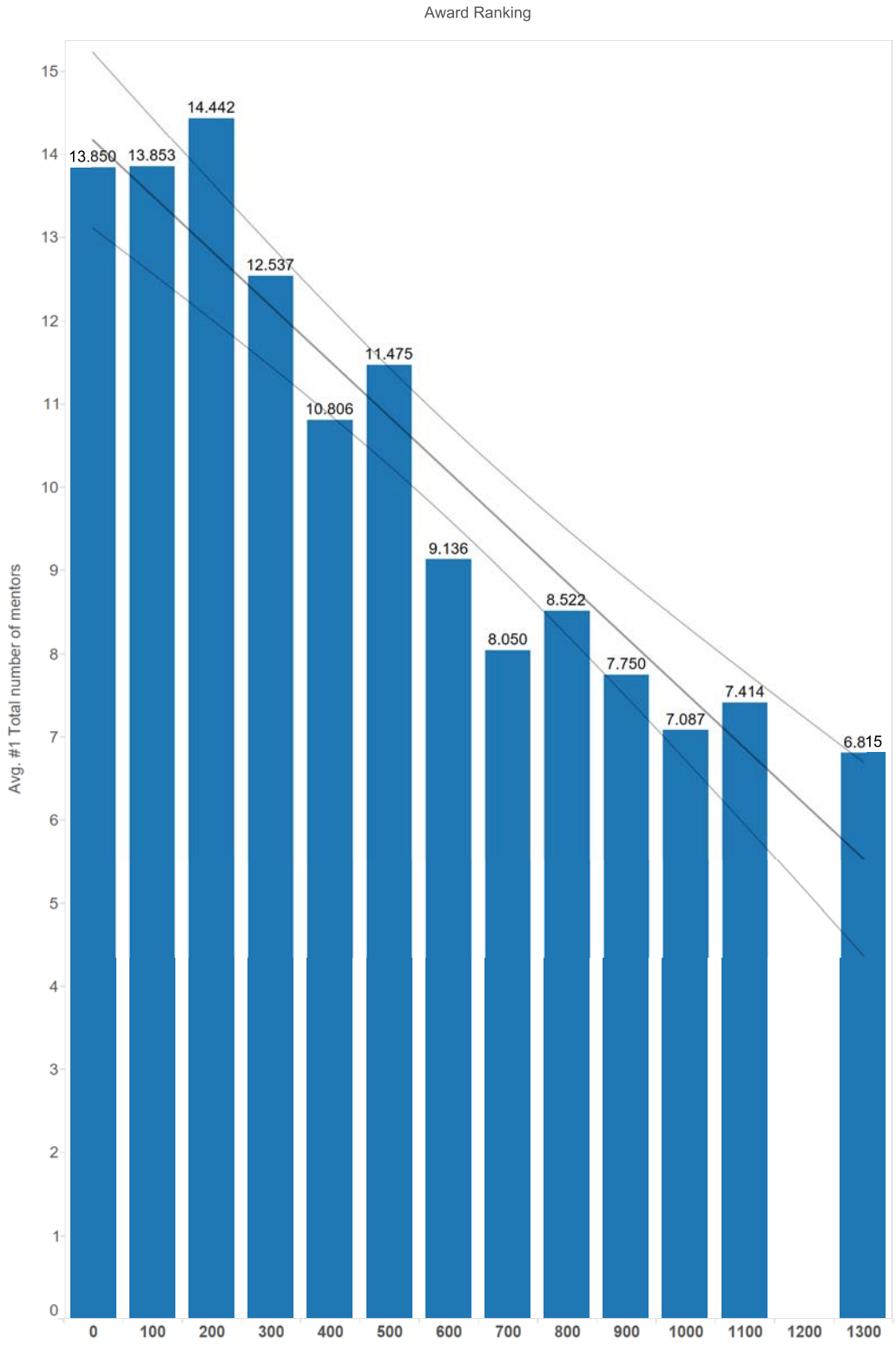
A linear trend model is computed for average of #1 Total number of mentors given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)

Number of modeled observations: 16

Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 36.2365
MSE (mean squared error): 2.58832
R-Squared: 0.72111
Standard error: 1.60883
p-value (significance): < 0.0001

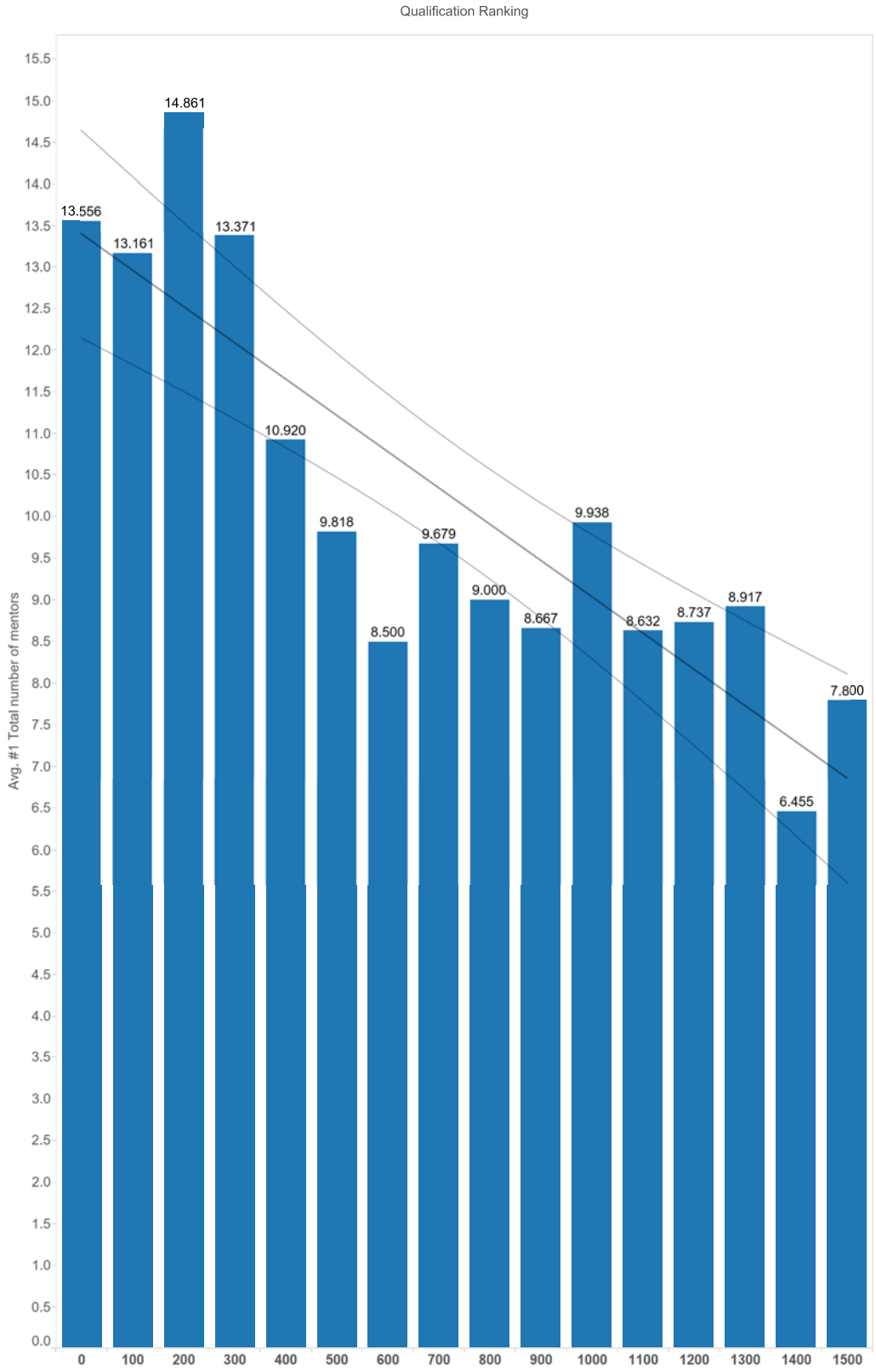
Number of mentors (Awards)



Trend Lines Model
A linear trend model is computed for average of #1 Total number of mentors given Award Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Award Rank (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 1
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 9.50745
MSE (mean squared error): 0.864314
R-Squared: 0.900489
Standard error: 0.929685
p-value (significance): < 0.0001

Number of mentors (Qual)

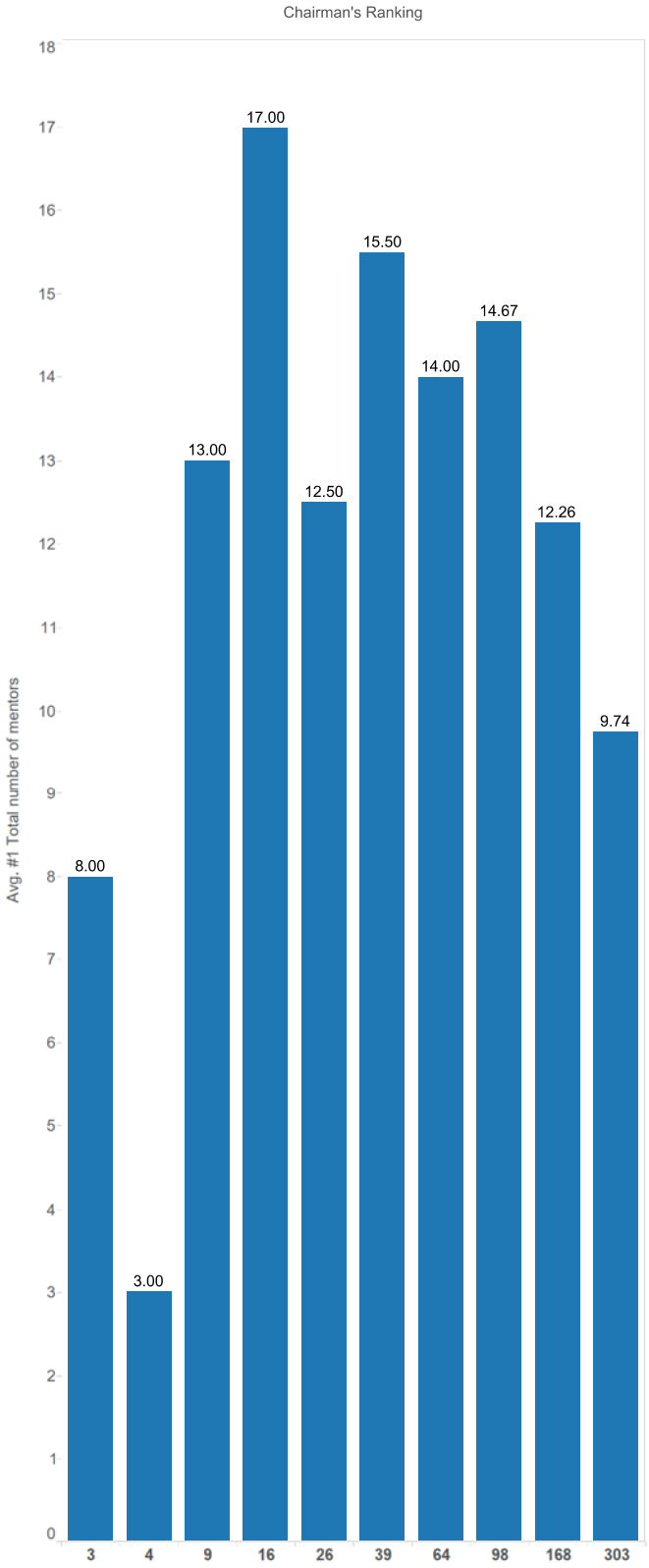


Trend Lines Model

A linear trend model is computed for average of #1 Total number of mentors given Quals Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Quals Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 20.9264
MSE (mean squared error): 1.49474
R-Squared: 0.755094
Standard error: 1.2226
p-value (significance): < 0.0001

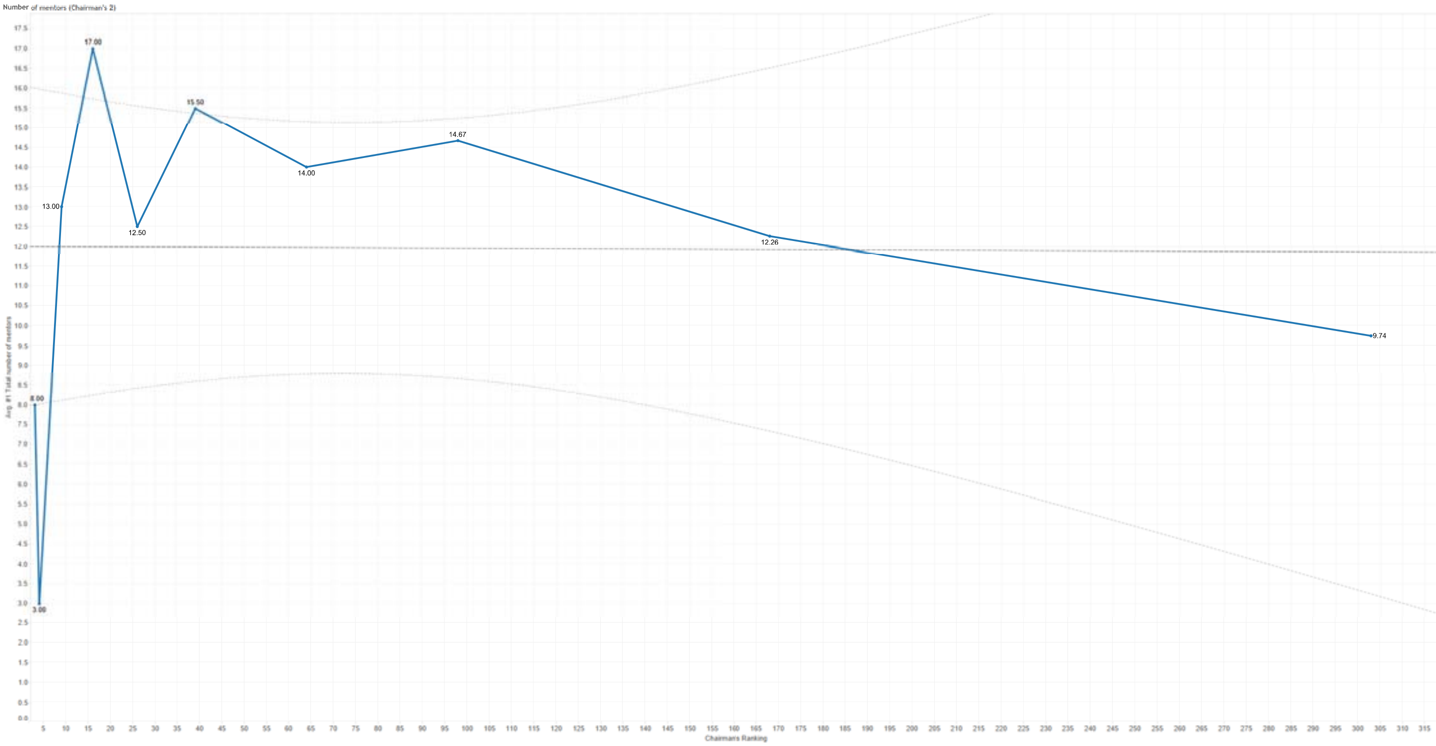
Number of mentors (Chairman's)



Trend Lines Model
A linear trend model is computed for average of #1 Total number of mentors given Chairman's Rank.

Model formula: (Chairman's Rank + intercept)
Number of modeled observations: 10
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 8
SSE (sum squared error): 151.753
MSE (mean squared error): 18.9691
R-Squared: 0.0001101
Standard error: 4.35536
p-value (significance): 0.977053

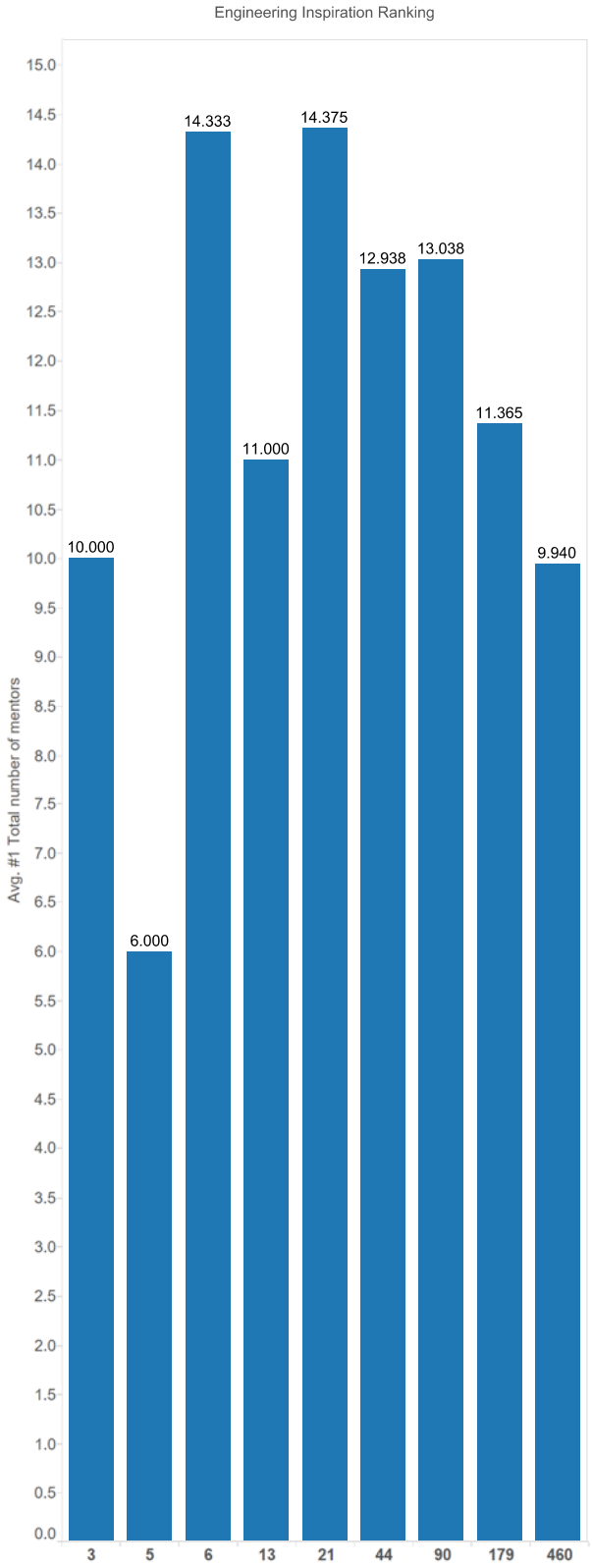
Number of mentors (Chairman's 2)



Trend Lines Model
A linear trend model is computed for average of #1 Total number of mentors given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 36.2365
MSE (mean squared error): 2.58832
R-Squared: 0.72111
Standard error: 1.60883
p-value (significance): < 0.0001

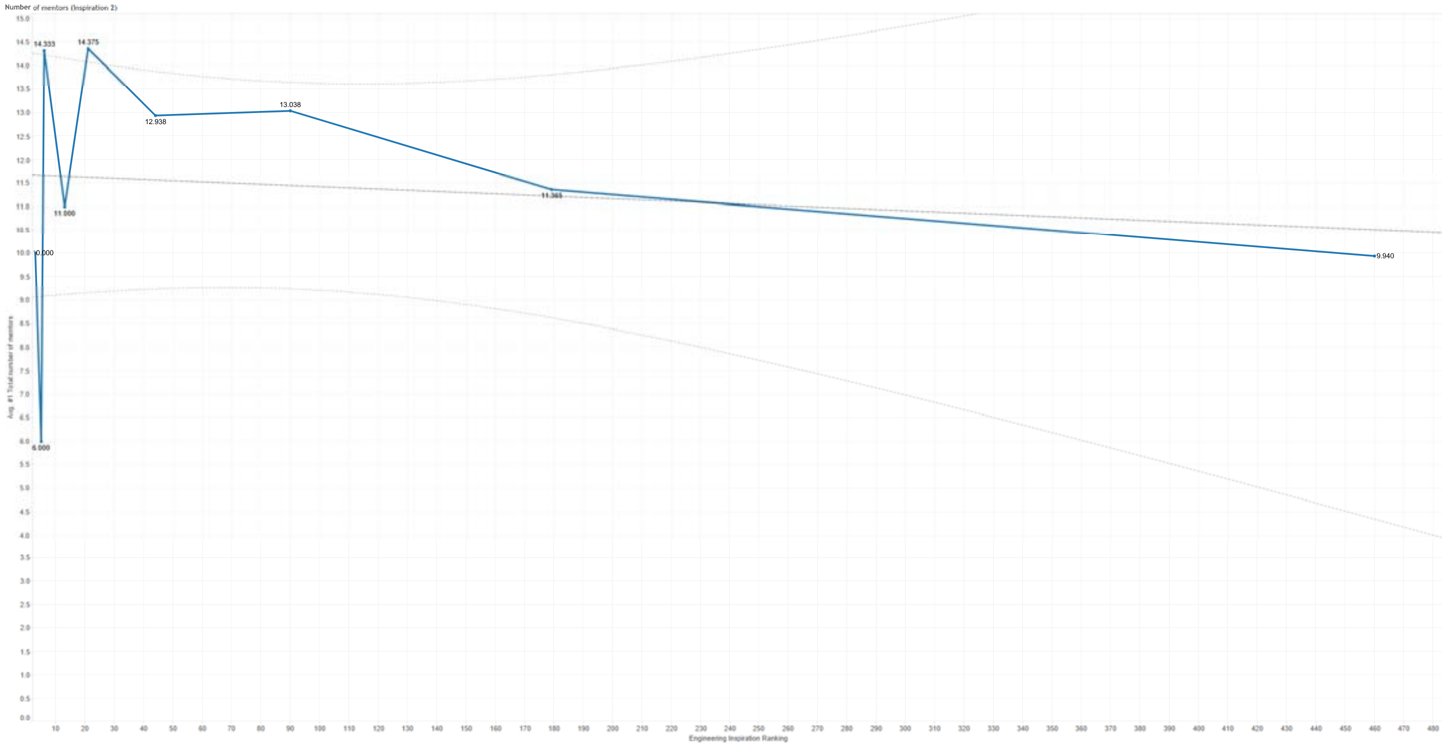
Number of mentors (Inspiration)



Trend Lines Model
A linear trend model is computed for average of #1 Total number of mentors given Inspiration Rank.

Model formula: (Inspiration Rank + intercept)
Number of modeled observations: 9
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 7
SSE (sum squared error): 54.7482
MSE (mean squared error): 7.82117
R-Squared: 0.0206106
Standard error: 2.79663
p-value (significance): 0.712511

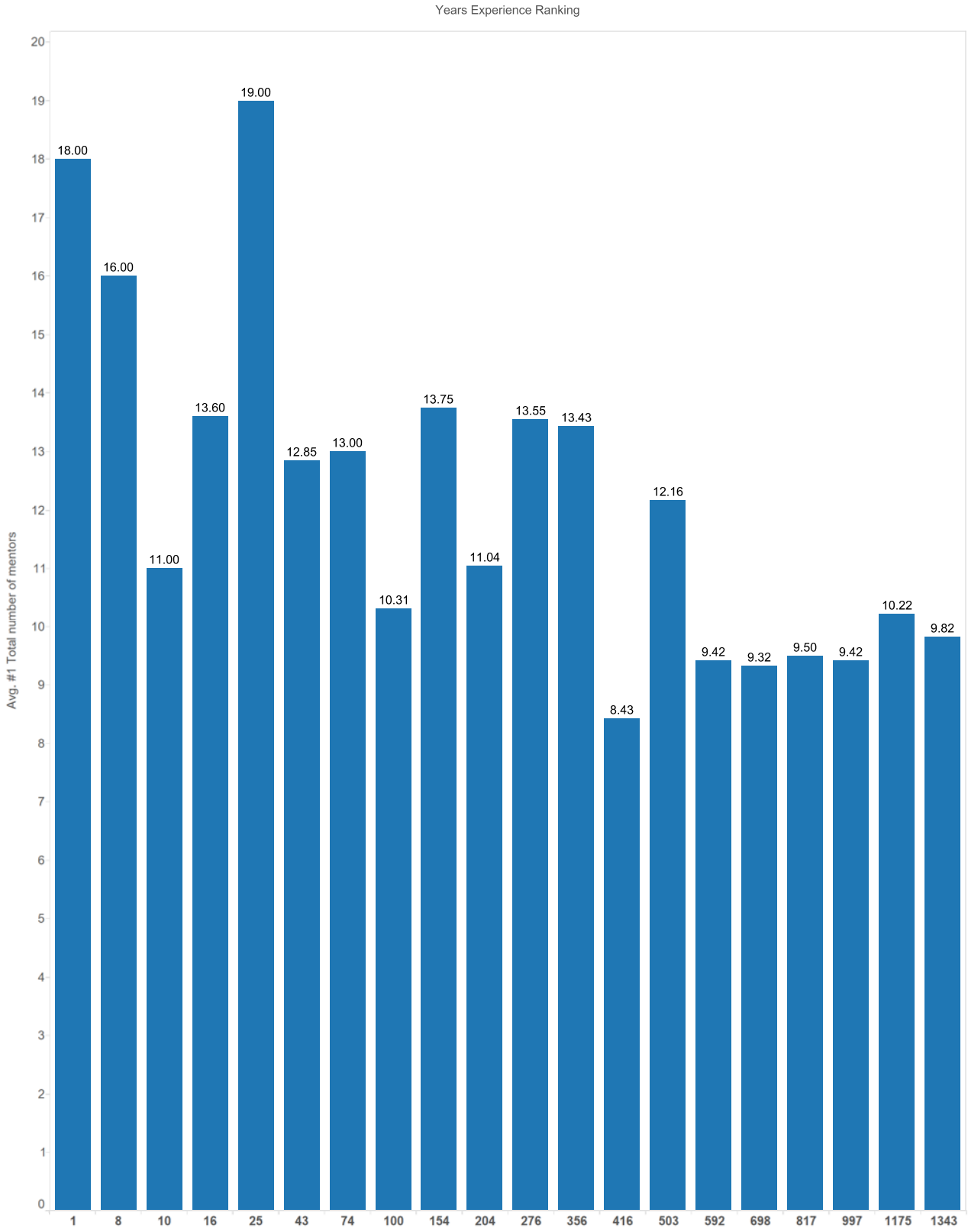
Number of mentors (Inspiration 2)



Trend Lines Model
A linear trend model is computed for average of #1 Total number of mentors given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 36.2365
MSE (mean squared error): 2.58832
R-Squared: 0.72111
Standard error: 1.60883
p-value (significance): < 0.0001

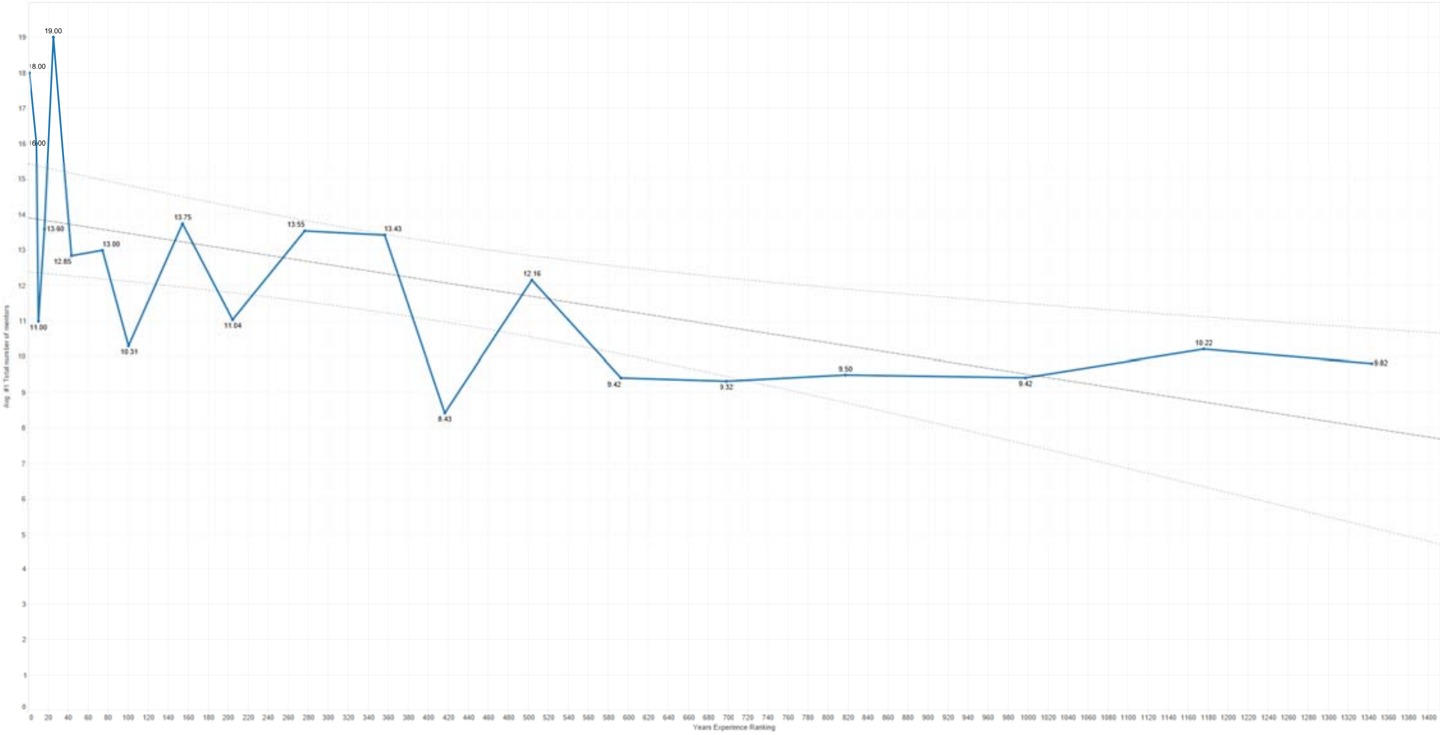
Number of mentors (Years)



Trend Lines Model
A linear trend model is computed for average of #1 Total number of mentors given Years Rank. The model may be significant at p <= 0.05.

Model formula: (Years Rank + intercept)
Number of modeled observations: 20
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 18
SSE (sum squared error): 99.3224
MSE (mean squared error): 5.51791
R-Squared: 0.395292
Standard error: 2.34902
p-value (significance): 0.0029848

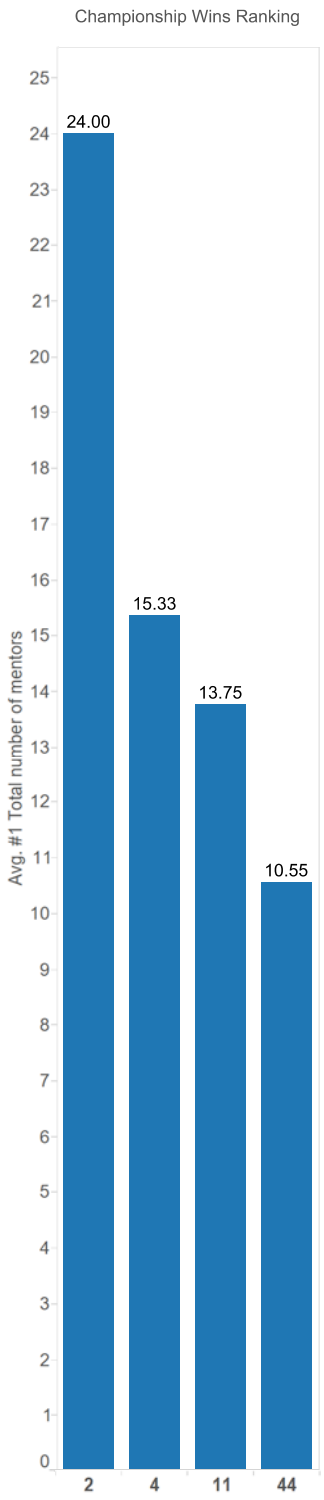
Number of mentors (Years 2)



Trend Lines Model
A linear trend model is computed for average of #1 Total number of mentors given Final Rank (bin). The model may be significant at p <= 0.05.

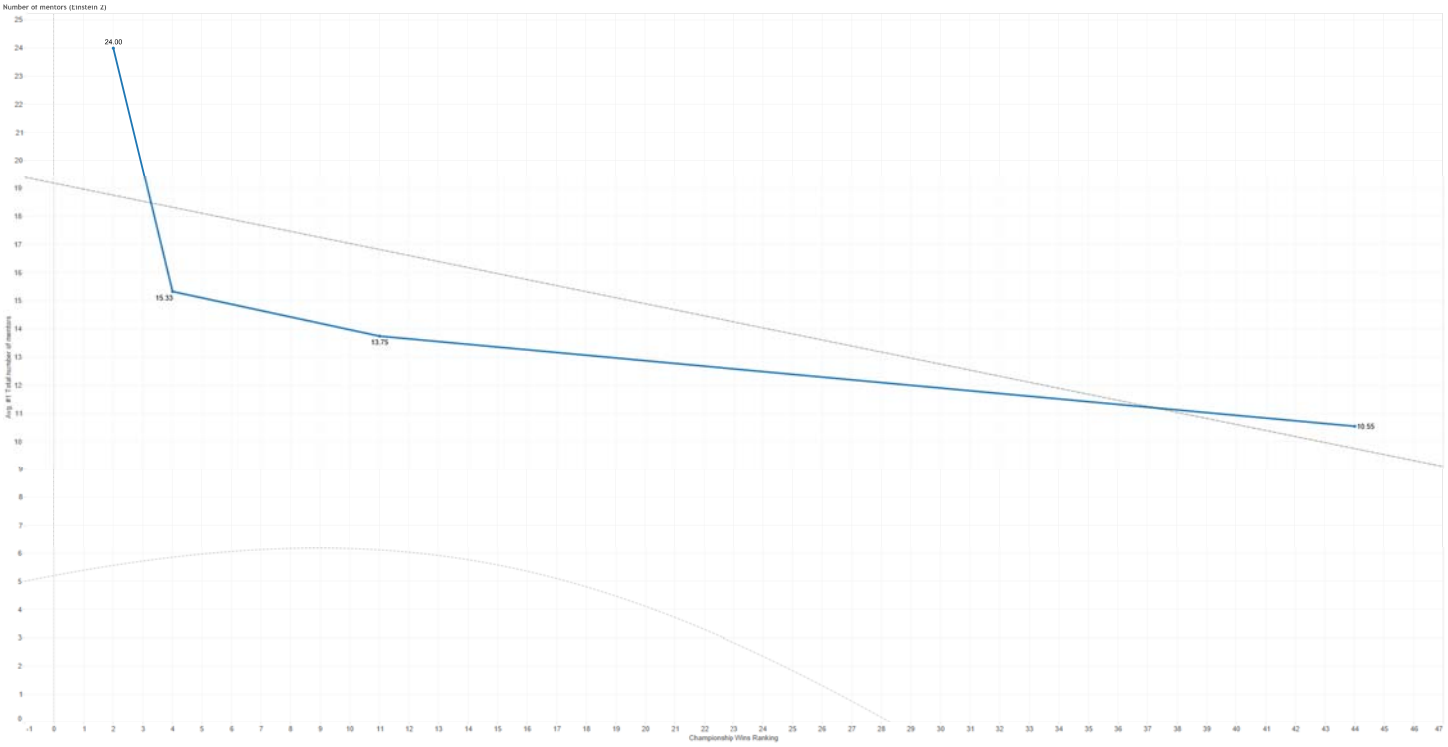
Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 36.2365
MSE (mean squared error): 2.58832
R-Squared: 0.72111
Standard error: 1.60883
p-value (significance): < 0.0001

Number of mentors (Einstein)



Trend Lines Model
A linear trend model is computed for average of #1 Total number of mentors given Einstein Rank.

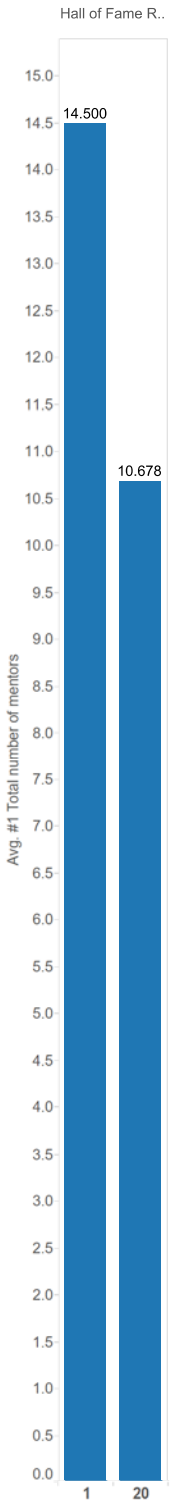
Model formula: (Einstein Rank + intercept)
Number of modeled observations: 4
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 2
SSE (sum squared error): 46.5659
MSE (mean squared error): 23.2829
R-Squared: 0.530438
Standard error: 4.82524
p-value (significance): 0.271688



Trend Lines Model
A linear trend model is computed for average of #1 Total number of mentors given Final Rank (bin). The model may be significant at p <= 0.05.

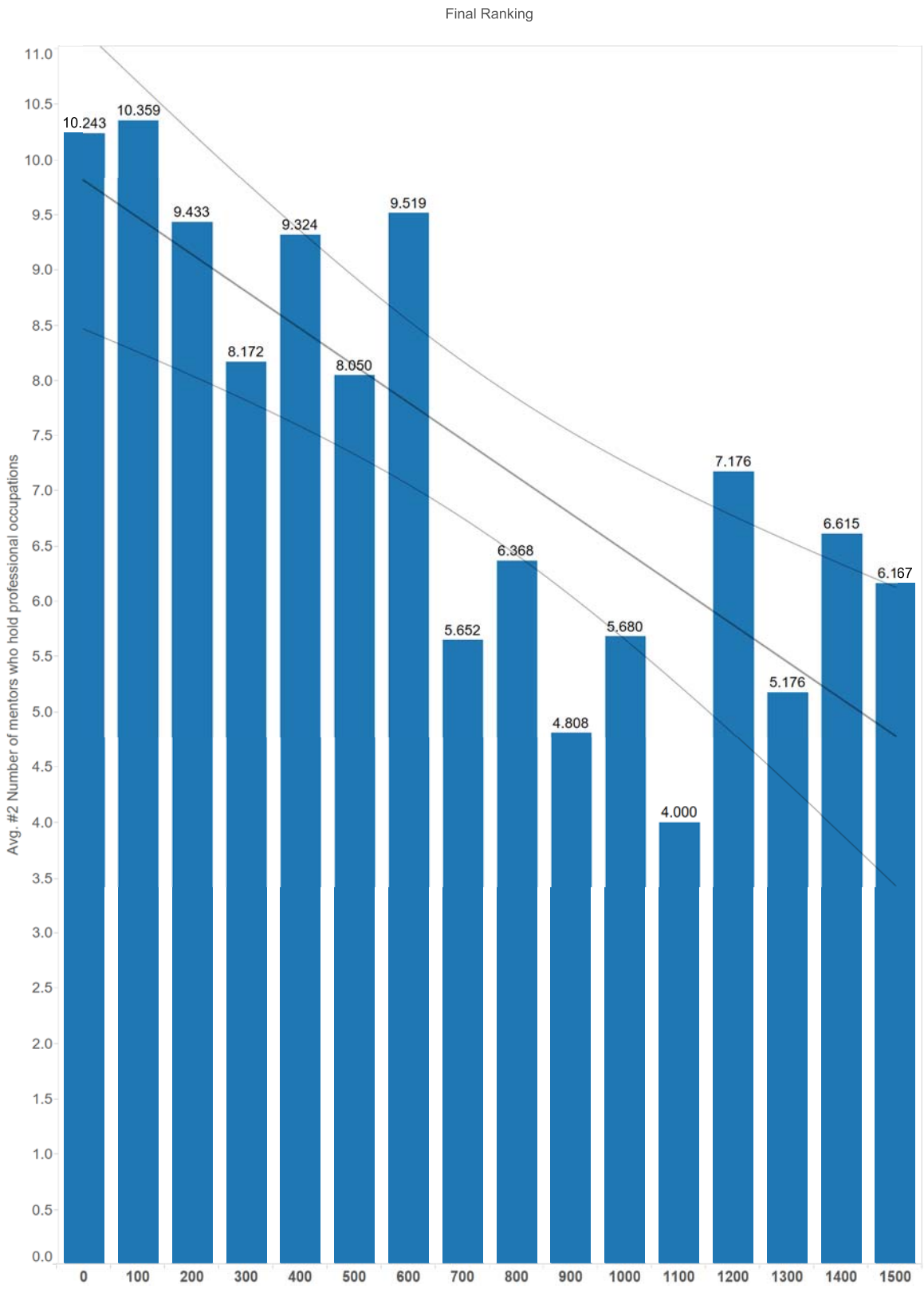
Model formula: (Final Rank (bin) ~ intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 36.1365
MSE (mean squared error): 2.58832
RMSE (error): 1.60883
Standard error: 1.60883
p-value (significance): < 0.0001

Number of mentors (Hall of Fame)



Trend Lines Model
A linear trend model is computed for average of #1 Total number of mentors given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 36.2365
MSE (mean squared error): 2.58832
R-Squared: 0.72111
Standard error: 1.60883
p-value (significance): < 0.0001

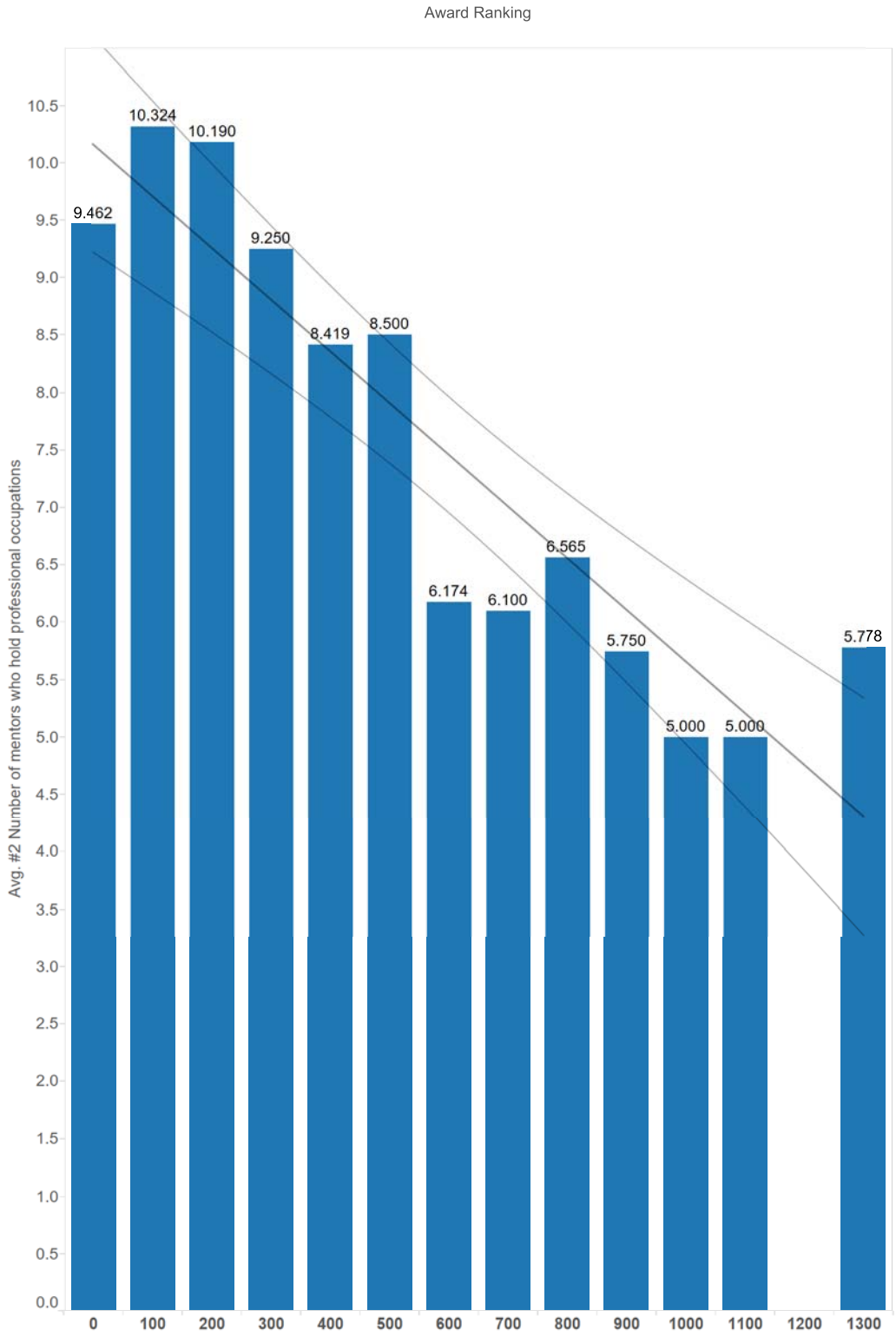


Trend Lines Model

A linear trend model is computed for average of #2 Number of mentors who hold professional occupations given Final Rank (bin). The model may be significant at p <= 0.05.

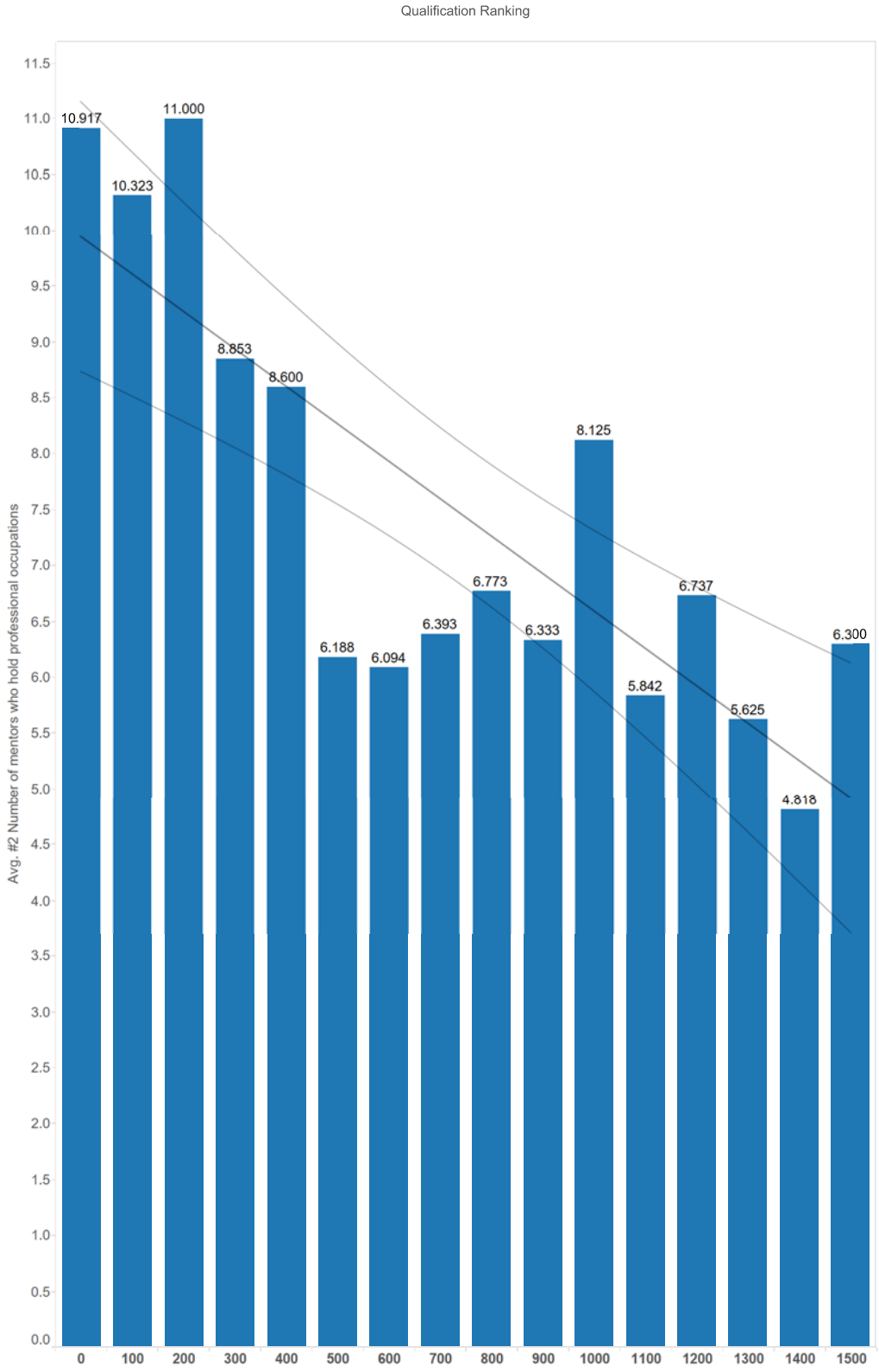
Model formula: (Final Rank (bin) + intercept)

Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 24.2291
MSE (mean squared error): 1.73065
R-Squared: 0.612322
Standard error: 1.31554
p-value (significance): 0.0003397



Trend Lines Model
A linear trend model is computed for average of #2 Number of mentors who hold professional occupations given Award Rank (bin). The model may be significant at p <= 0.05.

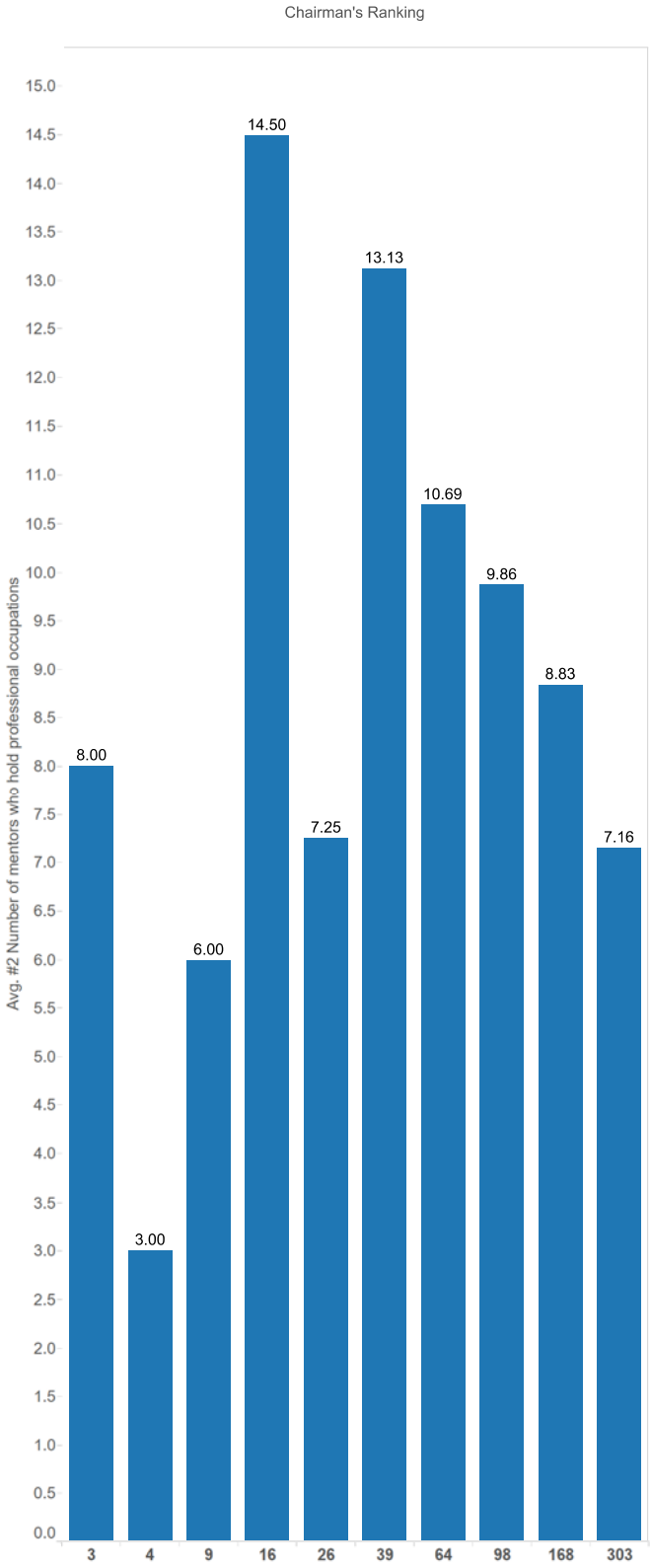
Model formula: (Award Rank (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 7.52107
MSE (mean squared error): 0.683733
R-Squared: 0.840018
Standard error: 0.826882
p-value (significance): < 0.0001



Trend Lines Model
A linear trend model is computed for average of #2 Number of mentors who hold professional occupations given Quals Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Quals Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 19.4887
MSE (mean squared error): 1.39205
R-Squared: 0.661323
Standard error: 1.17985
p-value (significance): 0.0001278

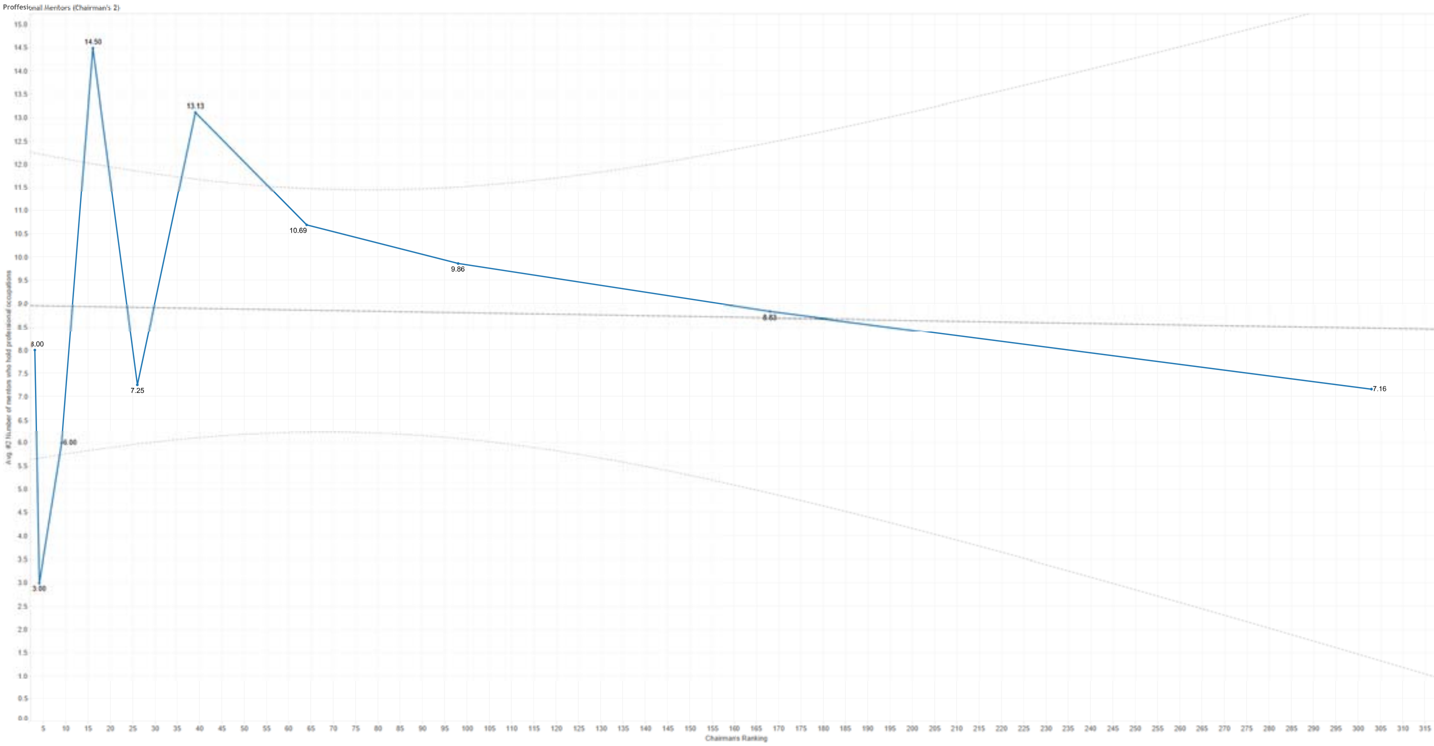
Proffesional Mentors (Chairman's)



Trend Lines Model
A linear trend model is computed for average of #2 Number of mentors who hold professional occupations given Chairman's Rank.

Model formula: (Chairman's Rank + intercept)
Number of modeled observations: 10
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 8
SSE (sum squared error): 102.907
MSE (mean squared error): 12.8634
R-Squared: 0.0019341
Standard error: 3.58655
p-value (significance): 0.903983

Proffesional Mentors (Chairman's 2)



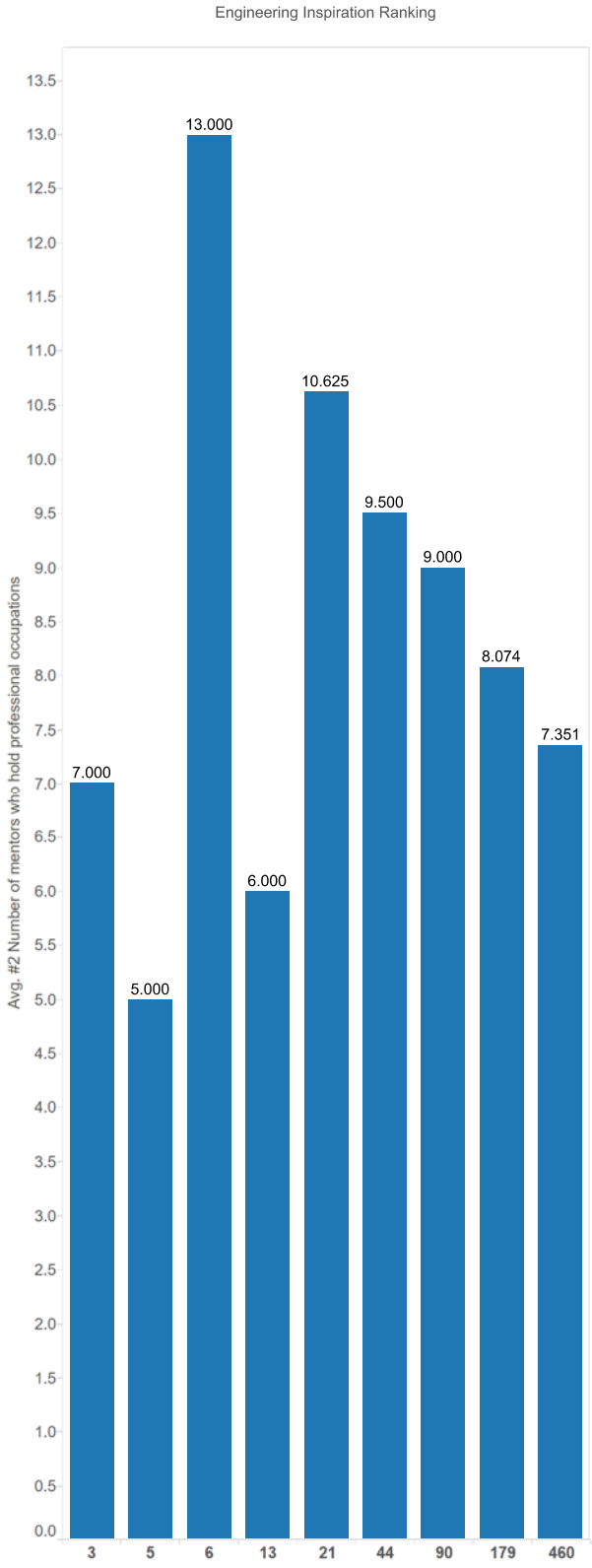
<u>Trend Lines Model</u>

A linear trend model is computed for average of #2 Number of mentors who hold professional occupations given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)

Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 24.2291
MSE (mean squared error): 1.73065
R-Squared: 0.612322
Standard error: 1.31554
p-value (significance): 0.0003397

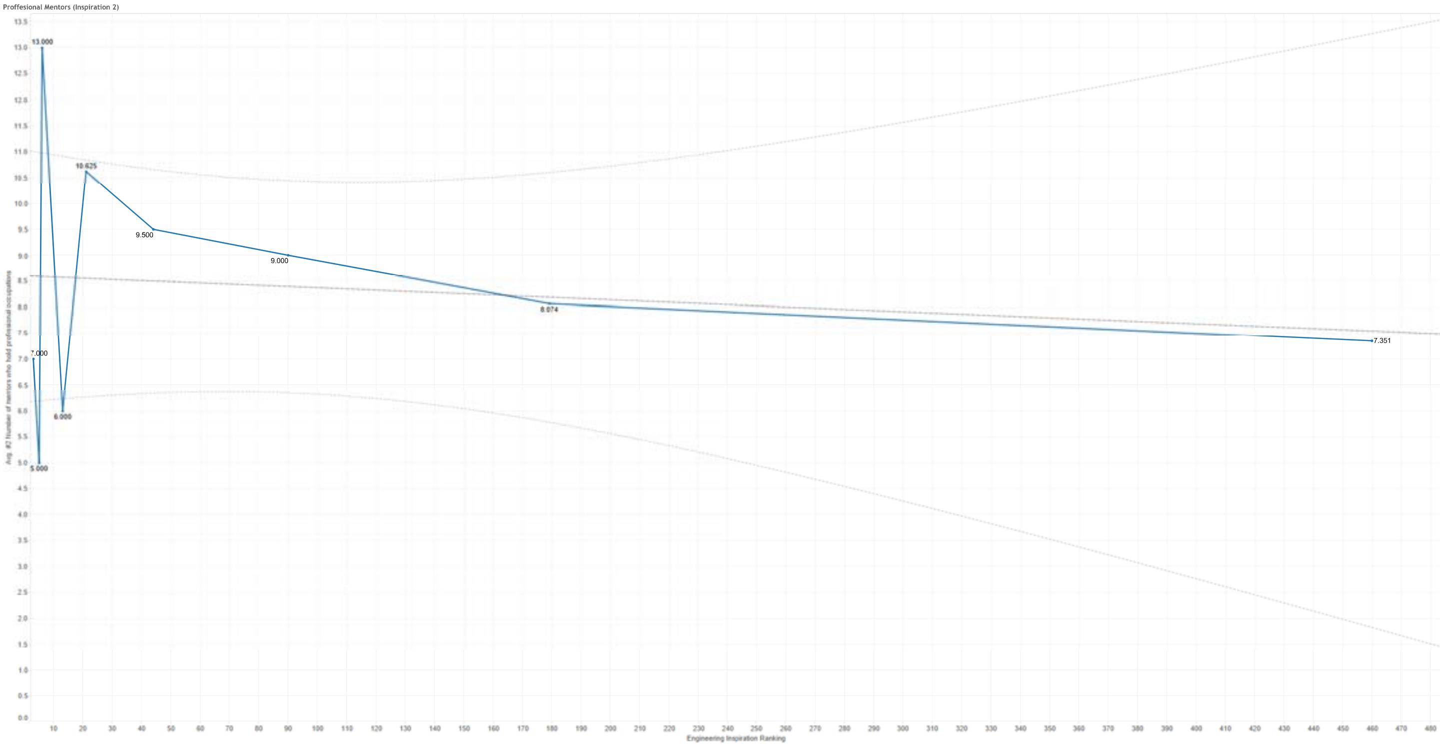
Proffesional Mentors (Inspiration)



Trend Lines Model
A linear trend model is computed for average of #2 Number of mentors who hold professional occupations given Inspiration Rank.

Model formula: (Inspiration Rank + intercept)
Number of modeled observations: 9
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 7
SSE (sum squared error): 47.2213
MSE (mean squared error): 6.7459
R-Squared: 0.0196466
Standard error: 2.59729
p-value (significance): 0.719089

Proffesional Mentors (Inspiration 2)



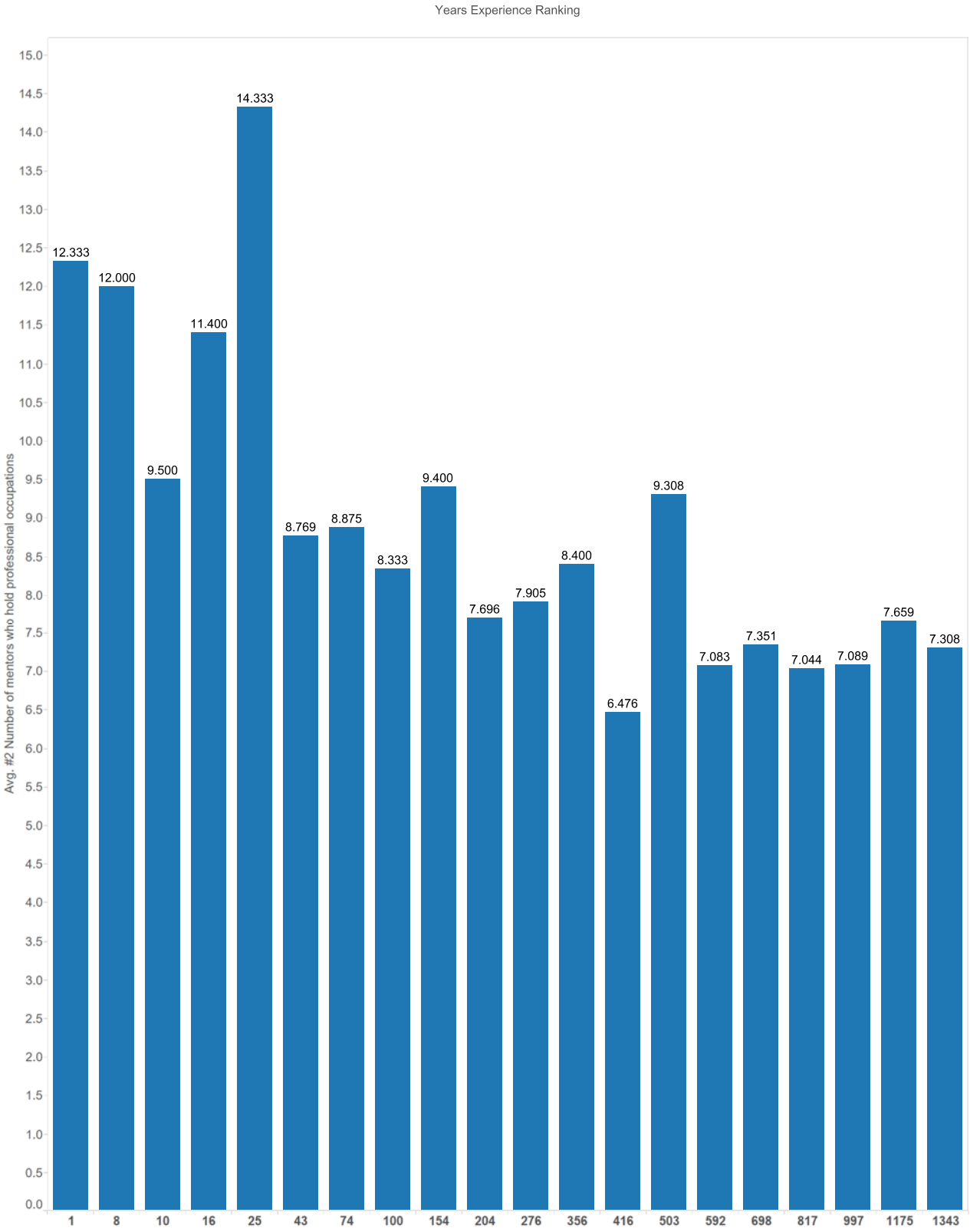
Trend Lines Model

A linear trend model is computed for average of #2 Number of mentors who hold professional occupations given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)

Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 24.2291
MSE (mean squared error): 1.73065
R-Squared: 0.612322
Standard error: 1.31554
p-value (significance): 0.0003397

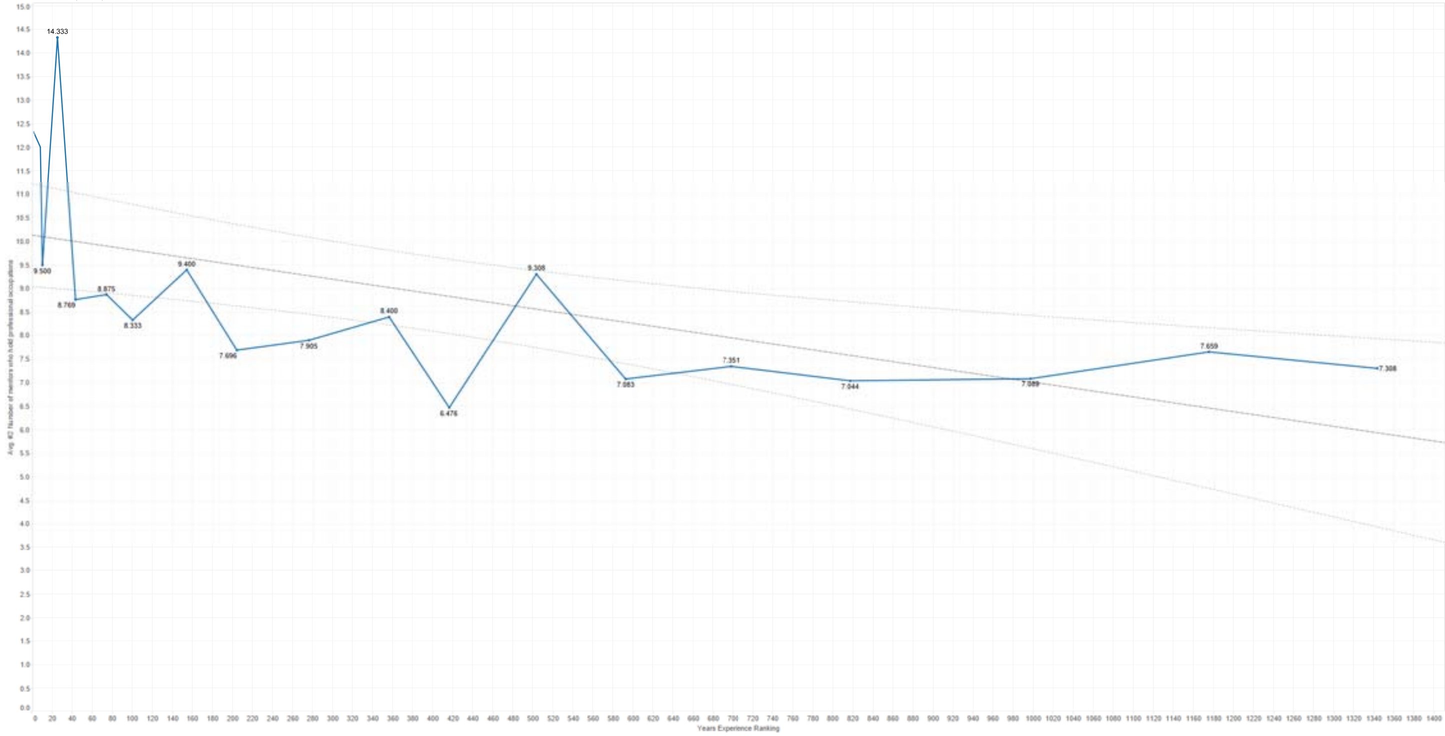
Proffesional Mentors (Years)



Trend Lines Model
A linear trend model is computed for average of #2 Number of mentors who hold professional occupations given Years Rank. The model may be significant at p <= 0.05.

Model formula: (Years Rank + intercept)
Number of modeled observations: 20
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 18
SSE (sum squared error): 50.6854
MSE (mean squared error): 2.81586
R-Squared: 0.391858
Standard error: 1.67805
p-value (significance): 0.0031519

Proffesional Mentors (Years 2)

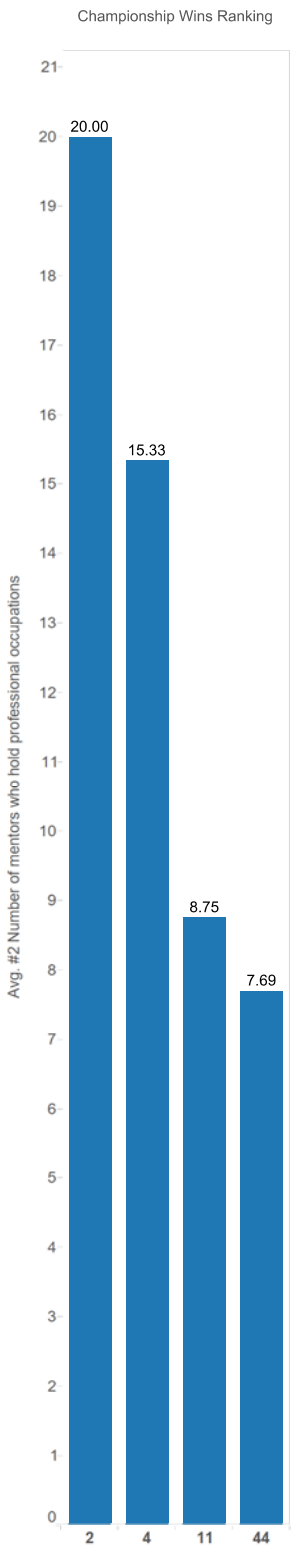


Trend Lines Model

A linear trend model is computed for average of #2 Number of mentors who hold professional occupations given Final Rank (bin). The model may be significant at p <= 0.05.

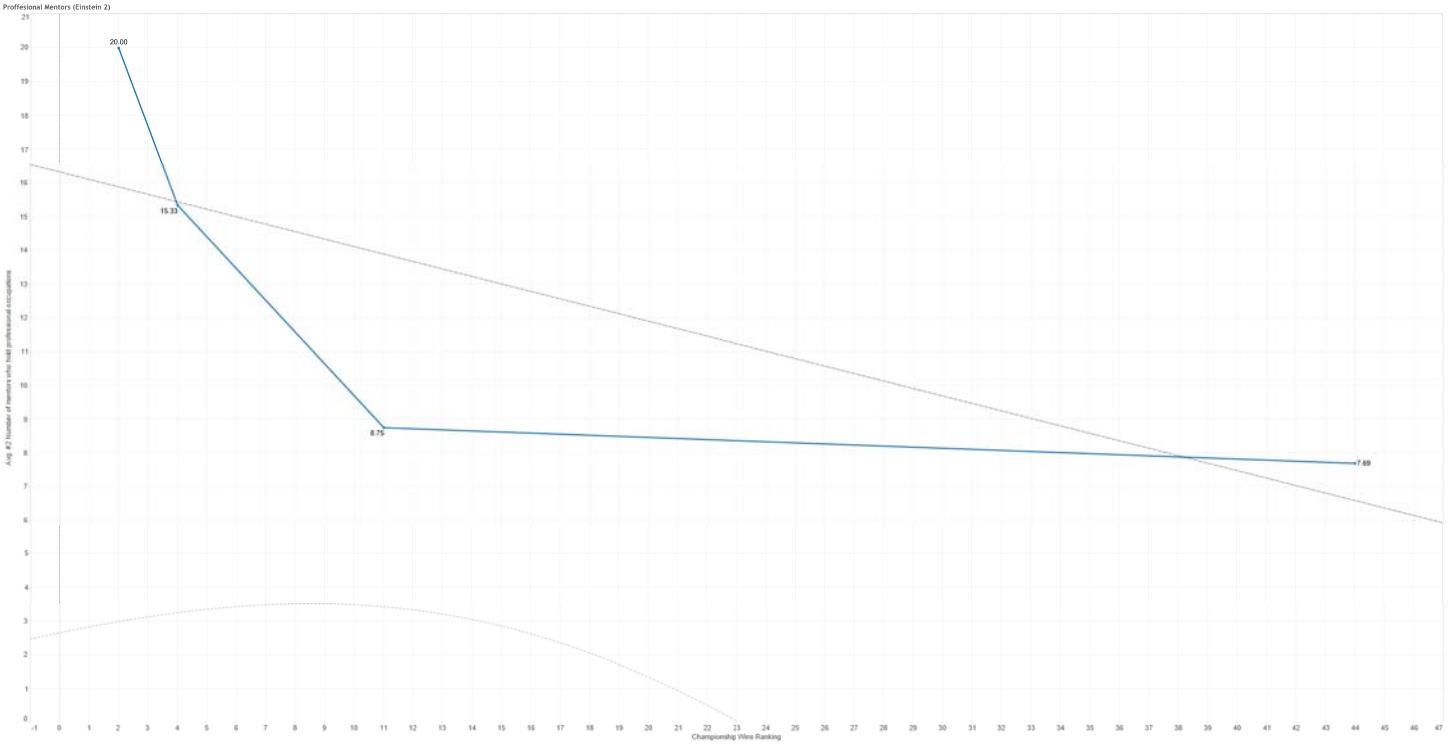
Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 24.2291
MSE (mean squared error): 1.73065
R-Squared: 0.612322
Standard error: 1.31554
p-value (significance): 0.0003397

Proffesional Mentors (Einsein)



Trend Lines Model
A linear trend model is computed for average of #2 Number of mentors who hold professional occupations given Einstein Rank.

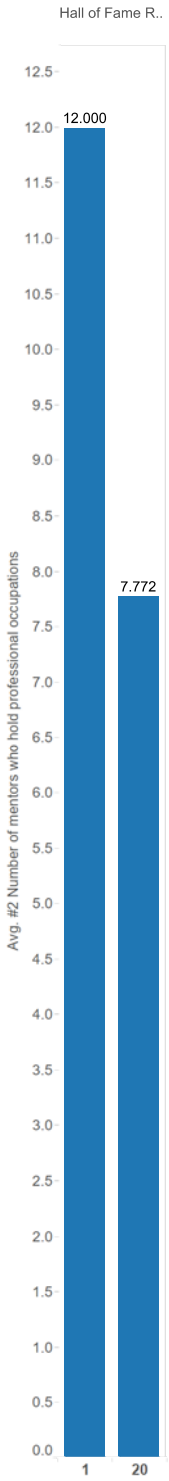
Model formula: (Einstein Rank + intercept)
Number of modeled observations: 4
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 2
SSE (sum squared error): 44.6174
MSE (mean squared error): 22.3087
R-Squared: 0.556676
Standard error: 4.72321
p-value (significance): 0.253893



Trend Lines Model
A linear trend model is computed for average of #2 Number of mentors who hold professional occupations given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 14
Residual degrees of freedom (DF): 14
SSE (sum squared error): 24.229
MSE (error squared error): 1.73065
R-Squared: 0.612322
Standard error: 1.31584
p value (significance): 0.0003297

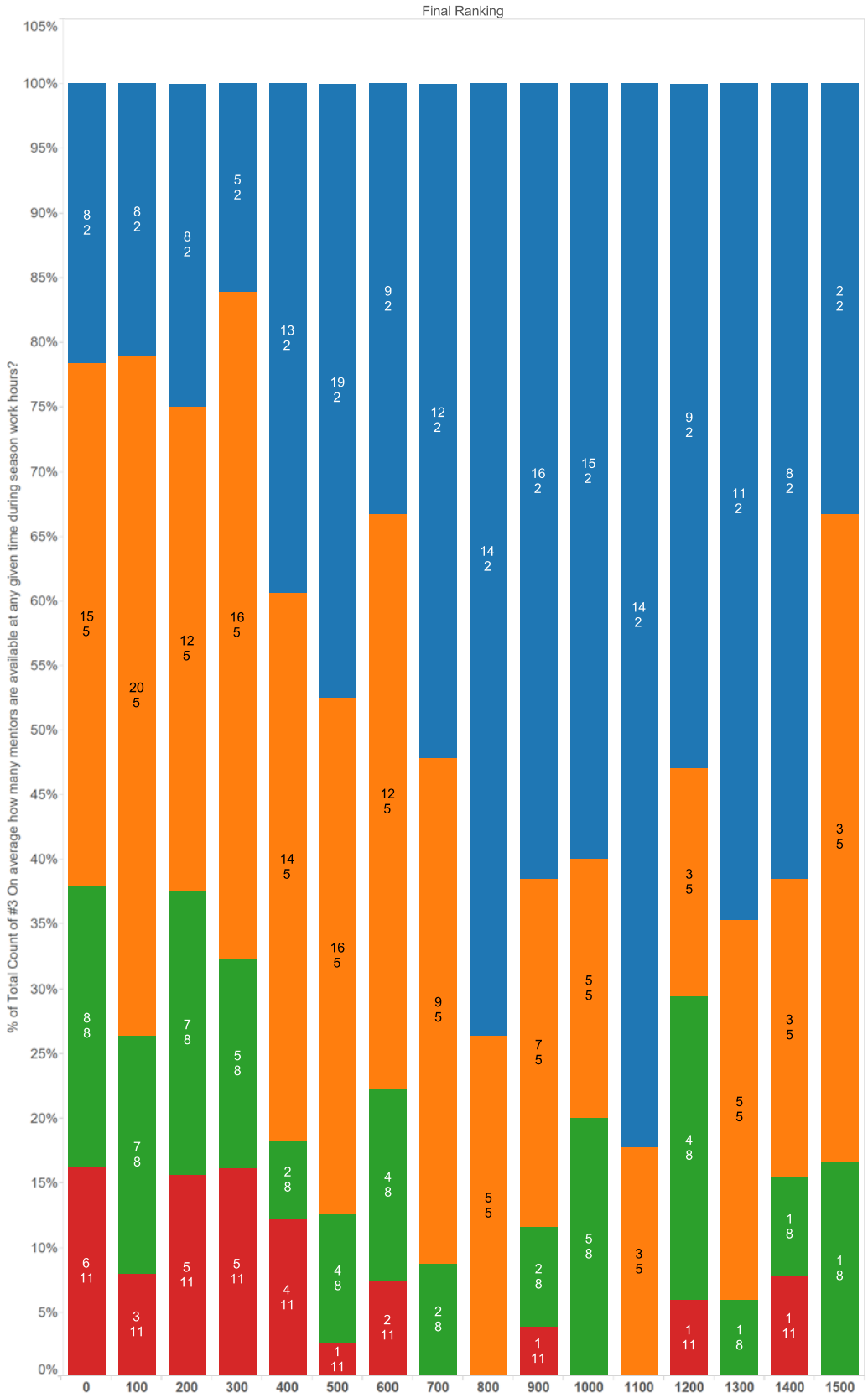
Proffesional Mentors (Hall of Fame)



Trend Lines Model
A linear trend model is computed for average of #2 Number of mentors who hold professional occupations given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 24.2291
MSE (mean squared error): 1.73065
R-Squared: 0.612322
Standard error: 1.31554
p-value (significance): 0.0003397

Mentor Availability (Final)

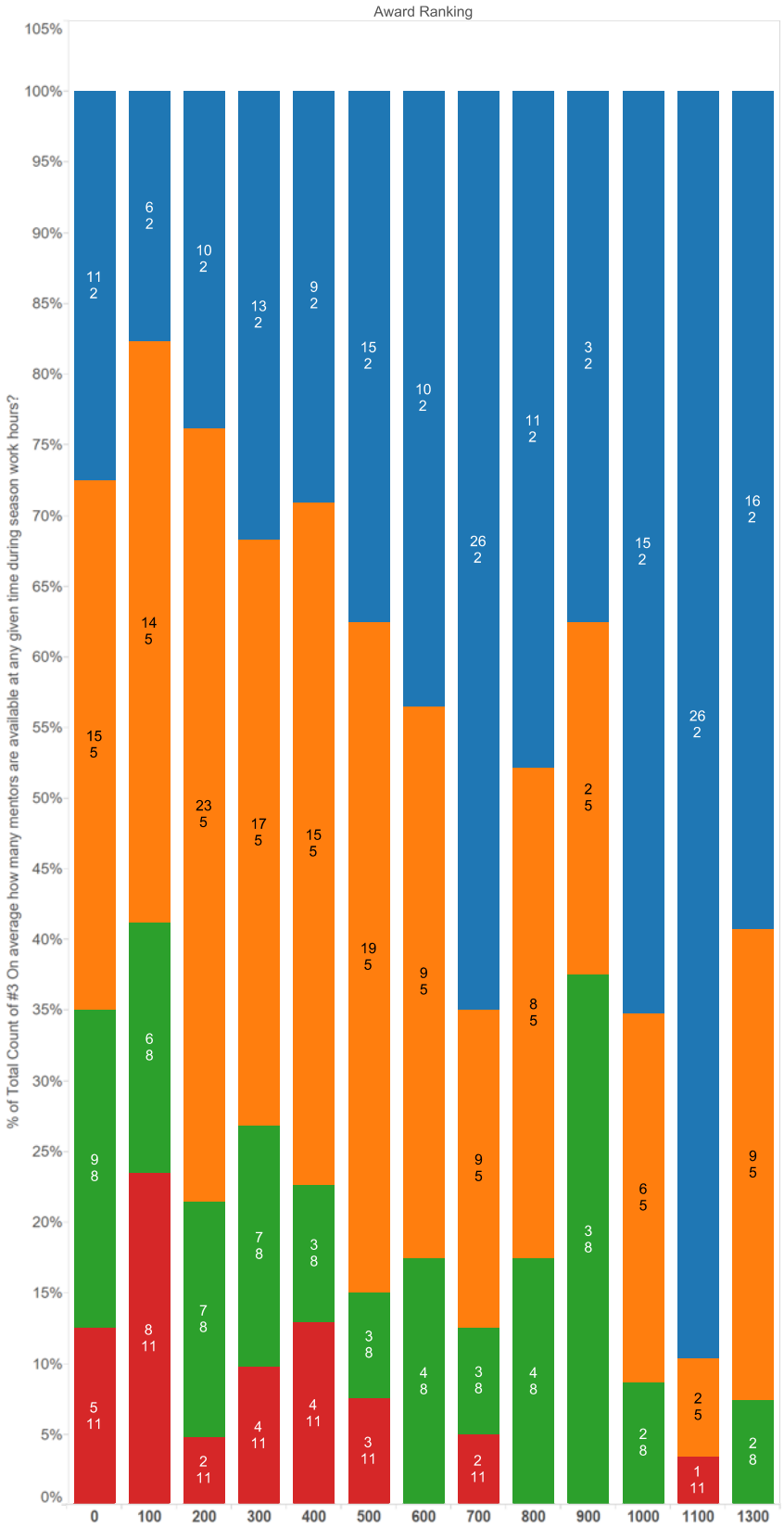


% of Total Count of #3 On average how many mentors are available at any given time during season work hours? for each Final Ranking. Color shows details about #3 On average how many mentors are available at any given time during season work hours?. The marks are labeled by count of #3 On average how many mentors are available at any given time during season work hours? and #3 On average how many mentors are available at any given time during season work hours?. The view is filtered on #3 On average how many mentors are available at any given time during season work hours?, which excludes Null.

#3 On average how many mentors are available at any given time during season work hours?

- 2
- 5
- 8
- 11

Mentor Availability (Awards)

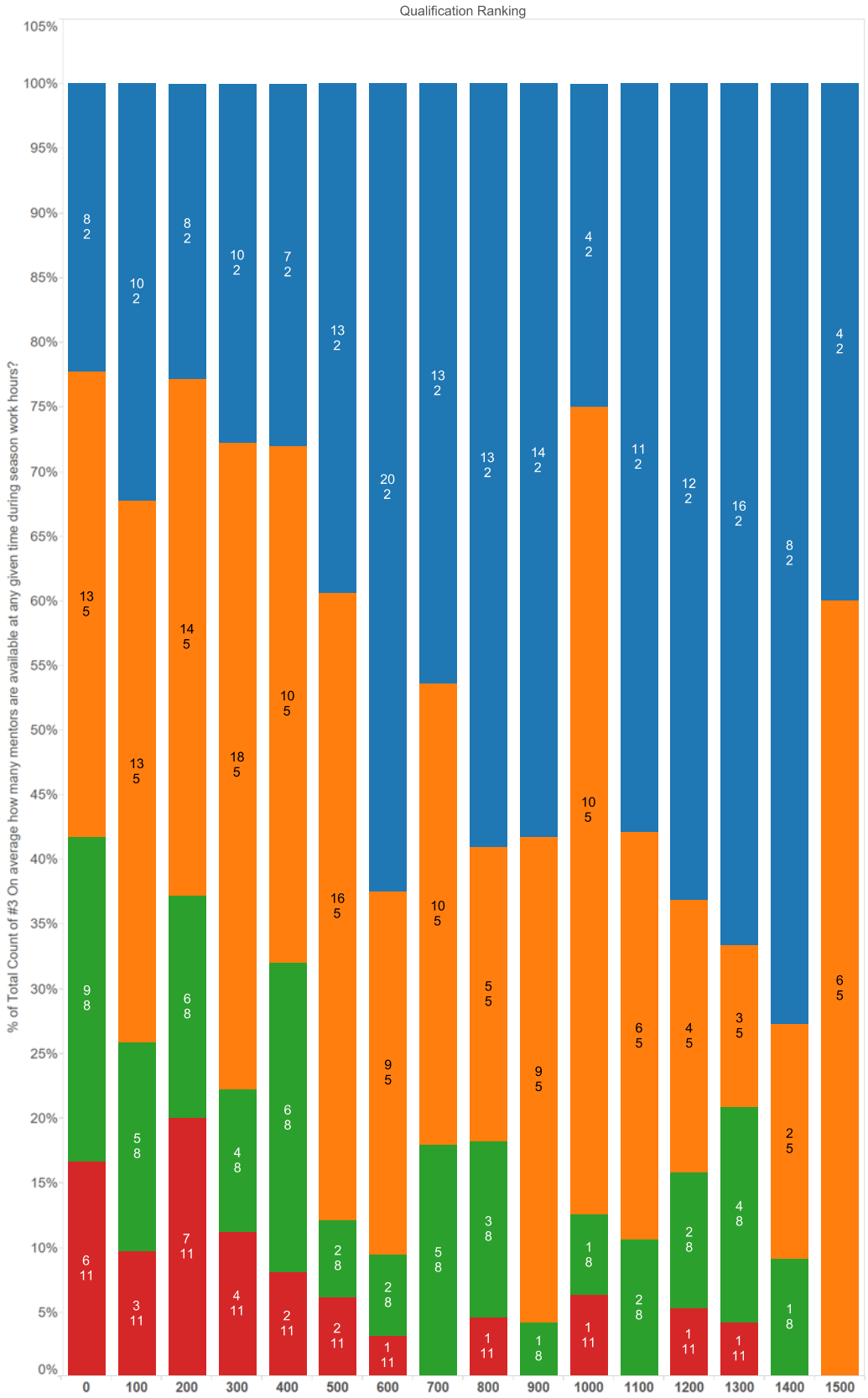


% of Total Count of #3 On average how many mentors are available at any given time during season work hours? for each Award Ranking. Color shows details about #3 On average how many mentors are available at any given time during season work hours?. The marks are labeled by count of #3 On average how many mentors are available at any given time during season work hours? and #3 On average how many mentors are available at any given time during season work hours?. The view is filtered on #3 On average how many mentors are available at any given time during season work hours?, which excludes Null.

#3 On average how many mentors are available at any given time during season work hours?

- 2
- 5
- 8
- 11

Mentor Availability (Quals)

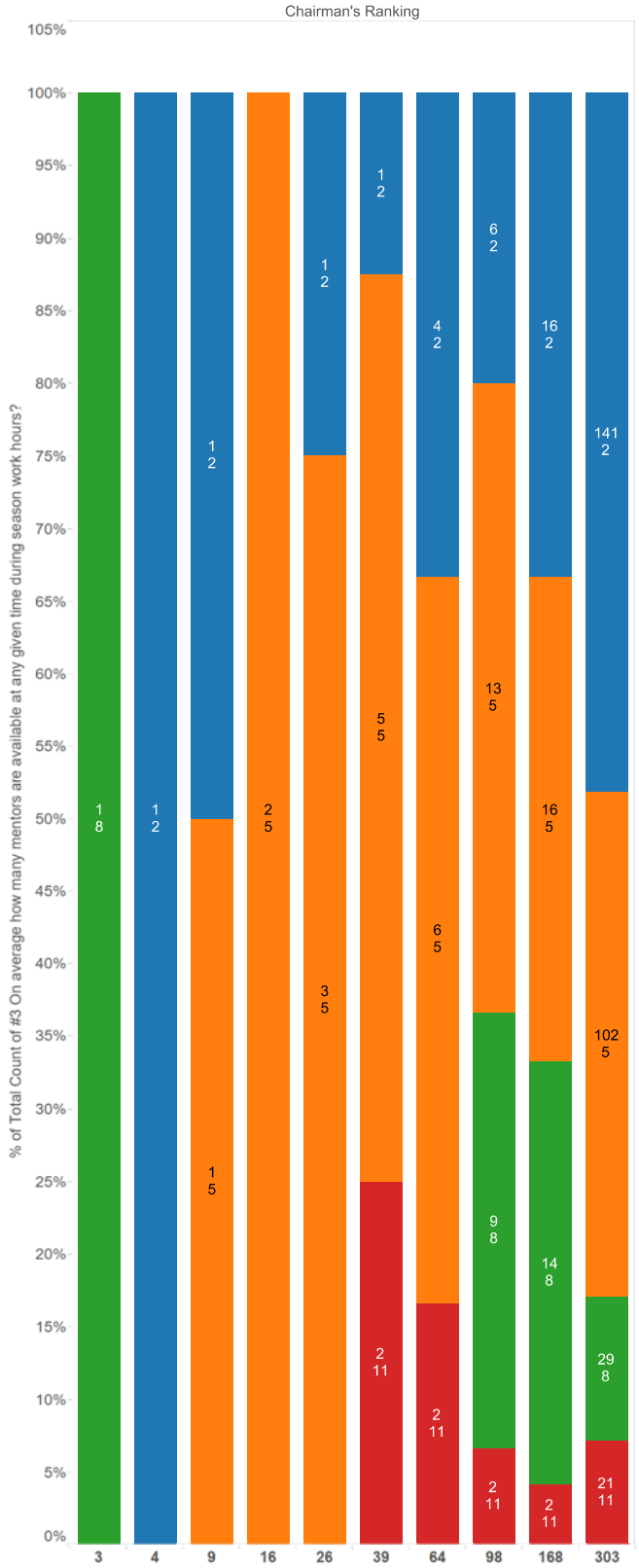


% of Total Count of #3 On average how many mentors are available at any given time during season work hours? for each Qualification Ranking. Color shows details about #3 On average how many mentors are available at any given time during season work hours?. The marks are labeled by count of #3 On average how many mentors are available at any given time during season work hours? and #3 On average how many mentors are available at any given time during season work hours?. The view is filtered on #3 On average how many mentors are available at any given time during season work hours?, which excludes Null.

#3 On average how many mentors are available at any given time during season work hours?

- 2
- 5
- 8
- 11

Mentor Availability (Chairman's)

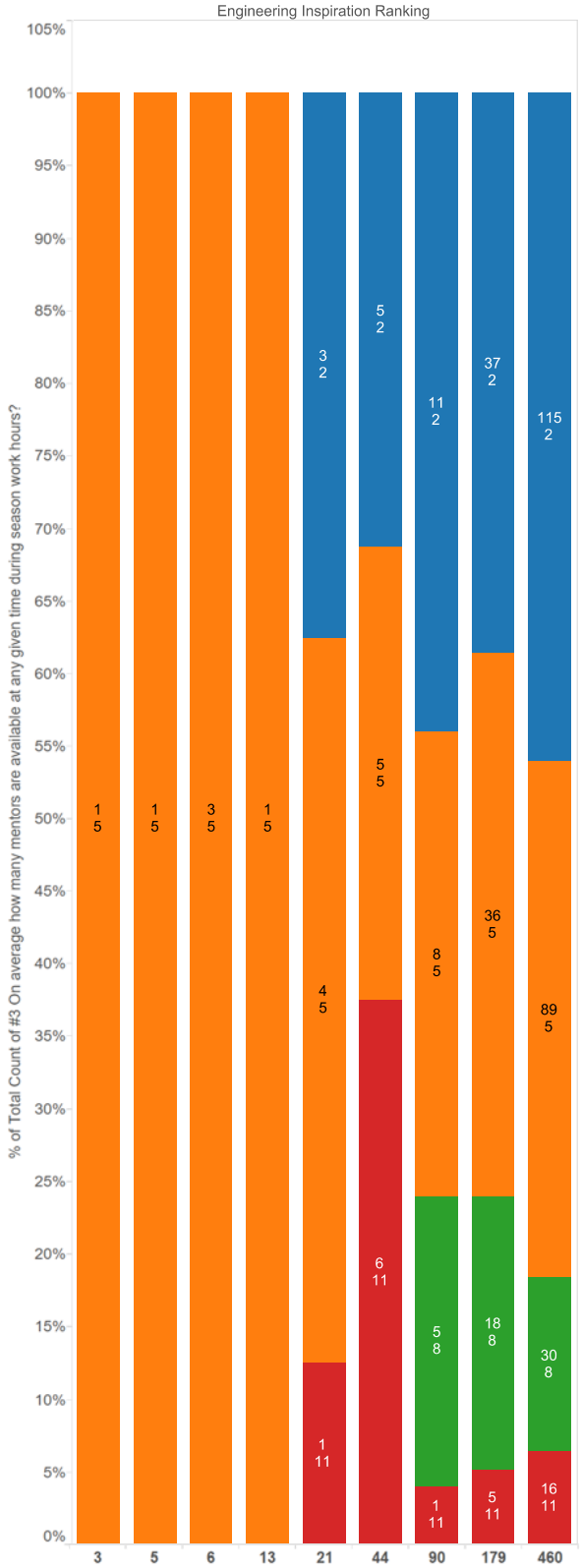


% of Total Count of #3 On average how many mentors are available at any given time during season work hours? for each Chairman's Ranking. Color shows details about #3 On average how many mentors are available at any given time during season work hours?. The marks are labeled by count of #3 On average how many mentors are available at any given time during season work hours? and #3 On average how many mentors are available at any given time during season work hours?. The view is filtered on #3 On average how many mentors are available at any given time during season work hours?, which excludes Null.

#3 On average how many mentors are available at any given time during season work hours?

- 2
- 5
- 8
- 11

Mentor Availability (Inspiration)

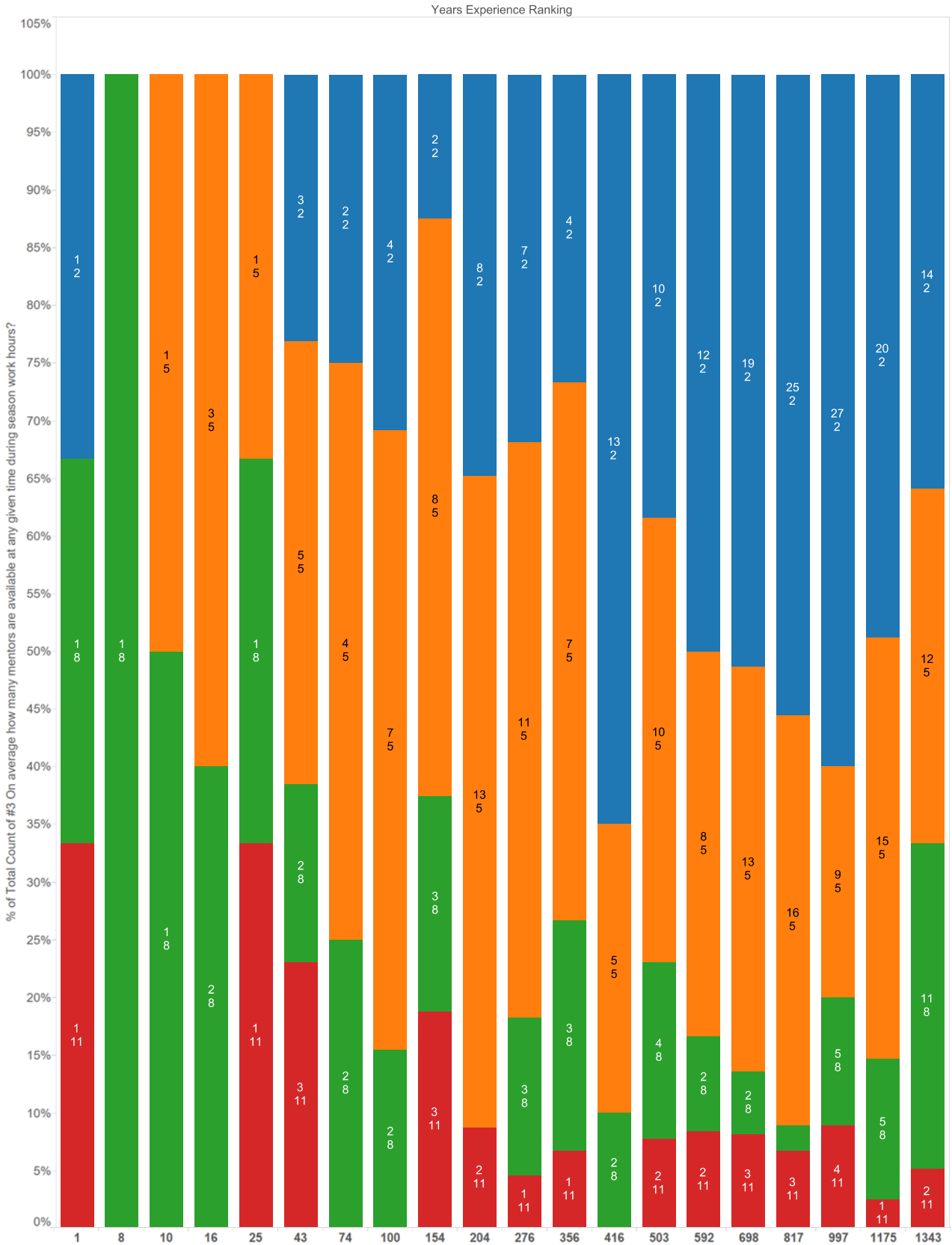


% of Total Count of #3 On average how many mentors are available at any given time during season work hours? for each Engineering Inspiration Ranking. Color shows details about #3 On average how many mentors are available at any given time during season work hours?. The marks are labeled by count of #3 On average how many mentors are available at any given time during season work hours? and #3 On average how many mentors are available at any given time during season work hours?. The view is filtered on #3 On average how many mentors are available at any given time during season work hours?, which excludes Null.

#3 On average how many mentors are available at any given time during season work hours?

- 2
- 5
- 8
- 11

Mentor Availability (Years)

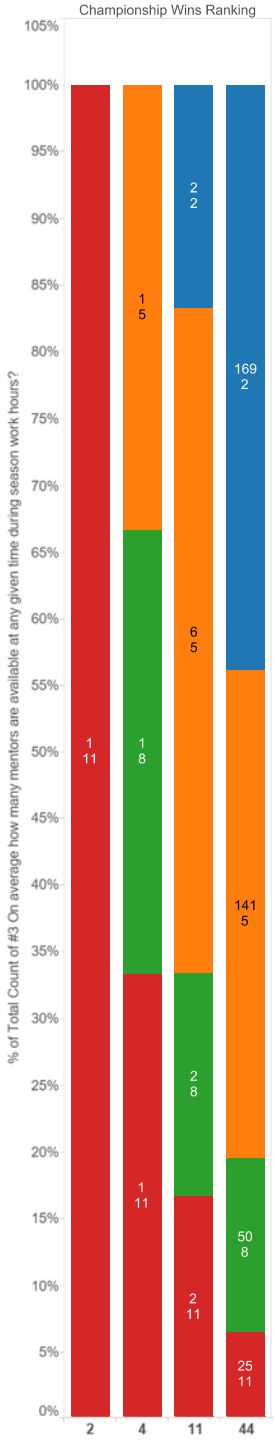


% of Total Count of #3 On average how many mentors are available at any given time during season work hours? for each Years Experience Ranking. Color shows details about #3 On average how many mentors are available at any given time during season work hours?. The marks are labeled by count of #3 On average how many mentors are available at any given time during season work hours? and #3 On average how many mentors are available at any given time during season work hours?. The view is filtered on #3 On average how many mentors are available at any given time during season work hours?, which excludes Null.

#3 On average how many mentors are available at any given time during season work hours?

- 2
- 5
- 8
- 11

Mentor Availability (Einstiens)

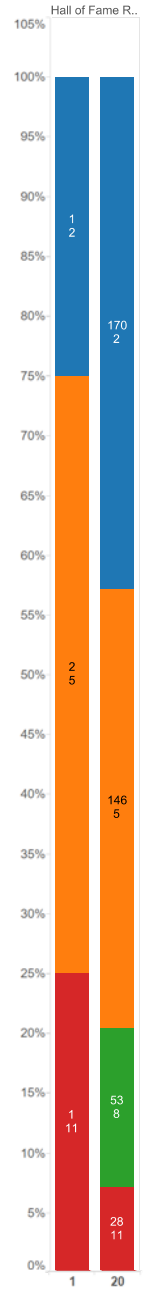


% of Total Count of #3 On average how many mentors are available at any given time during season work hours? for each Championship Wins Ranking. Color shows details about #3 On average how many mentors are available at any given time during season work hours?. The marks are labeled by count of #3 On average how many mentors are available at any given time during season work hours? and #3 On average how many mentors are available at any given time during season work hours?. The view is filtered on #3 On average how many mentors are available at any given time during season work hours?, which excludes Null.

#3 On average how many mentors are available at any given time during season work hours?

- 2
- 5
- 8
- 11

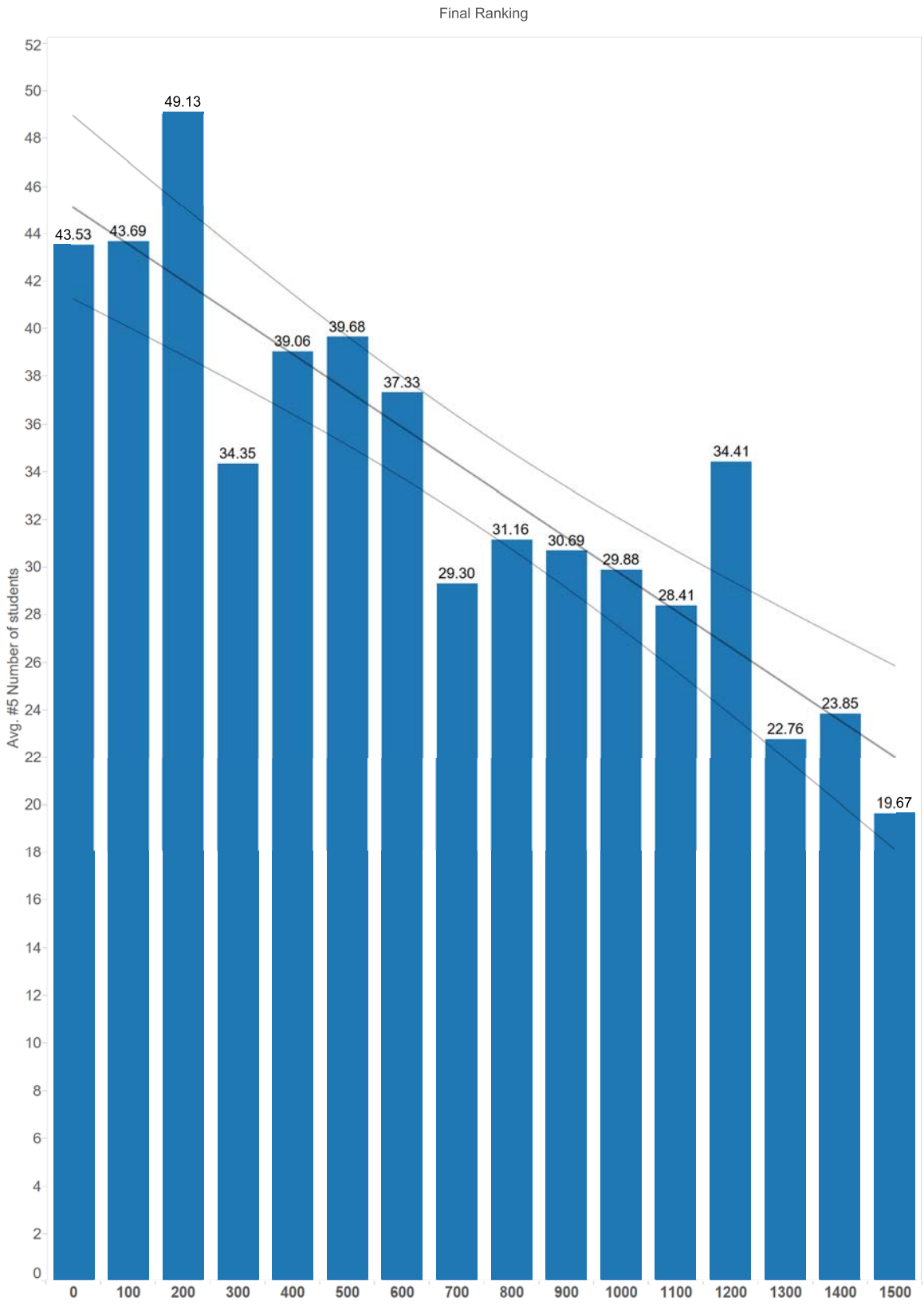
Mentor Availability (Hall of Fame)



% of Total Count of #3 On average how many mentors are available at any given time during season work hours? for each Hall of Fame Ranking. Color shows details about #3 On average how many mentors are available at any given time during season work hours?. The marks are labeled by count of #3 On average how many mentors are available at any given time during season work hours? and #3 On average how many mentors are available at any given time during season work hours?. The view is filtered on #3 On average how many mentors are available at any given time during season work hours?, which excludes Null.

#3 On average how many mentors are available at any given time during season work hours?
- 2
- 5
- 8
- 11

Number of students (Final)



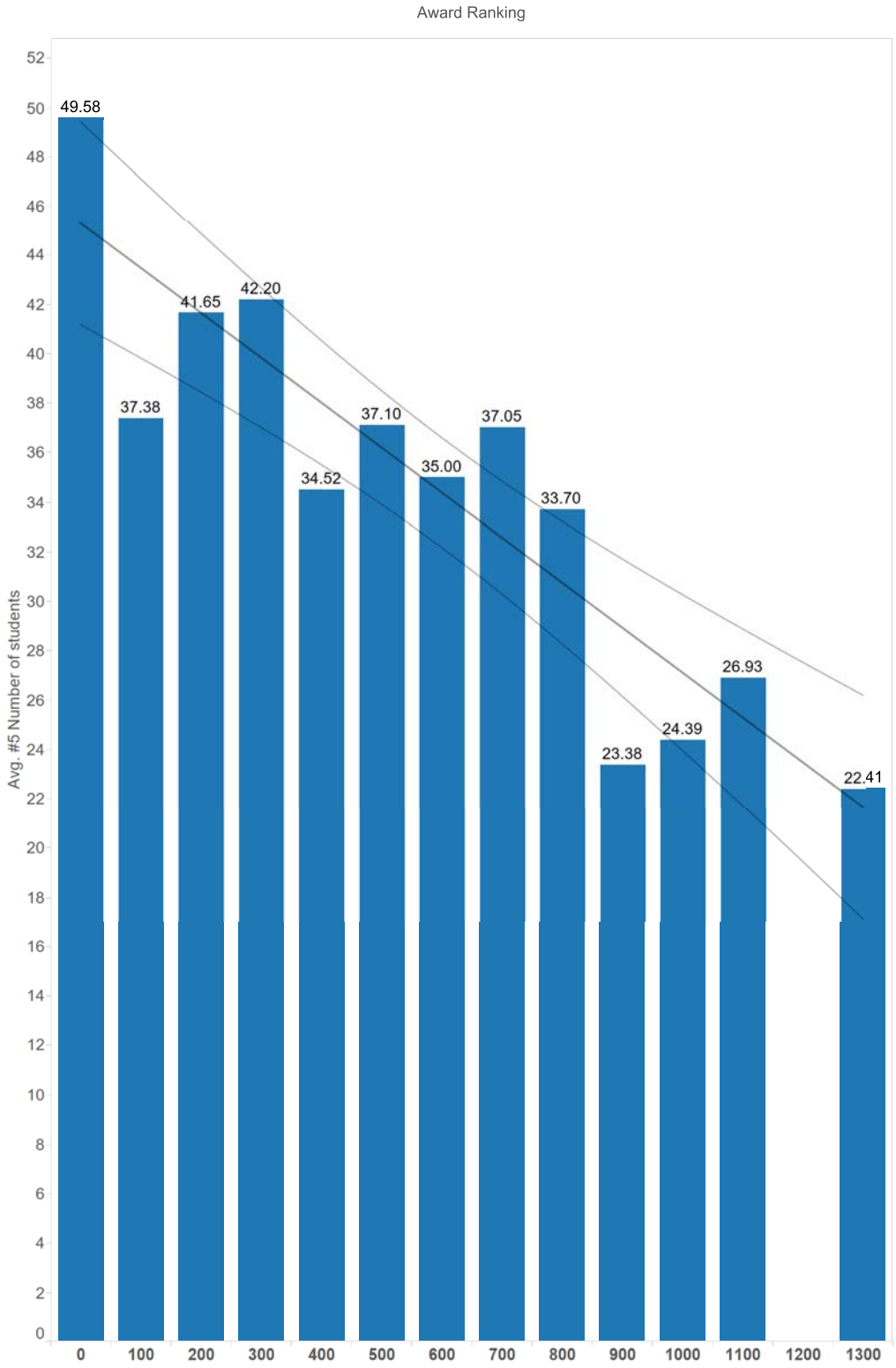
Trend Lines Model

A linear trend model is computed for average of #5 Number of students given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)

Number of **modeled observations**: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 197.642
MSE (mean squared error): 14.1173
R-Squared: 0.803065
Standard error: 3.7573
p-value (significance): < 0.0001

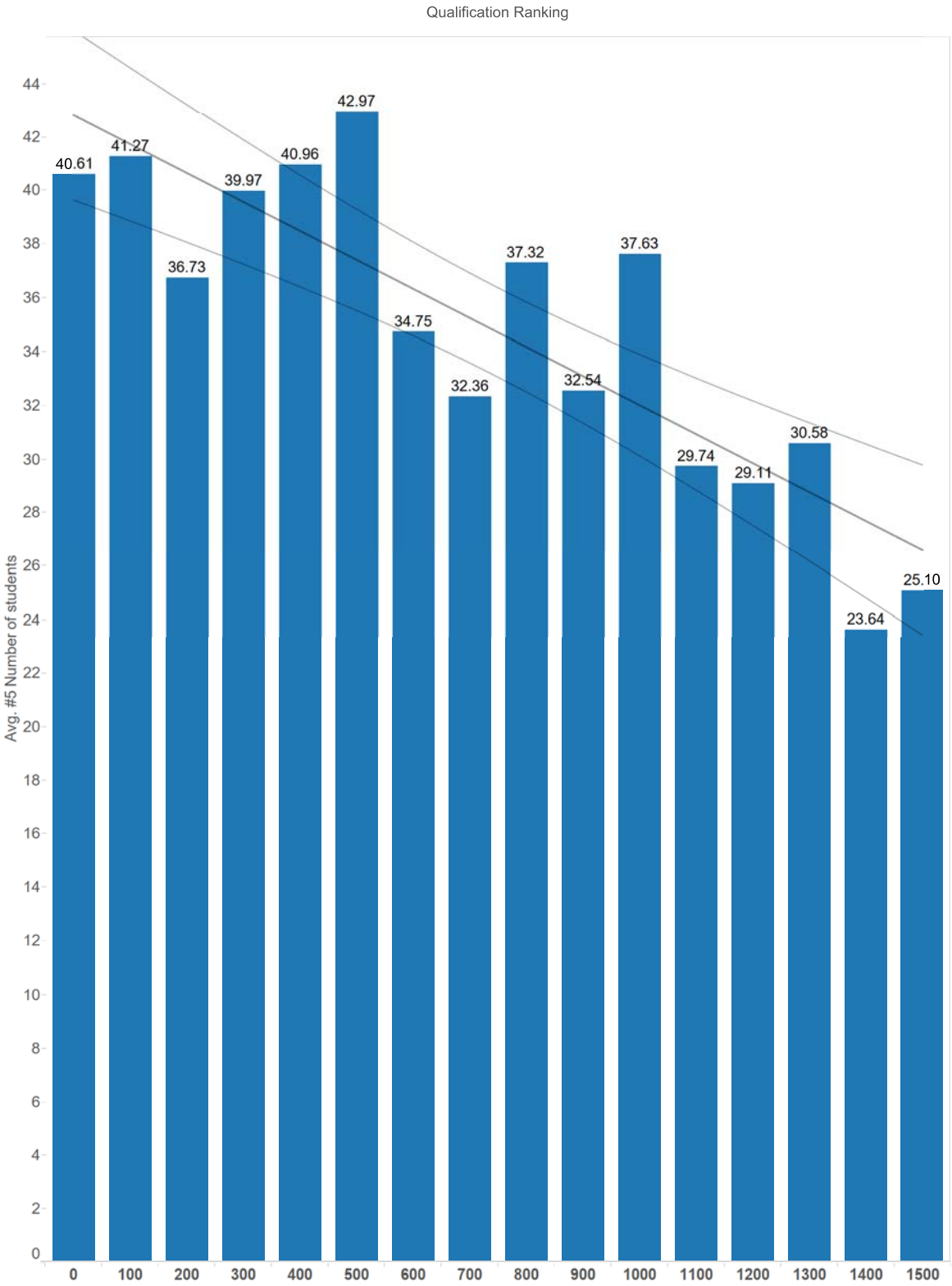
Number of students (Awards)



Trend Lines Model
A linear trend model is computed for average of #5 Number of students given Award Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Award Rank (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 144.767
MSE (mean squared error): 13.1606
R-Squared: 0.816459
Standard error: 3.62776
p-value (significance): < 0.0001

Number of students (Quals)

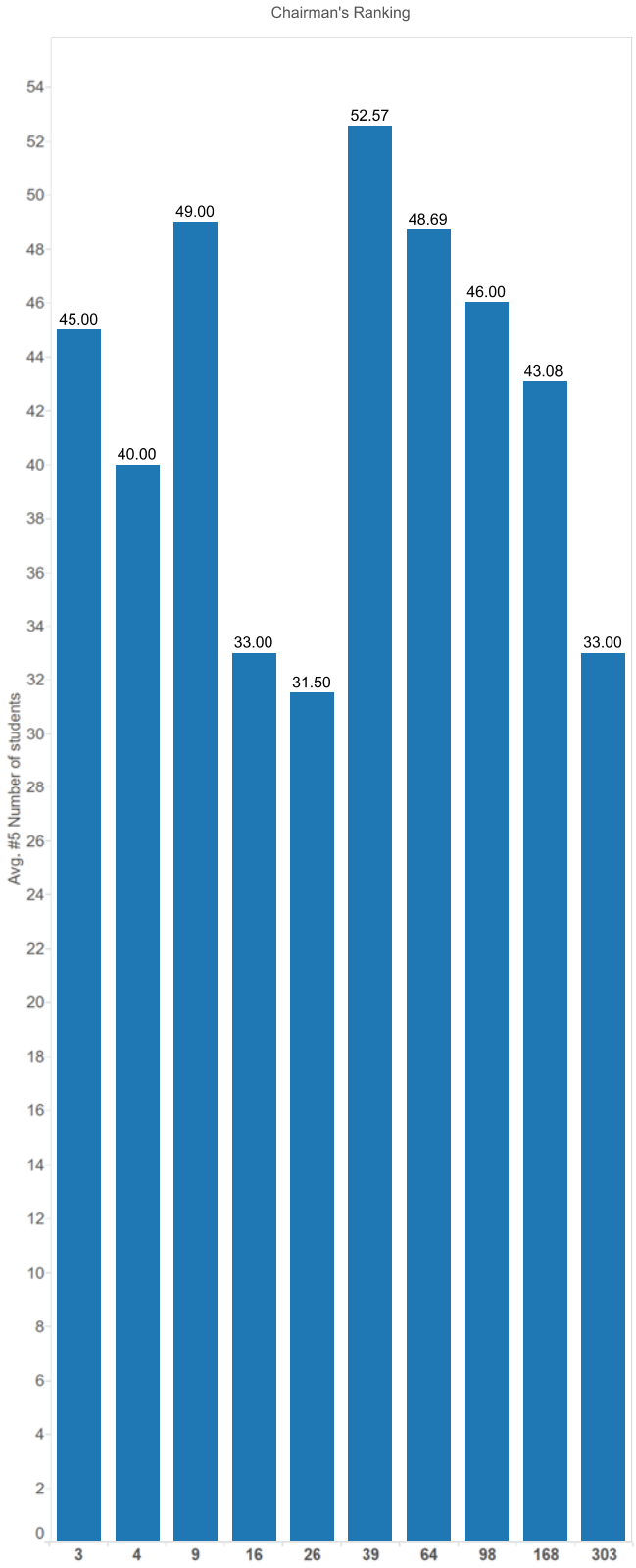


Trend Lines Model

A linear trend model is computed for average of #5 Number of students given Quals Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Quals Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 134.174
MSE (mean squared error): 9.58386
R-Squared: 0.747108
Standard error: 3.09578
p-value (significance): < 0.0001

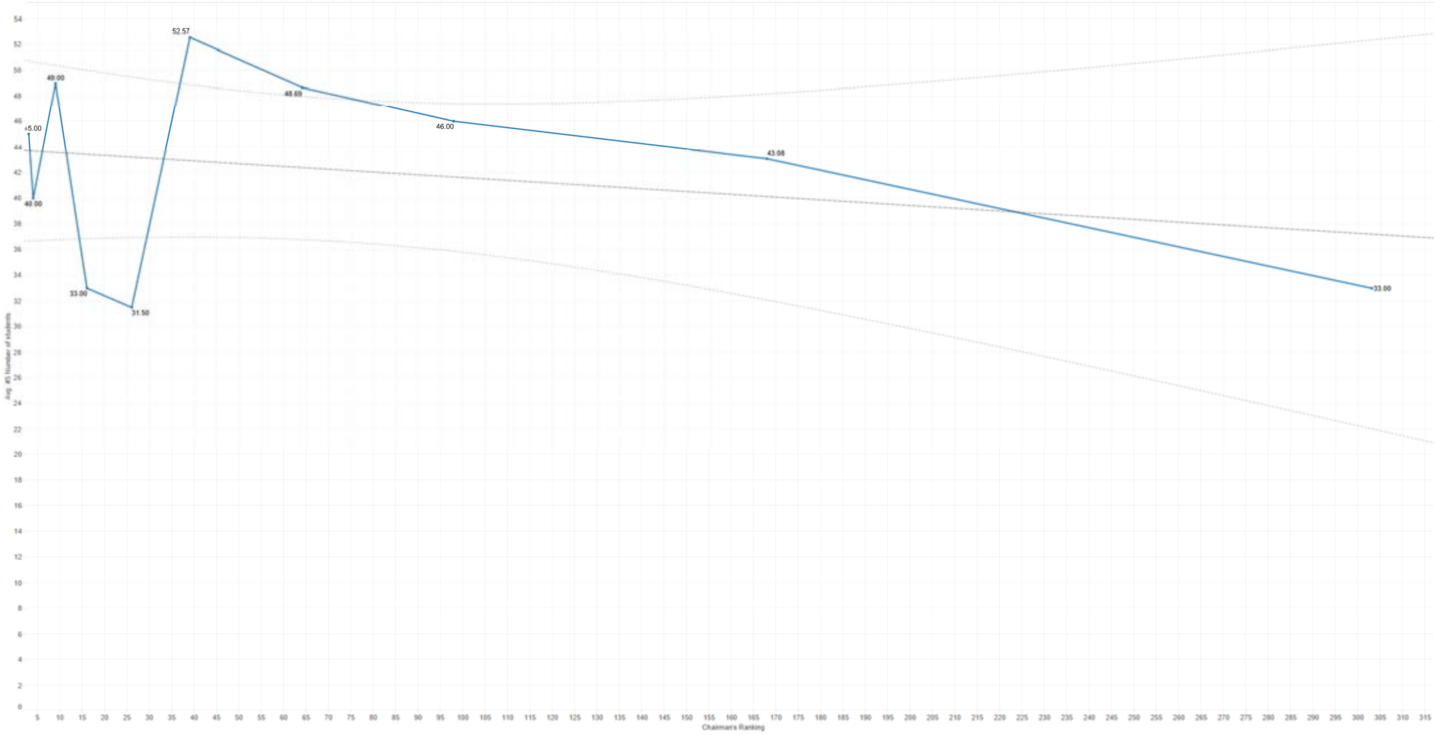
Number of students (Chairman's)



Trend Lines Model
A linear trend model is computed for average of #5 Number of students given Chairman's Rank.

Model formula: (Chairman's Rank + intercept)
Number of modeled observations: 10
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 8
SSE (sum squared error): 468.607
MSE (mean squared error): 58.5759
R-Squared: 0.0769759
Standard error: 7.65349
p-value (significance): 0.437688

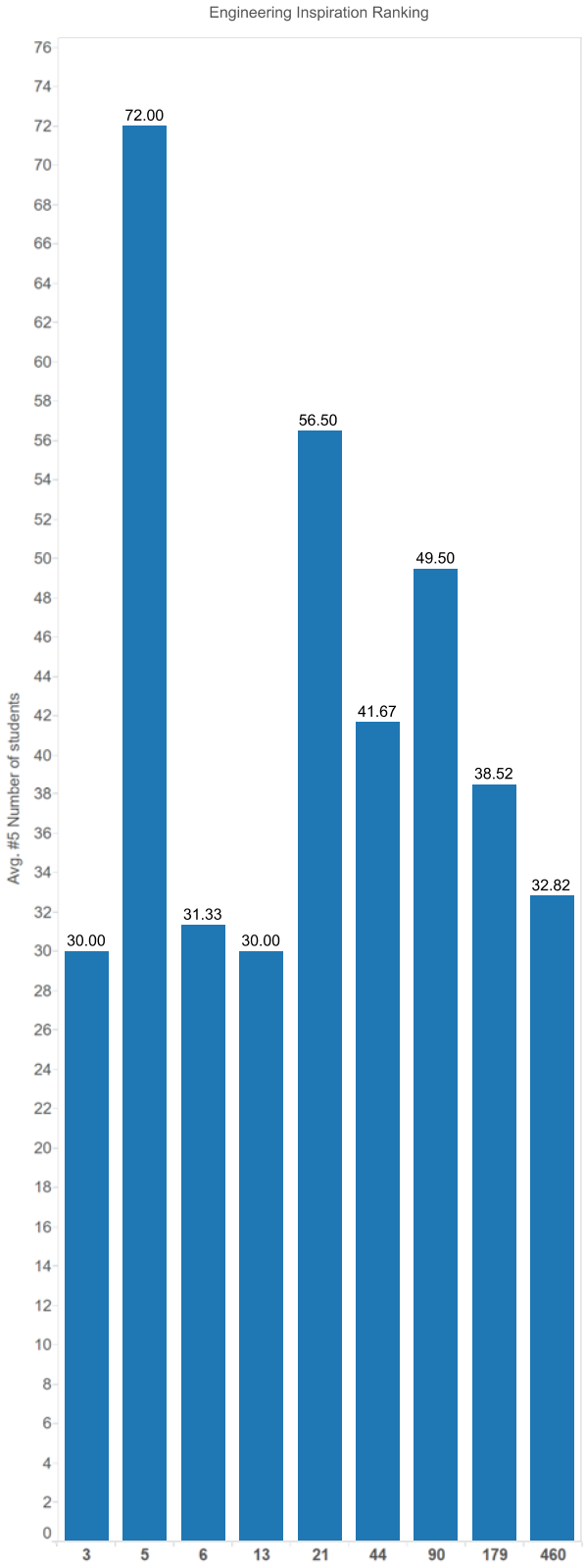
Number of students (Chairman's 2)



Trend Lines Model
A linear trend model is computed for average of #5 Number of students given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 197.642
MSE (mean squared error): 14.1173
R-Squared: 0.803065
Standard error: 3.7573
p-value (significance): < 0.0001

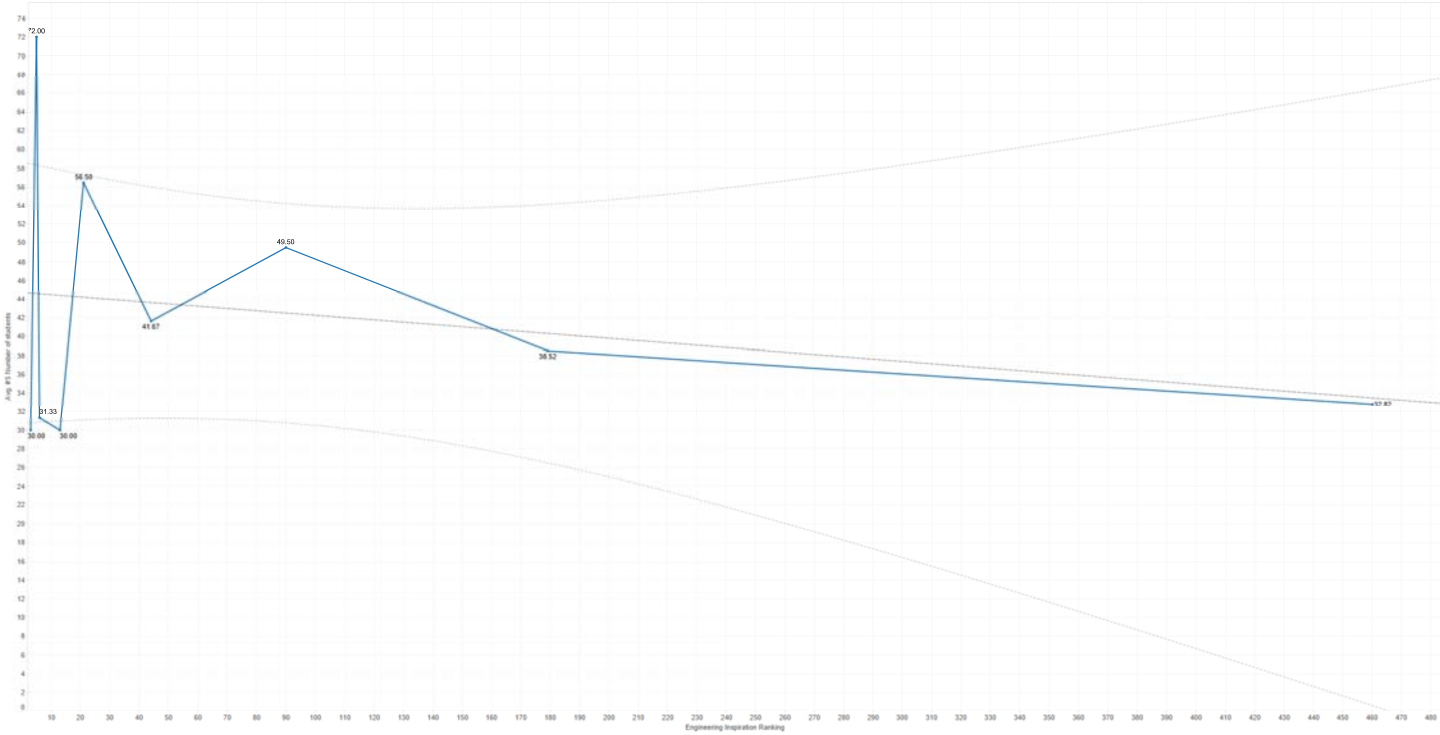
Number of students (Inspiration)



Trend Lines Model
A linear trend model is computed for average of #5 Number of students given Inspiration Rank.

Model formula: (Inspiration Rank + intercept)
Number of modeled observations: 9
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 7
SSE (sum squared error): 1555.65
MSE (mean squared error): 222.235
R-Squared: 0.064406
Standard error: 14.9075
p-value (significance): 0.509947

Number of students (Inspiration 2)

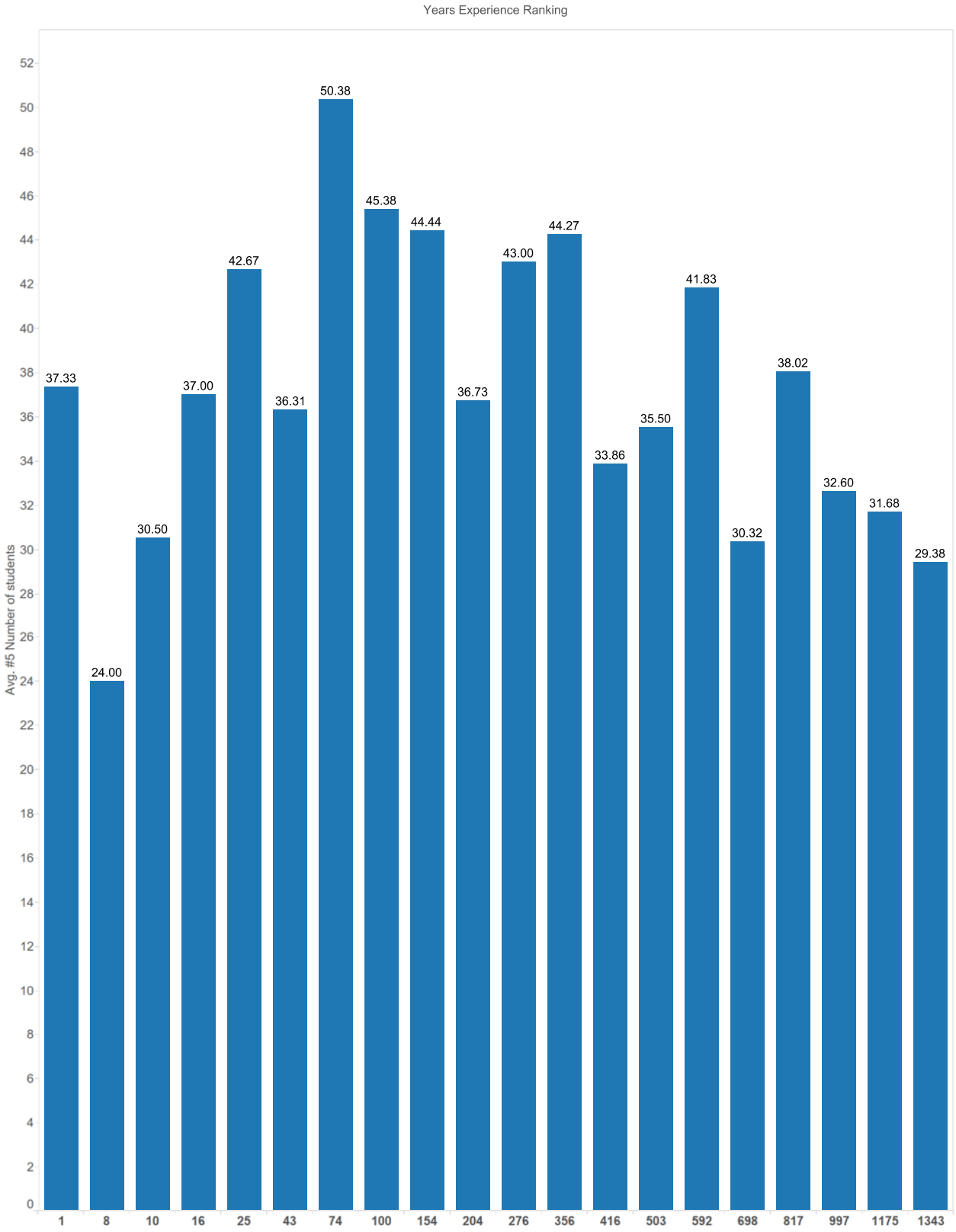


Trend Lines Model

A linear trend model is computed for average of #5 Number of students given Final Rank (bin). The model may be significant at $p <= 0.05$.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 197.642
MSE (mean squared error): 14.1173
R-Squared: 0.803065
Standard error: 3.7573
p-value (significance): < 0.0001

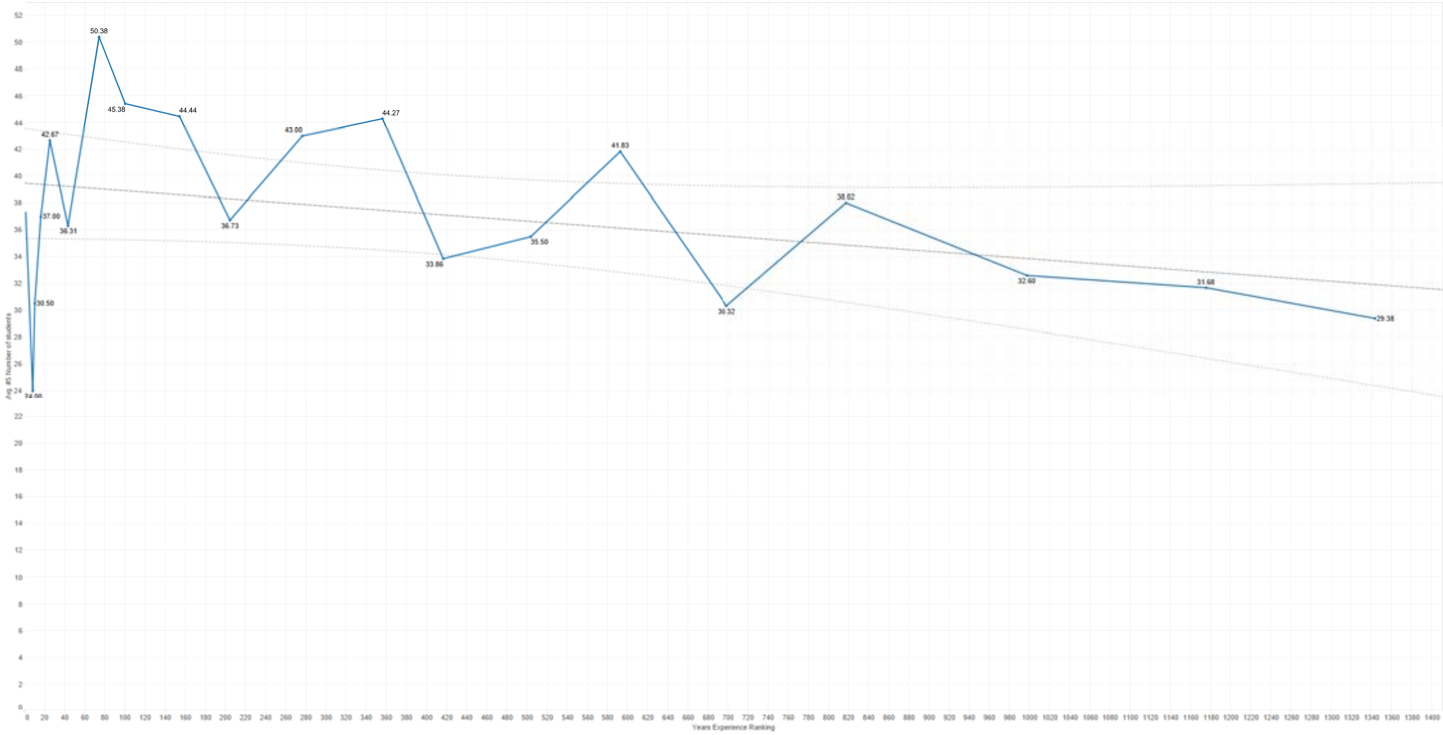
Number of students (Years)



Trend Lines Model
A linear trend model is computed for average of #5 Number of students given Years Rank.

Model formula: (Years Rank + intercept)
Number of modeled observations: 20
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 18
SSE (sum squared error): 716.976
MSE (mean squared error): 39.832
R-Squared: 0.128518
Standard error: 6.31126
p-value (significance): 0.120635

Number of students (Years 2)

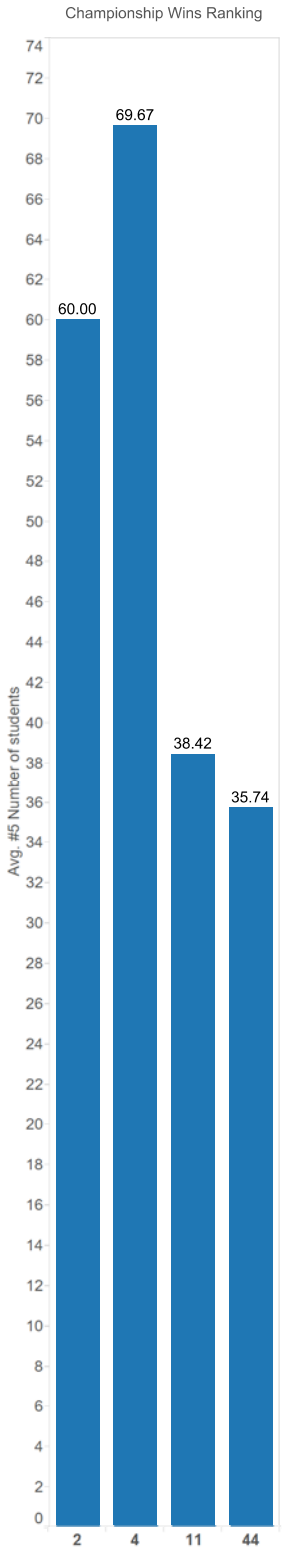


Trend Lines Model

A linear trend model is computed for average of #5 Number of students given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 197.642
MSE (mean squared error): 14.1173
R-Squared: 0.803065
Standard error: 3.7573
p-value (significance): < 0.0001

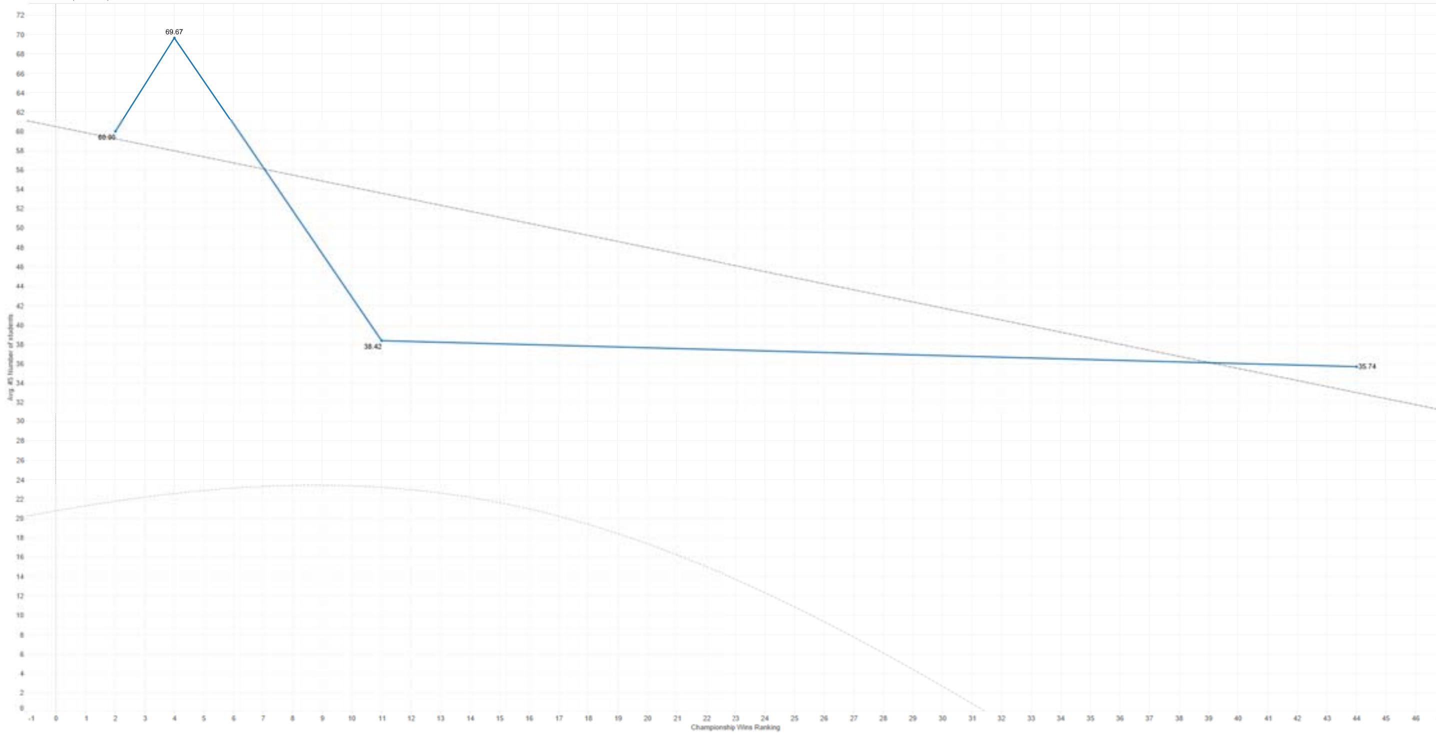
Number of students (Einstein)



Trend Lines Model
A linear trend model is computed for average of #5 Number of students given Einstein Rank.

Model formula: (Einstein Rank + intercept)
Number of modeled observations: 4
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 2
SSE (sum squared error): 375.461
MSE (mean squared error): 187.73
R-Squared: 0.542509
Standard error: 13.7015
p-value (significance): 0.263448

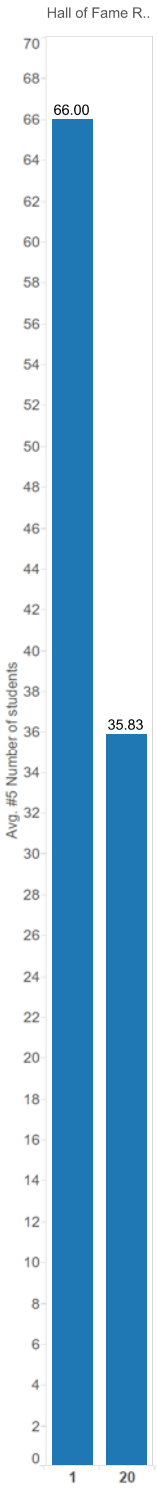
Number of students (Einstein 2)



Trend Lines Model
A linear trend model is computed for average of #5 Number of students given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 197.642
MSE (mean squared error): 14.1173
R-Squared: 0.003065
Standard error: 3.7573
p-value (significance): < 0.0001

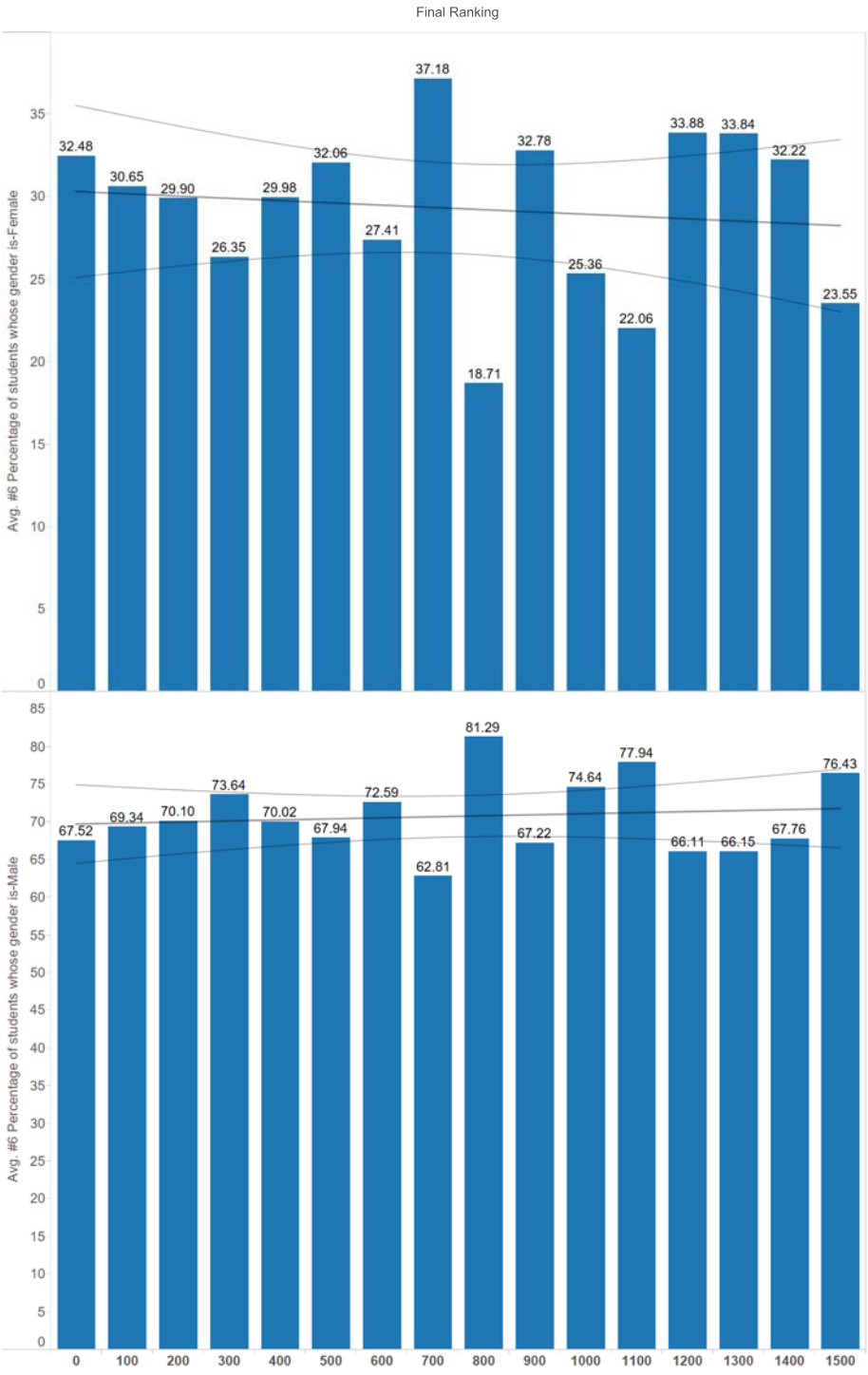
Number of students (Hall of Fame)



Trend Lines Model
A linear trend model is computed for average of #5 Number of students given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 197.642
MSE (mean squared error): 14.1173
R-Squared: 0.803065
Standard error: 3.7573
p-value (significance): < 0.0001

Male/female percentage ratio (Final)



Trend Lines Model

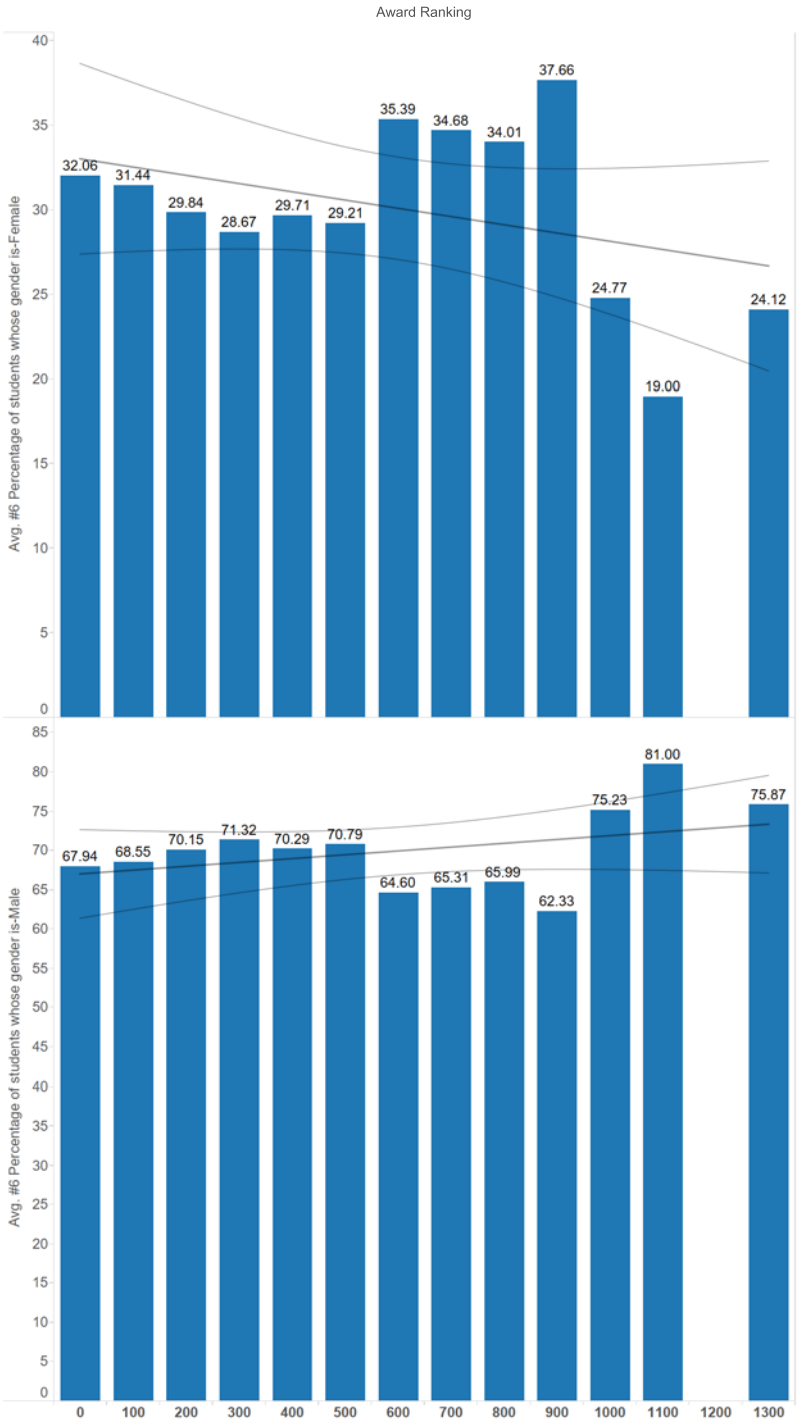
A linear trend model is computed for average of #6 Percentage of students whose gender is-Female given Final Rank (bin).

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 363.579
MSE (mean squared error): 25.9699
R-Squared: 0.0174594
Standard error: 5.09607
p-value (significance): 0.625684

A linear trend model is computed for average of #6 Percentage of students whose gender is-Male given Final Rank (bin).

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 364.002
MSE (mean squared error): 26.0001
R-Squared: 0.0172946
Standard error: 5.09903
p-value (significance): 0.627334

Male/female percentage ratio (Awards)



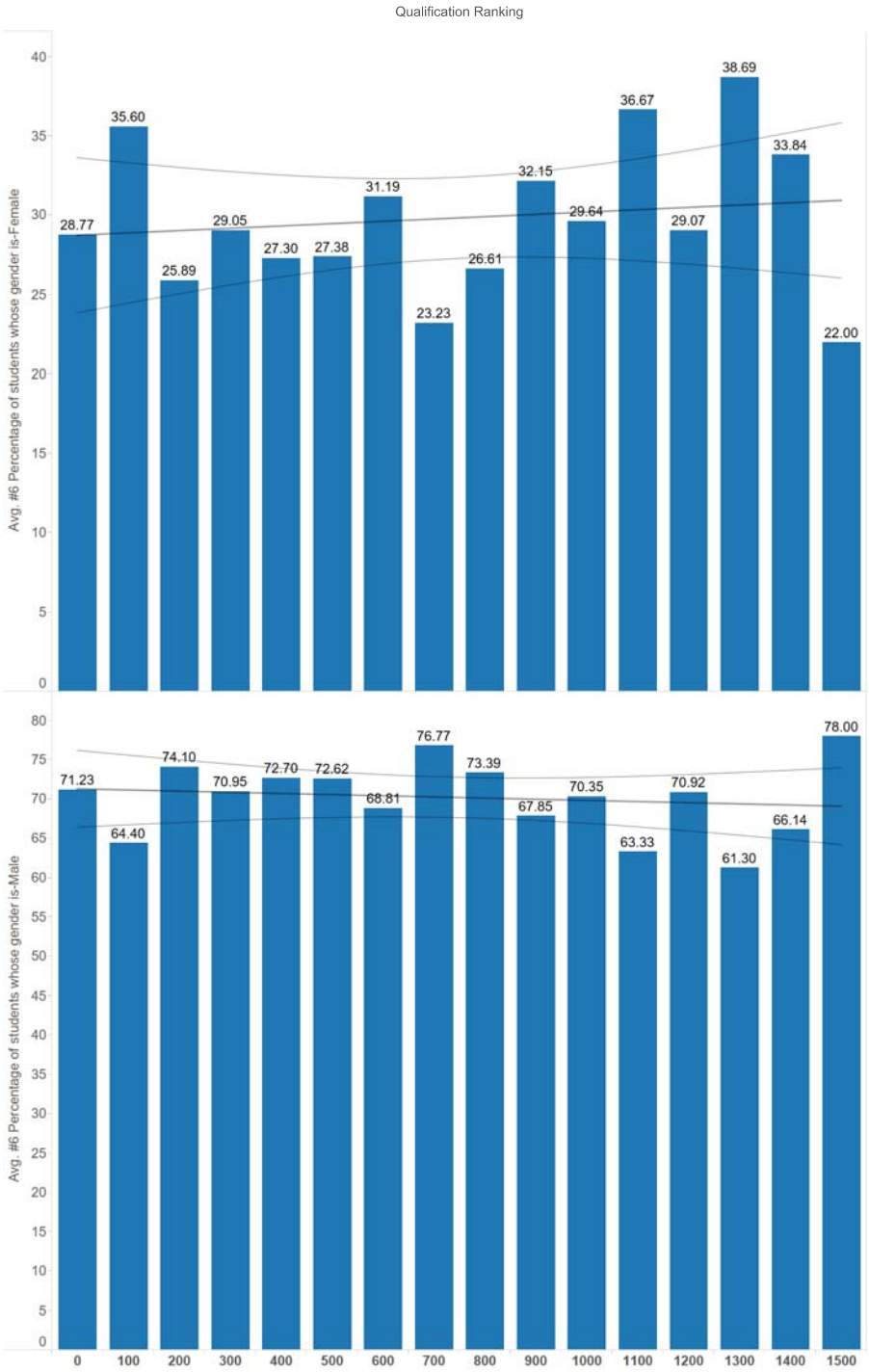
Trend Lines Model
A linear trend model is computed for average of #6 Percentage of students whose gender is-Female given Award Rank (bin).

Model formula: (Award Rank (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 271.184
MSE (mean squared error): 24.6531
R-Squared: 0.145956
Standard error: 4.96519
p-value (significance): 0.19767

A linear trend model is computed for average of #6 Percentage of students whose gender is-Male given Award Rank (bin).

Model formula: (Award Rank (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 271.337
MSE (mean squared error): 24.667
R-Squared: 0.145651
Standard error: 4.96659
p-value (significance): 0.198177

Male/female percentage ratio (Quals)



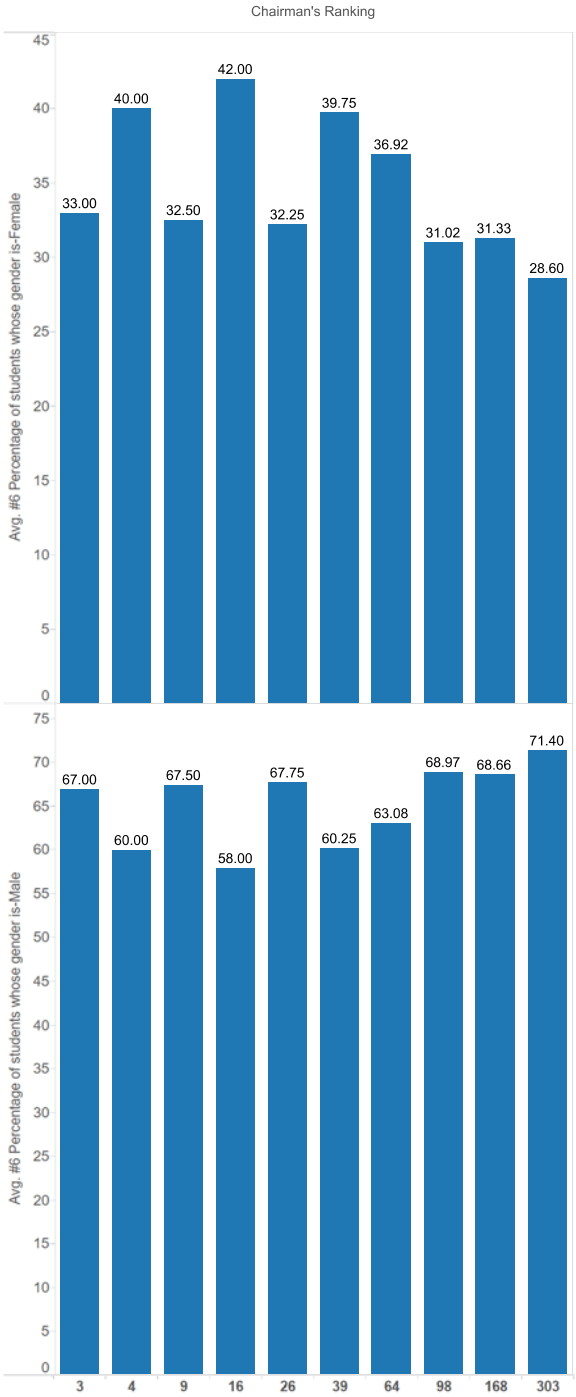
Trend Lines Model
A linear trend model is computed for average of #6 Percentage of students whose gender is-Female given Quals Rank (bin).

Model formula: (Quals Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 320.065
MSE (mean squared error): 22.8618
R-Squared: 0.0223304
Standard error: 4.7814
p-value (significance): 0.580698

A linear trend model is computed for average of #6 Percentage of students whose gender is-Male given Quals Rank (bin).

Model formula: (Quals Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 320.271
MSE (mean squared error): 22.8765
R-Squared: 0.0224751
Standard error: 4.78294
p-value (significance): 0.579461

Male/female percentage ratio (Chairman's)



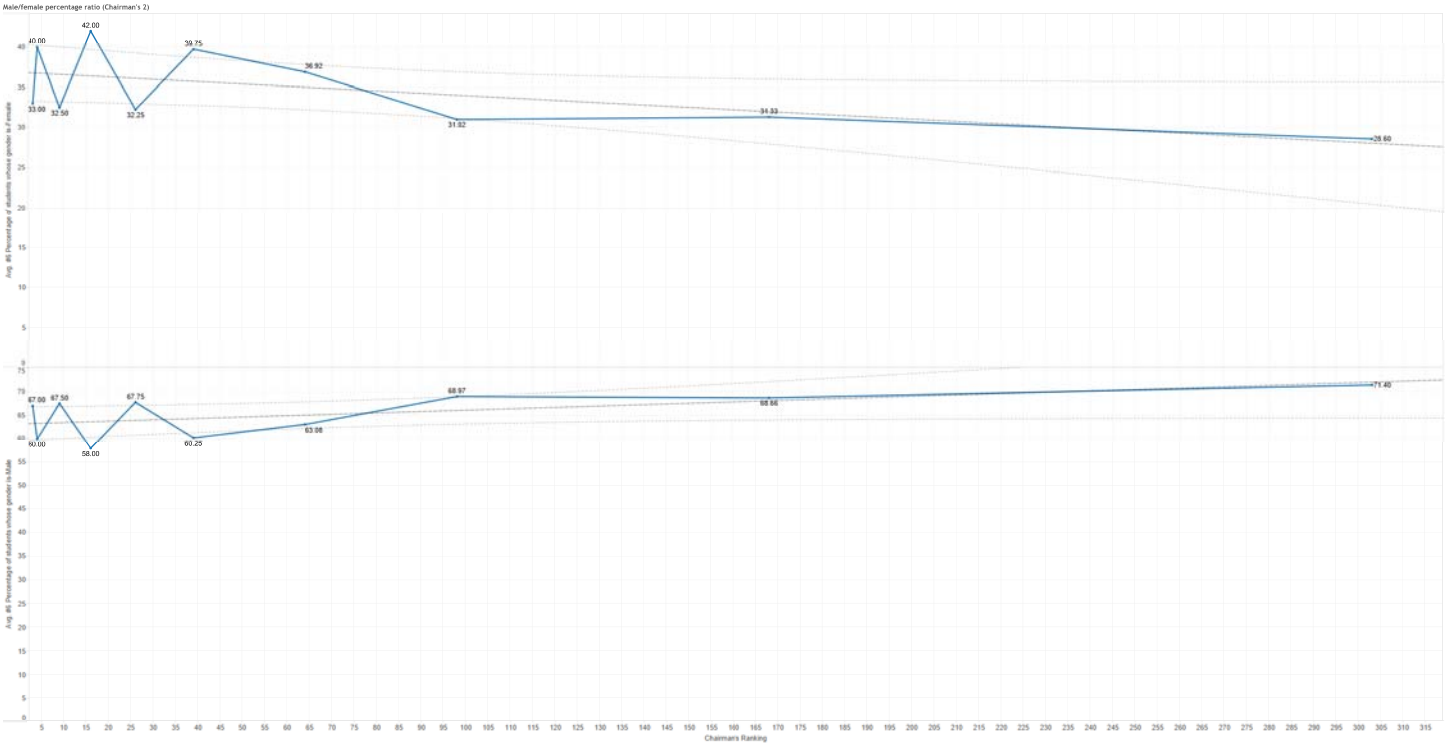
Trend Lines Model
A linear trend model is computed for average of #6 Percentage of students whose gender is-Female given Chairman's Rank.

Model formula: (Chairman's Rank + intercept)
Number of modeled observations: 10
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 8
SSE (sum squared error): 117.438
MSE (mean squared error): 14.6798
R-Squared: 0.374241
Standard error: 3.83142
p-value (significance): 0.0601697

A linear trend model is computed for average of #6 Percentage of students whose gender is-Male given Chairman's Rank.

Model formula: (Chairman's Rank + intercept)
Number of modeled observations: 10
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 8
SSE (sum squared error): 117.392
MSE (mean squared error): 14.674
R-Squared: 0.373963
Standard error: 3.83067
p-value (significance): 0.0602917

Male/female percentage ratio (Chairman's 2)



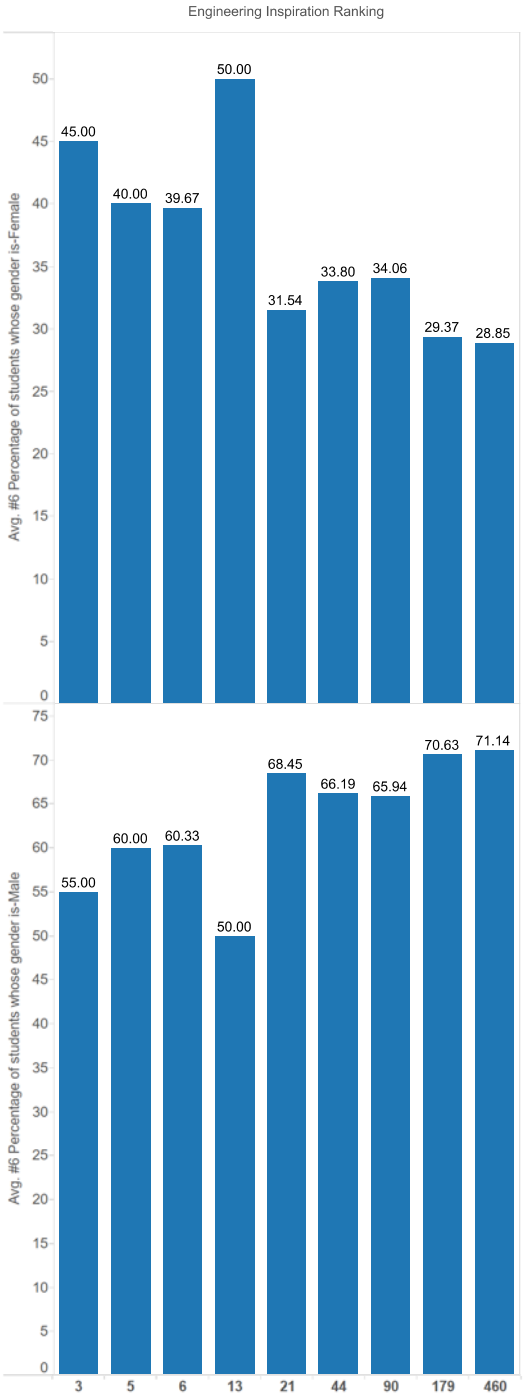
Trend Lines Model
A linear trend model is computed for average of #6 Percentage of students whose gender is-Female given Final Rank (bin).

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 363.579
MSE (mean squared error): 25.9699
R-Squared: 0.0174594
Standard error: 5.09607
p-value (significance): 0.625684

A linear trend model is computed for average of #6 Percentage of students whose gender is-Male given Final Rank (bin).

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 364.002
MSE (mean squared error): 26.0001
R-Squared: 0.0172946
Standard error: 5.09903
p-value (significance): 0.627334

Male/female percentage ratio (Inspiration)



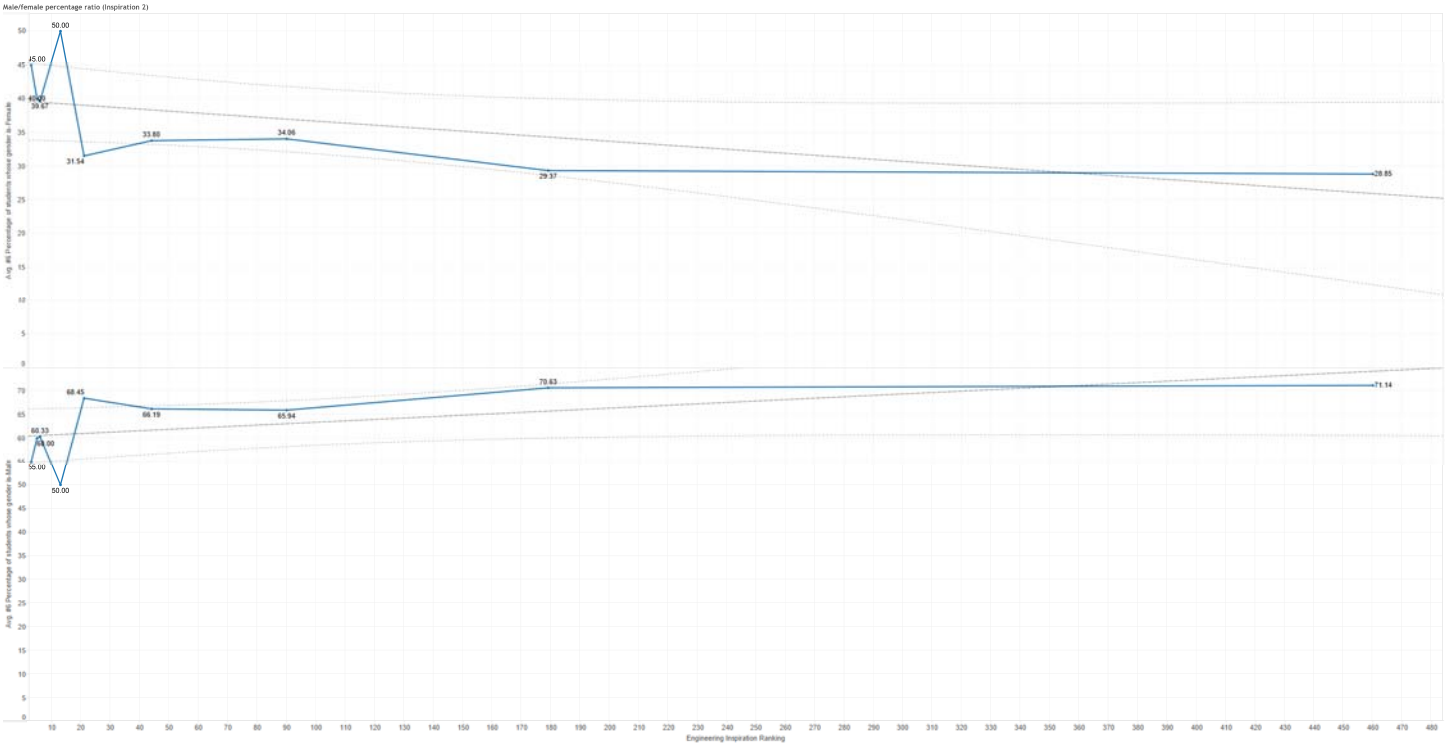
Trend Lines Model
A linear trend model is computed for average of #6 Percentage of students whose gender is-Female given Inspiration Rank.

Model formula: (Inspiration Rank + intercept)
Number of modeled observations: 9
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 7
SSE (sum squared error): 263.251
MSE (mean squared error): 37.6073
R-Squared: 0.376802
Standard error: 6.13248
p-value (significance): 0.0786808

A linear trend model is computed for average of #6 Percentage of students whose gender is-Male given Inspiration Rank.

Model formula: (Inspiration Rank + intercept)
Number of modeled observations: 9
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 7
SSE (sum squared error): 263.007
MSE (mean squared error): 37.5725
R-Squared: 0.376929
Standard error: 6.12964
p-value (significance): 0.0786161

Male/female percentage ratio (Inspiration 2)



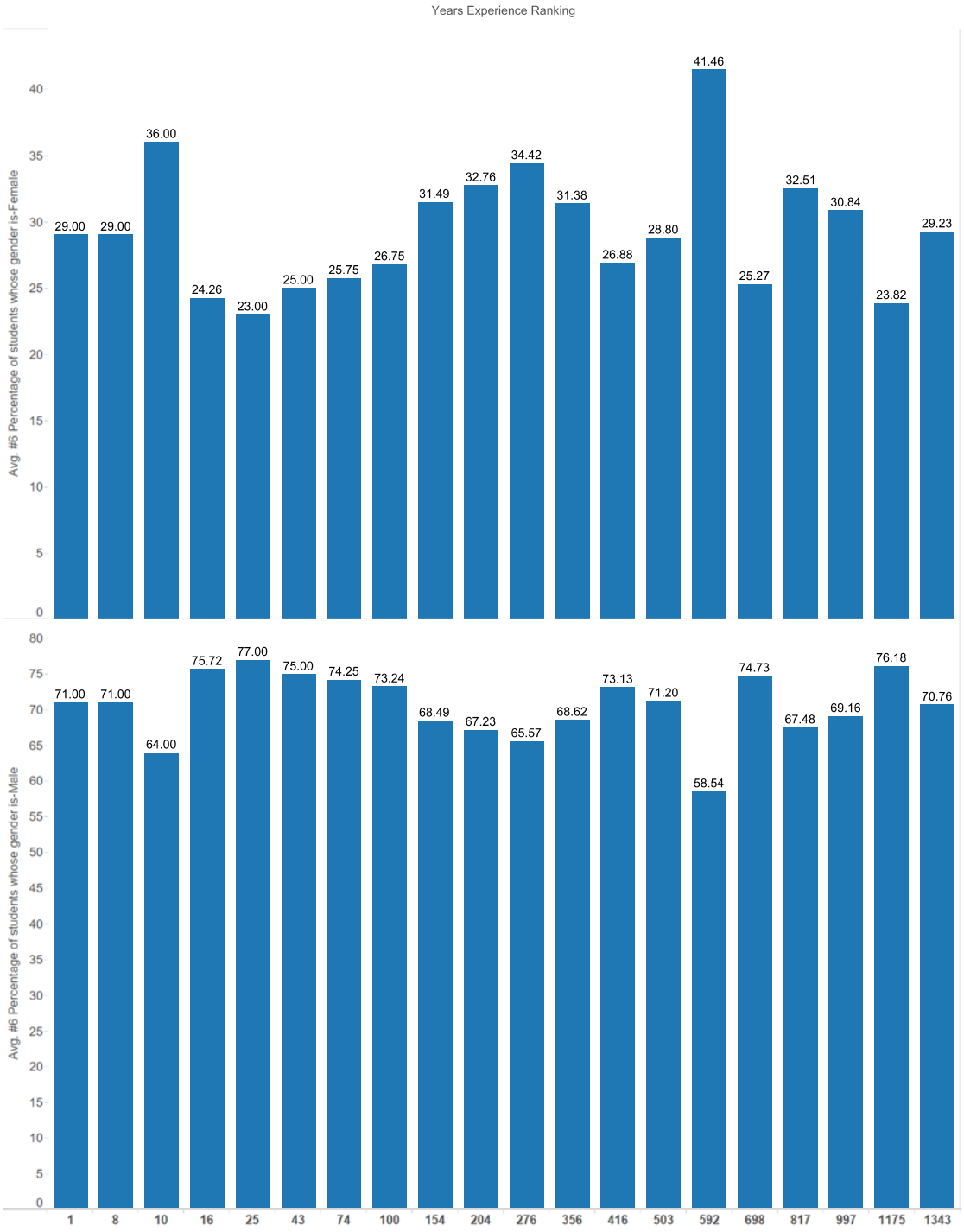
Trend Lines Model
A linear trend model is computed for average of #6 Percentage of students whose gender is-Female given Final Rank (bin).

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 363.579
MSE (mean squared error): 25.9699
R-Squared: 0.0174594
Standard error: 5.09607
p-value (significance): 0.625684

A linear trend model is computed for average of #6 Percentage of students whose gender is-Male given Final Rank (bin).

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 364.002
MSE (mean squared error): 26.0001
R-Squared: 0.0172946
Standard error: 5.09903
p-value (significance): 0.627334

Male/female percentage ratio (Years)



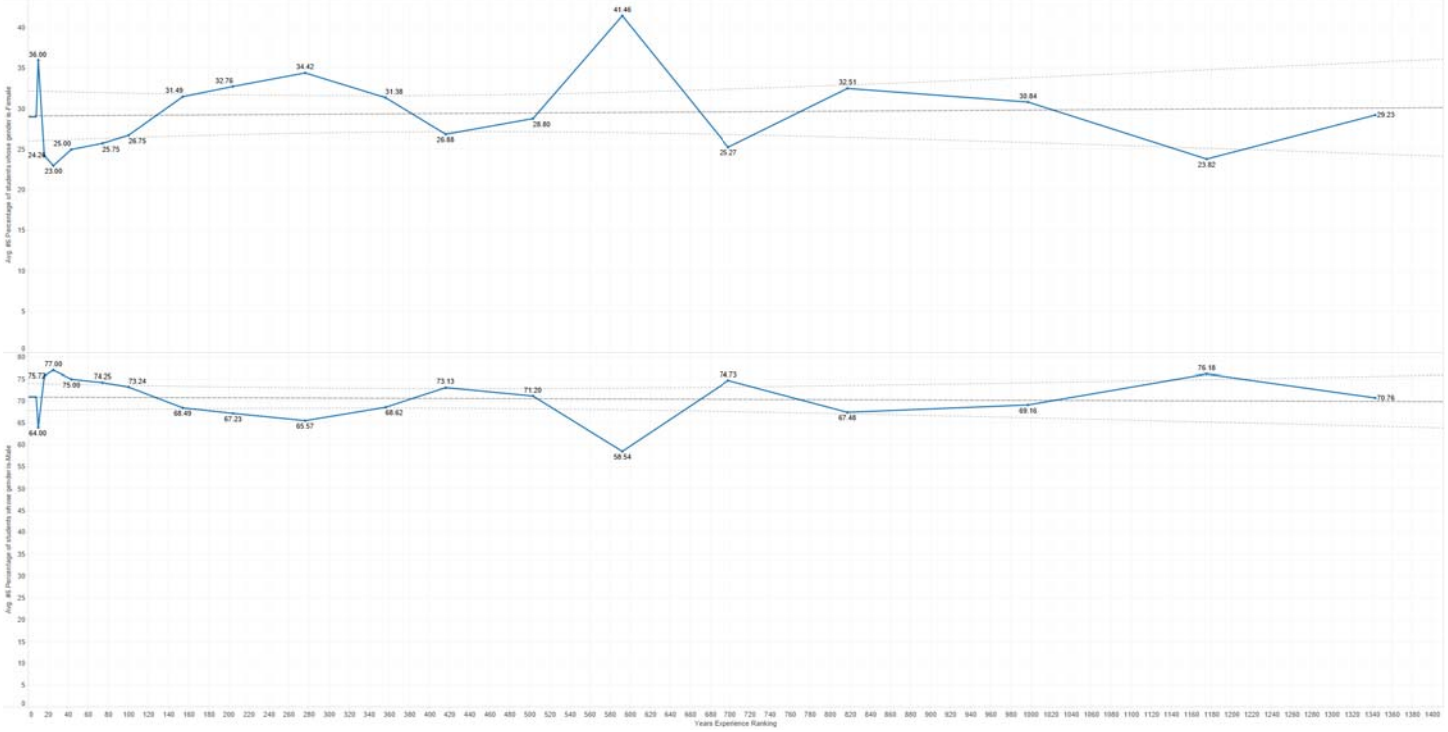
Trend Lines Model
A linear trend model is computed for average of #6 Percentage of students whose gender is-Female given Years Rank.

Model formula: (Years Rank + intercept)
Number of modeled observations: 20
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 18
SSE (sum squared error): 406.029
MSE (mean squared error): 22.5572
R-Squared: 0.0043583
Standard error: 4.74944
p-value (significance): 0.782142

A linear trend model is computed for average of #6 Percentage of students whose gender is-Male given Years Rank.

Model formula: (Years Rank + intercept)
Number of modeled observations: 20
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 18
SSE (sum squared error): 405.931
MSE (mean squared error): 22.5517
R-Squared: 0.004364
Standard error: 4.74887
p-value (significance): 0.782001

Male/female percentage ratio (Years 2)



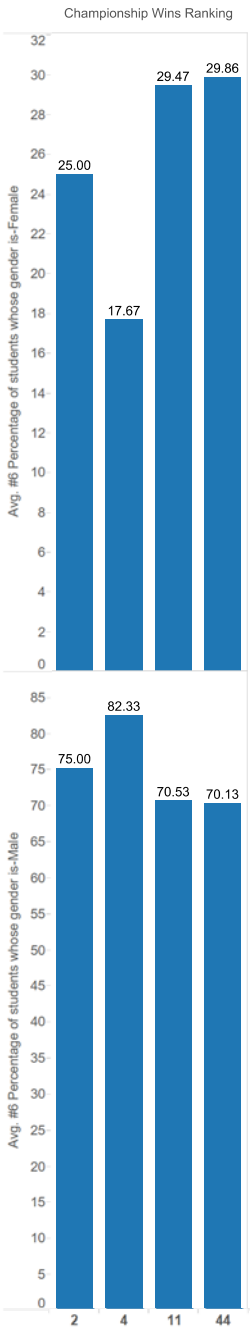
Trend Lines Model
A linear trend model is computed for average of #6 Percentage of students whose gender is-Female given Final Rank (bin).

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 363.579
MSE (mean squared error): 25.9699
R-Squared: 0.0174594
Standard error: 5.09607
p-value (significance): 0.625684

A linear trend model is computed for average of #6 Percentage of students whose gender is-Male given Final Rank (bin).

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 364.002
MSE (mean squared error): 26.0001
R-Squared: 0.0172946
Standard error: 5.09903
p-value (significance): 0.627334

Male/female percentage ratio (Einstein)



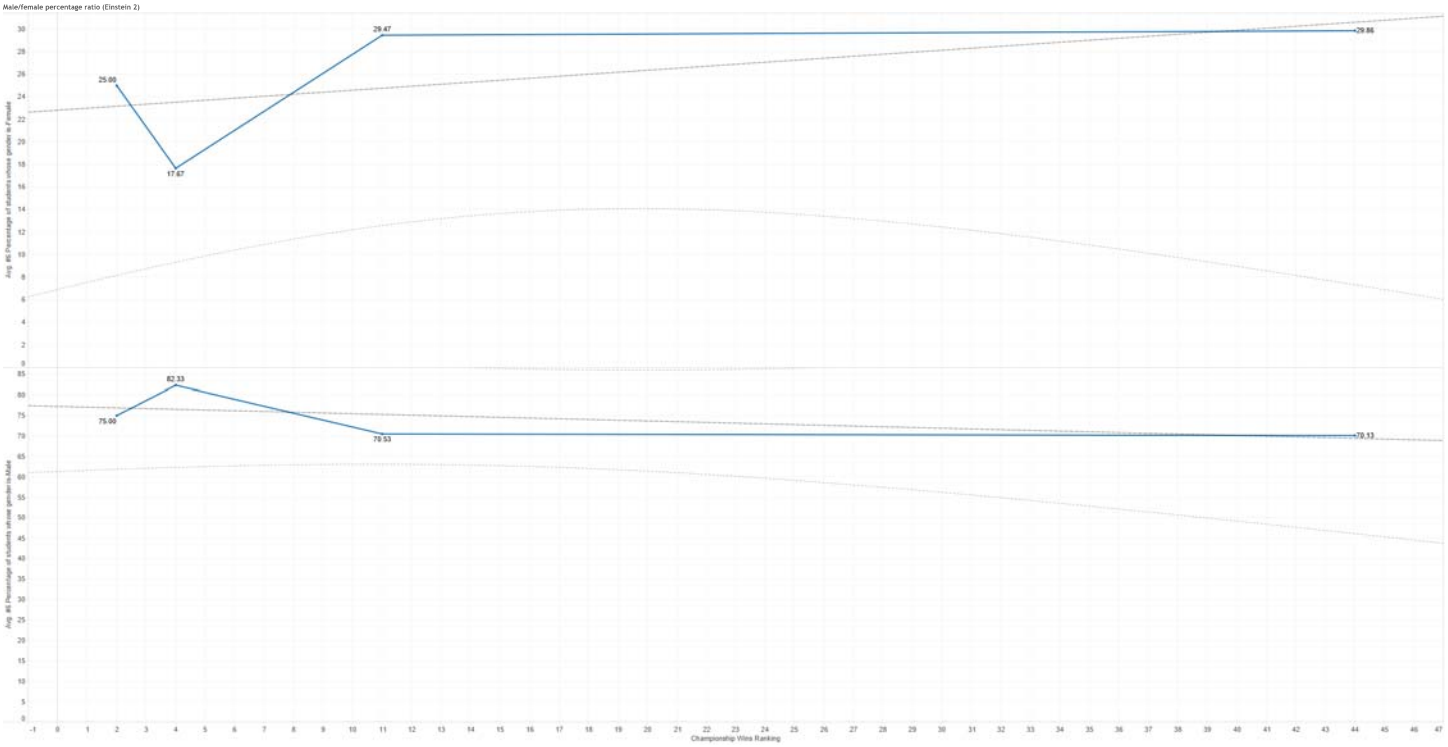
Trend Lines Model
A linear trend model is computed for average of #6 Percentage of students whose gender is-Female given Einstein Rank.

Model formula: (Einstein Rank + intercept)
Number of modeled observations: 4
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 2
SSE (sum squared error): 60.3173
MSE (mean squared error): 30.1587
R-Squared: 0.373963
Standard error: 5.49169
p-value (significance): 0.388475

A linear trend model is computed for average of #6 Percentage of students whose gender is-Male given Einstein Rank.

Model formula: (Einstein Rank + intercept)
Number of modeled observations: 4
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 2
SSE (sum squared error): 60.3895
MSE (mean squared error): 30.1948
R-Squared: 0.373895
Standard error: 5.49498
p-value (significance): 0.38853

Male/female percentage ratio (Einstein 2)



Trend Lines Model
A linear trend model is computed for average of #6 Percentage of students whose gender is-Female given Final Rank (bin).

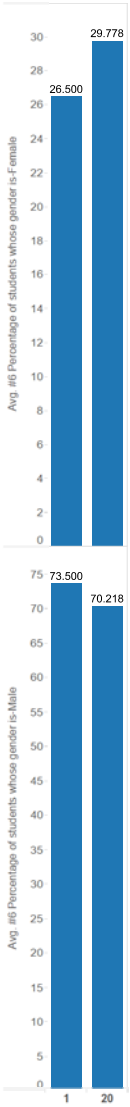
Model formula: (Final Rank (bin) + Intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 363.579
MSE (mean squared error): 25.9699
R-Squared: 0.0174594
Standard error: 5.09607
p-value (significance): 0.625684

A linear trend model is computed for average of #6 Percentage of students whose gender is-Male given Final Rank (bin).

Model formula: (Final Rank (bin) + Intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 364.002
MSE (mean squared error): 26.0001
R-Squared: 0.0172946
Standard error: 5.09903
p-value (significance): 0.627334

Male/female percentage ratio (Hall of Fame)

Hall of Fame R..



Trend Lines Model

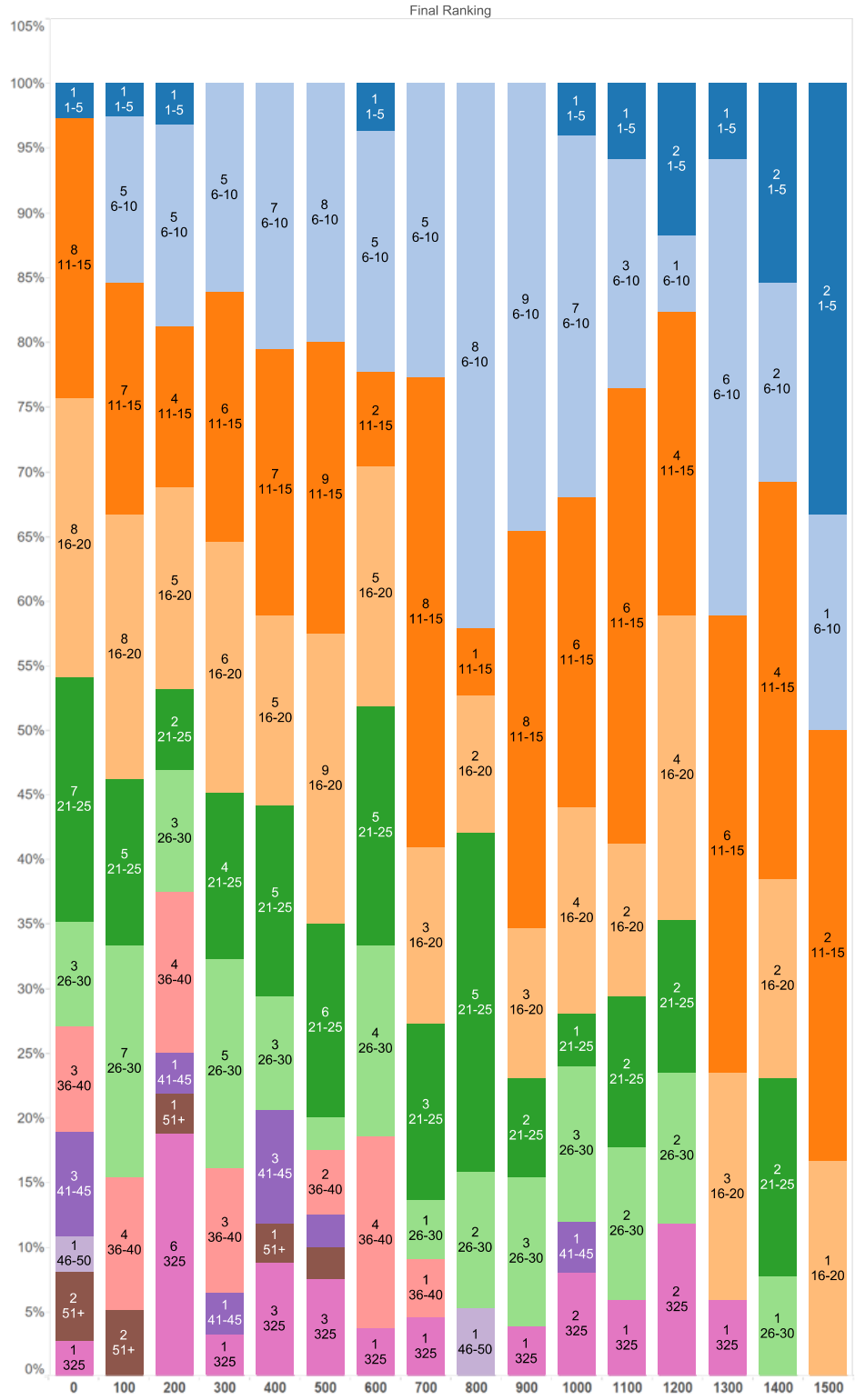
A linear trend model is computed for average of #6 Percentage of students whose gender is-Female given Final Rank (bin).

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 363.579
MSE (mean squared error): 25.9699
R-Squared: 0.0174594
Standard error: 5.09607
p-value (significance): 0.625684

A linear trend model is computed for average of #6 Percentage of students whose gender is-Male given Final Rank (bin).

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 364.002
MSE (mean squared error): 26.0001
R-Squared: 0.0172946
Standard error: 5.09903
p-value (significance): 0.627334

Student Availability (Final)

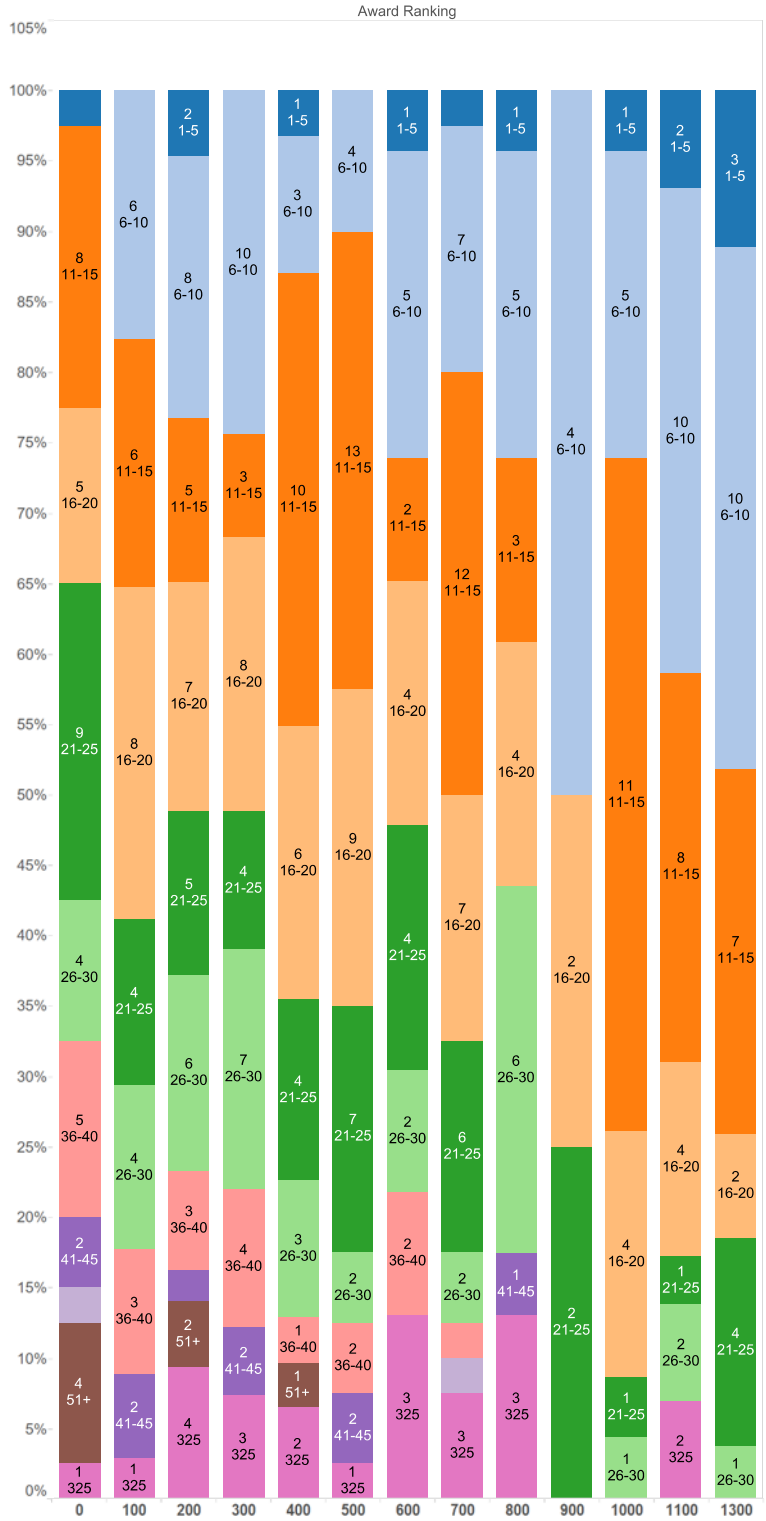


% of Total Count of #8 On average how many students are participating at any given time during season work hours? for each Final Ranking. Color shows details about #8 On average how many students are participating at any given time during season work hours?. The marks are labeled by count of #8 On average how many students are participating at any given time during season work hours? and #8 On average how many students are participating at any given time during season work hours?. The view is filtered on #8 On average how many students are participating at any given time during season work hours?, which excludes Null.

#8 On average how many students are participating at any given time during season work hours?

- 1-5
- 6-10
- 11-15
- 16-20
- 21-25
- 26-30
- 36-40
- 41-45
- 46-50
- 51+
- 325

Student Availability (Awards)

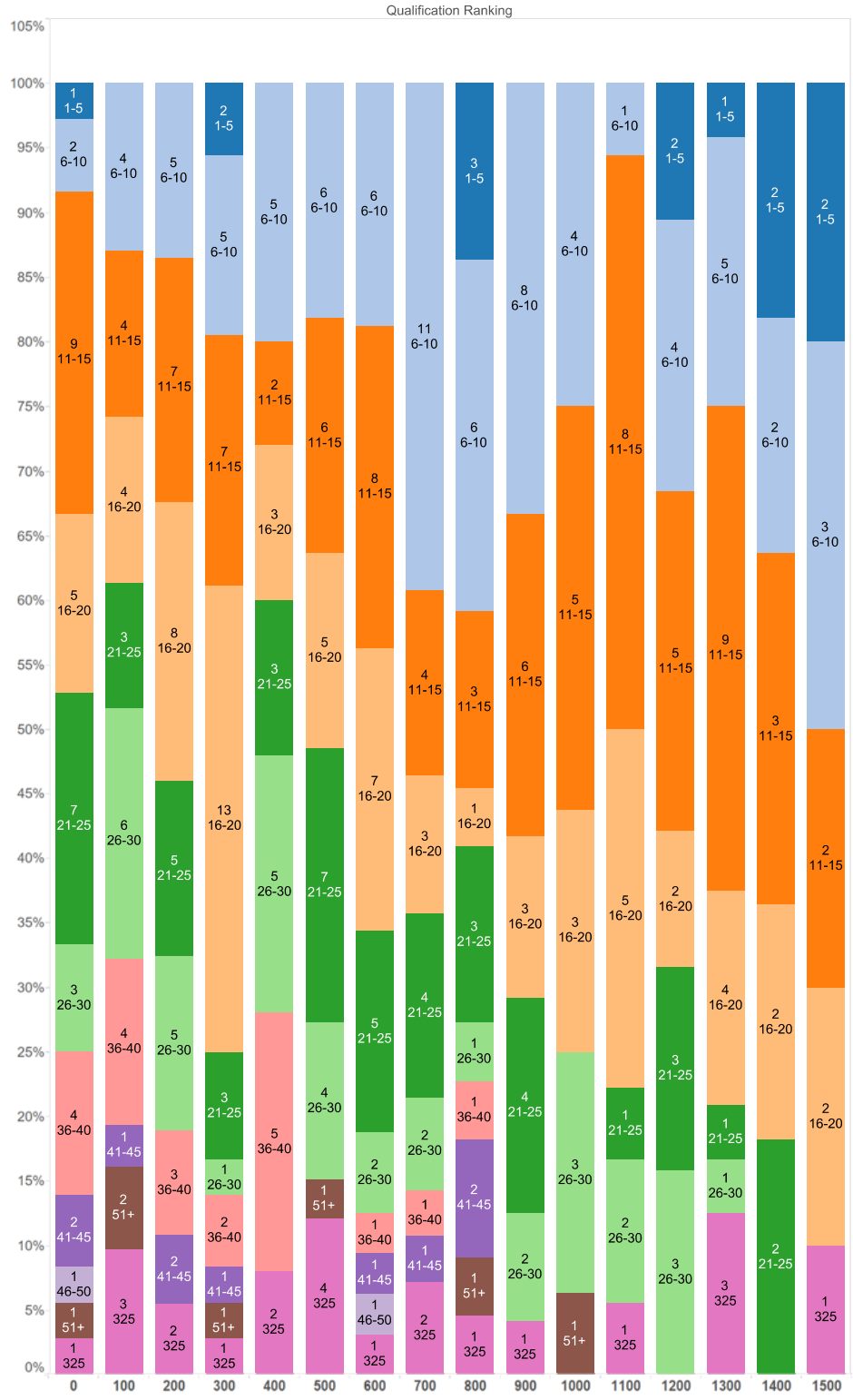


% of Total Count of #8 On average how many students are participating at any given time during season work hours? for each Award Ranking. Color shows details about #8 On average how many students are participating at any given time during season work hours?. The marks are labeled by count of #8 On average how many students are participating at any given time during season work hours? and #8 On average how many students are participating at any given time during season work hours?. The view is filtered on #8 On average how many students are participating at any given time during season work hours?, which excludes Null.

#8 On average how many students are participating at any given time during season work hours?

- 1-5
- 6-10
- 11-15
- 16-20
- 21-25
- 26-30
- 36-40
- 41-45
- 46-50
- 51+
- 325

Student Availability (Quals)

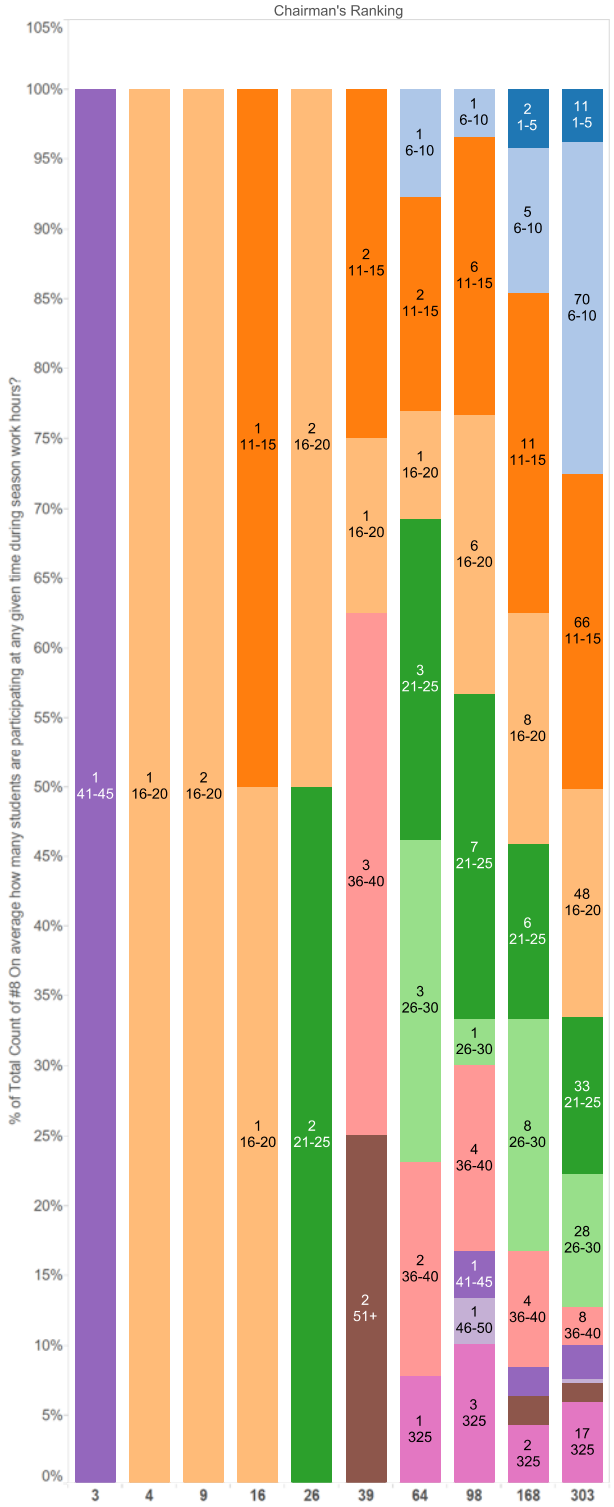


% of Total Count of #8 On average how many students are participating at any given time during season work hours? for each Qualification Ranking. Color shows details about #8 On average how many students are participating at any given time during season work hours?. The marks are labeled by count of #8 On average how many students are participating at any given time during season work hours? and #8 On average how many students are participating at any given time during season work hours?. The view is filtered on #8 On average how many students are participating at any given time during season work hours?, which excludes Null.

#8 On average how many students are participating at any given time during season work hours?

- 1-5
- 6-10
- 11-15
- 16-20
- 21-25
- 26-30
- 36-40
- 41-45
- 46-50
- 51+
- 325

Student Availability (Chairman's)

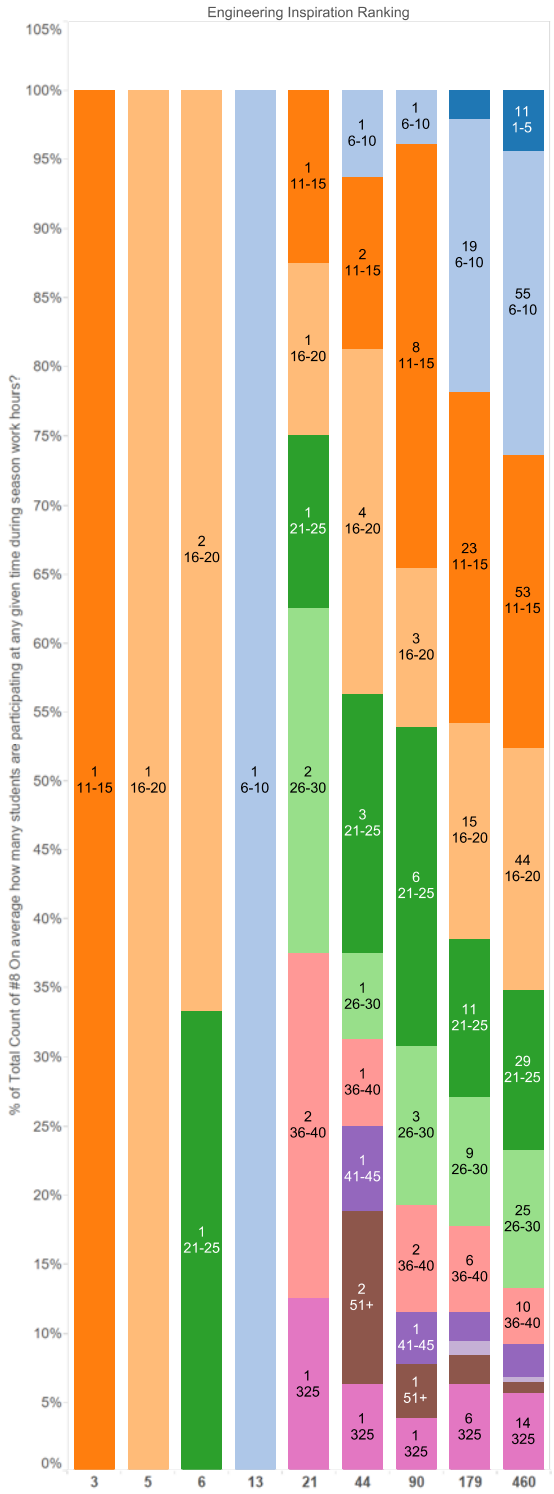


% of Total Count of #8 On average how many students are participating at any given time during season work hours? for each Chairman's Ranking. Color shows details about #8 On average how many students are participating at any given time during season work hours?. The marks are labeled by count of #8 On average how many students are participating at any given time during season work hours? and #8 On average how many students are participating at any given time during season work hours?. The view is filtered on #8 On average how many students are participating at any given time during season work hours?, which excludes Null.

#8 On average how many students are participating at any given time during season work hours?

- 1-5
- 6-10
- 11-15
- 16-20
- 21-25
- 26-30
- 36-40
- 41-45
- 46-50
- 51+
- 325

Student Availability (Inspiration)

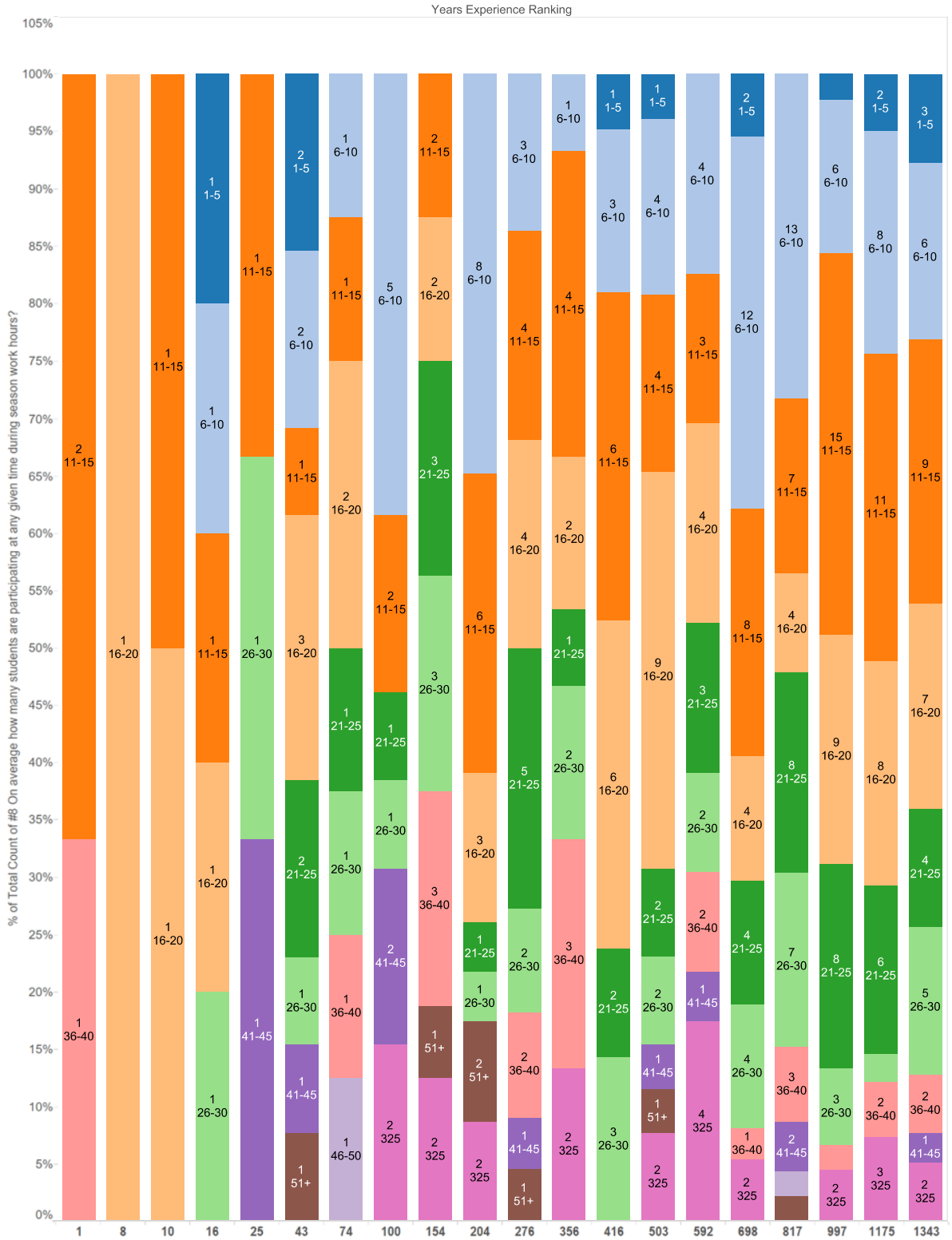


% of Total Count of #8 On average how many students are participating at any given time during season work hours? for each Engineering Inspiration Ranking. Color shows details about #8 On average how many students are participating at any given time during season work hours?. The marks are labeled by count of #8 On average how many students are participating at any given time during season work hours? and #8 On average how many students are participating at any given time during season work hours?. The view is filtered on #8 On average how many students are participating at any given time during season work hours?, which excludes Null.

#8 On average how many students are participating at any given time during season work hours?

- 1-5
- 6-10
- 11-15
- 16-20
- 21-25
- 26-30
- 36-40
- 41-45
- 46-50
- 51+
- 325

Student Availability (Years)

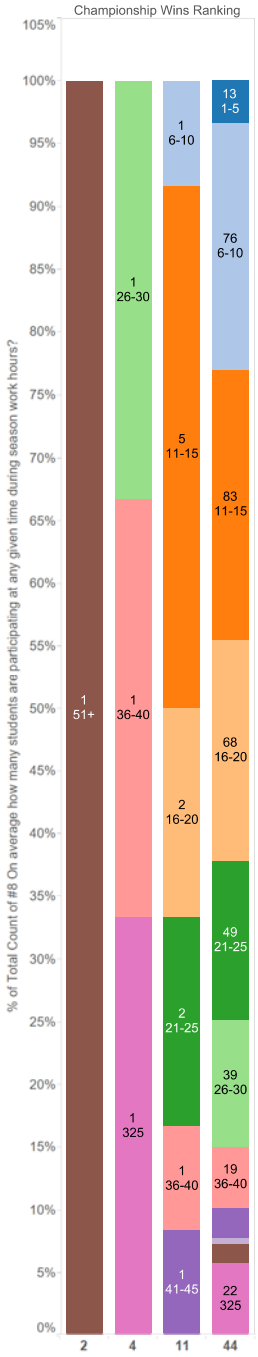


% of Total Count of #8 On average how many students are participating at any given time during season work hours? for each Years Experience Ranking. Color shows details about #8 On average how many students are participating at any given time during season work hours?. The marks are labeled by count of #8 On average how many students are participating at any given time during season work hours? and #8 On average how many students are participating at any given time during season work hours?. The view is filtered on #8 On average how many students are participating at any given time during season work hours?, which excludes Null.

#8 On average how many students are participating at any given time during season work hours?

- 1-5
- 6-10
- 11-15
- 16-20
- 21-25
- 26-30
- 36-40
- 41-45
- 46-50
- 51+
- 325

Student Availability (Einstein)

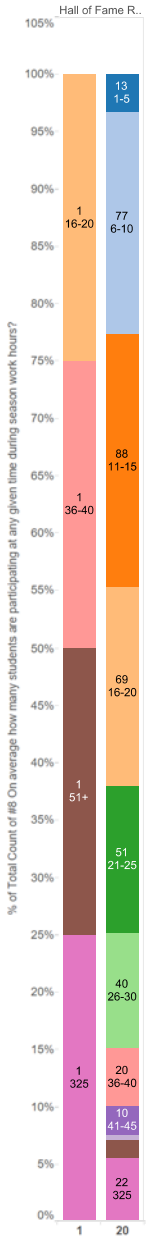


% of Total Count of #8 On average how many students are participating at any given time during season work hours? for each Championship Wins Ranking. Color shows details about #8 On average how many students are participating at any given time during season work hours?. The marks are labeled by count of #8 On average how many students are participating at any given time during season work hours? and #8 On average how many students are participating at any given time during season work hours?. The view is filtered on #8 On average how many students are participating at any given time during season work hours?, which excludes Null.

#8 On average how many students are participating at any given time during season work hours?

- 1-5
- 6-10
- 11-15
- 16-20
- 21-25
- 26-30
- 36-40
- 41-45
- 46-50
- 51+
- 325

Student Availability (Hall of Fame)

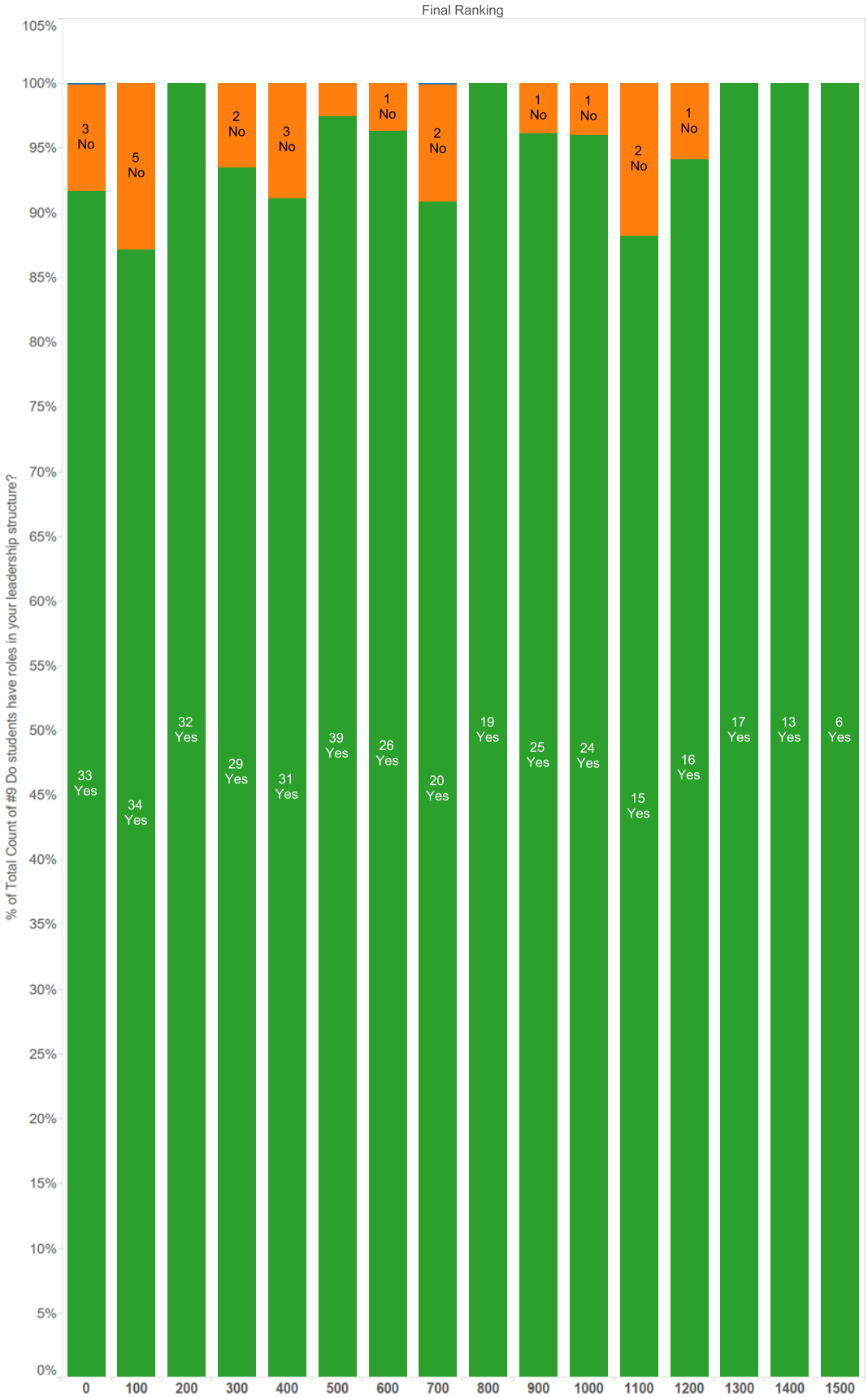


% of Total Count of #8 On average how many students are participating at any given time during season work hours? for each Hall of Fame Ranking. Color shows details about #8 On average how many students are participating at any given time during season work hours?. The marks are labeled by count of #8 On average how many students are participating at any given time during season work hours? and #8 On average how many students are participating at any given time during season work hours?. The view is filtered on #8 On average how many students are participating at any given time during season work hours?, which excludes Null.

#8 On average how many students are participating at any given time during season work hours?

- 1-5
- 6-10
- 11-15
- 16-20
- 21-25
- 26-30
- 36-40
- 41-45
- 46-50
- 51+
- 325

Students in Leadership (Final)

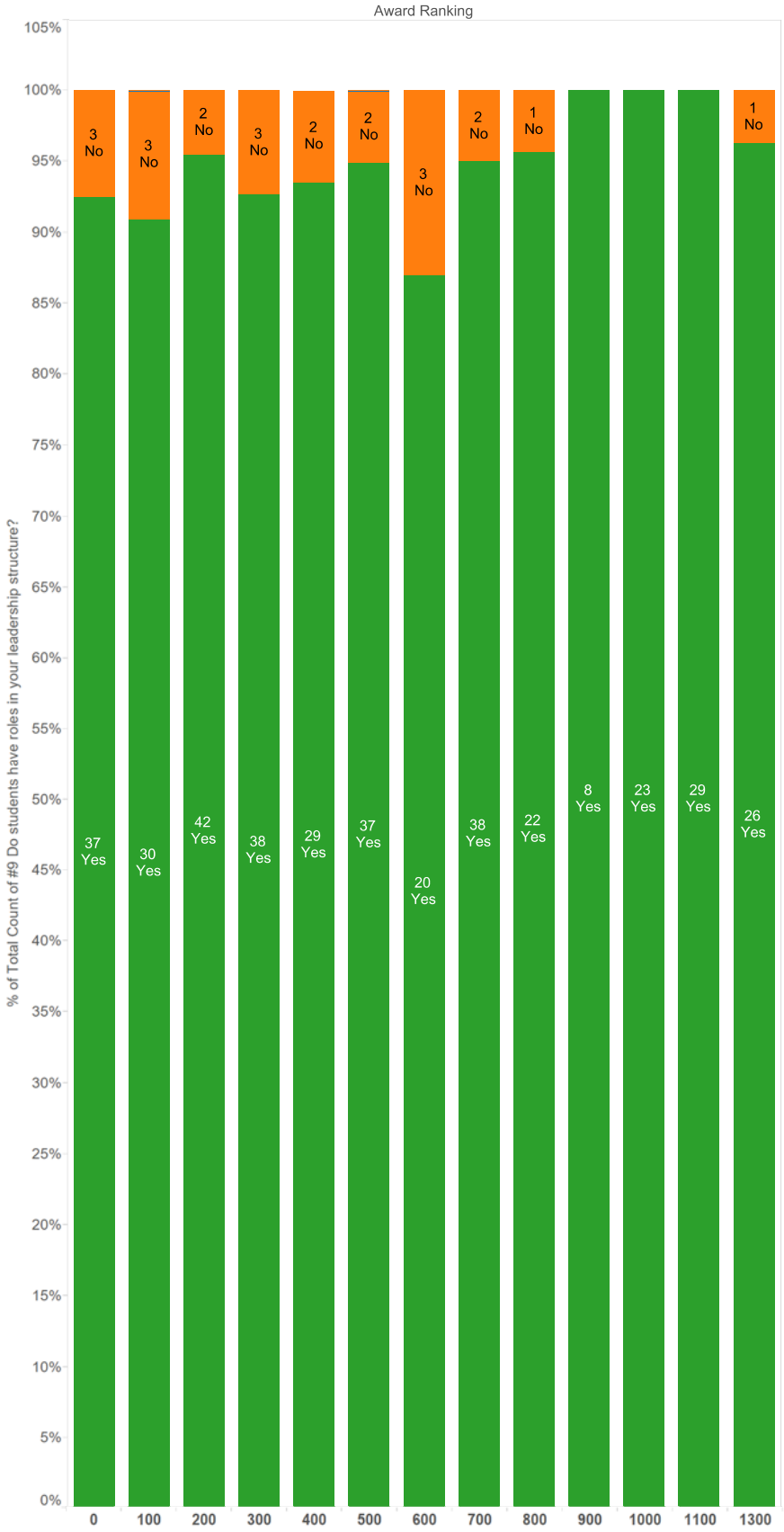


% of Total Count of #9 Do students have roles in your leadership structure? for each Final Ranking. Color shows details about #9 Do students have roles in your leadership structure?. The marks are labeled by count of #9 Do students have roles in your leadership structure? and #9 Do students have roles in your leadership structure?.

#9 Do students have roles in your leadership structure?

- Null
- No
- Yes

Students in Leadership (Awards)

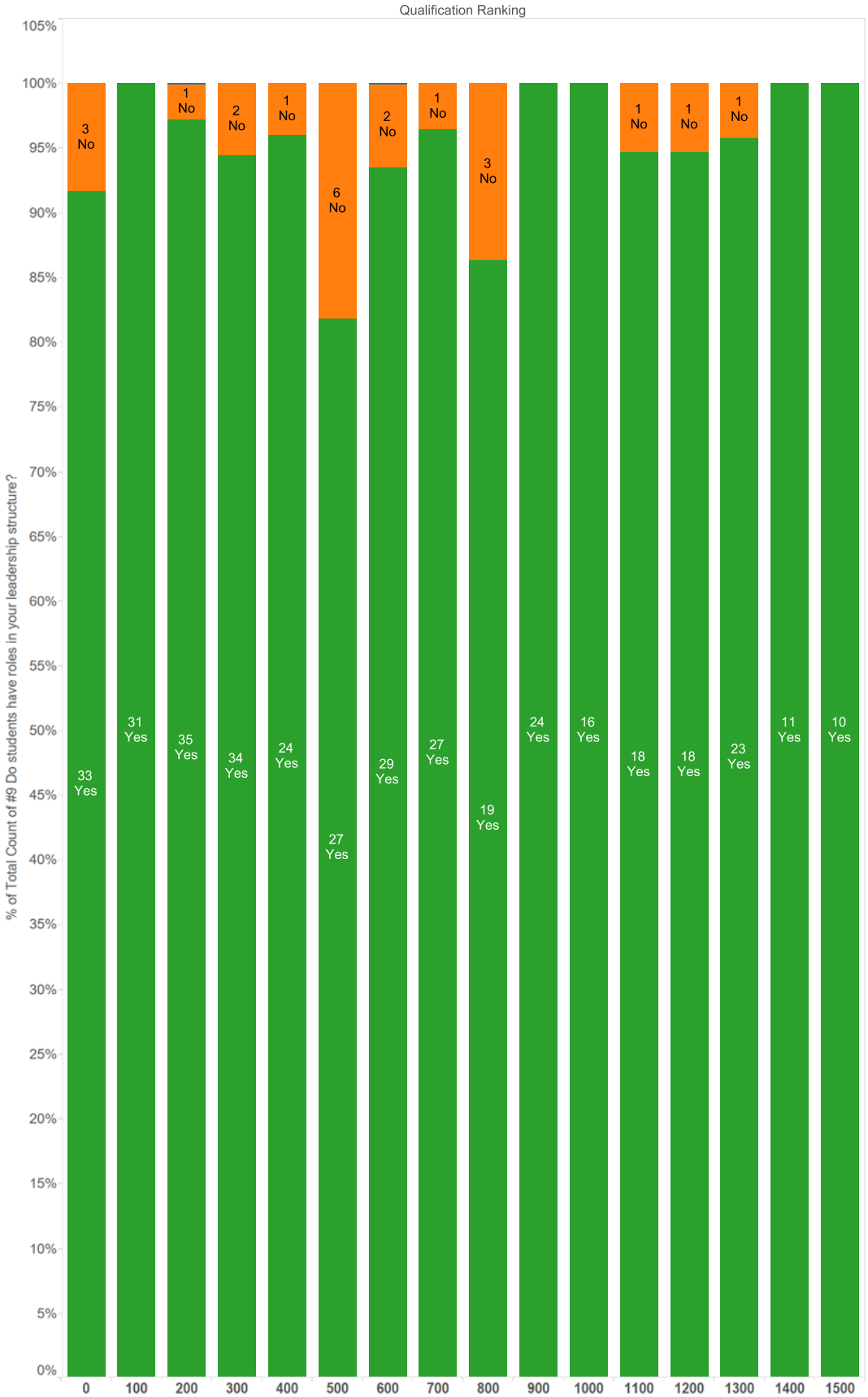


% of Total Count of #9 Do students have roles in your leadership structure? for each Award Ranking. Color shows details about #9 Do students have roles in your leadership structure?. The marks are labeled by count of #9 Do students have roles in your leadership structure? and #9 Do students have roles in your leadership structure?.

#9 Do students have roles in your leadership structure?

- Null
- No
- Yes

Students in Leadership (Quals)

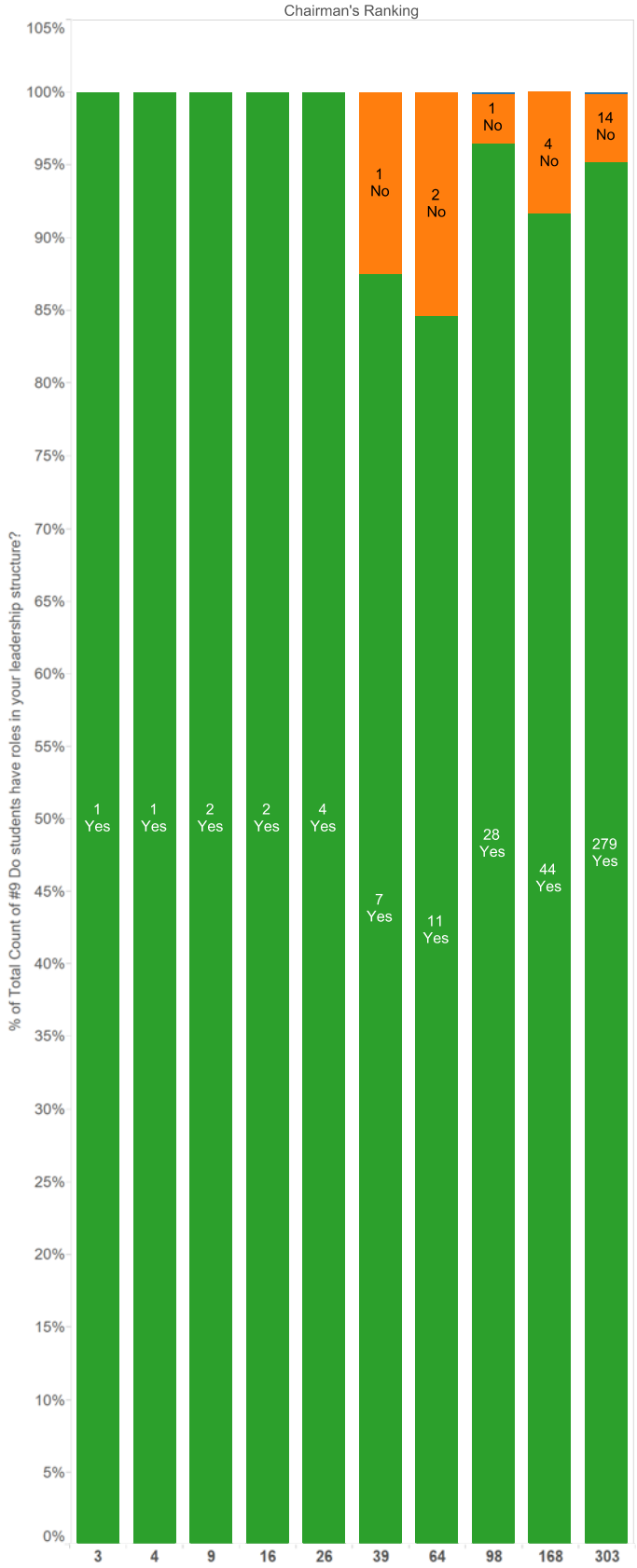


% of Total Count of #9 Do students have roles in your leadership structure? for each Qualification Ranking. Color shows details about #9 Do students have roles in your leadership structure?. The marks are labeled by count of #9 Do students have roles in your leadership structure? and #9 Do students have roles in your leadership structure?.

#9 Do students have roles in your leadership structure?

- Null
- No
- Yes

Students in Leadership (Chairman's)

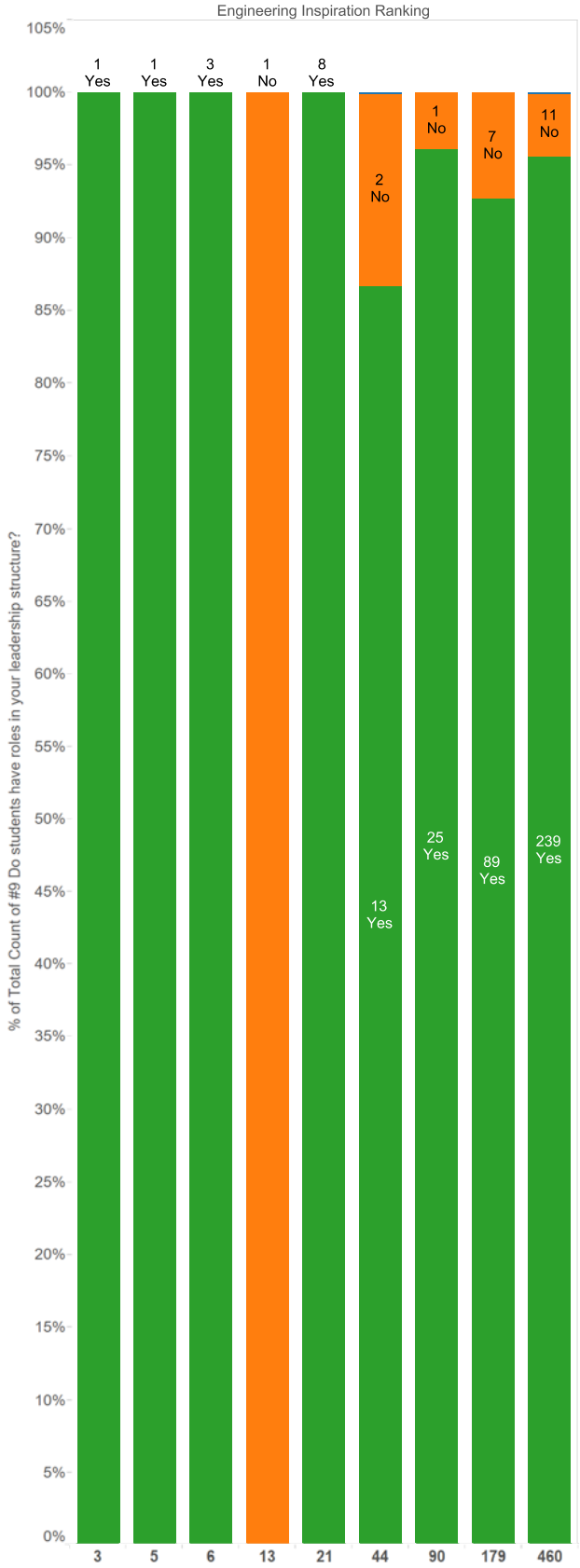


% of Total Count of #9 Do students have roles in your leadership structure? for each Chairman's Ranking. Color shows details about #9 Do students have roles in your leadership structure?. The marks are labeled by count of #9 Do students have roles in your leadership structure? and #9 Do students have roles in your leadership structure?.

#9 Do students have roles in your leadership structure?

- Null
- No
- Yes

Students in Leadership (Inspiration)

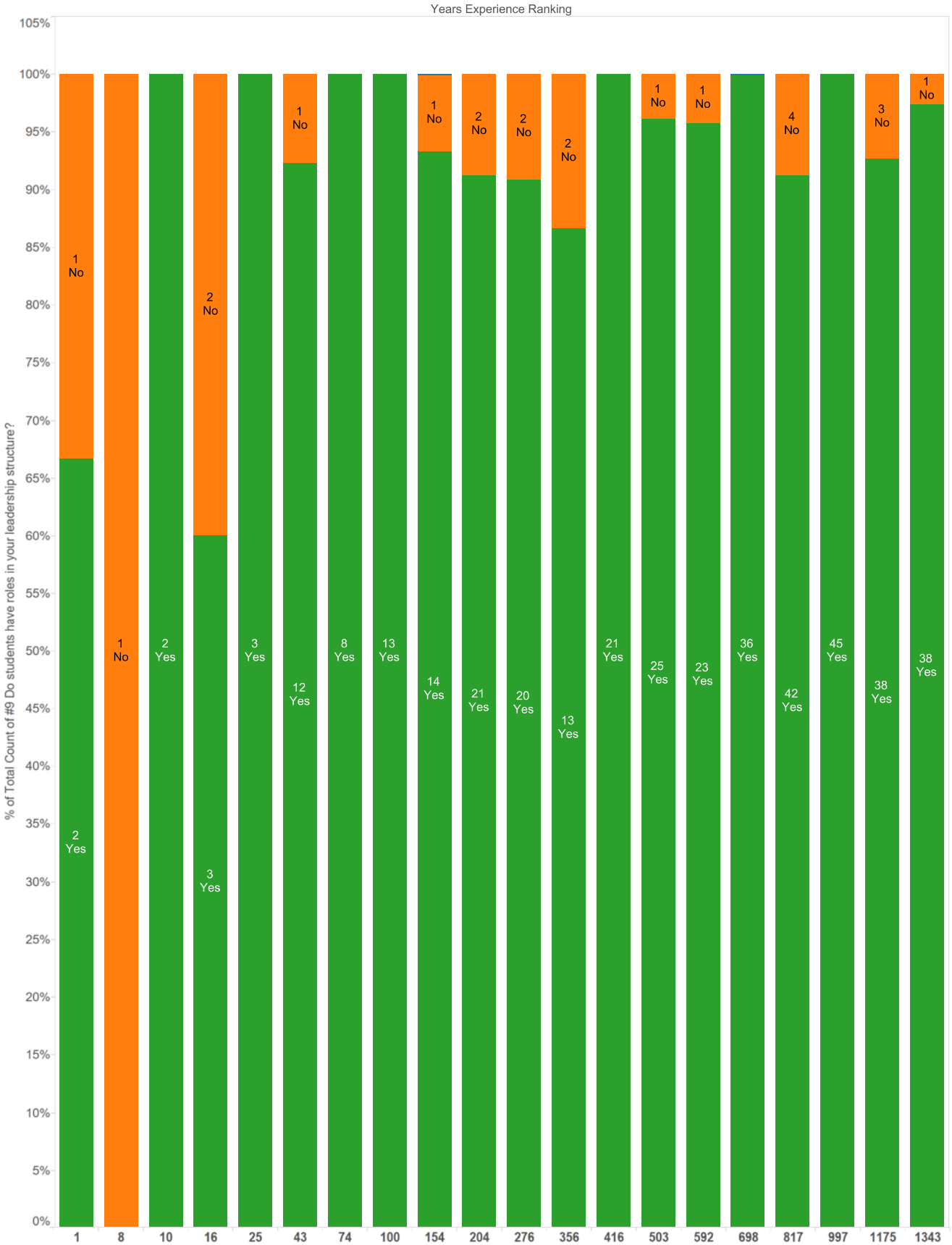


% of Total Count of #9 Do students have roles in your leadership structure? for each Engineering Inspiration Ranking. Color shows details about #9 Do students have roles in your leadership structure?. The marks are labeled by count of #9 Do students have roles in your leadership structure? and #9 Do students have roles in your leadership structure?.

#9 Do students have roles in your leadership structure?

- Null
- No
- Yes

Students in Leadership (Years)

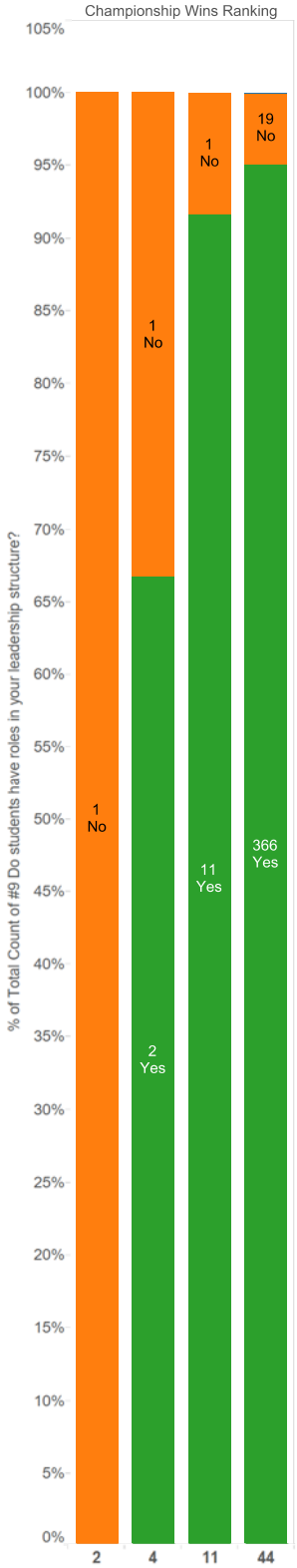


% of Total Count of #9 Do students have roles in your leadership structure? for each Years Experience Ranking. Color shows details about #9 Do students have roles in your leadership structure?. The marks are labeled by count of #9 Do students have roles in your leadership structure? and #9 Do students have roles in your leadership structure?.

#9 Do students have roles in your leadership structure?

- Null
- No
- Yes

Students in Leadership (Einstein)

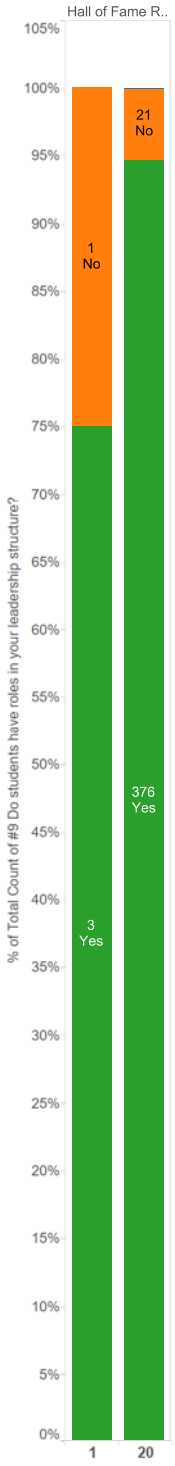


% of Total Count of #9 Do students have roles in your leadership structure? for each Championship Wins Ranking. Color shows details about #9 Do students have roles in your leadership structure?. The marks are labeled by count of #9 Do students have roles in your leadership structure? and #9 Do students have roles in your leadership structure?.

#9 Do students have roles in your leadership structure?

- Null
- No
- Yes

Students in Leadership (Hall of Fame)

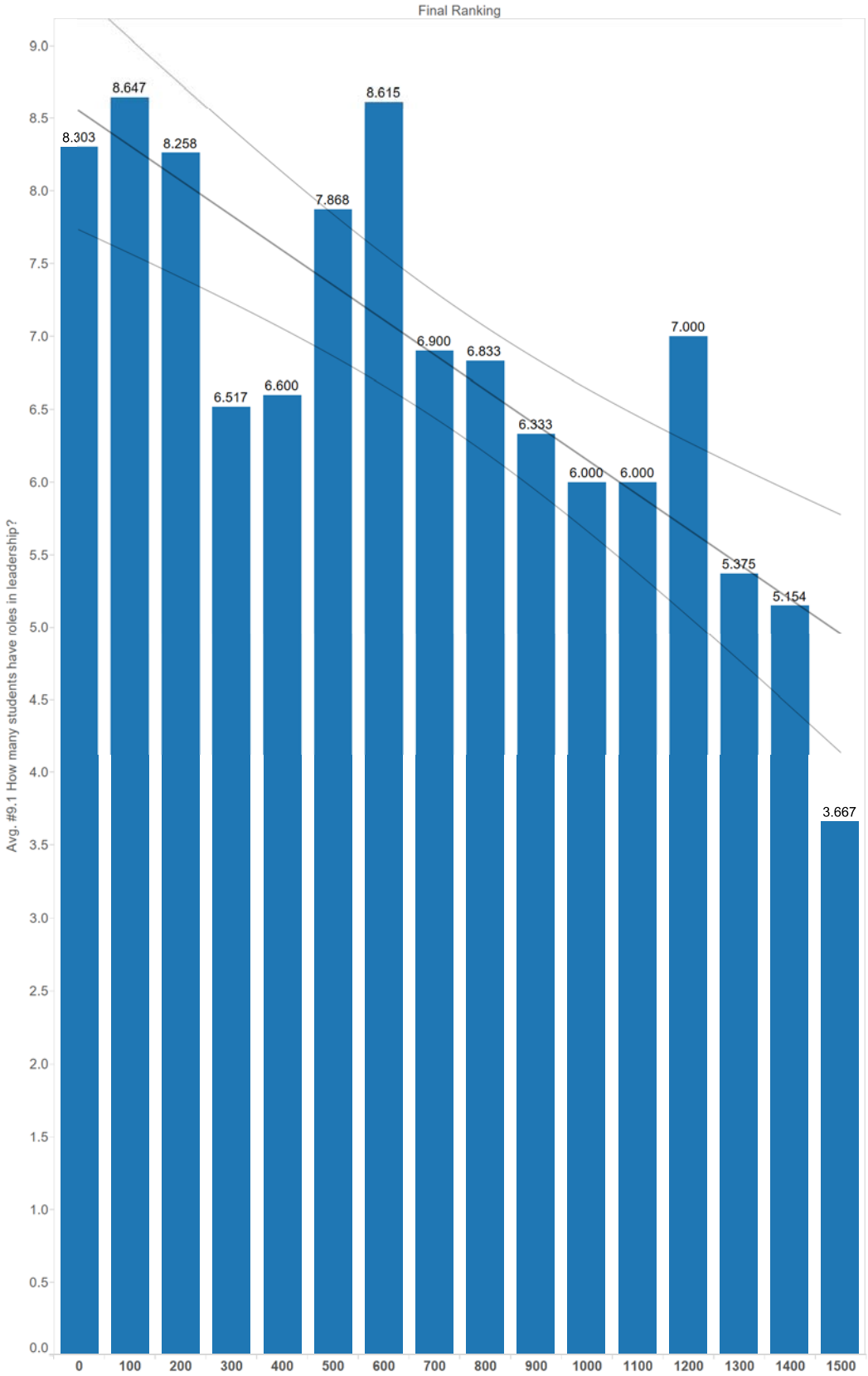


% of Total Count of #9 Do students have roles in your leadership structure? for each Hall of Fame Ranking. Color shows details about #9 Do students have roles in your leadership structure?. The marks are labeled by count of #9 Do students have roles in your leadership structure? and #9 Do students have roles in your leadership structure?.

#9 Do students have roles in your leadership structure?

- Null
- No
- Yes

Number of Students in Leadership (Final)

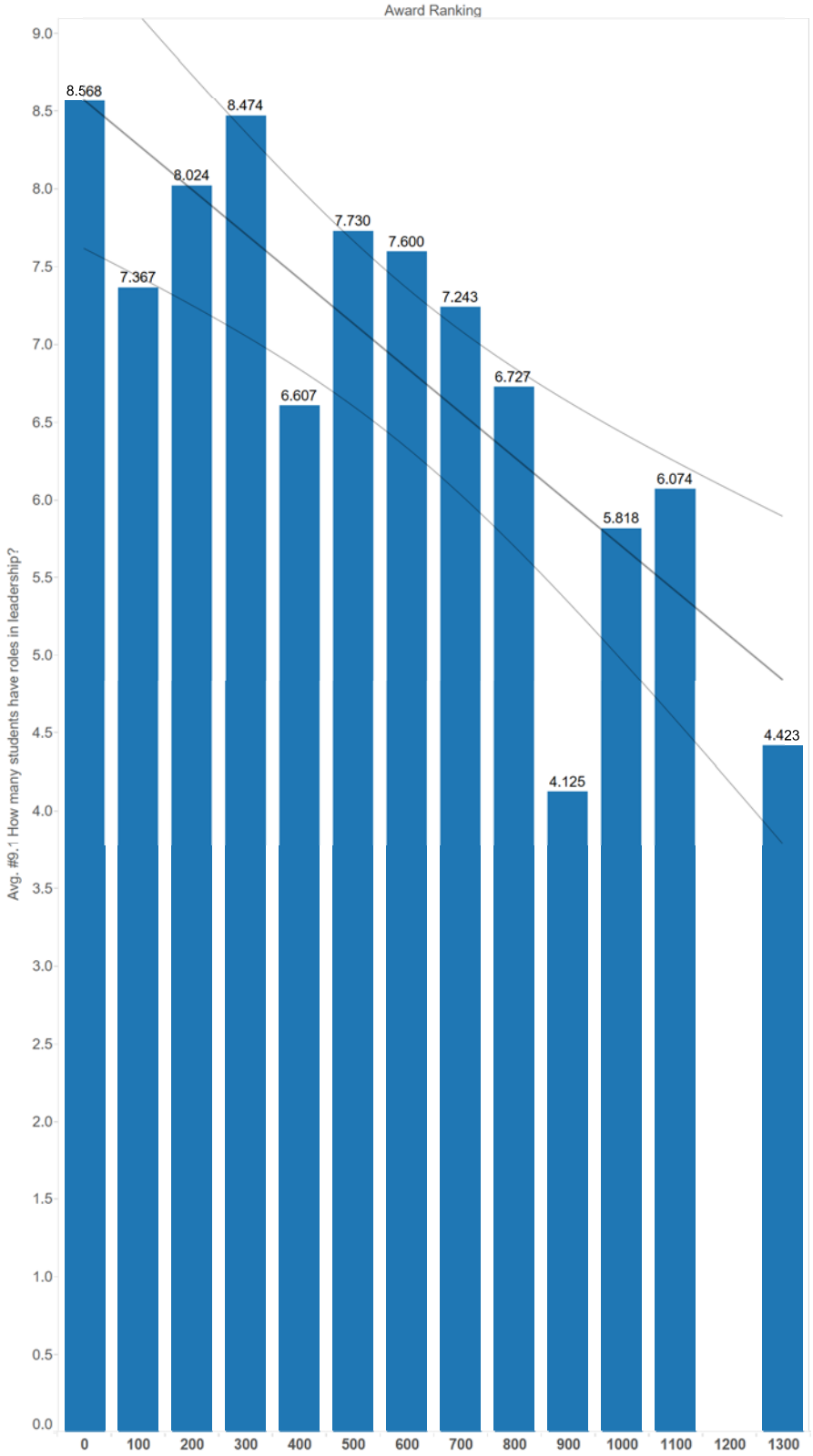


Trend Lines Model

A linear trend model is computed for average of #9.1 How many students have roles in leadership? given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 8.94413
MSE (mean squared error): 0.638867
R-Squared: 0.685373
Standard error: 0.799291
p-value (significance): < 0.0001

Number of Students in Leadership (Awards)

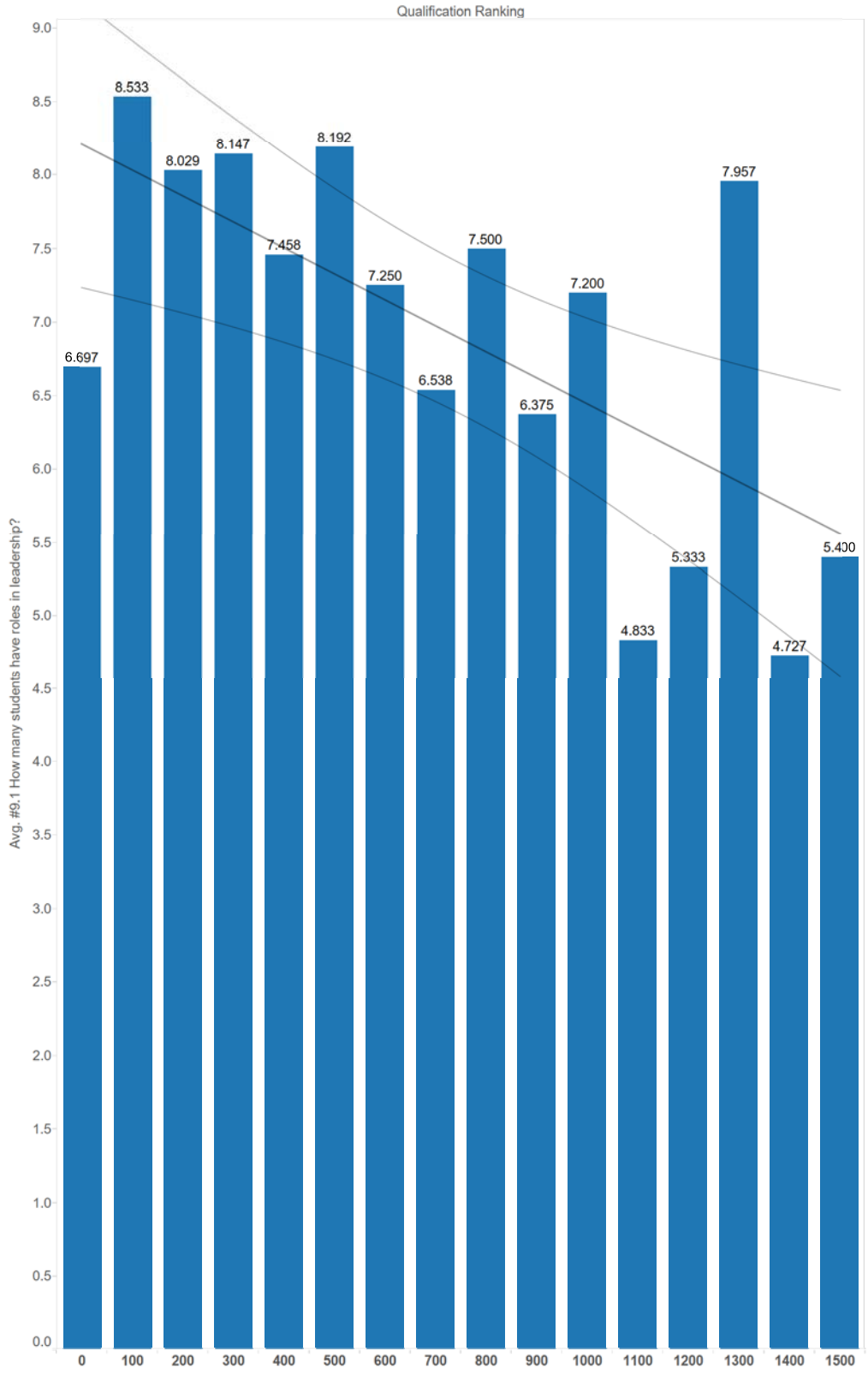


Trend Lines Model

A linear trend model is computed for average of #9.1 How many students have roles in leadership? given Award Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Award Rank (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 7.77017
MSE (mean squared error): 0.706379
R-Squared: 0.67317
Standard error: 0.840464
p-value (significance): 0.0005902

Number of Students in Leadership (Quals)

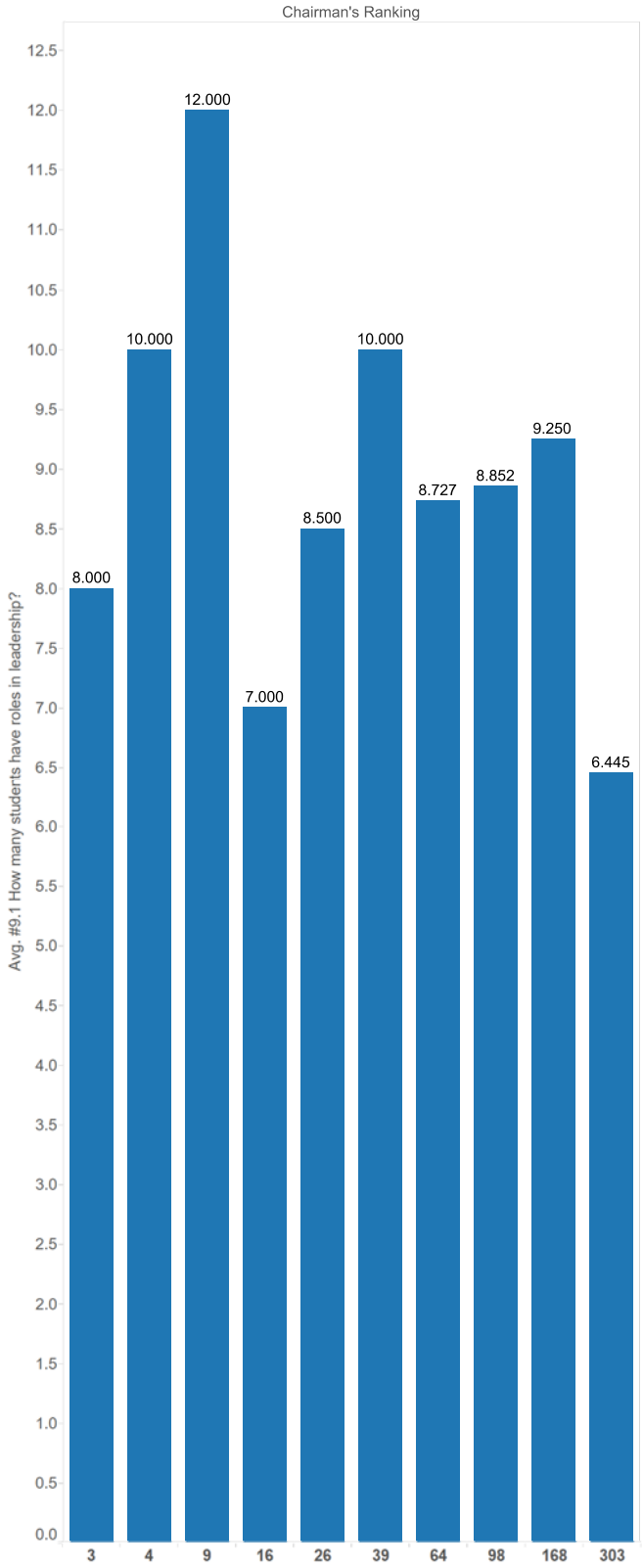


Trend Lines Model

A linear trend model is computed for average of #9.1 How many students have roles in leadership? given Quals Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Quals Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 12.7107
MSE (mean squared error): 0.907911
R-Squared: 0.454655
Standard error: 0.952843
p-value (significance): 0.0041744

Number of Students in Leadership (Chairman's)

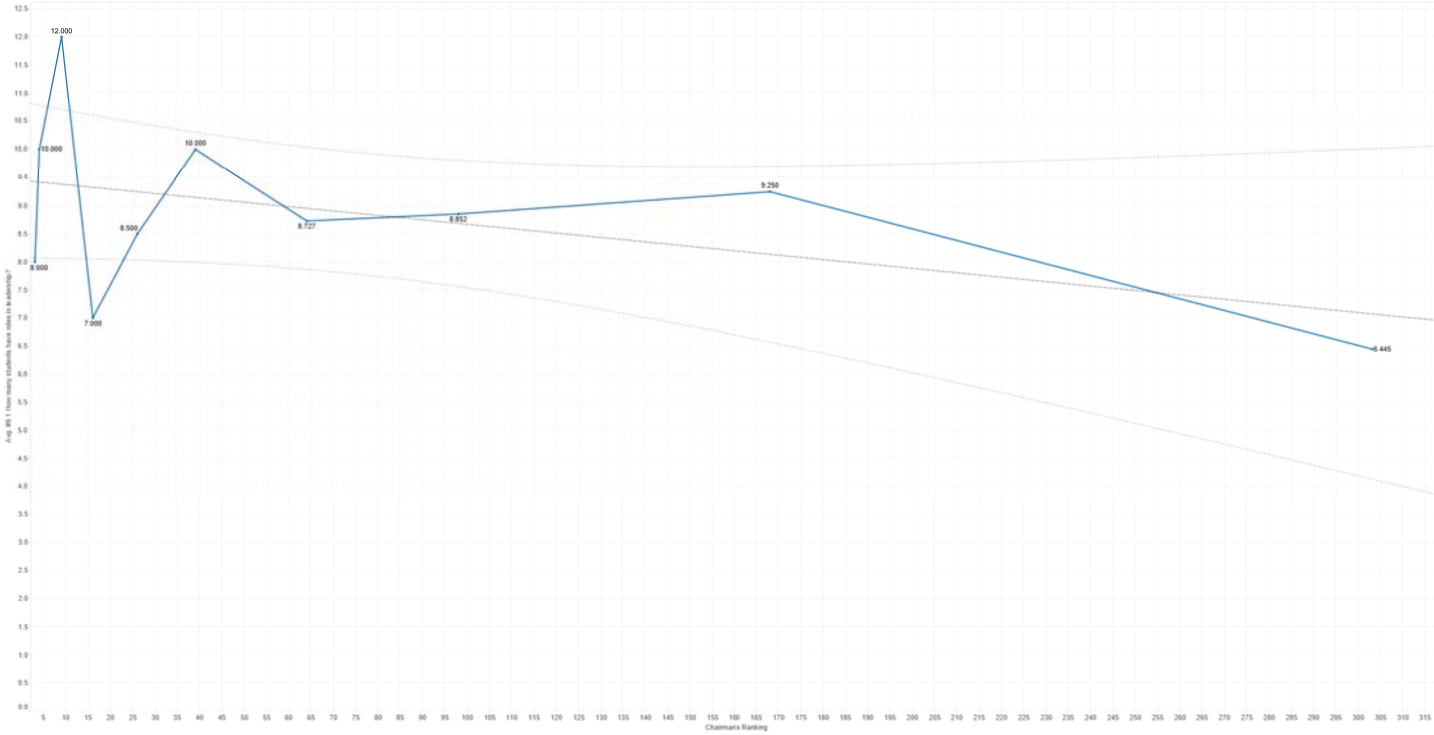


Trend Lines Model

A linear trend model is computed for average of #9.1 How many students have roles in leadership? given Chairman's Rank.

Model formula: (Chairman's Rank + intercept)
Number of modeled observations: 10
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 8
SSE (sum squared error): 17.6544
MSE (mean squared error): 2.20681
R-Squared: 0.225184
Standard error: 1.48553
p-value (significance): 0.165816

Number of Students in Leadership (Chairman's 2)

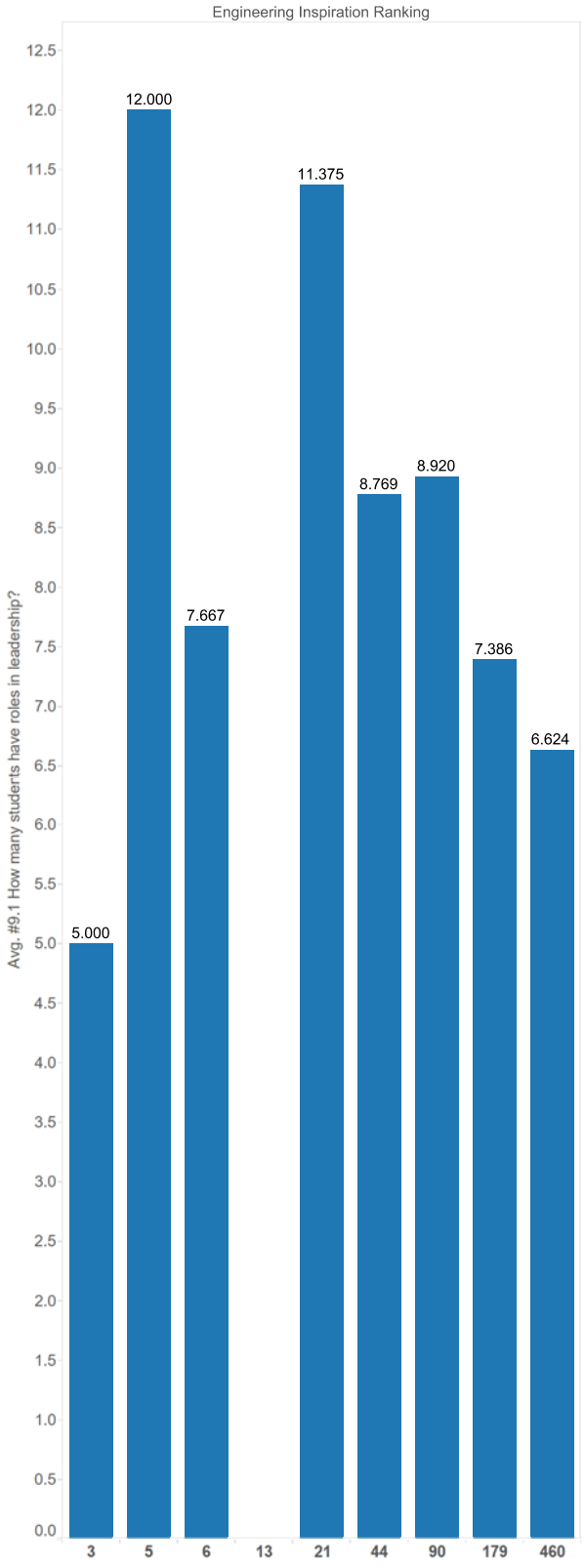


Trend Lines Model

A linear trend model is computed for average of #9.1 How many students have roles in leadership? given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 8.94413
MSE (mean squared error): 0.638867
R-Squared: 0.685373
Standard error: 0.799291
p-value (significance): < 0.0001

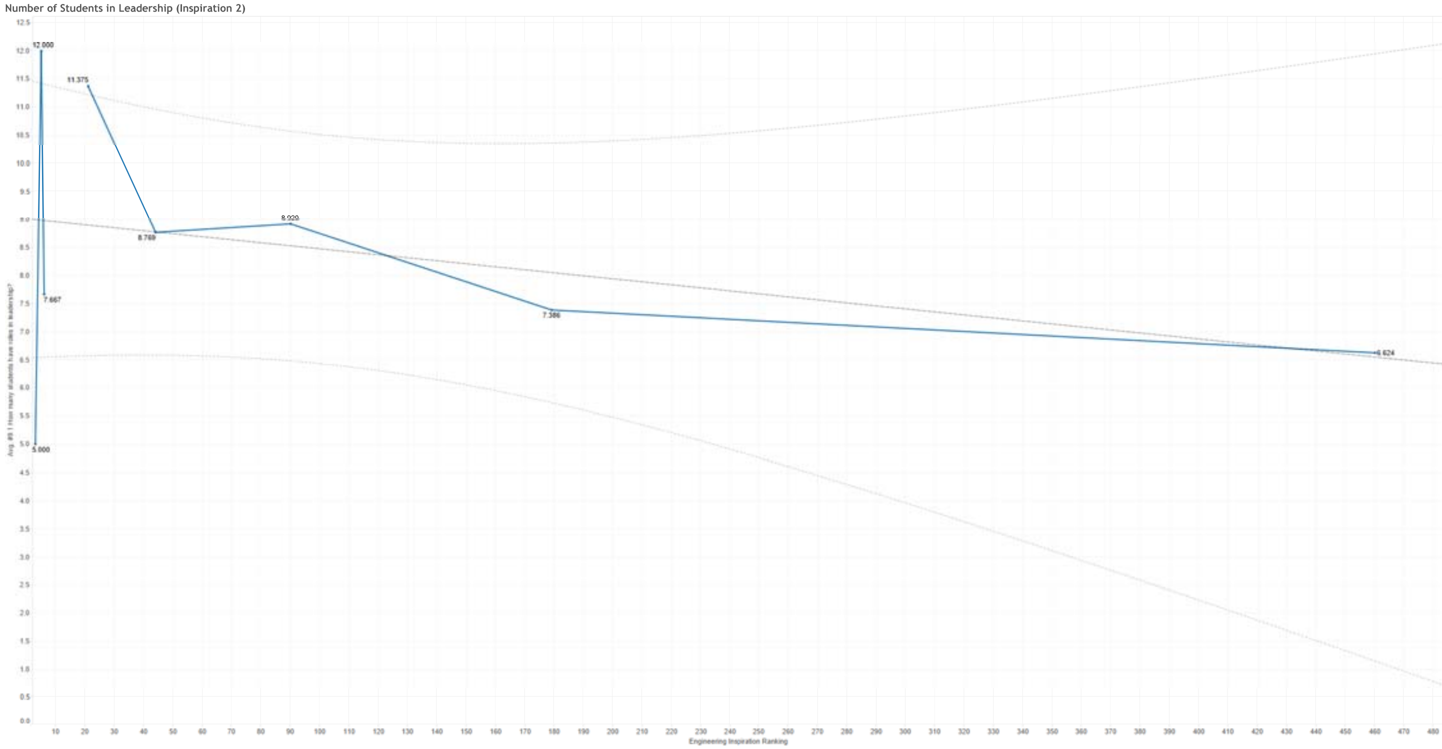
Number of Students in Leadership (Inspiration)



Trend Lines Model
A linear trend model is computed for average of #9.1 How many students have roles in leadership? given Inspiration Rank.

Model formula: (Inspiration Rank + intercept)
Number of modeled observations: 8
Number of filtered observations: 1
Model degrees of freedom: 2
Residual degrees of freedom (DF): 6
SSE (sum squared error): 33.5114
MSE (mean squared error): 5.58524
R-Squared: 0.128677
Standard error: 2.36331
p-value (significance): 0.382879

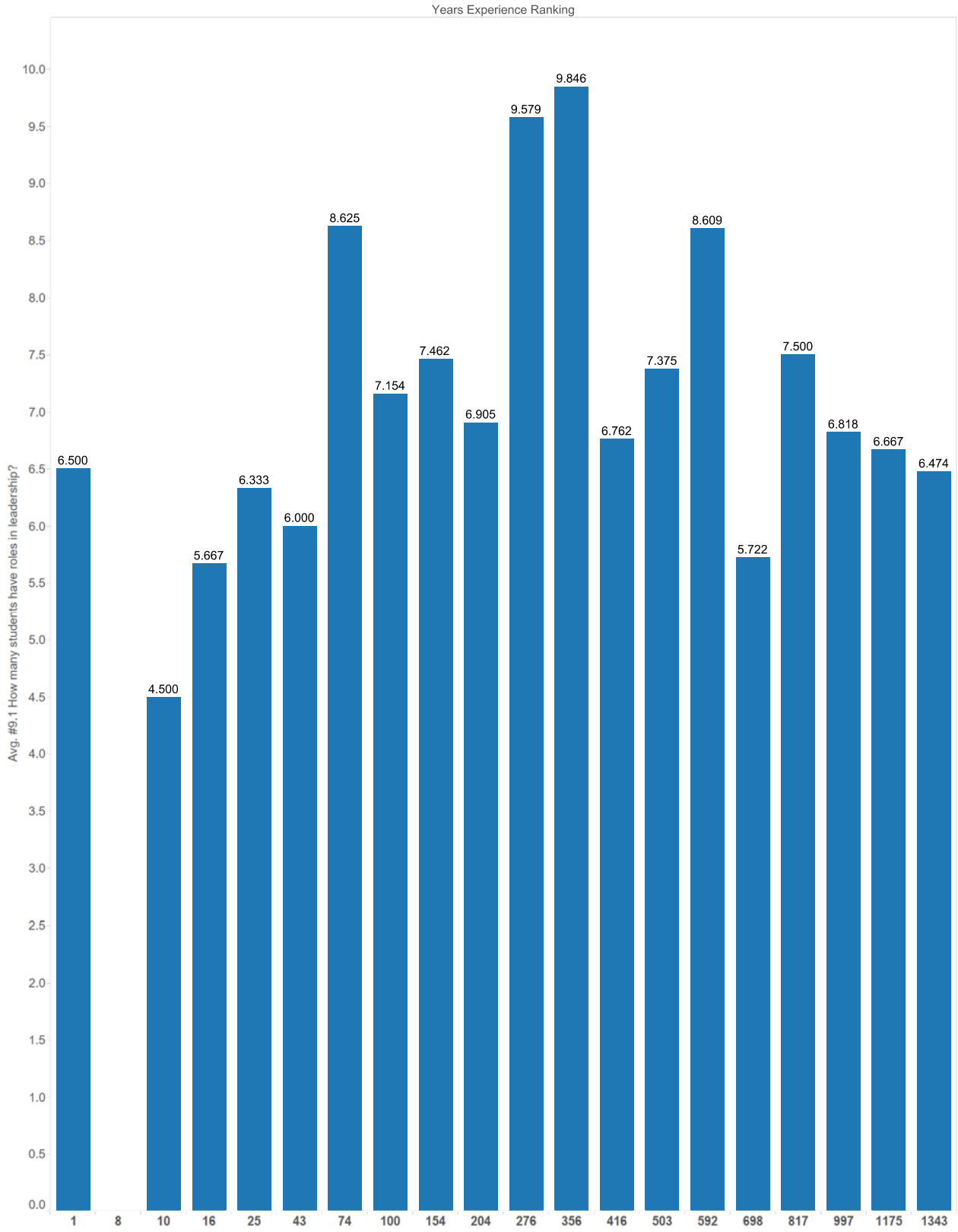
Number of Students in Leadership (Inspiration 2)



Trend Lines Model
A linear trend model is computed for average of #9.1 How many students have roles in leadership? given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 8.94413
MSE (mean squared error): 0.638867
R-Squared: 0.685373
Standard error: 0.799291
p-value (significance): < 0.0001

Number of Students in Leadership (Years)

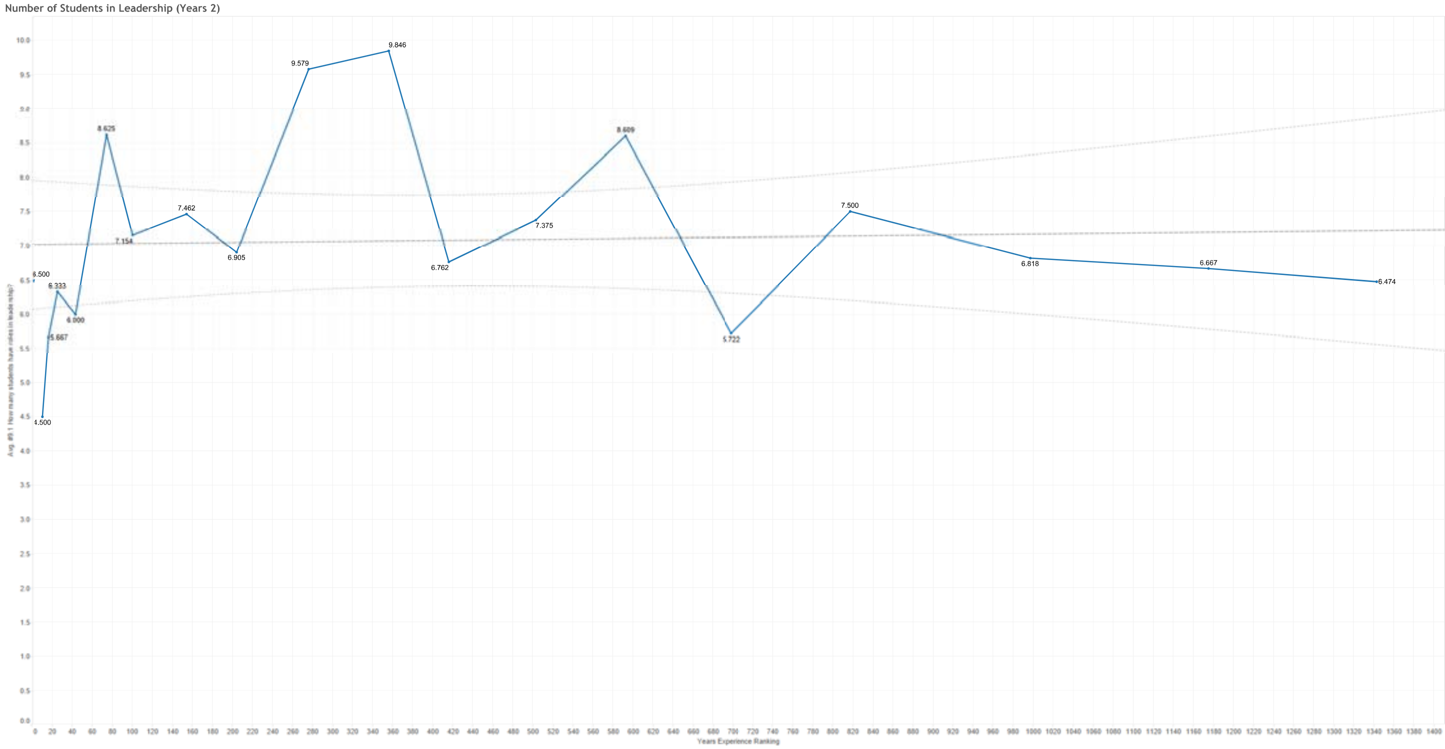


Trend Lines Model

A linear trend model is computed for average of #9.1 How many students have roles in leadership? given Years Rank.

Model formula: (Years Rank + intercept)
Number of modeled observations: 19
Number of filtered observations: 1
Model degrees of freedom: 2
Residual degrees of freedom (DF): 17
SSE (sum squared error): 32.2622
MSE (mean squared error): 1.89778
R-Squared: 0.0021406
Standard error: 1.3776
p-value (significance): 0.850812

Number of Students in Leadership (Years 2)

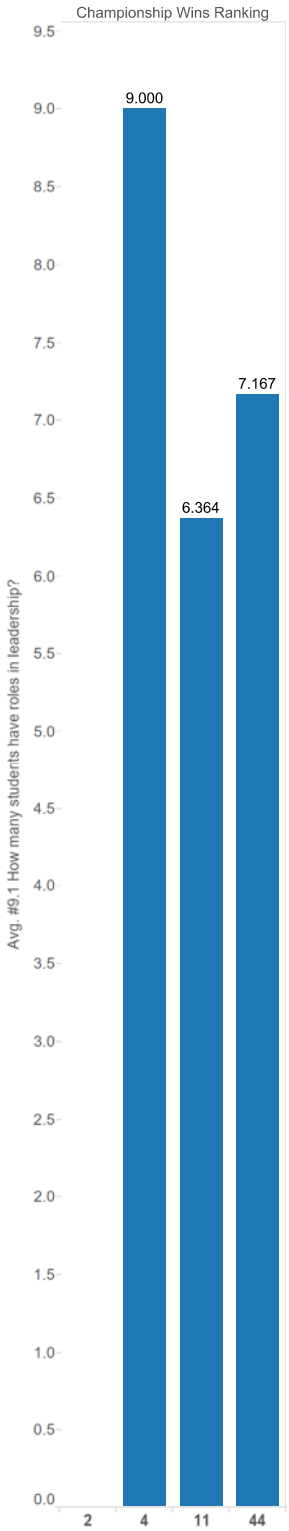


Trend Lines Model

A linear trend model is computed for average of #9.1 How many students have roles in leadership? given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 8.94413
MSE (mean squared error): 0.638867
R-Squared: 0.685373
Standard error: 0.799291
p-value (significance): < 0.0001

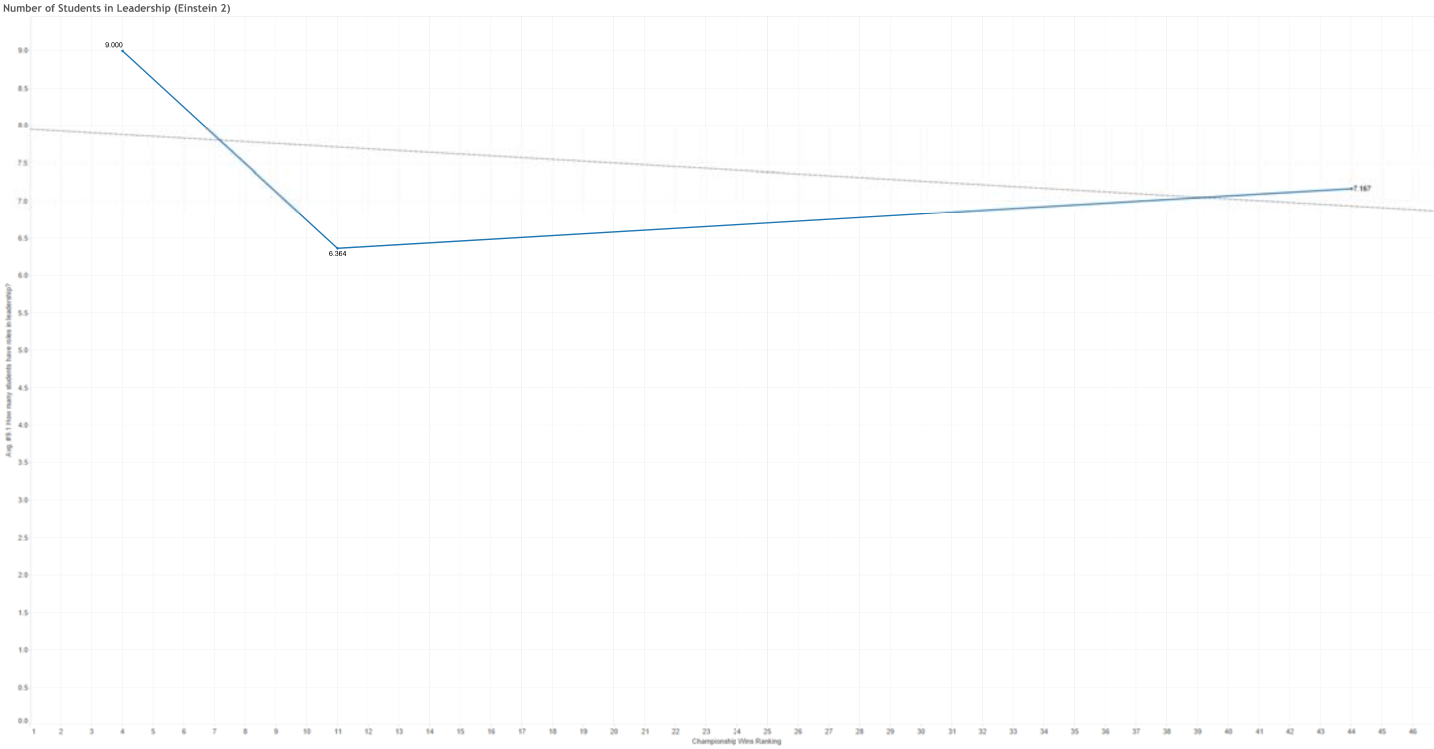
Number of Students in Leadership (Einstein)



Trend Lines Model
A linear trend model is computed for average of #9.1 How many students have roles in leadership? given Einstein Rank.

Model formula: (Einstein Rank + intercept)
Number of modeled observations: 3
Number of filtered observations: 1
Model degrees of freedom: 2
Residual degrees of freedom (DF): 1
SSE (sum squared error): 3.1332
MSE (mean squared error): 3.1332
R-Squared: 0.14209
Standard error: 1.77008
p-value (significance): 0.753947

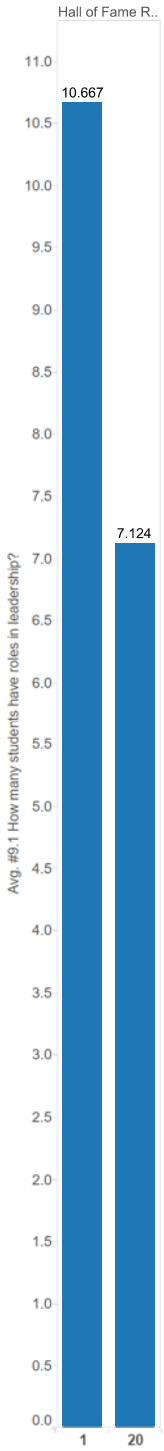
Number of Students in Leadership (Einstein 2)



Trend Lines Model
A linear trend model is computed for average of #9.1 How many students have roles in leadership? given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 8.94413
MSE (mean squared error): 0.638867
R-Squared: 0.685373
Standard error: 0.799291
p-value (significance): < 0.0001

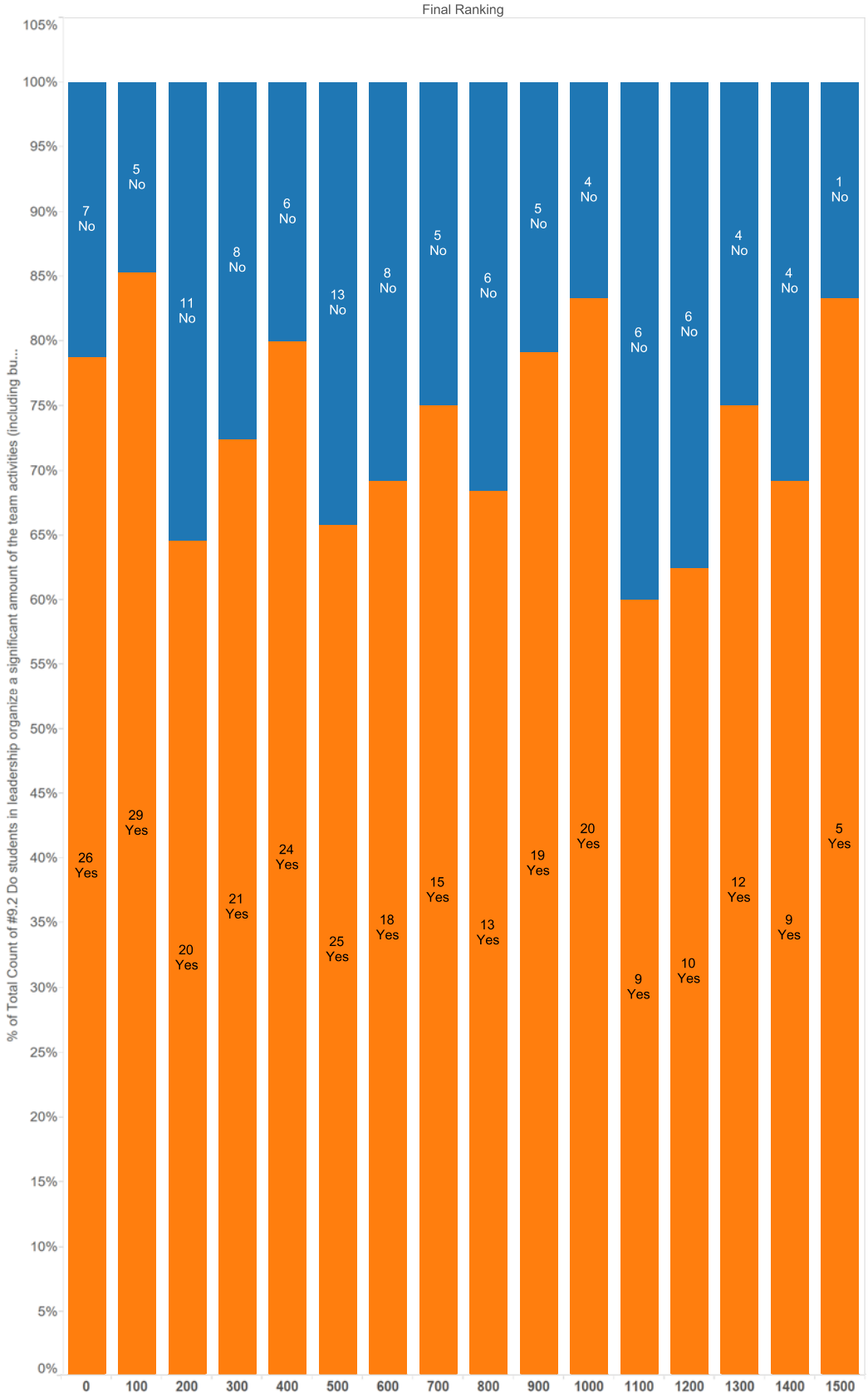
Number of Students in Leadership (Hall of Fame)



Trend Lines Model
A linear trend model is computed for average of #9.1 How many students have roles in leadership? given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 8.94413
MSE (mean squared error): 0.638867
R-Squared: 0.685373
Standard error: 0.799291
p-value (significance): < 0.0001

Students Organizing Activities (Final)

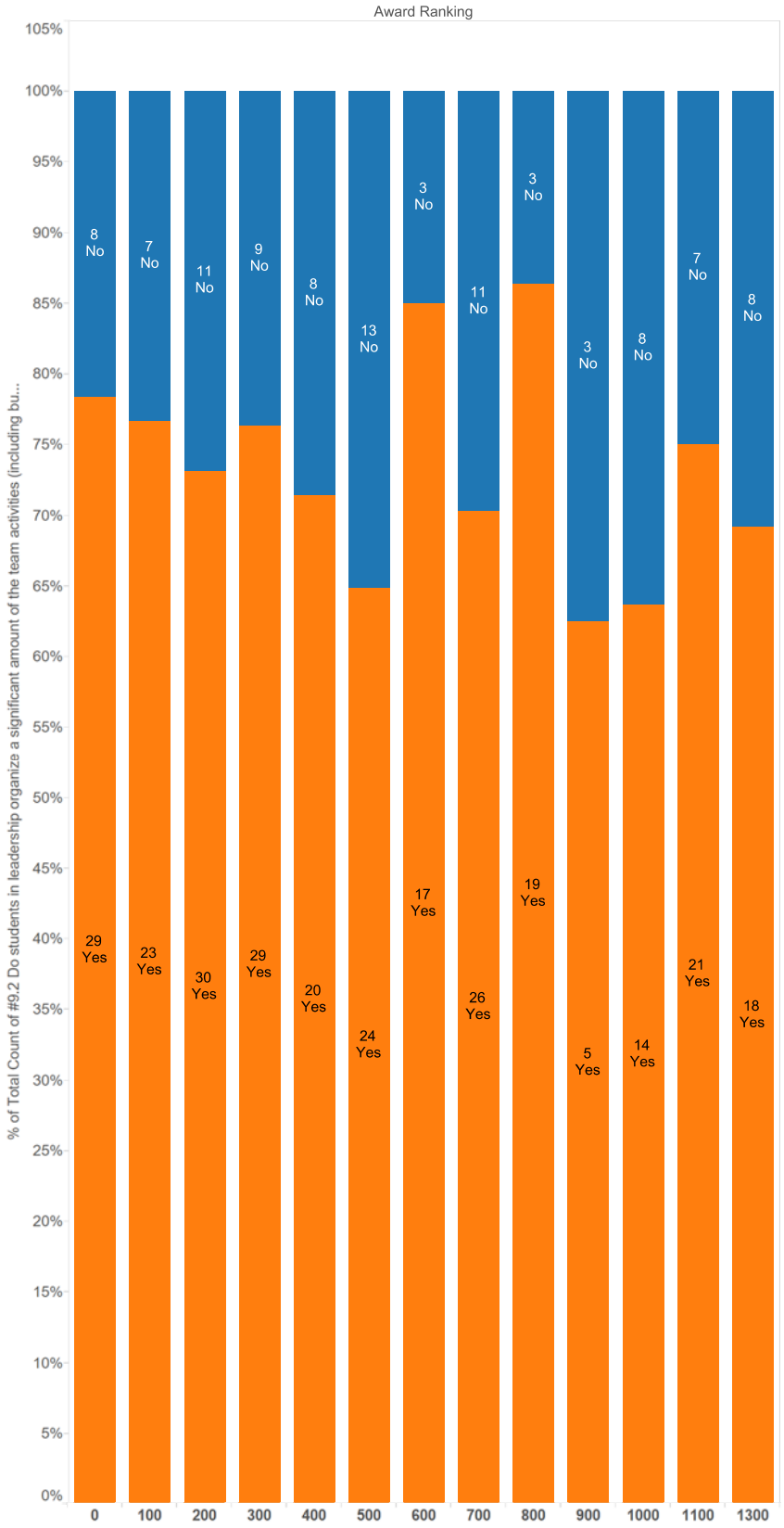


% of Total Count of #9.2 Do students in leadership organize a significant amount of the team activities (including bu... for each Final Ranking. Color shows details about #9.2 Do students in leadership organize a significant amount of the team activities (including bu.... The marks are labeled by count of #9.2 Do students in leadership organize a significant amount of the team activities (including bu... and #9.2 Do students in leadership organize a significant amount of the team activities (including bu.... The data is filtered on #9 Do students have roles in your leadership structure?, which keeps No and Yes. The view is filtered on #9.2 Do students in leadership organize a significant amount of the team activities (including bu..., which excludes Null.

#9.2 Do students in leadership organize a significant amount of the team activities (including bu...

- No
- Yes

Students Organizing Activities (Awards)

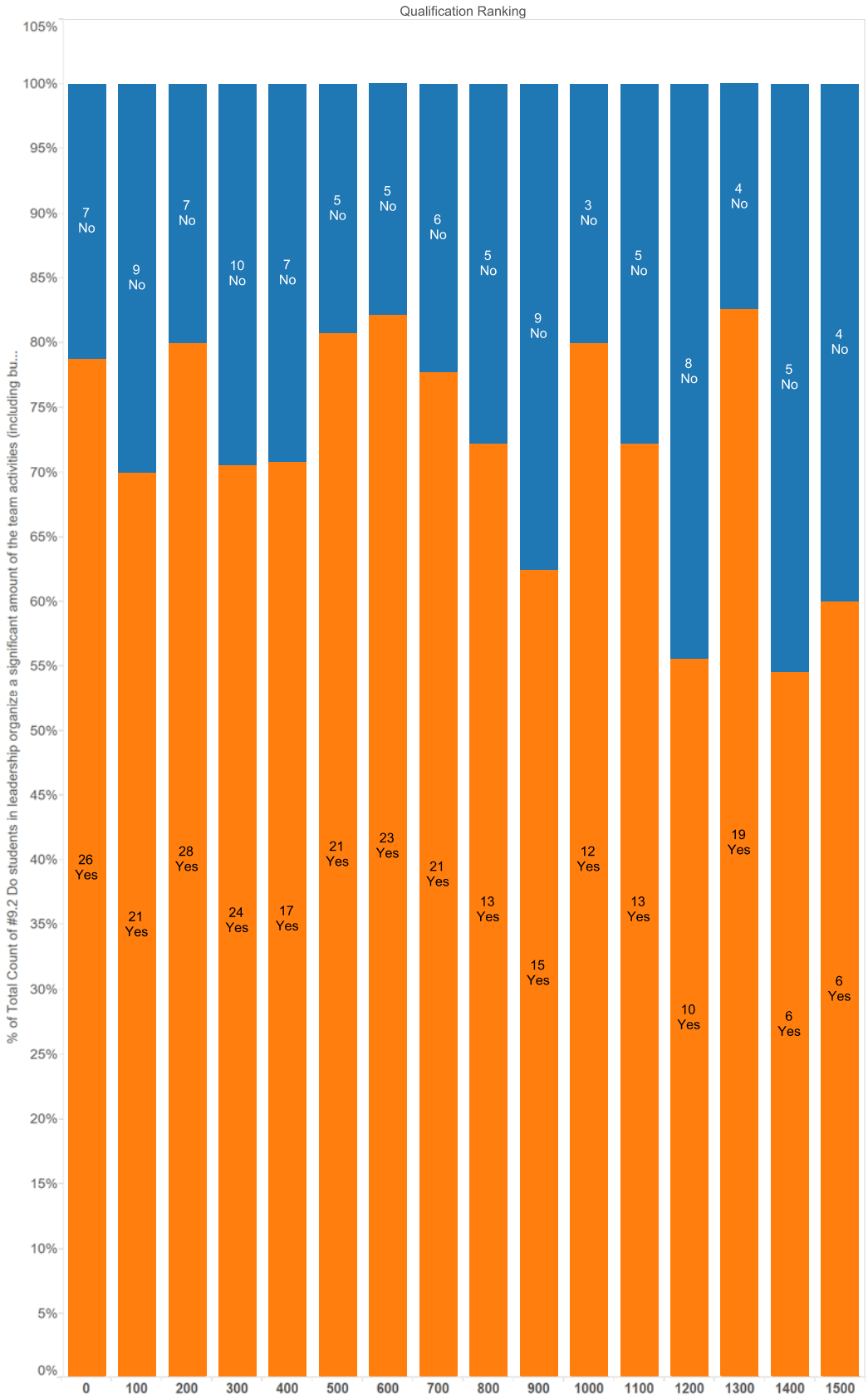


% of Total Count of #9.2 Do students in leadership organize a significant amount of the team activities (including bu... for each Award Ranking. Color shows details about #9.2 Do students in leadership organize a significant amount of the team activities (including bu.... The marks are labeled by count of #9.2 Do students in leadership organize a significant amount of the team activities (including bu... and #9.2 Do students in leadership organize a significant amount of the team activities (including bu.... The data is filtered on #9 Do students have roles in your leadership structure?, which keeps No and Yes. The view is filtered on #9.2 Do students in leadership organize a significant amount of the team activities (including bu..., which excludes Null.

#9.2 Do students in leadership organize a significant amount of the team activities (including bu...

No
Yes

Students Organizing Activities (Quals)

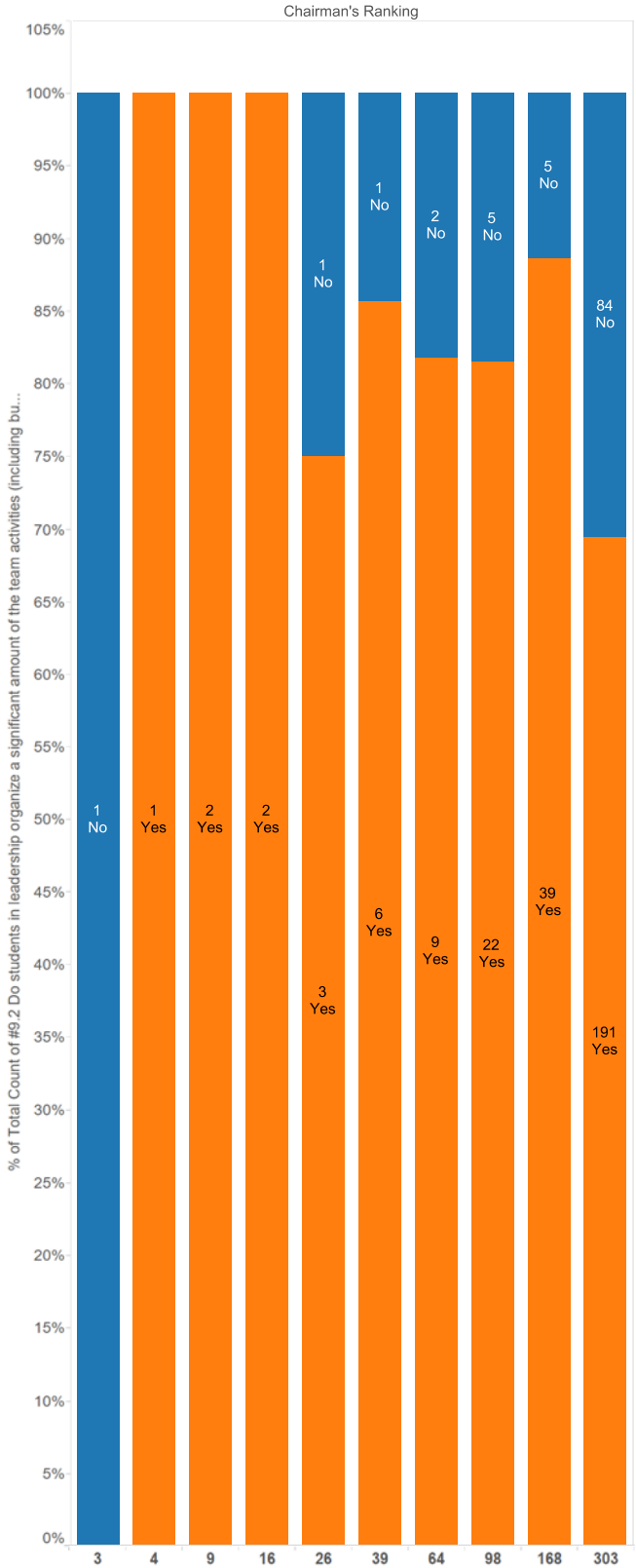


% of Total Count of #9.2 Do students in leadership organize a significant amount of the team activities (including bu... for each Qualification Ranking. Color shows details about #9.2 Do students in leadership organize a significant amount of the team activities (including bu.... The marks are labeled by count of #9.2 Do students in leadership organize a significant amount of the team activities (including bu... and #9.2 Do students in leadership organize a significant amount of the team activities (including bu.... The data is filtered on #9 Do students have roles in your leadership structure?, which keeps No and Yes. The view is filtered on #9.2 Do students in leadership organize a significant amount of the team activities (including bu..., which excludes Null.

#9.2 Do students in leadership organize a significant amount of the team activities (including bu...

No
Yes

Students Organizing Activities (Chairman's)

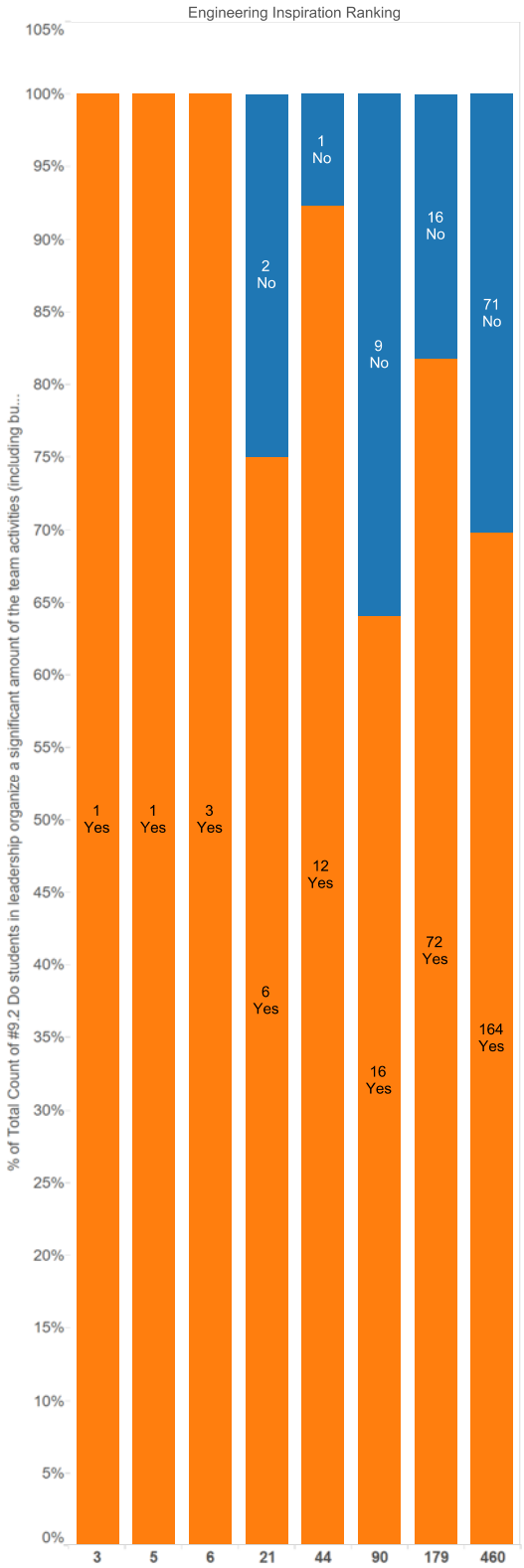


% of Total Count of #9.2 Do students in leadership organize a significant amount of the team activities (including bu... for each Chairman's Ranking. Color shows details about #9.2 Do students in leadership organize a significant amount of the team activities (including bu.... The marks are labeled by count of #9.2 Do students in leadership organize a significant amount of the team activities (including bu... and #9.2 Do students in leadership organize a significant amount of the team activities (including bu.... The data is filtered on #9 Do students have roles in your leadership structure?, which keeps No and Yes. The view is filtered on #9.2 Do students in leadership organize a significant amount of the team activities (including bu..., which excludes Null.

#9.2 Do students in leadership organize a significant amount of the team activities (including bu...

No
Yes

Students Organizing Activities (Inspiration)

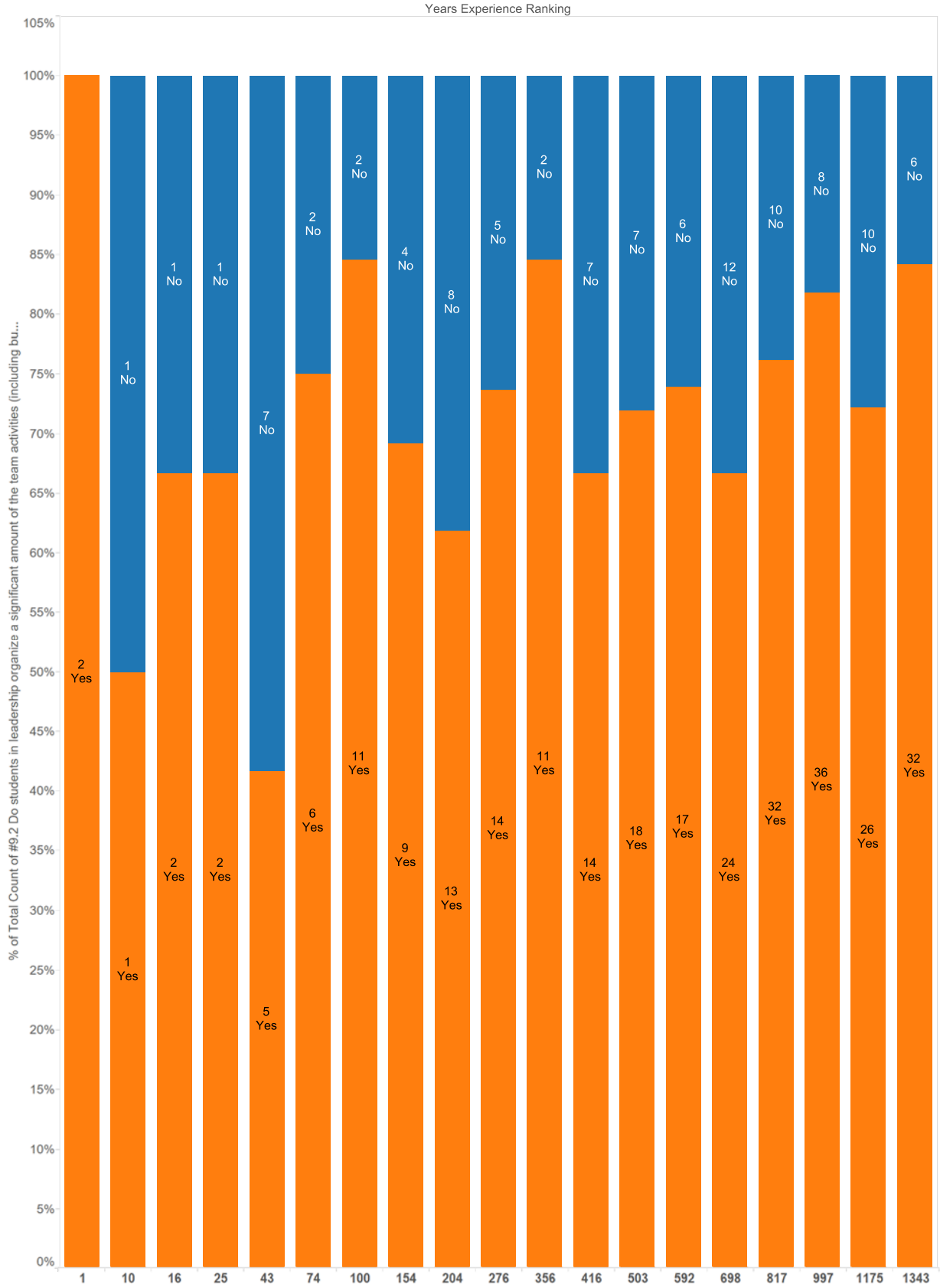


% of Total Count of #9.2 Do students in leadership organize a significant amount of the team activities (including bu... for each Engineering Inspiration Ranking. Color shows details about #9.2 Do students in leadership organize a significant amount of the team activities (including bu.... The marks are labeled by count of #9.2 Do students in leadership organize a significant amount of the team activities (including bu... and #9.2 Do students in leadership organize a significant amount of the team activities (including bu.... The data is filtered on #9 Do students have roles in your leadership structure?, which keeps No and Yes. The view is filtered on #9.2 Do students in leadership organize a significant amount of the team activities (including bu..., which excludes Null.

#9.2 Do students in leadership organize a significant amount of the team activities (including bu...

No
Yes

Students Organizing Activities (Years)

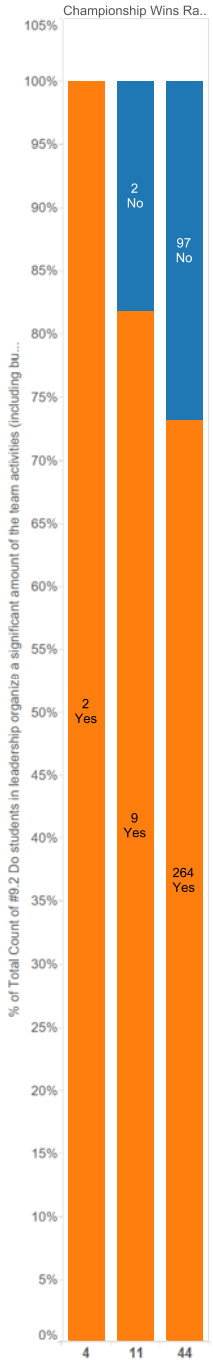


% of Total Count of #9.2 Do students in leadership organize a significant amount of the team activities (including bu... for each Years Experience Ranking. Color shows details about #9.2 Do students in leadership organize a significant amount of the team activities (including bu.... The marks are labeled by count of #9.2 Do students in leadership organize a significant amount of the team activities (including bu... and #9.2 Do students in leadership organize a significant amount of the team activities (including bu.... The data is filtered on #9 Do students have roles in your leadership structure?, which keeps No and Yes. The view is filtered on #9.2 Do students in leadership organize a significant amount of the team activities (including bu..., which excludes Null.

#9.2 Do students in leadership organize a significant amount of the team activities (including bu...

No
Yes

Students Organizing Activities (Einstein)

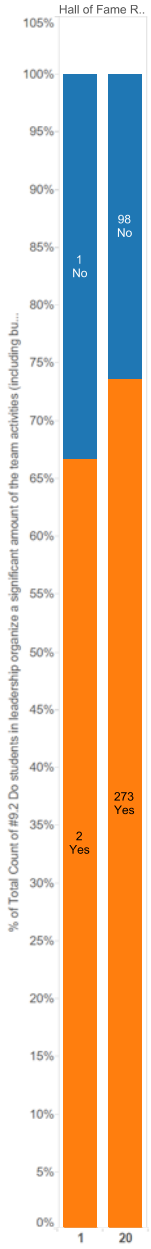


% of Total Count of #9.2 Do students in leadership organize a significant amount of the team activities (including bu... for each Championship Wins Ranking. Color shows details about #9.2 Do students in leadership organize a significant amount of the team activities (including bu.... The marks are labeled by count of #9.2 Do students in leadership organize a significant amount of the team activities (including bu... and #9.2 Do students in leadership organize a significant amount of the team activities (including bu.... The data is filtered on #9 Do students have roles in your leadership structure?, which keeps No and Yes. The view is filtered on #9.2 Do students in leadership organize a significant amount of the team activities (including bu..., which excludes Null.

#9.2 Do students in leadership organize a significant amount of the team activities (including bu...

No
Yes

Students Organizing Activities (Hall of Fame)

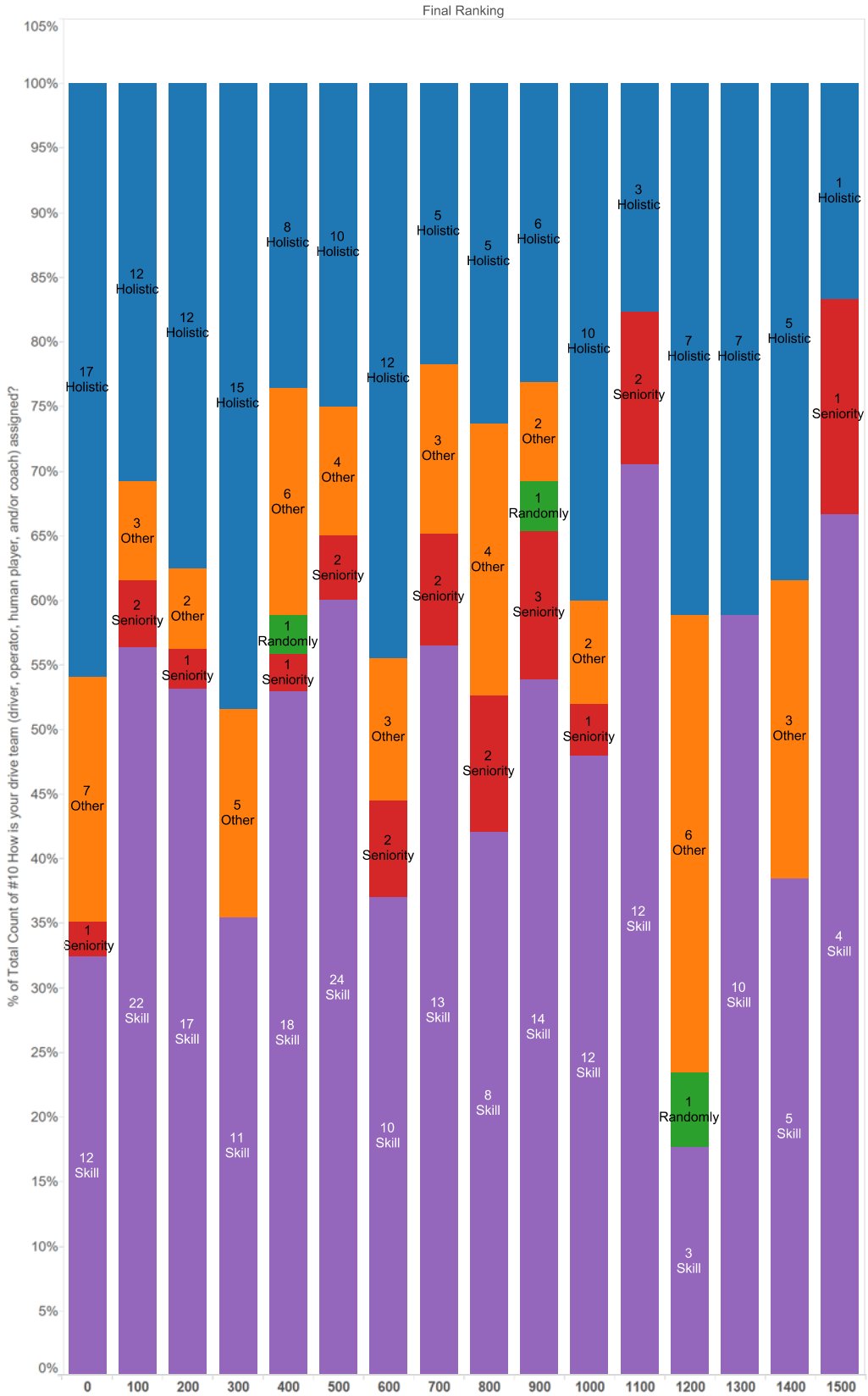


% of Total Count of #9.2 Do students in leadership organize a significant amount of the team activities (including bu... for each Hall of Fame Ranking. Color shows details about #9.2 Do students in leadership organize a significant amount of the team activities (including bu.... The marks are labeled by count of #9.2 Do students in leadership organize a significant amount of the team activities (including bu... and #9.2 Do students in leadership organize a significant amount of the team activities (including bu.... The data is filtered on #9 Do students have roles in your leadership structure?, which keeps No and Yes. The view is filtered on #9.2 Do students in leadership organize a significant amount of the team activities (including bu..., which excludes Null.

#9.2 Do students in leadership organize a significant amount of the team activities (including bu...

- No
- Yes

Drive Team Assignment (Final)

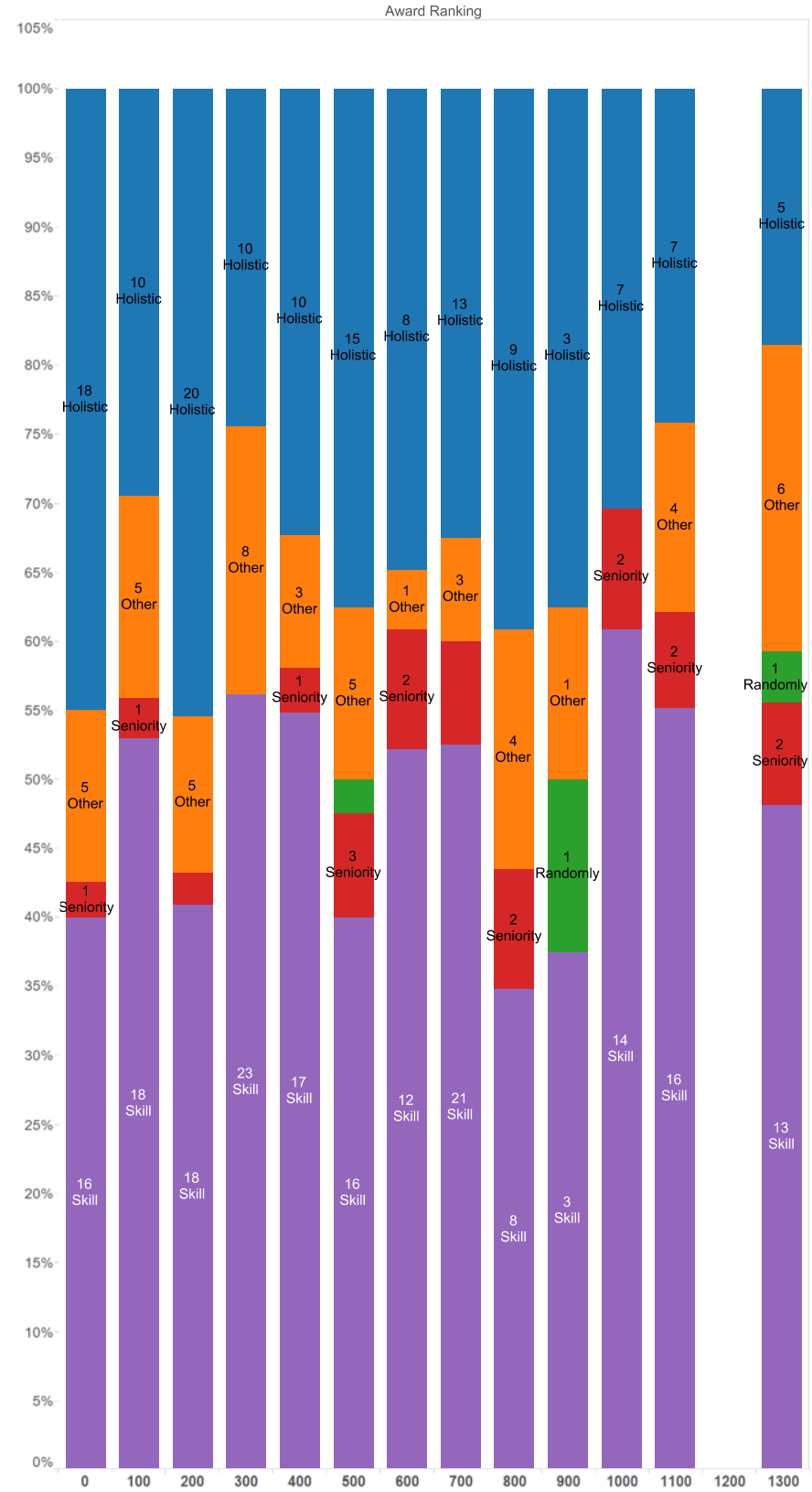


% of Total Count of #10 How is your drive team (driver, operator, human player, and/or coach) assigned? for each Final Ranking. Color shows details about #10 How is your drive team (driver, operator, human player, and/or coach) assigned?. The marks are labeled by count of #10 How is your drive team (driver, operator, human player, and/or coach) assigned? and #10 How is your drive team (driver, operator, human player, and/or coach) assigned?. The view is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned?, which excludes Null.

#10 How is your drive team (driver, operator, human player, and/or coach) assigned?

- Holistic
- Other
- Randomly
- Seniority
- Skill

Drive Team Assignment (Awards)

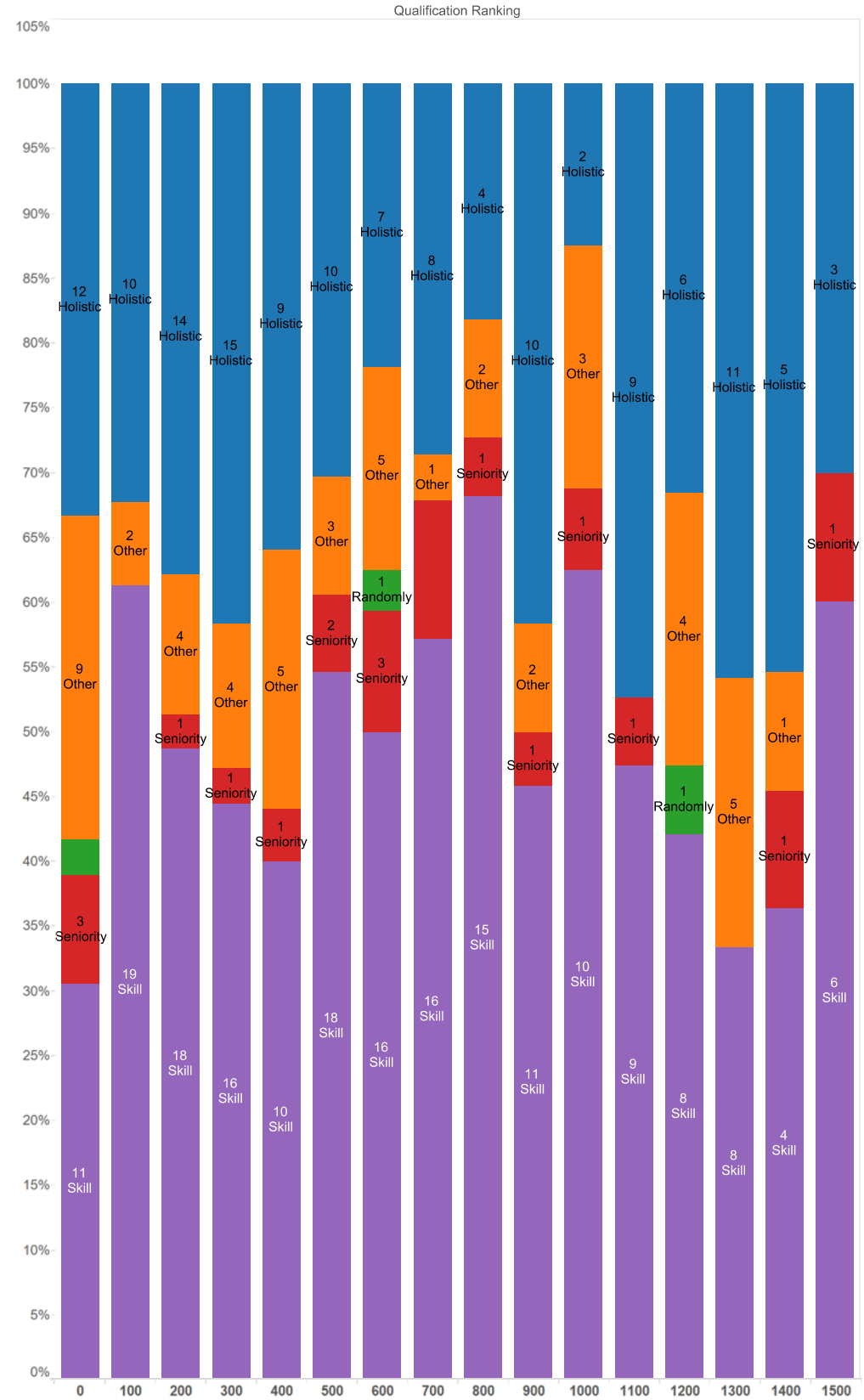


% of Total Count of #10 How is your drive team (driver, operator, human player, and/or coach) assigned? for each Award Ranking. Color shows details about #10 How is your drive team (driver, operator, human player, and/or coach) assigned?. The marks are labeled by count of #10 How is your drive team (driver, operator, human player, and/or coach) assigned? and #10 How is your drive team (driver, operator, human player, and/or coach) assigned?. The view is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned?, which excludes Null.

#10 How is your drive team (driver, operator, human player, and/or coach) assigned?

- Holistic
- Other
- Randomly
- Seniority
- Skill

Drive Team Assignment (Quals)

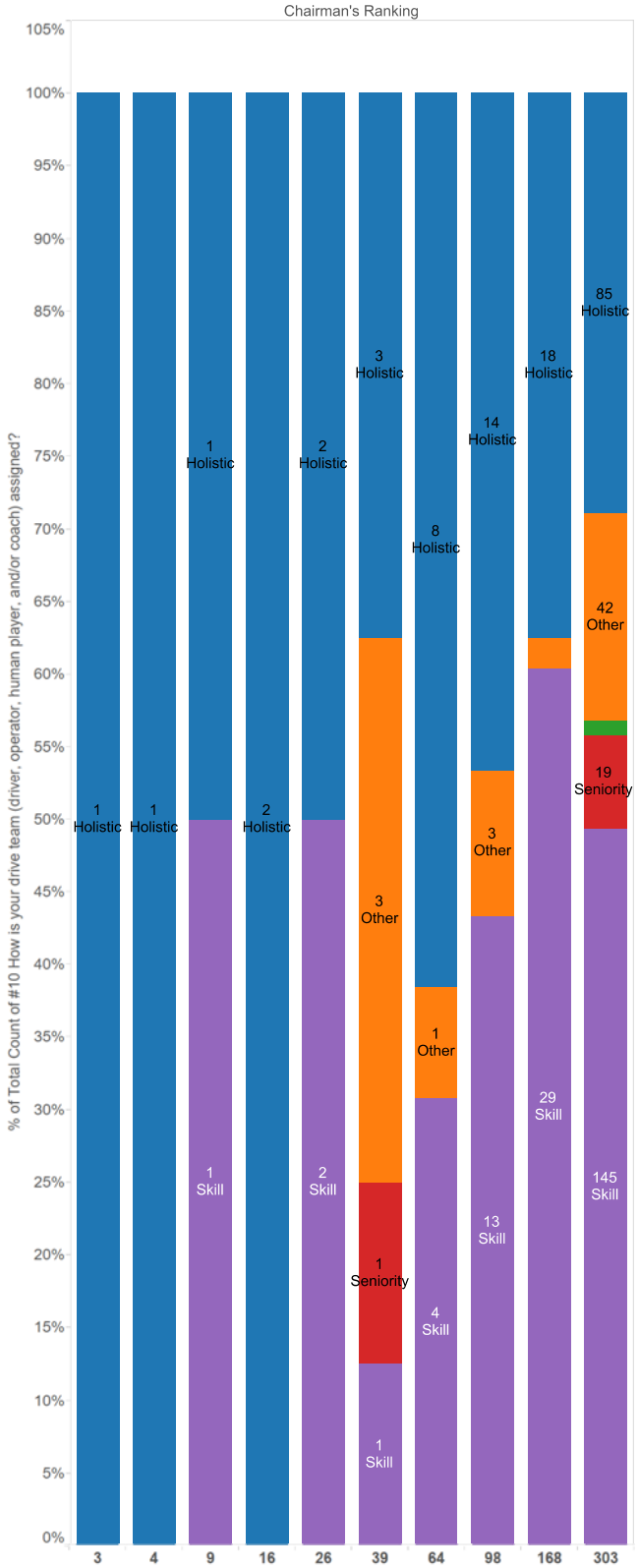


% of Total Count of #10 How is your drive team (driver, operator, human player, and/or coach) assigned? for each Qualification Ranking. Color shows details about #10 How is your drive team (driver, operator, human player, and/or coach) assigned?. The marks are labeled by count of #10 How is your drive team (driver, operator, human player, and/or coach) assigned? and #10 How is your drive team (driver, operator, human player, and/or coach) assigned?. The view is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned?, which excludes Null.

#10 How is your drive team (driver, operator, human player, and/or coach) assigned?

- Holistic
- Other
- Randomly
- Seniority
- Skill

Drive Team Assignment (Chairman's)

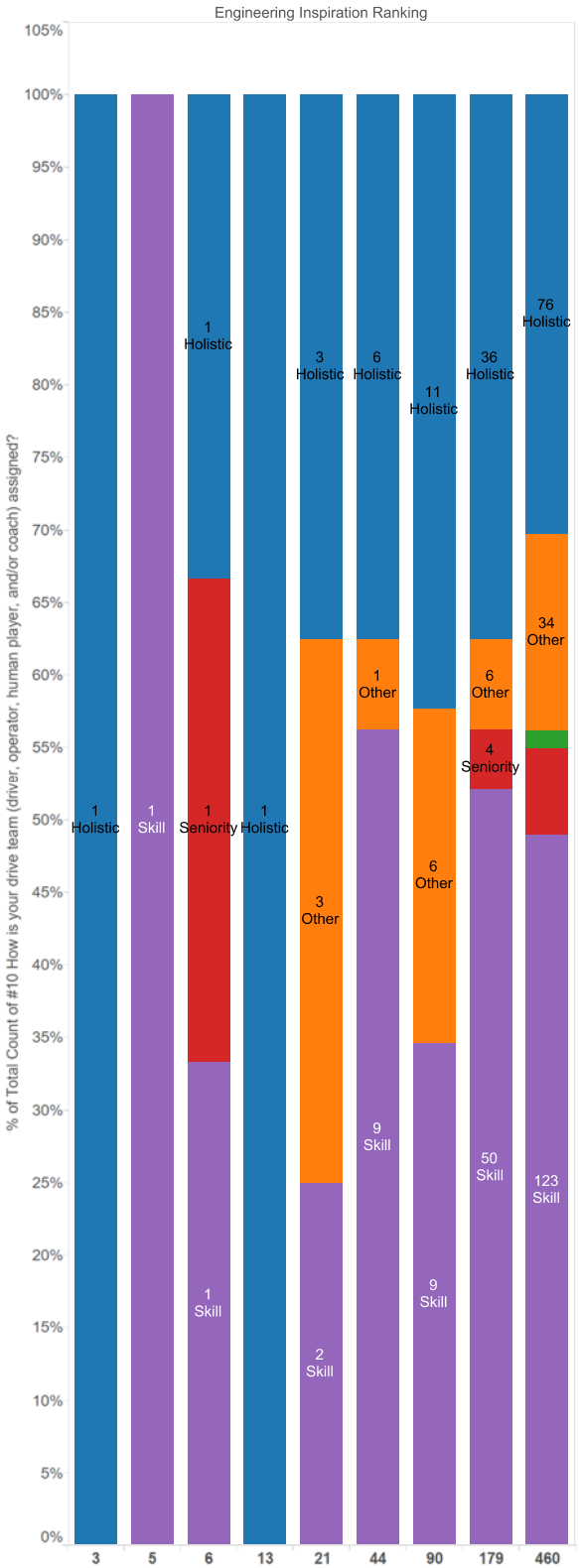


% of Total Count of #10 How is your drive team (driver, operator, human player, and/or coach) assigned? for each Chairman's Ranking. Color shows details about #10 How is your drive team (driver, operator, human player, and/or coach) assigned?. The marks are labeled by count of #10 How is your drive team (driver, operator, human player, and/or coach) assigned? and #10 How is your drive team (driver, operator, human player, and/or coach) assigned?. The view is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned?, which excludes Null.

#10 How is your drive team (driver, operator, human player, and/or coach) assigned?

- Holistic
- Other
- Randomly
- Seniority
- Skill

Drive Team Assignment (Inspiration)

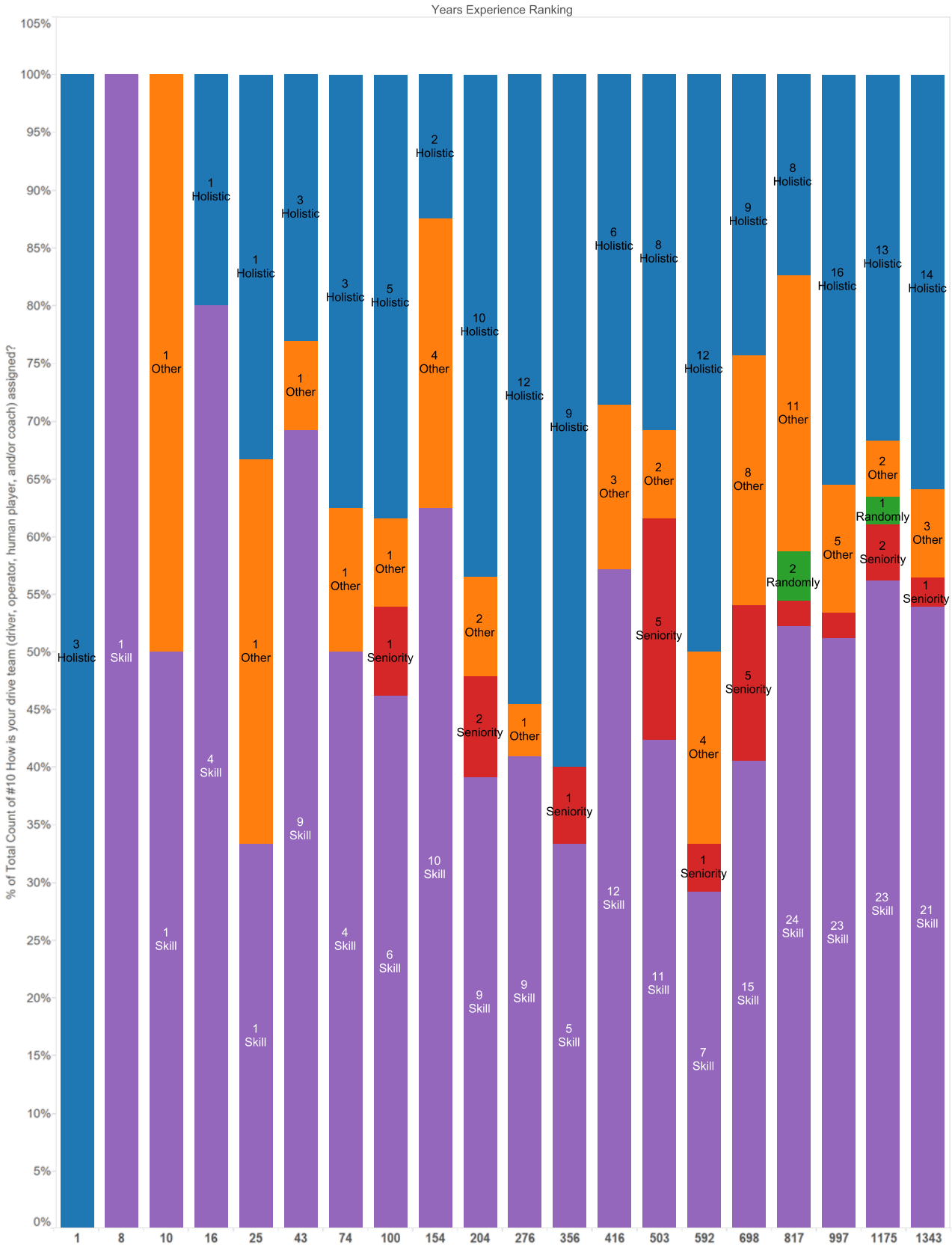


% of Total Count of #10 How is your drive team (driver, operator, human player, and/or coach) assigned? for each Engineering Inspiration Ranking. Color shows details about #10 How is your drive team (driver, operator, human player, and/or coach) assigned?. The marks are labeled by count of #10 How is your drive team (driver, operator, human player, and/or coach) assigned? and #10 How is your drive team (driver, operator, human player, and/or coach) assigned?. The view is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned?, which excludes Null.

#10 How is your drive team (driver, operator, human player, and/or coach) assigned?

- Holistic
- Other
- Randomly
- Seniority
- Skill

Drive Team Assignment (Years)

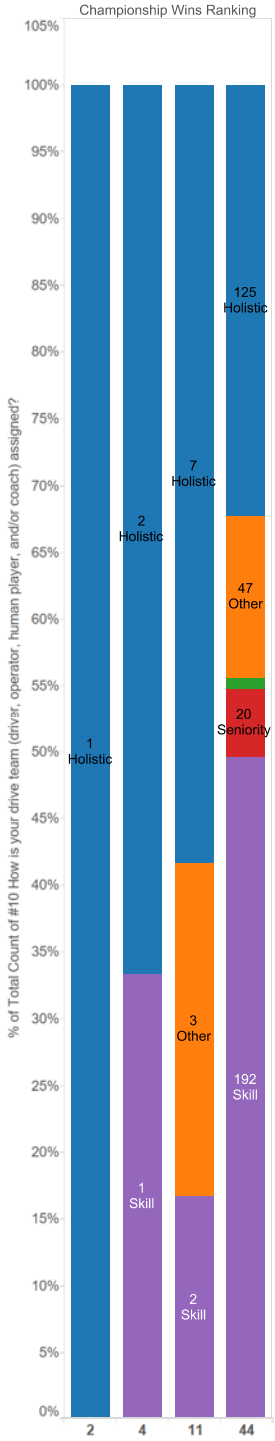


% of Total Count of #10 How is your drive team (driver, operator, human player, and/or coach) assigned? for each Years Experience Ranking. Color shows details about #10 How is your drive team (driver, operator, human player, and/or coach) assigned?. The marks are labeled by count of #10 How is your drive team (driver, operator, human player, and/or coach) assigned? and #10 How is your drive team (driver, operator, human player, and/or coach) assigned?. The view is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned?, which excludes Null.

#10 How is your drive team (driver, operator, human player, and/or coach) assigned?

- Holistic
- Other
- Randomly
- Seniority
- Skill

Drive Team Assignment (Einsteins)

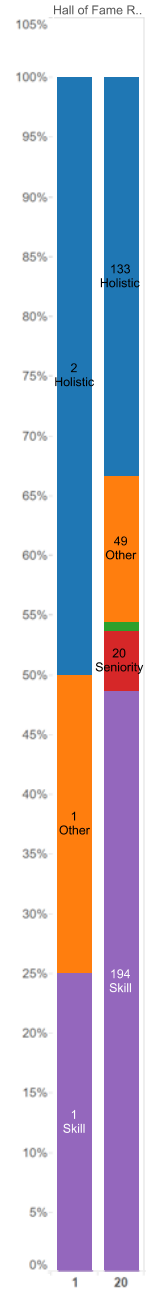


% of Total Count of #10 How is your drive team (driver, operator, human player, and/or coach) assigned? for each Championship Wins Ranking. Color shows details about #10 How is your drive team (driver, operator, human player, and/or coach) assigned?. The marks are labeled by count of #10 How is your drive team (driver, operator, human player, and/or coach) assigned? and #10 How is your drive team (driver, operator, human player, and/or coach) assigned?. The view is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned?, which excludes Null.

#10 How is your drive team (driver, operator, human player, and/or coach) assigned?

- Holistic
- Other
- Randomly
- Seniority
- Skill

Drive Team Assignment (Hall of Fame)

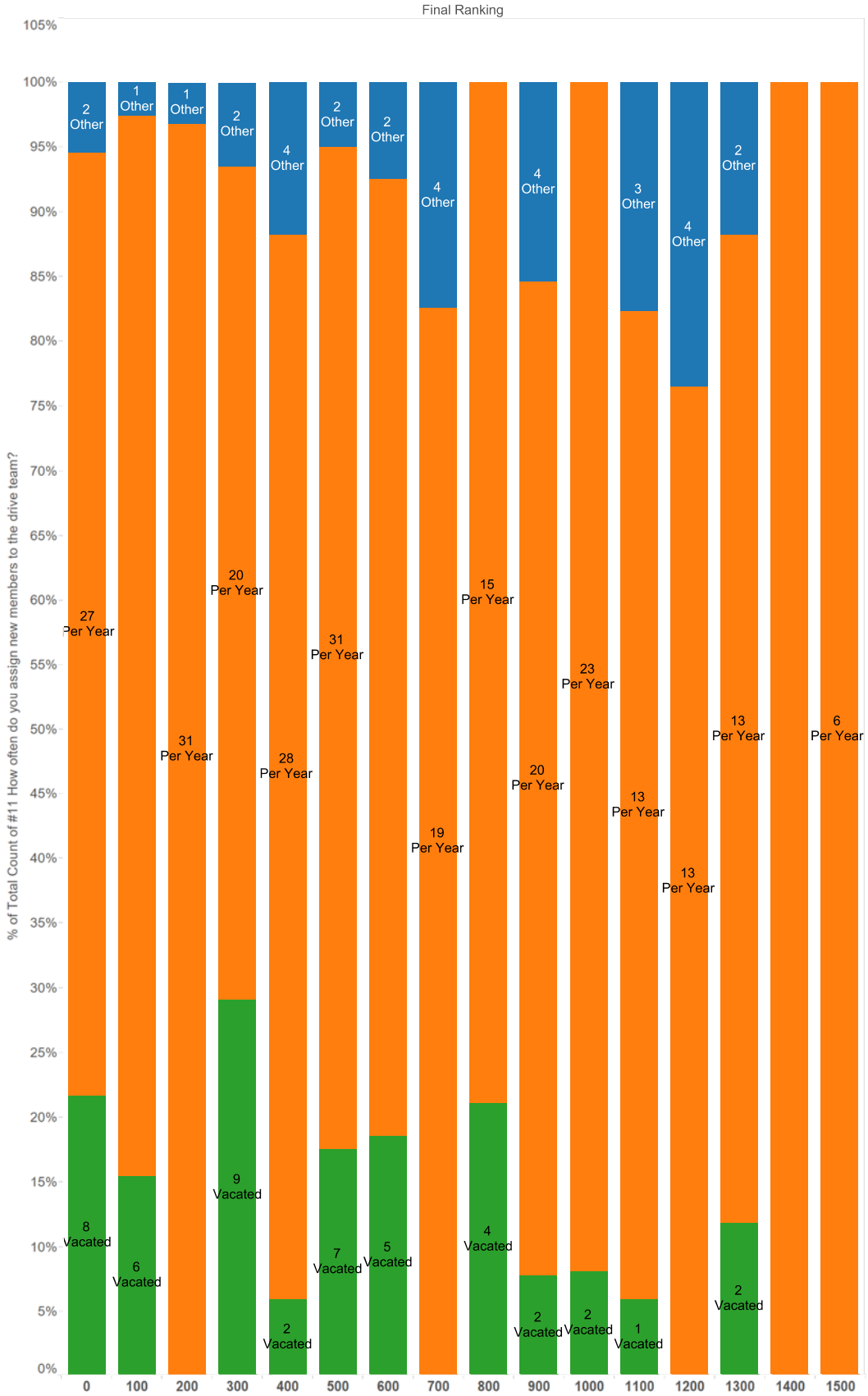


% of Total Count of #10 How is your drive team (driver, operator, human player, and/or coach) assigned? for each Hall of Fame Ranking. Color shows details about #10 How is your drive team (driver, operator, human player, and/or coach) assigned?. The marks are labeled by count of #10 How is your drive team (driver, operator, human player, and/or coach) assigned? and #10 How is your drive team (driver, operator, human player, and/or coach) assigned?. The view is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned?, which excludes Null.

#10 How is your drive team (driver, operator, human player, and/or coach) assigned?

- Holistic
- Other
- Randomly
- Seniority
- Skill

Drive Team Assignment Length (Final)

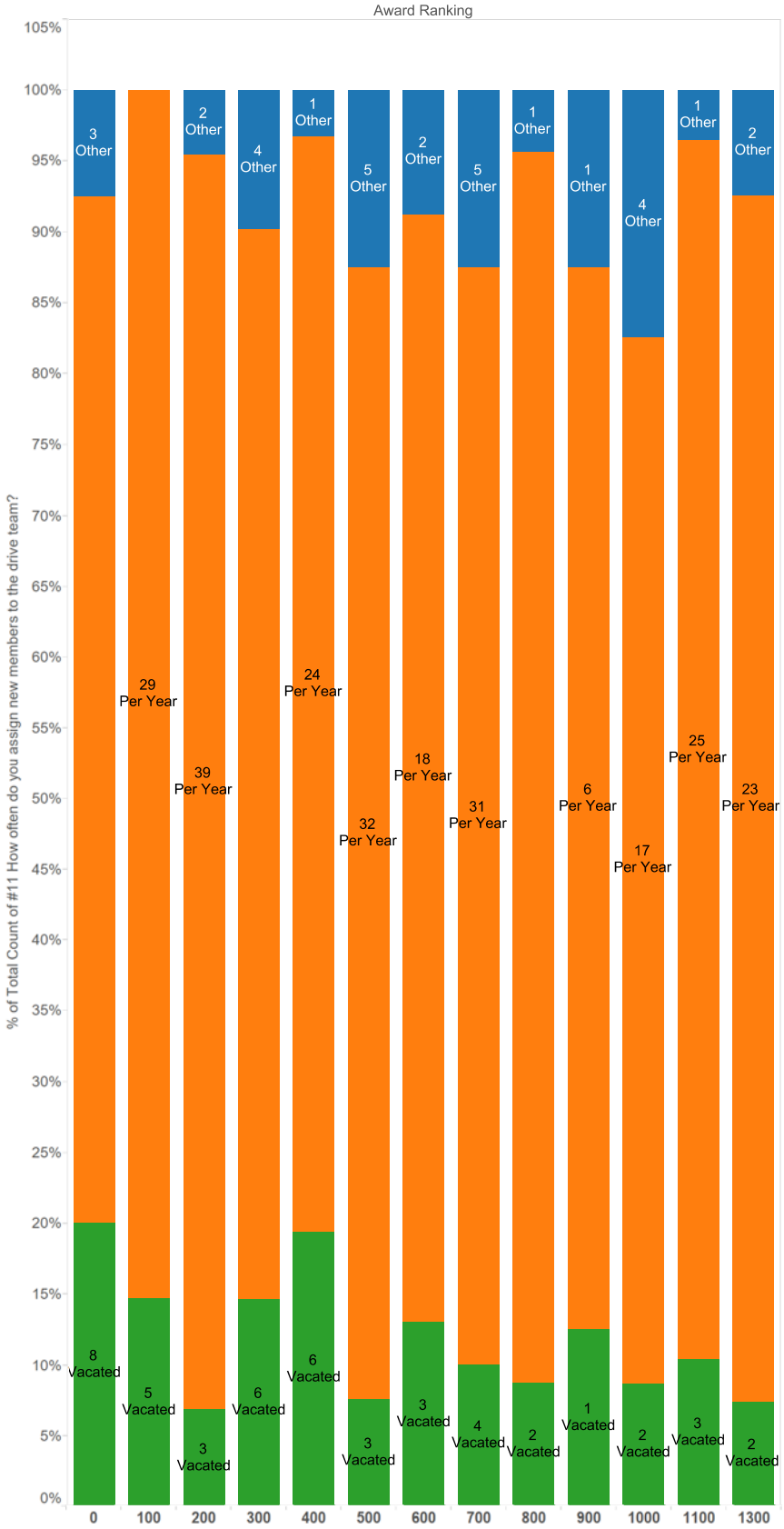


% of Total Count of #11 How often do you assign new members to the drive team? for each Final Ranking. Color shows details about #11 How often do you assign new members to the drive team?. The marks are labeled by count of #11 How often do you assign new members to the drive team? and #11 How often do you assign new members to the drive team?. The data is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned?, which excludes Null.

#11 How often do you assign new members to the drive team?

- Other
- Per Year
- Vacated

Drive Team Assignment Length (Awards)

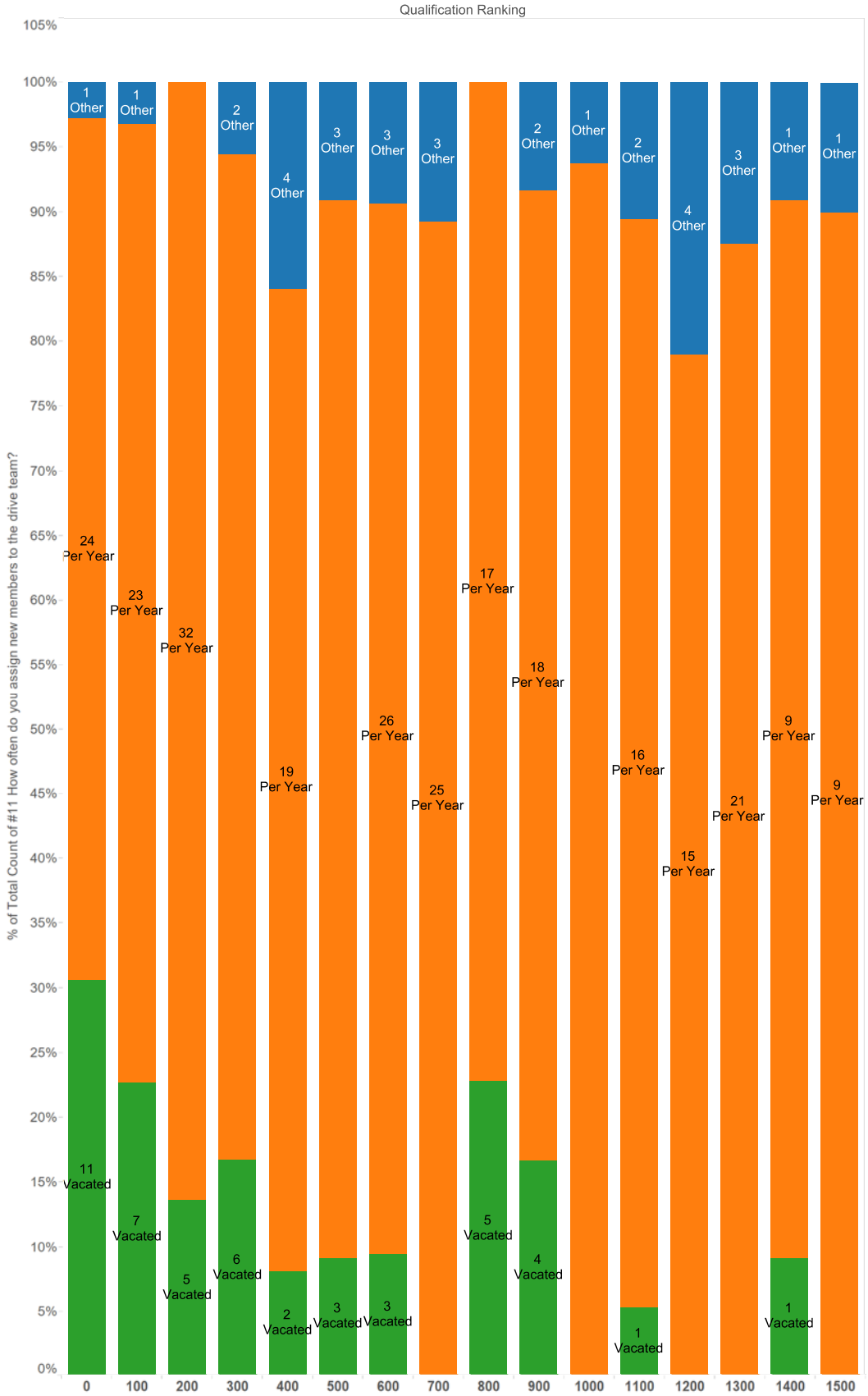


% of Total Count of #11 How often do you assign new members to the drive team? for each Award Ranking. Color shows details about #11 How often do you assign new members to the drive team?. The marks are labeled by count of #11 How often do you assign new members to the drive team? and #11 How often do you assign new members to the drive team?. The data is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned?, which excludes Null.

#11 How often do you assign new members to the drive team?

- Other
- Per Year
- Vacated

Drive Team Assignment Length (Quals)

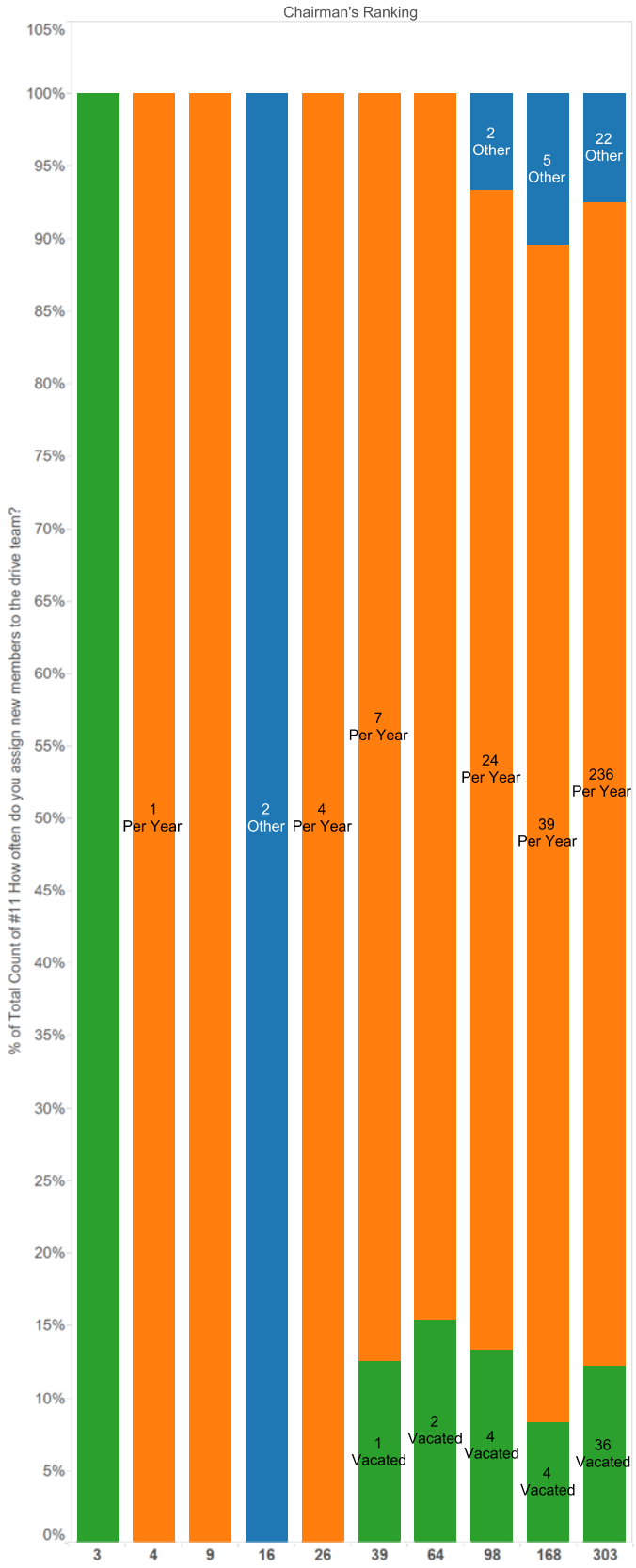


% of Total Count of #11 How often do you assign new members to the drive team? for each Qualification Ranking. Color shows details about #11 How often do you assign new members to the drive team?. The marks are labeled by count of #11 How often do you assign new members to the drive team? and #11 How often do you assign new members to the drive team?. The data is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned?, which excludes Null.

#11 How often do you assign new members to the drive team?

- Other
- Per Year
- Vacated

Drive Team Assignment Length (Chairman's)

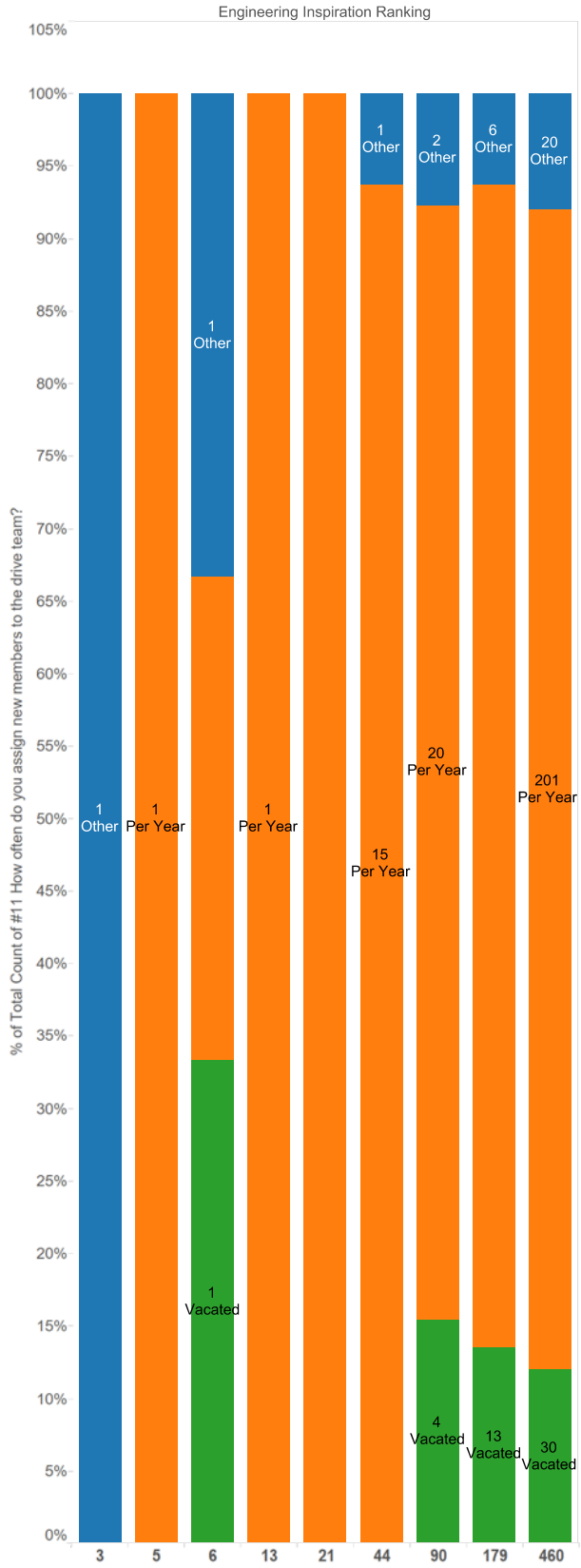


% of Total Count of #11 How often do you assign new members to the drive team? for each Chairman's Ranking. Color shows details about #11 How often do you assign new members to the drive team?. The marks are labeled by count of #11 How often do you assign new members to the drive team? and #11 How often do you assign new members to the drive team?. The data is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned?, which excludes Null.

#11 How often do you assign new members to the drive team?

- Other
- Per Year
- Vacated

Drive Team Assignment Length (Inspiration)

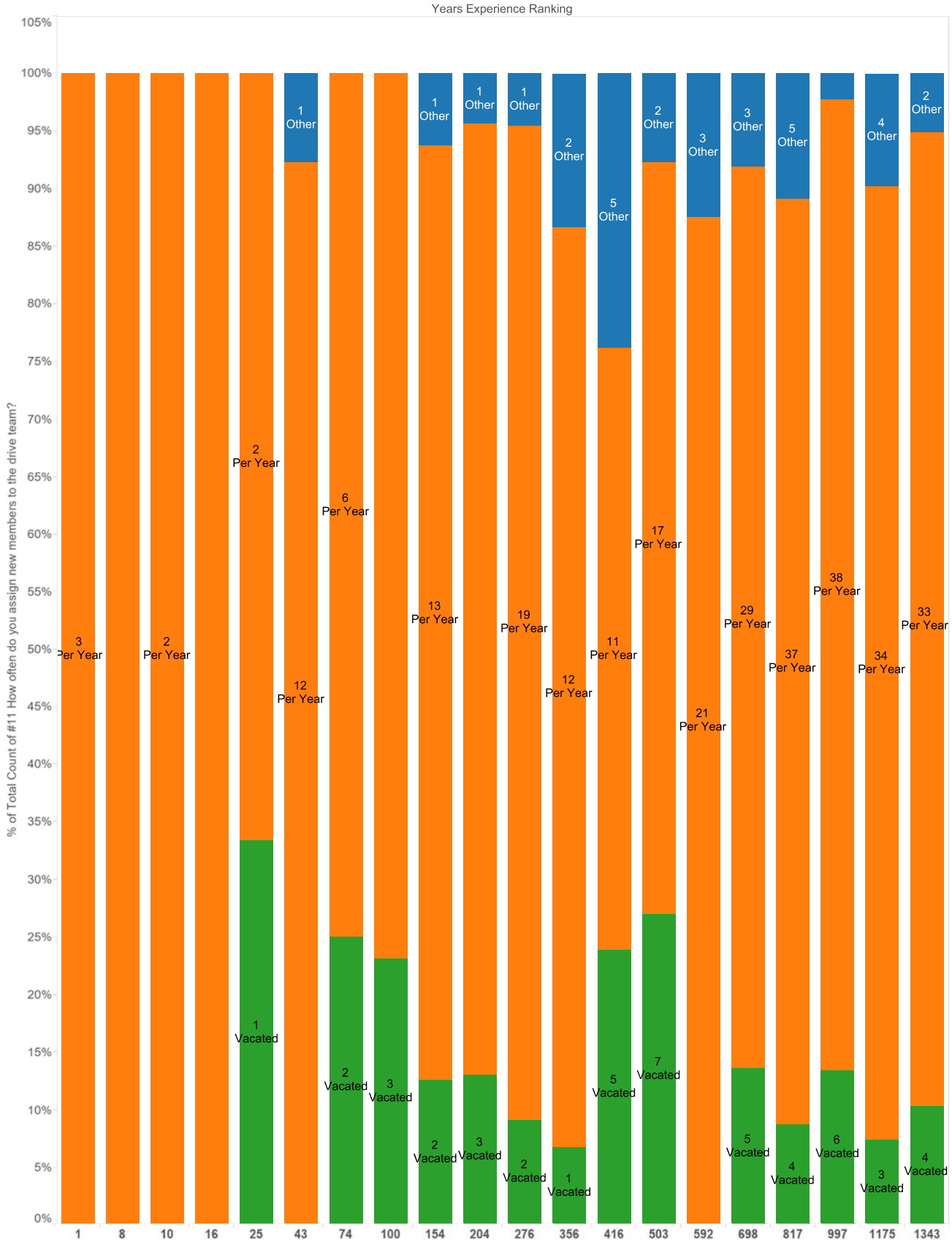


% of Total Count of #11 How often do you assign new members to the drive team? for each Engineering Inspiration Ranking. Color shows details about #11 How often do you assign new members to the drive team?. The marks are labeled by count of #11 How often do you assign new members to the drive team? and #11 How often do you assign new members to the drive team?. The data is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned?, which excludes Null.

#11 How often do you assign new members to the drive team?

- Other
- Per Year
- Vacated

Drive Team Assignment Length (Years)

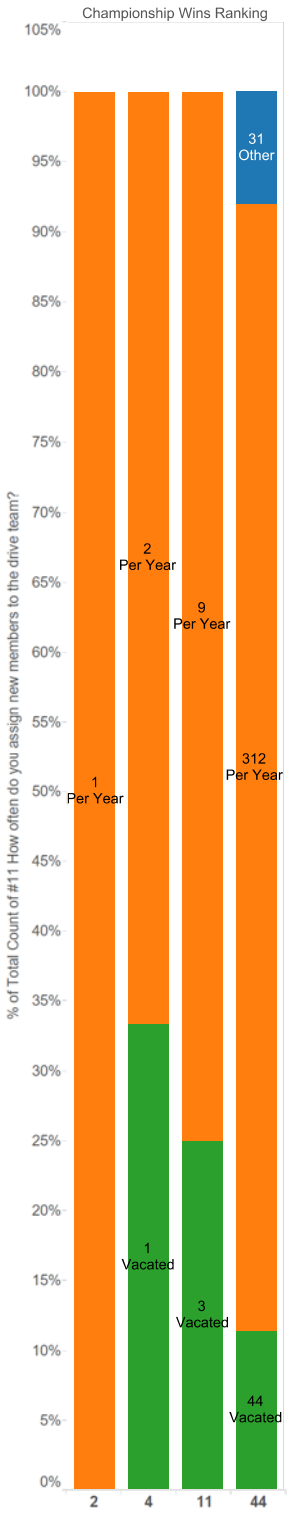


% of Total Count of #11 How often do you assign new members to the drive team? for each Years Experience Ranking. Color shows details about #11 How often do you assign new members to the drive team?. The marks are labeled by count of #11 How often do you assign new members to the drive team? and #11 How often do you assign new members to the drive team?. The data is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned?, which excludes Null.

#11 How often do you assign new members to the drive team?

- Other
- Per Year
- Vacated

Drive Team Assignment Length (Einsteins)

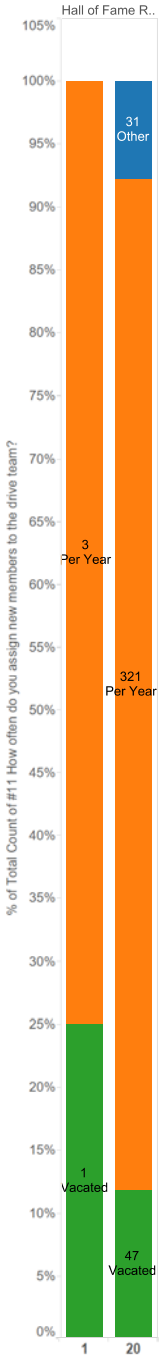


% of Total Count of #11 How often do you assign new members to the drive team? for each Championship Wins Ranking. Color shows details about #11 How often do you assign new members to the drive team?. The marks are labeled by count of #11 How often do you assign new members to the drive team? and #11 How often do you assign new members to the drive team?. The data is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned?, which excludes Null.

#11 How often do you assign new members to the drive team?

- Other
- Per Year
- Vacated

Drive Team Assignment Length (Hall of Fame)

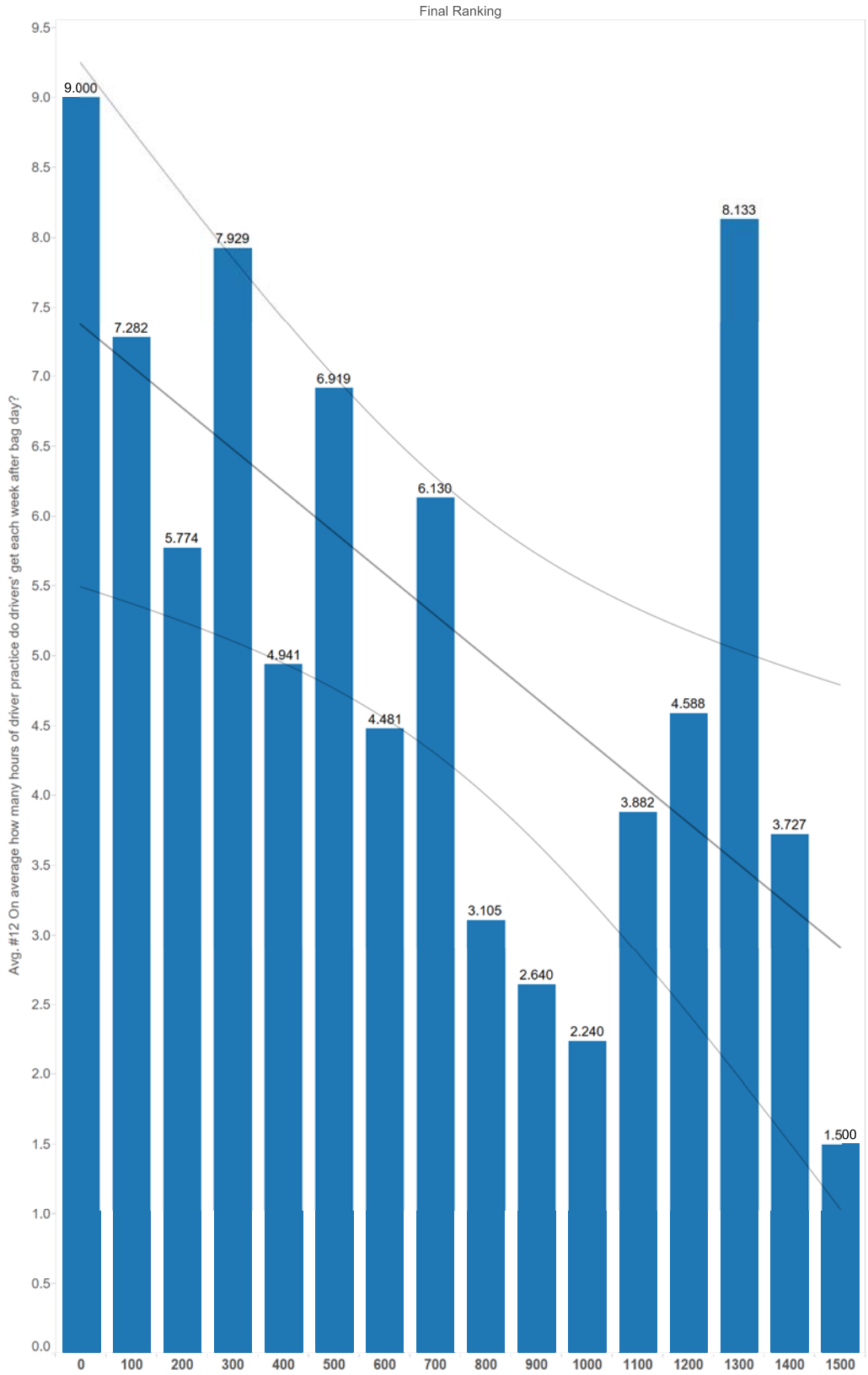


% of Total Count of #11 How often do you assign new members to the drive team? for each Hall of Fame Ranking. Color shows details about #11 How often do you assign new members to the drive team?. The marks are labeled by count of #11 How often do you assign new members to the drive team? and #11 How often do you assign new members to the drive team?. The data is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned?, which excludes Null.

#11 How often do you assign new members to the drive team?

- Other
- Per Year
- Vacated

Hours of Driver Practice (Final)

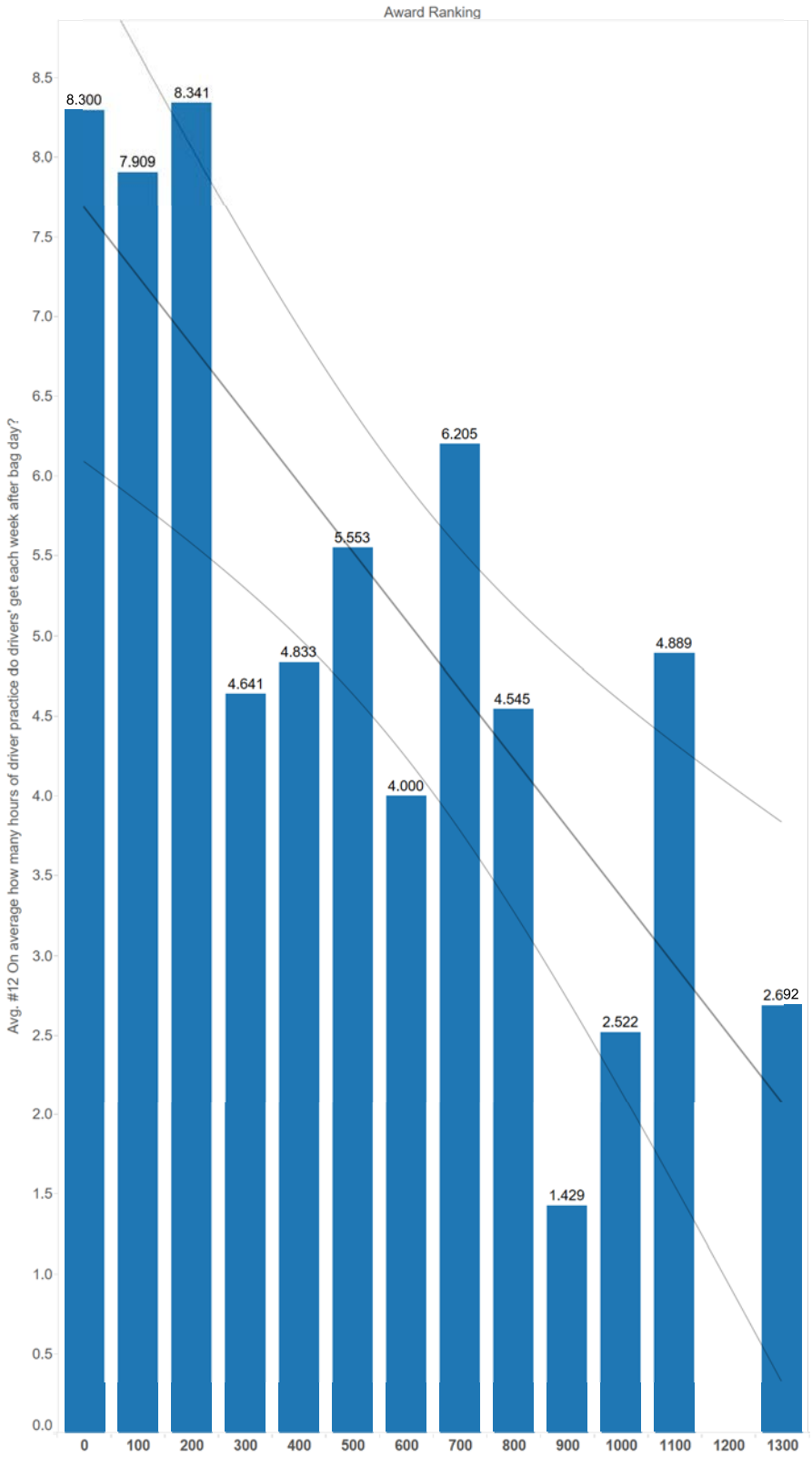


Trend Lines Model

A linear trend model is computed for average of #12 On average how many hours of driver practice do drivers' get each week after bag day? given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 47.12
MSE (mean squared error): 3.36572
R-Squared: 0.389452
Standard error: 1.83459
p-value (significance): 0.0097746

Hours of Driver Practice (Awards)

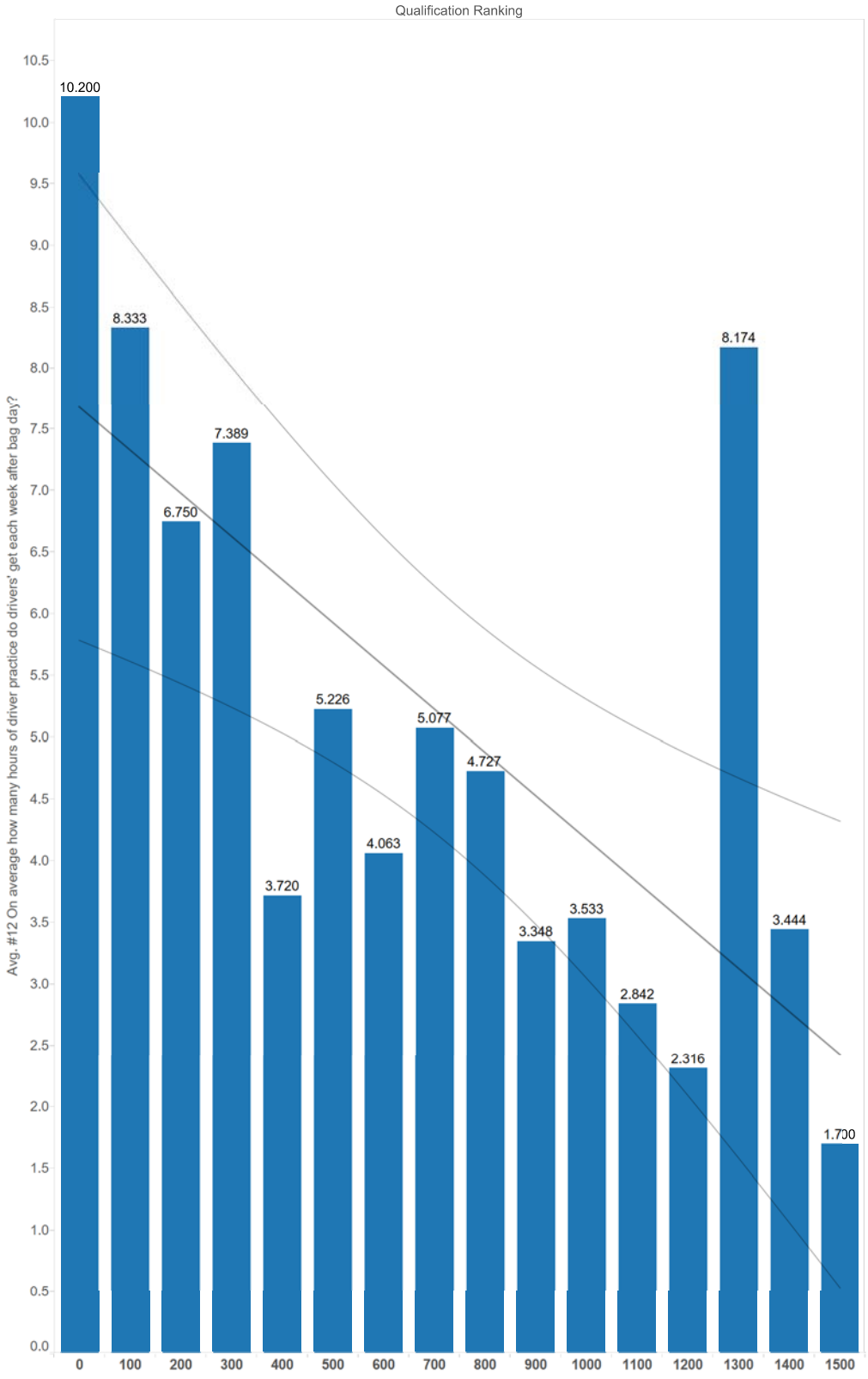


Trend Lines Model

A linear trend model is computed for average of #12 On average how many hours of driver practice do drivers' get each week after bag day? given Award Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Award Rank (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 21.6505
MSE (mean squared error): 1.96822
R-Squared: 0.625511
Standard error: 1.40293
p-value (significance): 0.0012848

Hours of Driver Practice (Quals)

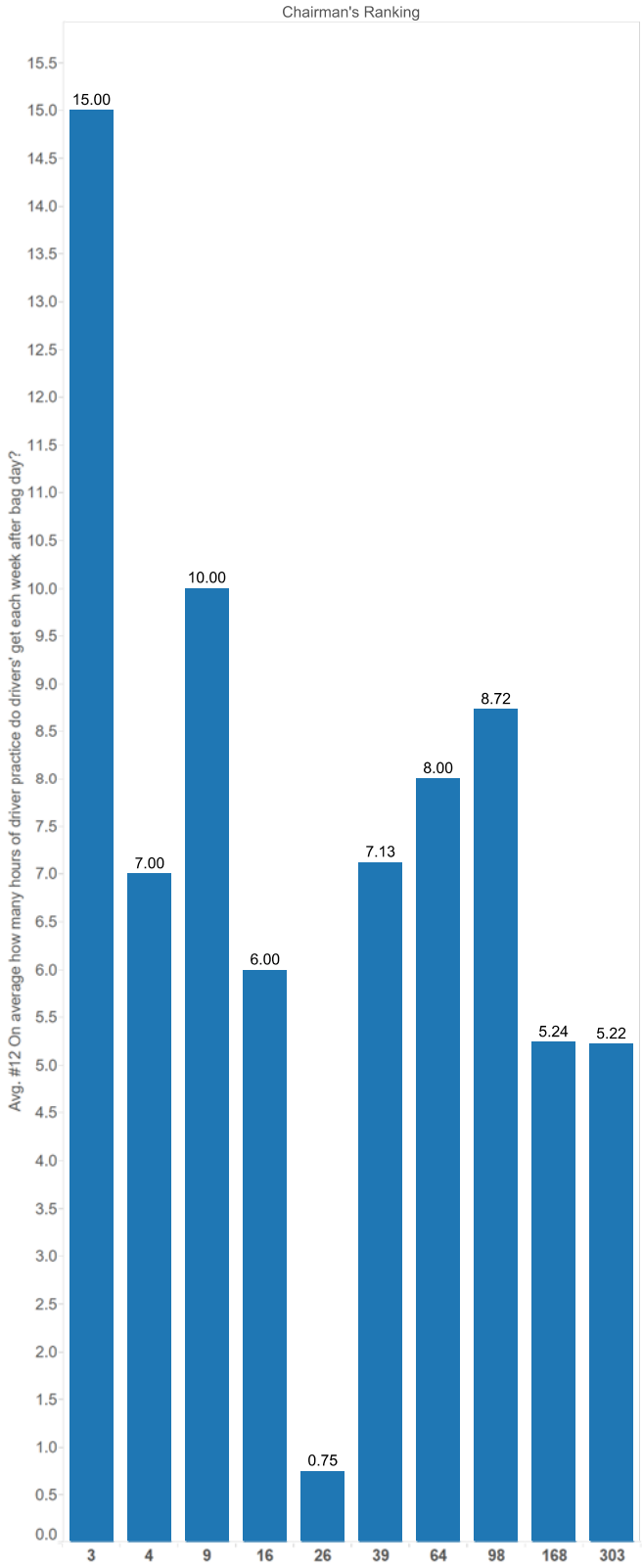


Trend Lines Model

A linear trend model is computed for average of #12 On average how many hours of driver practice do drivers' get each week after bag day? given Quals Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Quals Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 47.9473
MSE (mean squared error): 3.42481
R-Squared: 0.465175
Standard error: 1.85062
p-value (significance): 0.0036096

Hours of Driver Practice (Chairman's)

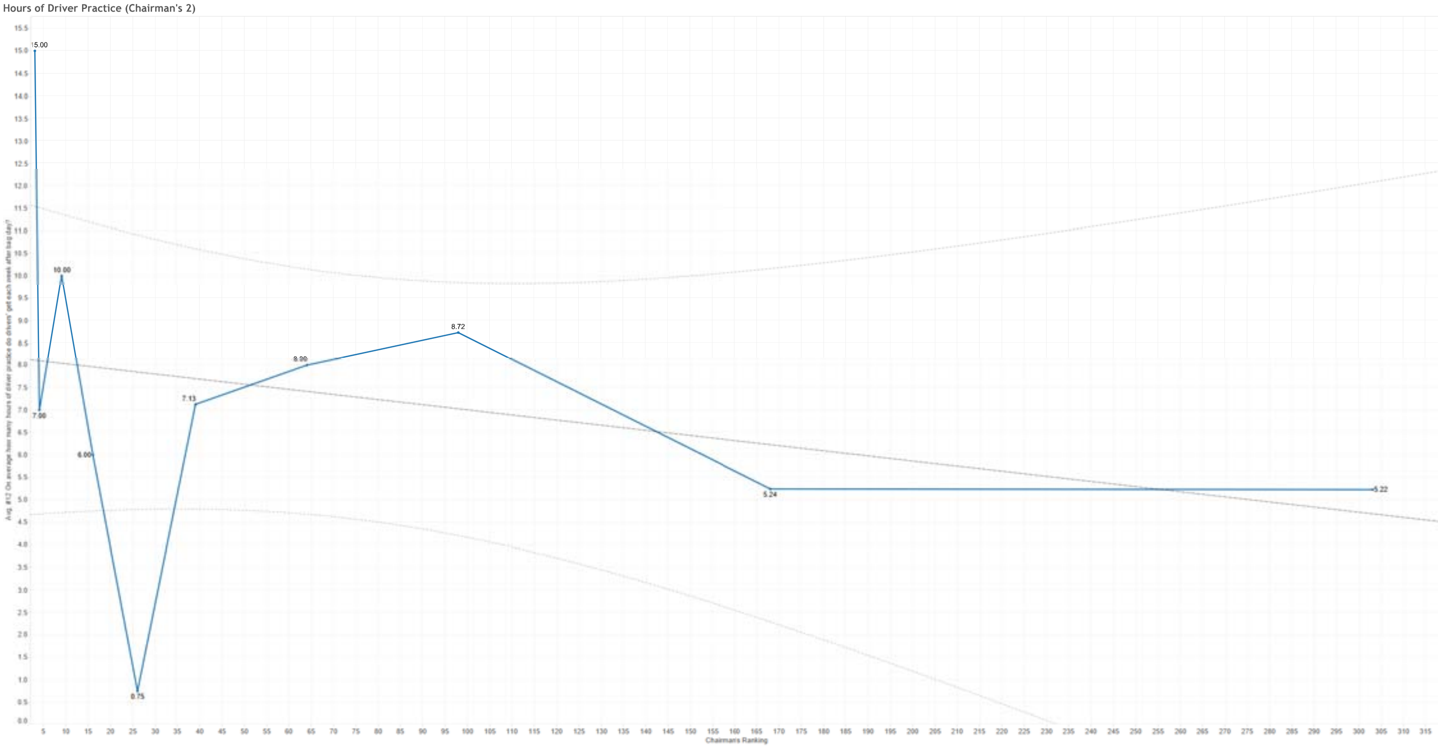


Trend Lines Model

A linear trend model is computed for average of #12 On average how many hours of driver practice do drivers' get each week after bag day? given Chairman's Rank.

Model formula: (Chairman's Rank + intercept)
Number of modeled observations: 10
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 8
SSE (sum squared error): 111.56
MSE (mean squared error): 13.945
R-Squared: 0.0883039
Standard error: 3.7343
p-value (significance): 0.404387

Hours of Driver Practice (Chairman's 2)

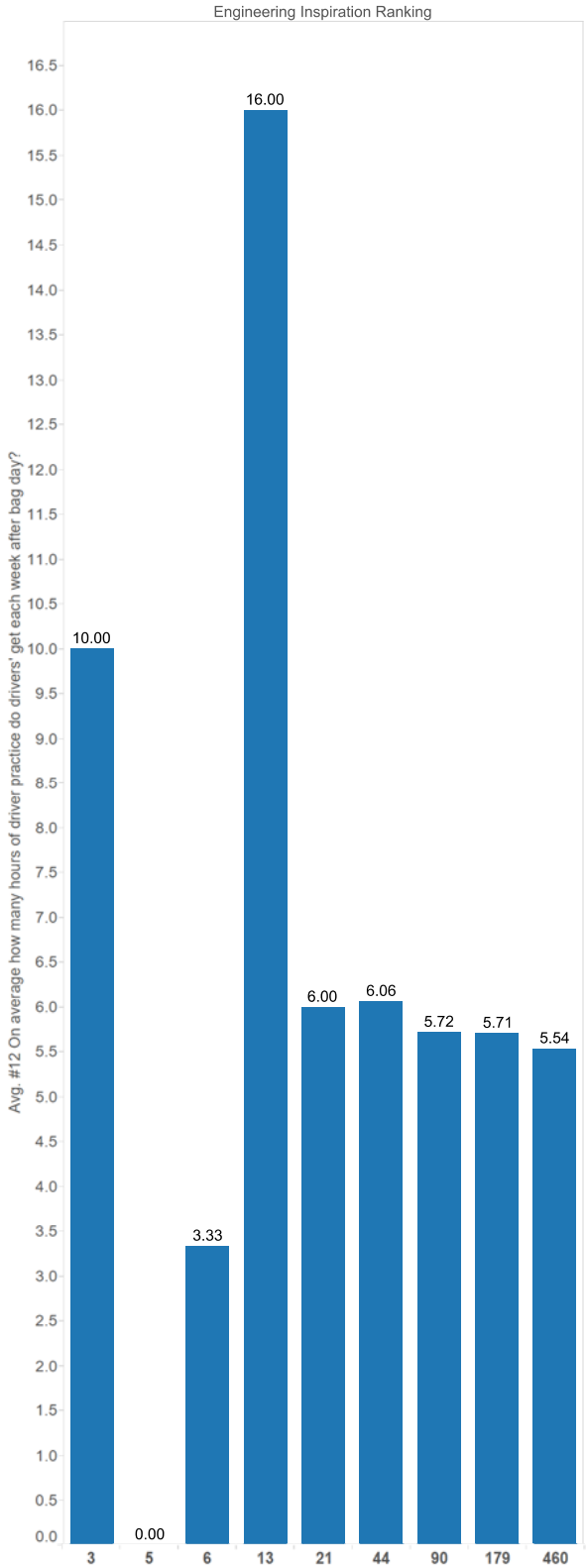


Trend Lines Model

A linear trend model is computed for average of #12 On average how many hours of driver practice do drivers' get each week after bag day? given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 47.12
MSE (mean squared error): 3.36572
R-Squared: [illegible]
Standard error: 1.83459
p-value (significance): [illegible]

Hours of Driver Practice (Inspiration)

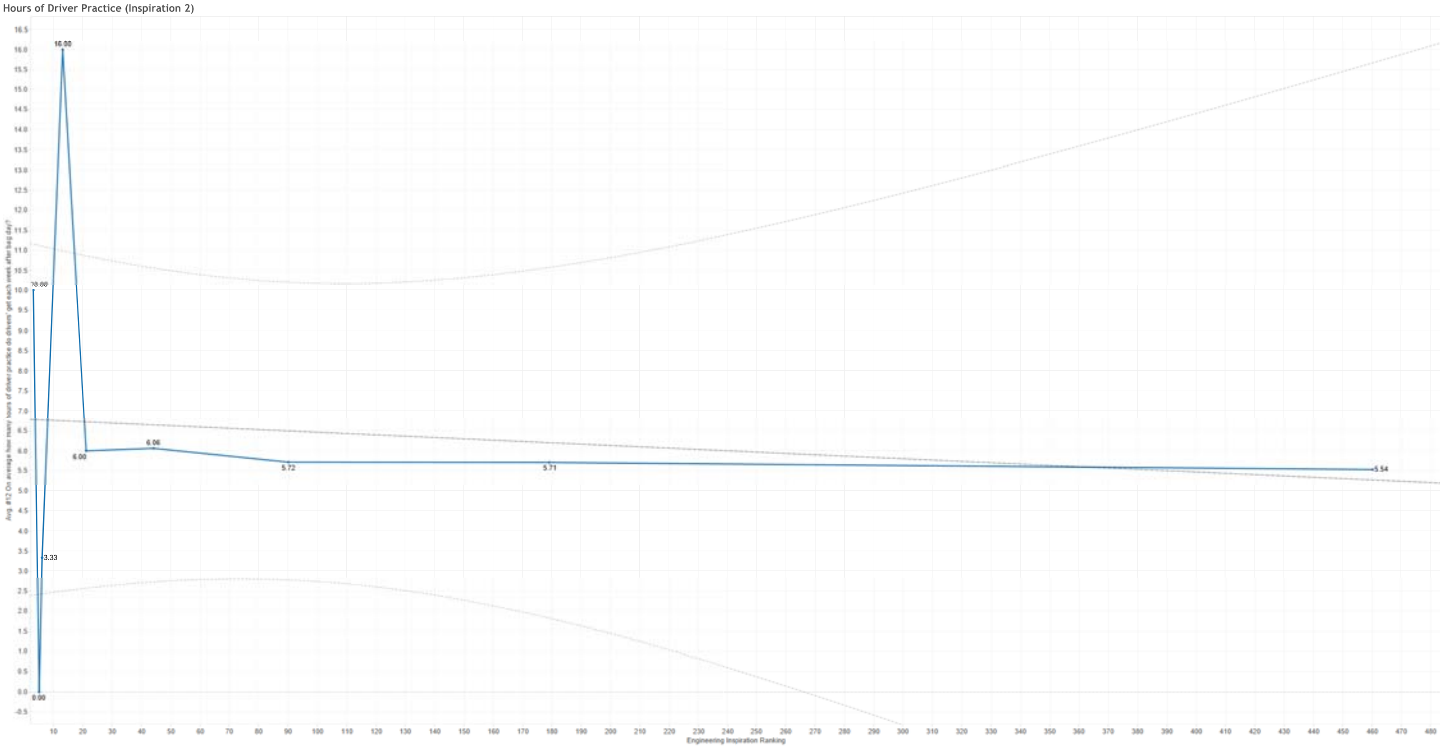


Trend Lines Model

A linear trend model is computed for average of #12 On average how many hours of driver practice do drivers' get each week after bag day? given Inspiration Rank.

Model formula: (Inspiration Rank + intercept)
Number of modeled observations: 9
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 7
SSE (sum squared error): 155.439
MSE (mean squared error): 22.2056
R-Squared: 0.0122842
Standard error: 4.71228
p-value (significance): 0.776509

Hours of Driver Practice (Inspiration 2)

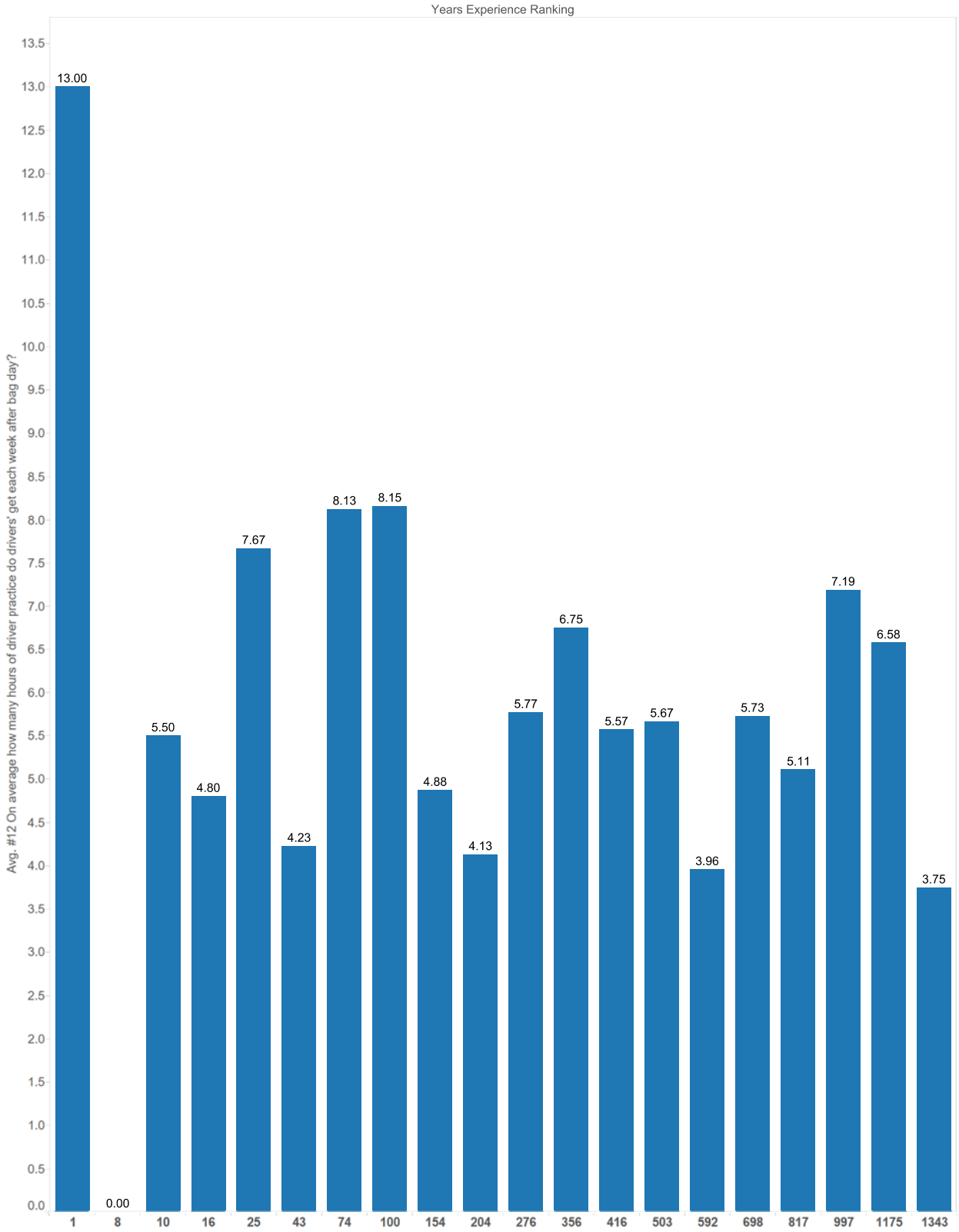


Trend Lines Model

A linear trend model is computed for average of #12 On average how many hours of driver practice do drivers' get each week after bag day? given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 47.12
MSE (mean squared error): 3.36572
R-Squared: 0.389452
Standard error: 1.83459
p-value (significance): 0.0097746

Hours of Driver Practice (Years)

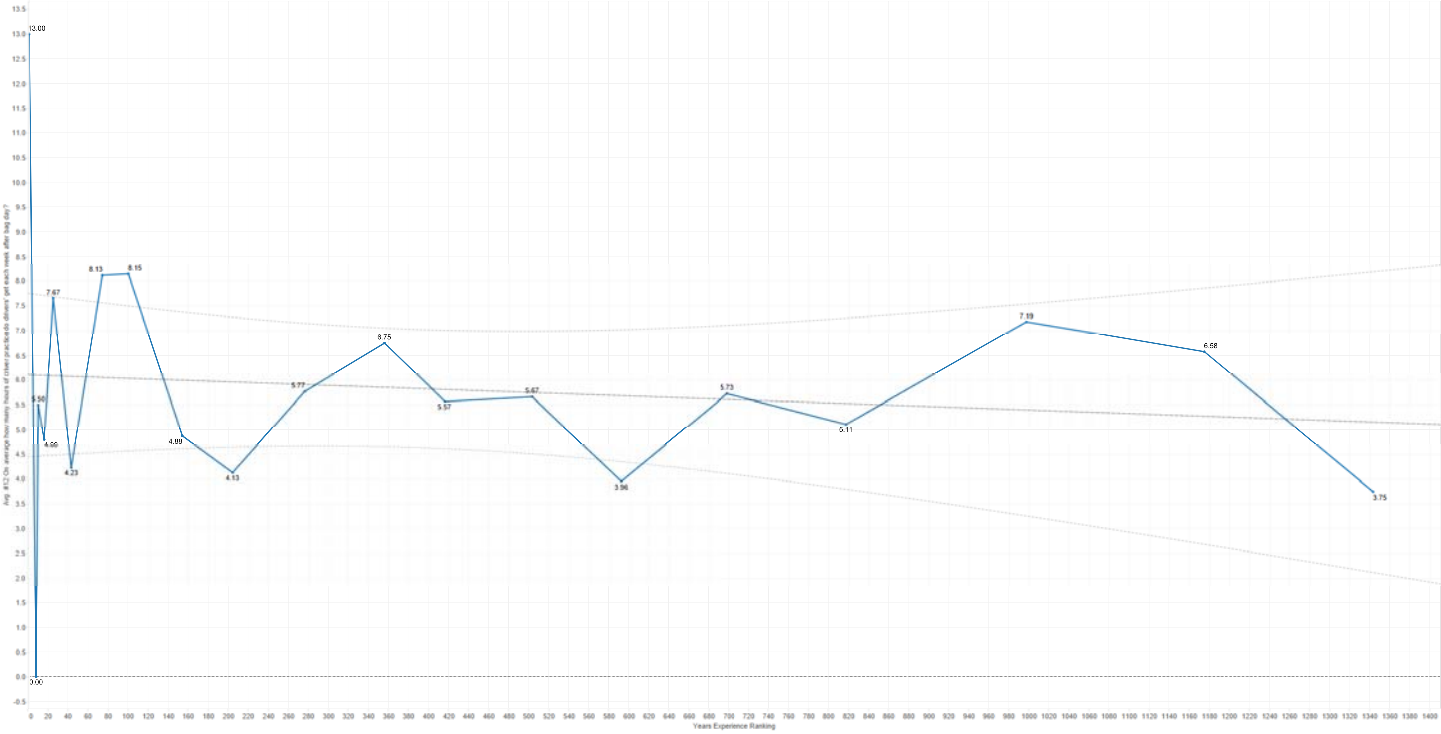


Trend Lines Model

A linear trend model is computed for average of #12 On average how many hours of driver practice do drivers' get each week after bag day? given Years Rank.

Model formula: (Years Rank + intercept)
Number of modeled observations: 20
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 18
SSE (sum squared error): 116.989
MSE (mean squared error): 6.49942
R-Squared: 0.0140756
Standard error: 2.5494
p-value (significance): 0.618357

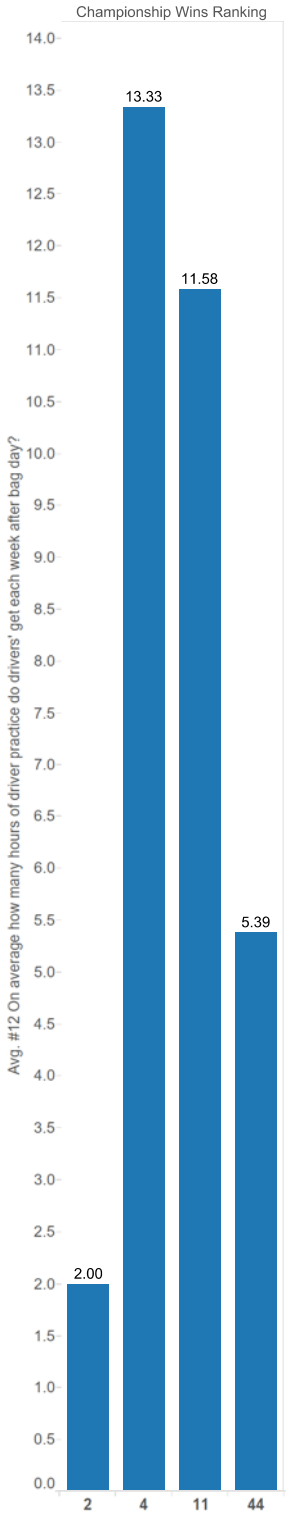
Hours of Driver Practice (Years 2)



Trend Lines Model
A linear trend model is computed for average of #12 On average how many hours of driver practice do drivers' get each week after bag day? given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 47.12
MSE (mean squared error): 3.36572
R-Squared: 0.389452
Standard error: 1.83459
p-value (significance): 0.0097746

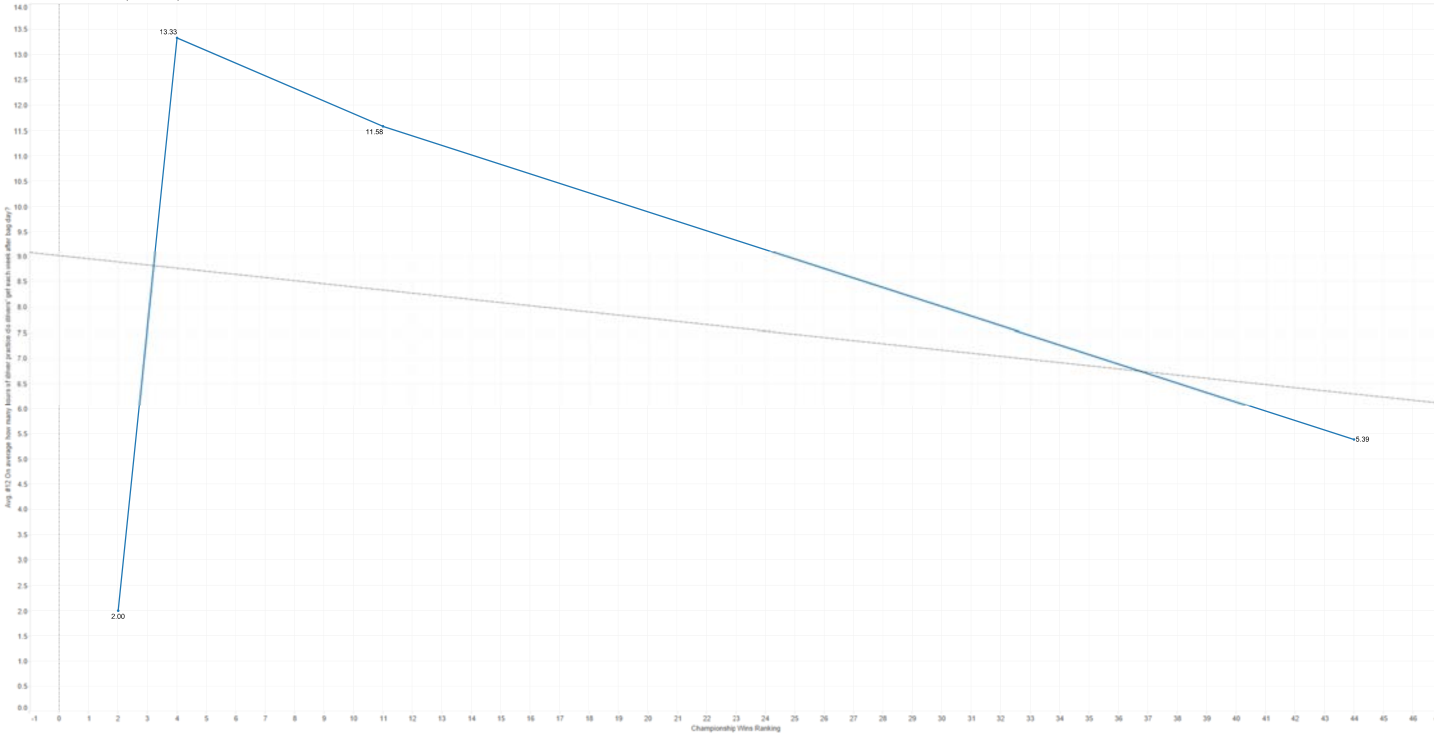
Hours of Driver Practice (Einstein)



Trend Lines Model
A linear trend model is computed for average of #12 On average how many hours of driver practice do drivers' get each week after bag day? given Einstein Rank.

Model formula: (Einstein Rank + intercept)
Number of modeled observations: 4
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 2
SSE (sum squared error): 79.7123
MSE (mean squared error): 39.8562
R-Squared: 0.0520731
Standard error: 6.31317
p-value (significance): 0.771805

Hours of Driver Practice (Einstein 2)

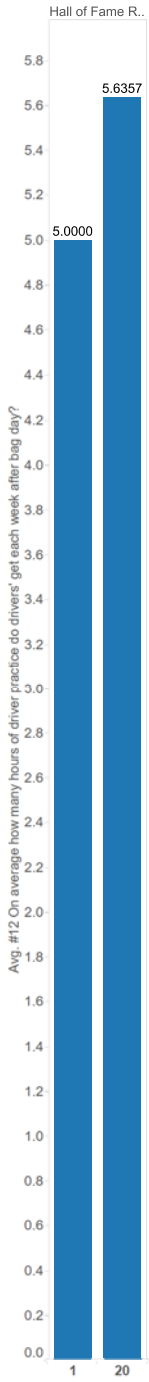


Trend Lines Model

A linear trend model is computed for average of #12 On average how many hours of driver practice do drivers' get each week after bag day? given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 47.12
MSE (mean squared error): 3.36572
R-Squared: 0.389452
Standard error: 1.83459
p-value (significance): 0.0097746

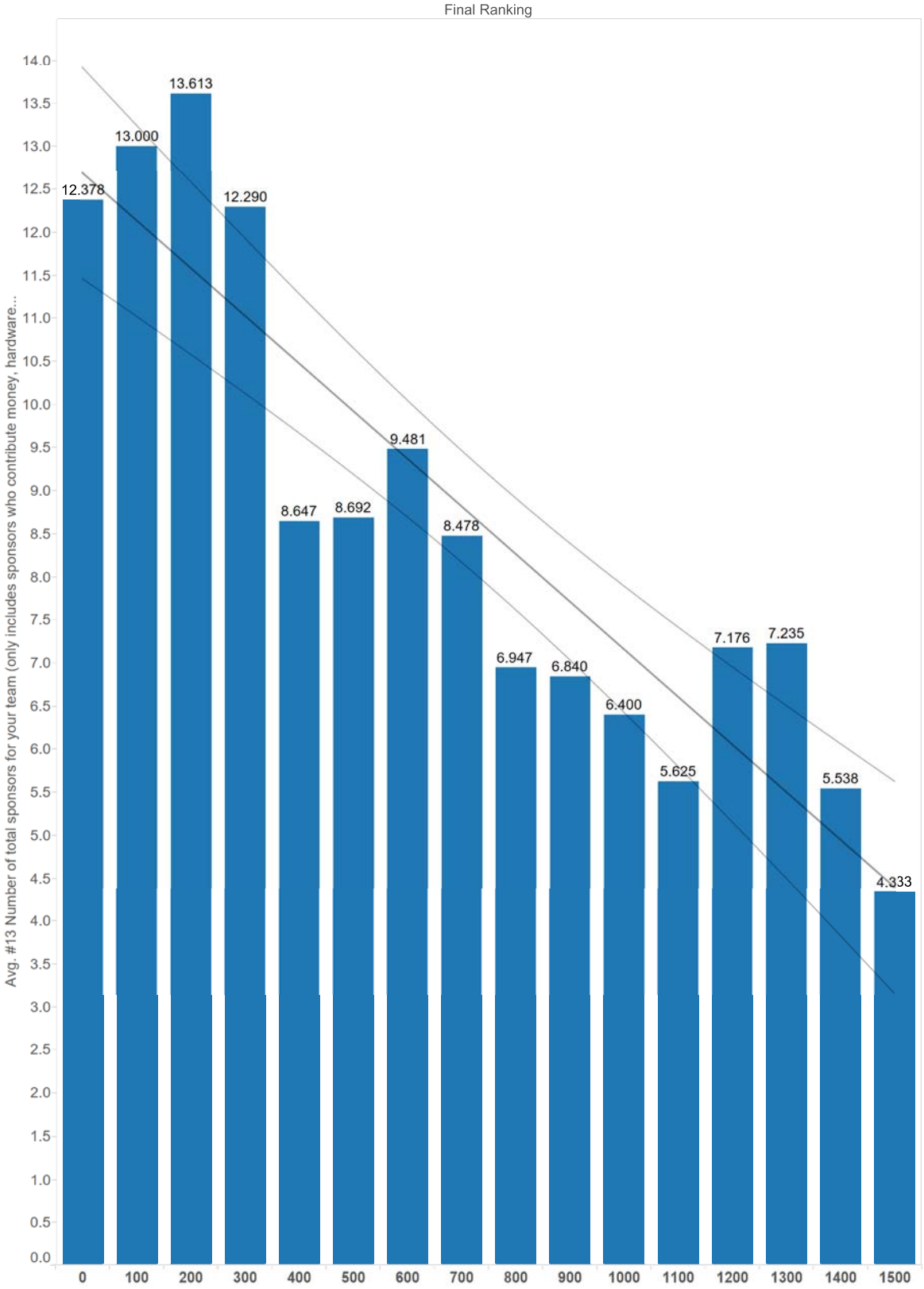
Hours of Driver Practice (Hall of Fame)



Trend Lines Model
A linear trend model is computed for average of #12 On average how many hours of driver practice do drivers' get each week after bag day? given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 47.12
MSE (mean squared error): 3.36572
R-Squared: 0.389452
Standard error: 1.83459
p-value (significance): 0.0097746

Total Sponsors (Final)

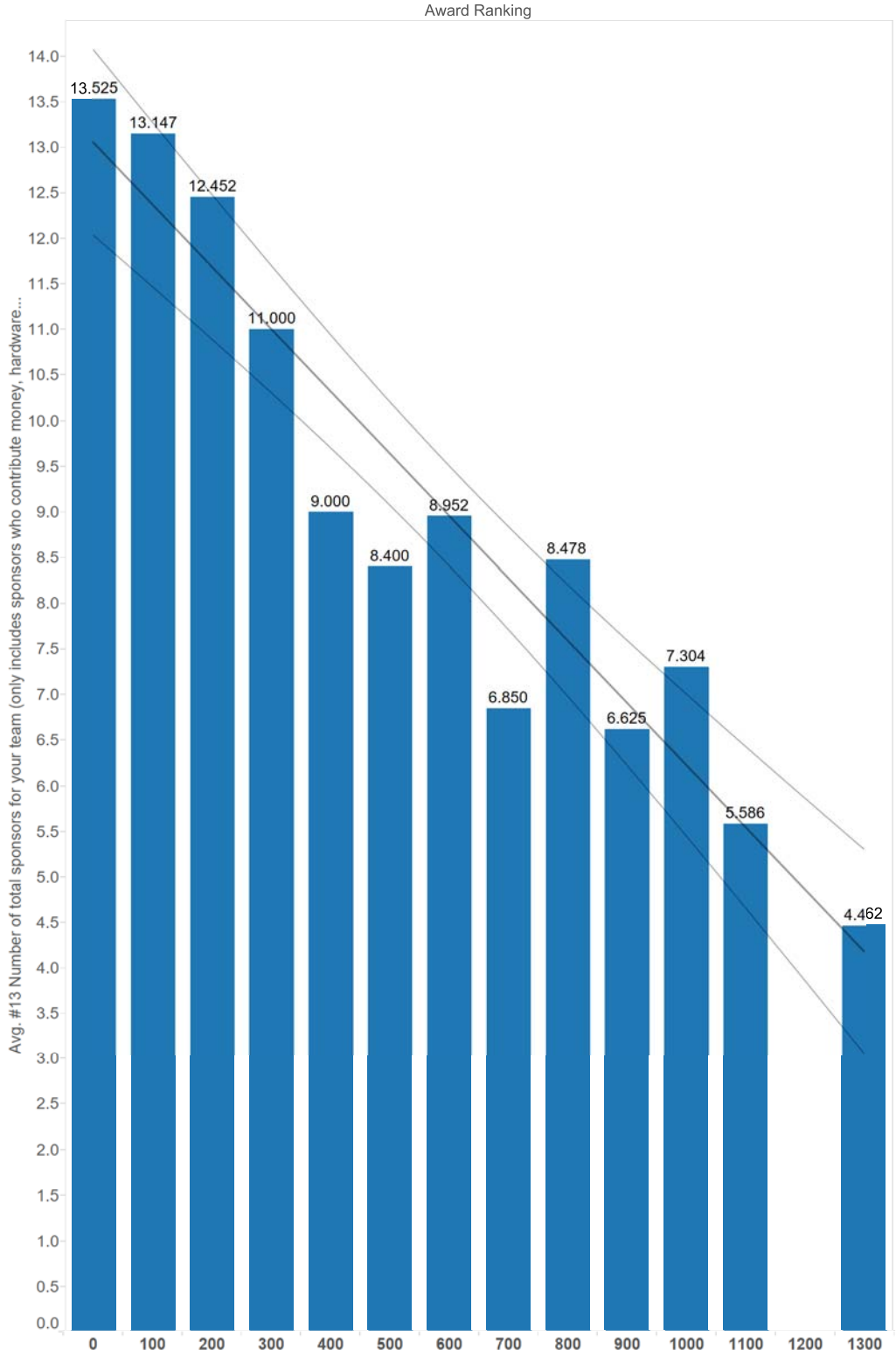


Trend Lines Model

A linear trend model is computed for average of #13 Number of total sponsors for your team (only includes sponsors who contribute money, hardware... given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 20.2072
MSE (mean squared error): 1.44337
R-Squared: 0.837195
Standard error: 1.2014
p-value (significance): < 0.0001

Total Sponsors (Awards)

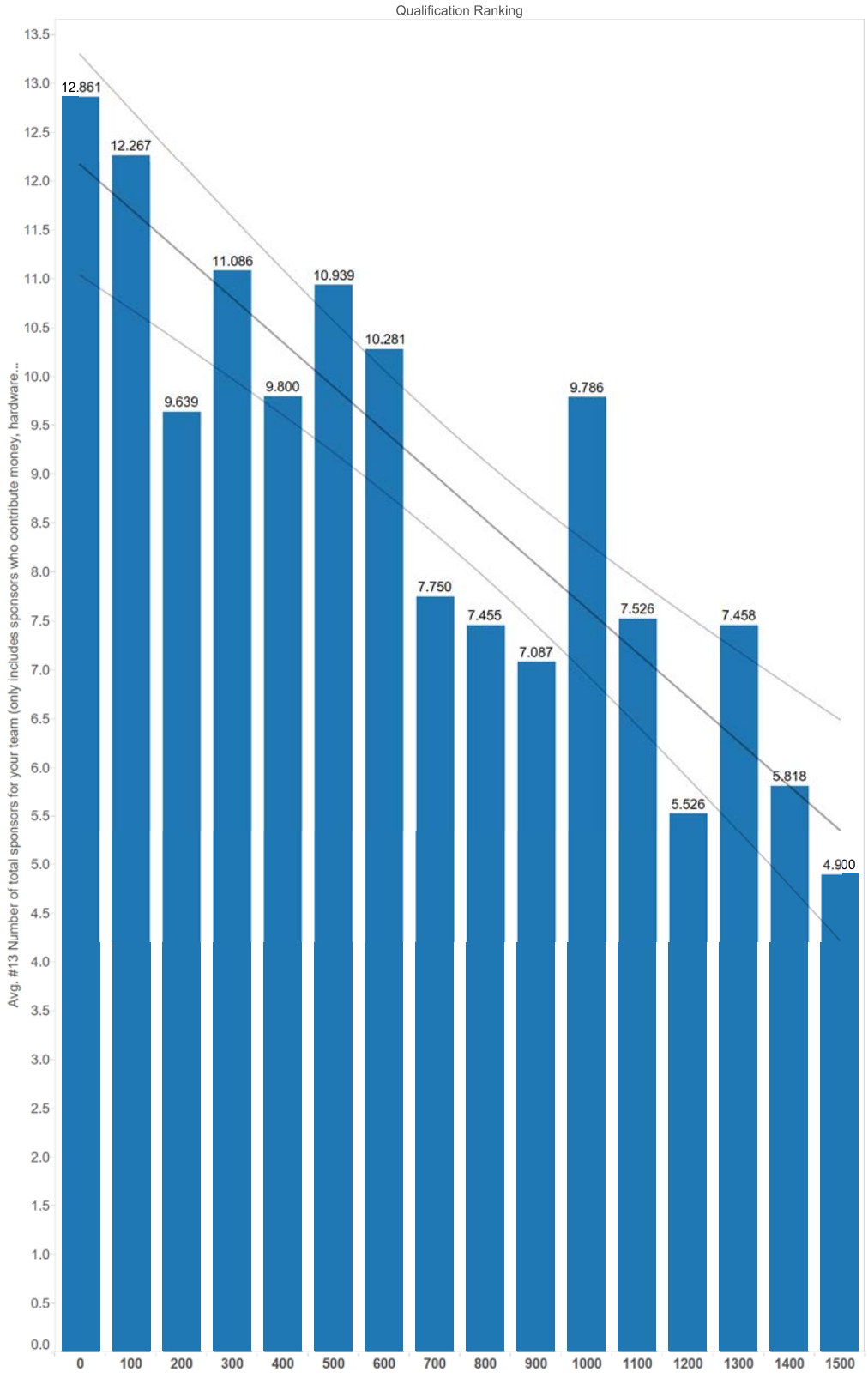


Trend Lines Model

A linear trend model is computed for average of #13 Number of total sponsors for your team (only includes sponsors who contribute money, hardware... given Award Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Award Rank (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 8.83569
MSE (mean squared error): 0.803245
R-Squared: 0.911202
Standard error: 0.896239
p-value (significance): < 0.0001

Total Sponsors (Quals)

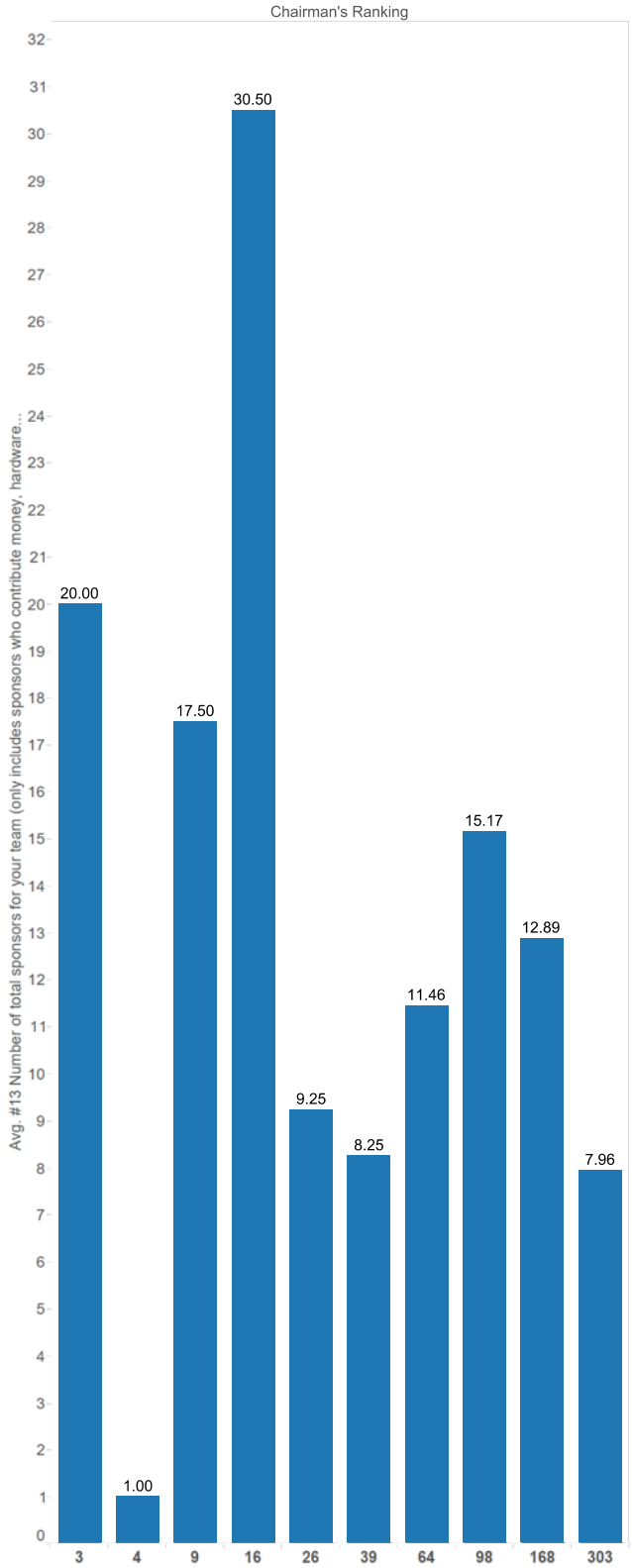


Trend Lines Model

A linear trend model is computed for average of #13 Number of total sponsors for your team (only includes sponsors who contribute money, hardware... given Quals Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Quals Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 17.1157
MSE (mean squared error): 1.22255
R-Squared: 0.803821
Standard error: 1.10569
p-value (significance): < 0.0001

Total Sponsors (Chairman's)

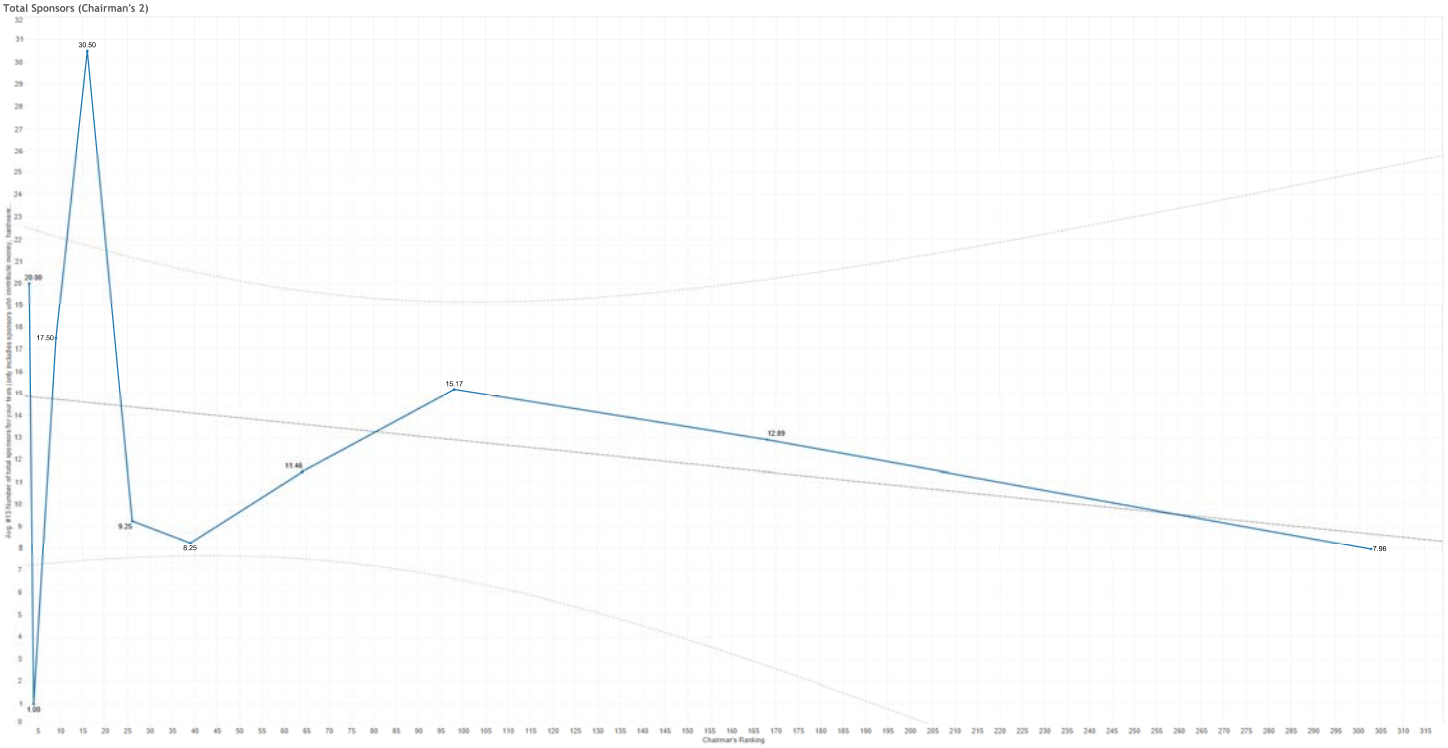


Trend Lines Model

A linear trend model is computed for average of #13 Number of total sponsors for your team (only includes sponsors who contribute money, hardware... given Chairman's Rank.

Model formula: (Chairman's Rank + intercept)
Number of modeled observations: 10
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 8
SSE (sum squared error): 551.774
MSE (mean squared error): 68.9718
R-Squared: 0.0601481
Standard error: 8.30493
p-value (significance): 0.494634

Total Sponsors (Chairman's 2)

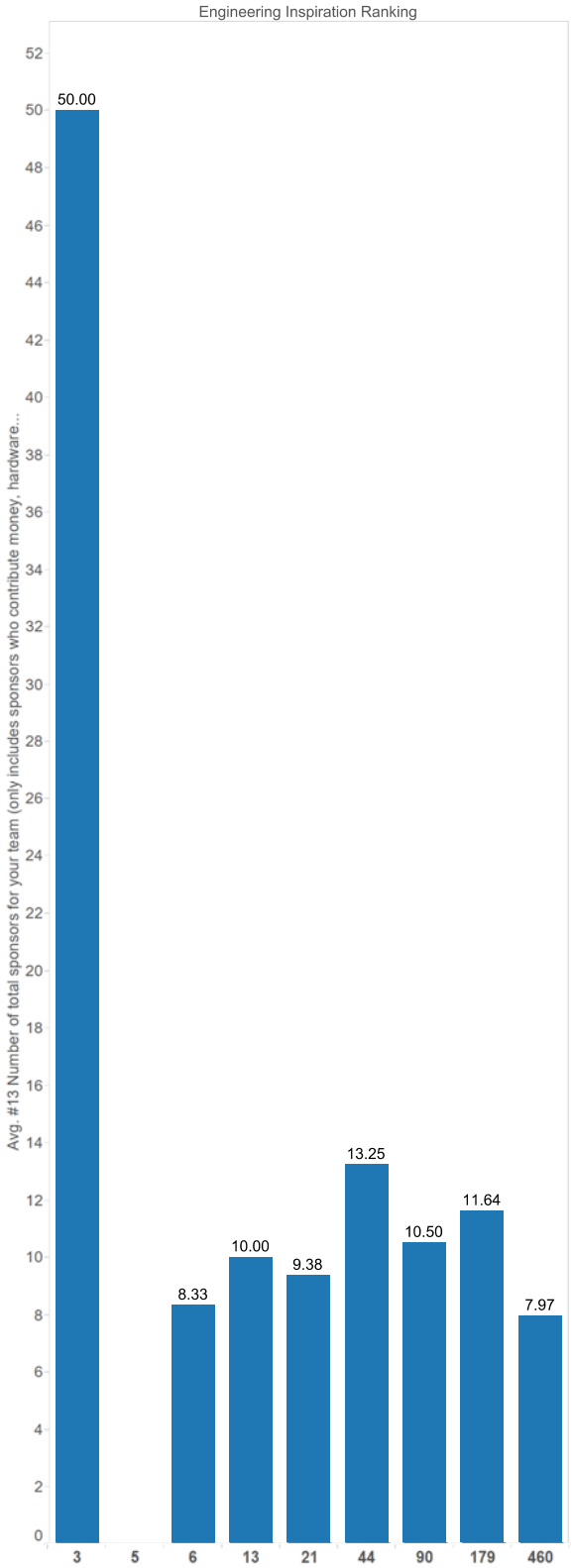


Trend Lines Model

A linear trend model is computed for average of #13 Number of total sponsors for your team (only includes sponsors who contribute money, hardware... given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + inter[sqft])
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 29.3974
MSE (mean squared error): 1.44037
R-Squared: 0.927195
Standard error: 1.2314
p-value (significance): < 0.0001

Total Sponsors (Inspiration)

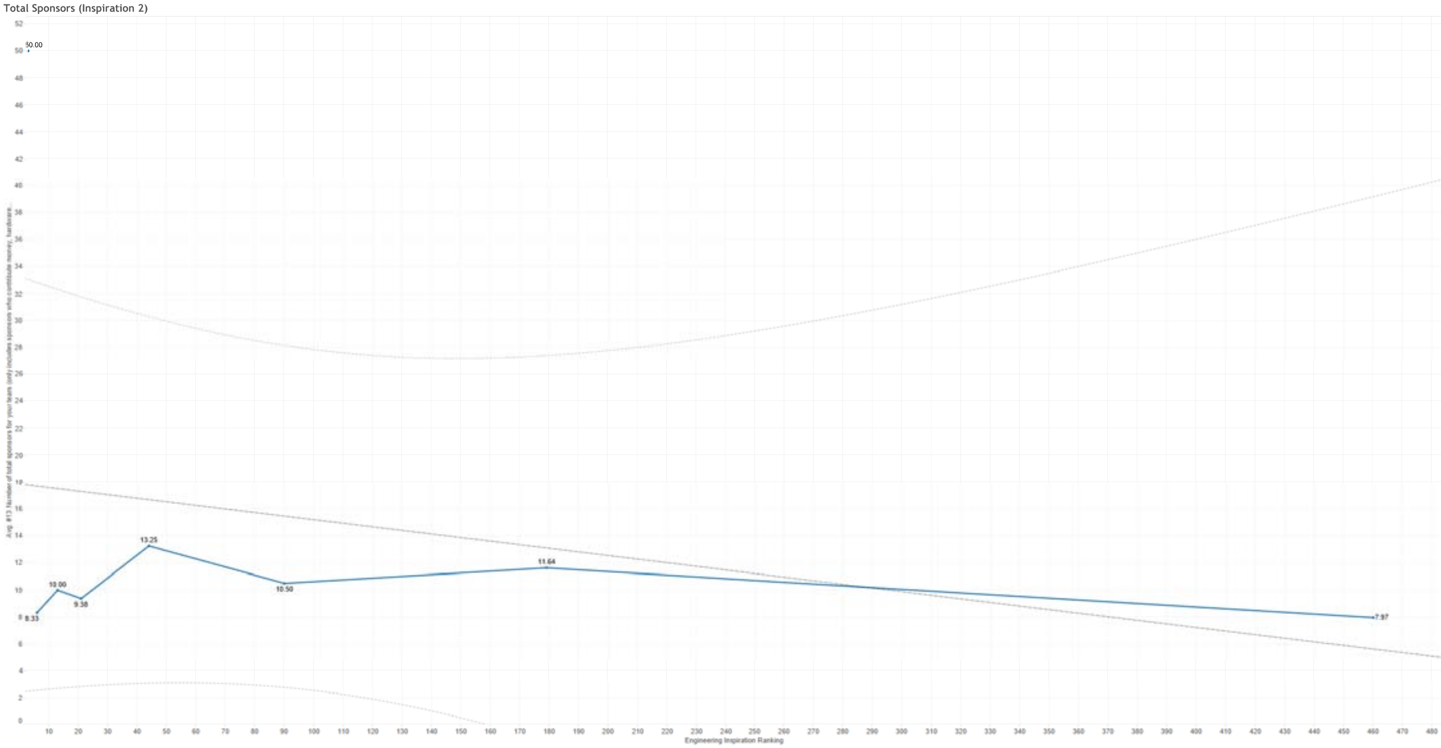


Trend Lines Model

A linear trend model is computed for average of #13 Number of total sponsors for your team (only includes sponsors who contribute money, hardware... given Inspiration Rank.

Model formula: (Inspiration Rank + intercept)
Number of modeled observations: 8
Number of filtered observations: 1
Model degrees of freedom: 2
Residual degrees of freedom (DF): 6
SSE (sum squared error): 1289.27
MSE (mean squared error): 214.879
R-Squared: 0.0856448
Standard error: 14.6587
p-value (significance): 0.481804

Total Sponsors (Inspiration 2)

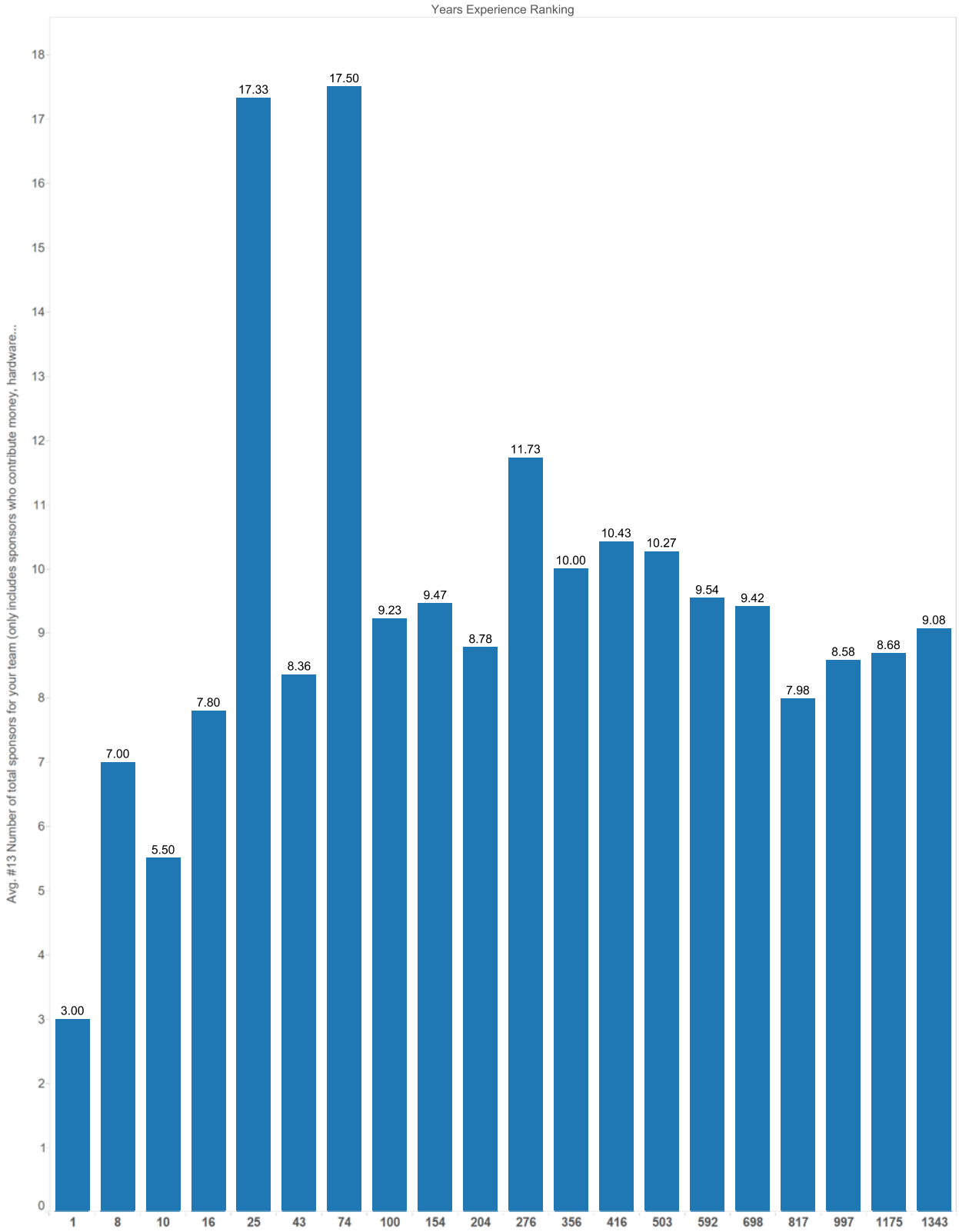


Trend Lines Model

A linear trend model is computed for average of #13 Number of total sponsors for your team (only includes sponsors who contribute money, hardware... given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 20.2072
MSE (mean squared error): 1.44337
R-Squared: 0.037105
Standard error: 1.2014
p-value (significance): < 0.0001

Total Sponsors (Years)

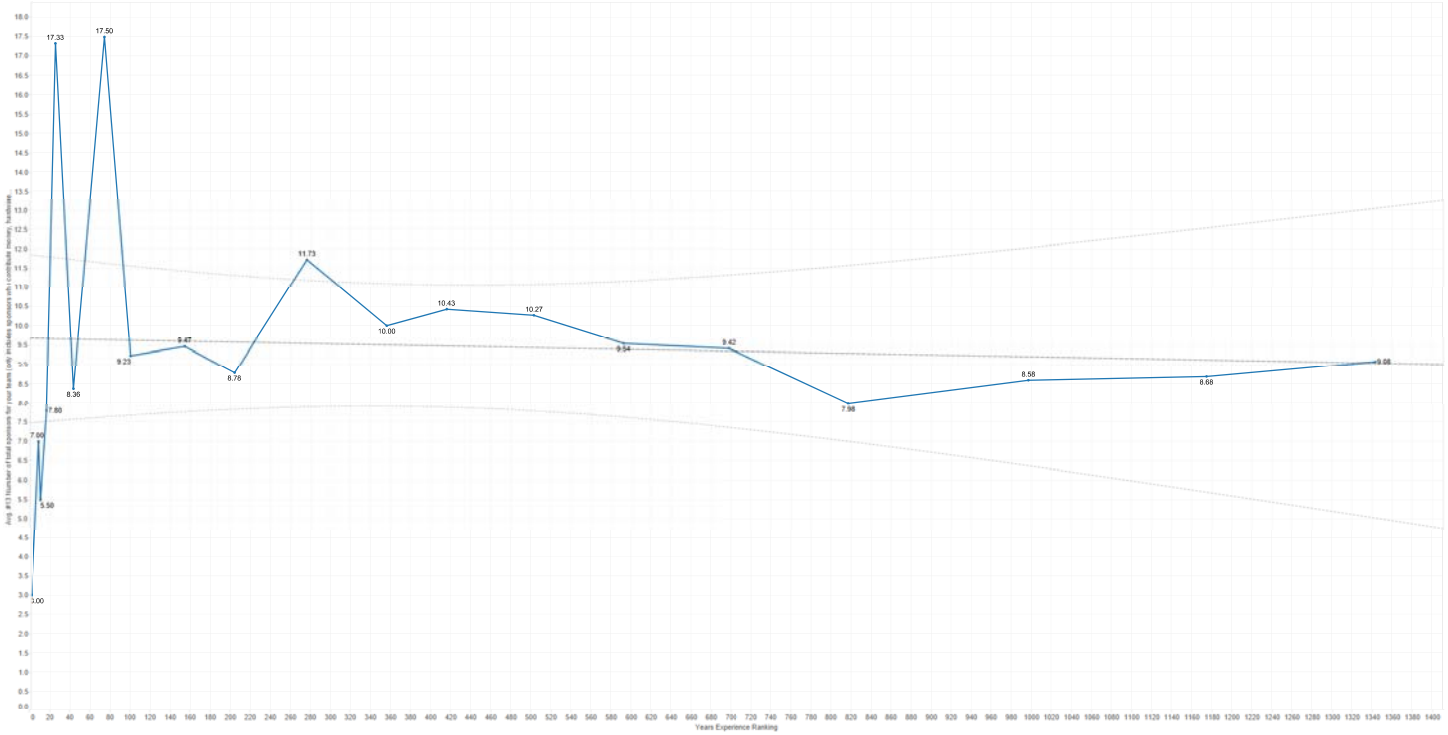


Trend Lines Model

A linear trend model is computed for average of #13 Number of total sponsors for your team (only includes sponsors who contribute money, hardware... given Years Rank.

Model formula: (Years Rank + intercept)
Number of modeled observations: 20
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 18
SSE (sum squared error): 204.575
MSE (mean squared error): 11.3653
R-Squared: 0.0035547
Standard error: 3.37124
p-value (significance): 0.802828

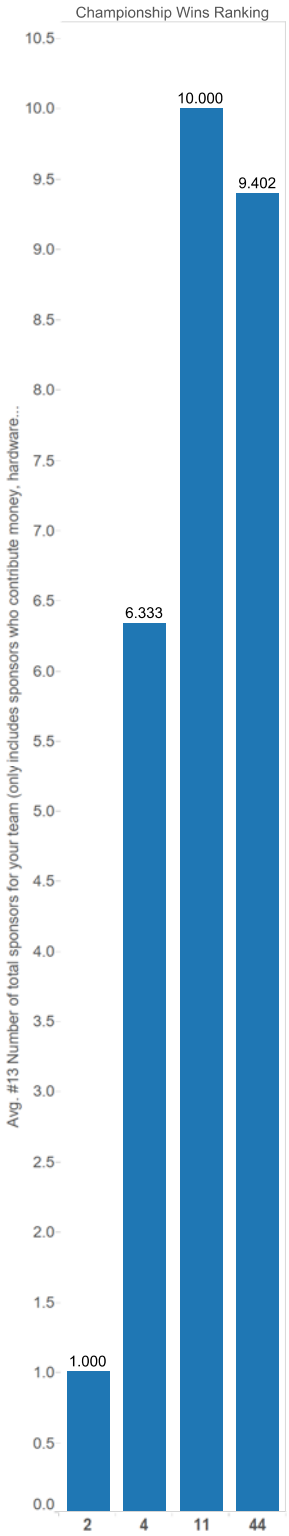
Total Sponsors (Years 2)



Trend Lines Model
A linear trend model is computed for average of #13 Number of total sponsors for your team (only includes sponsors who contribute money, hardware... given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 1
Residual degrees of freedom (DF): 14
SSE (sum squared error): 213.051
MSE (mean squared error): 1.44337
R-Squared: 0.021195
Standard error: 1.2014
p-value (significance): < 0.0001

Total Sponsors (Einstein)

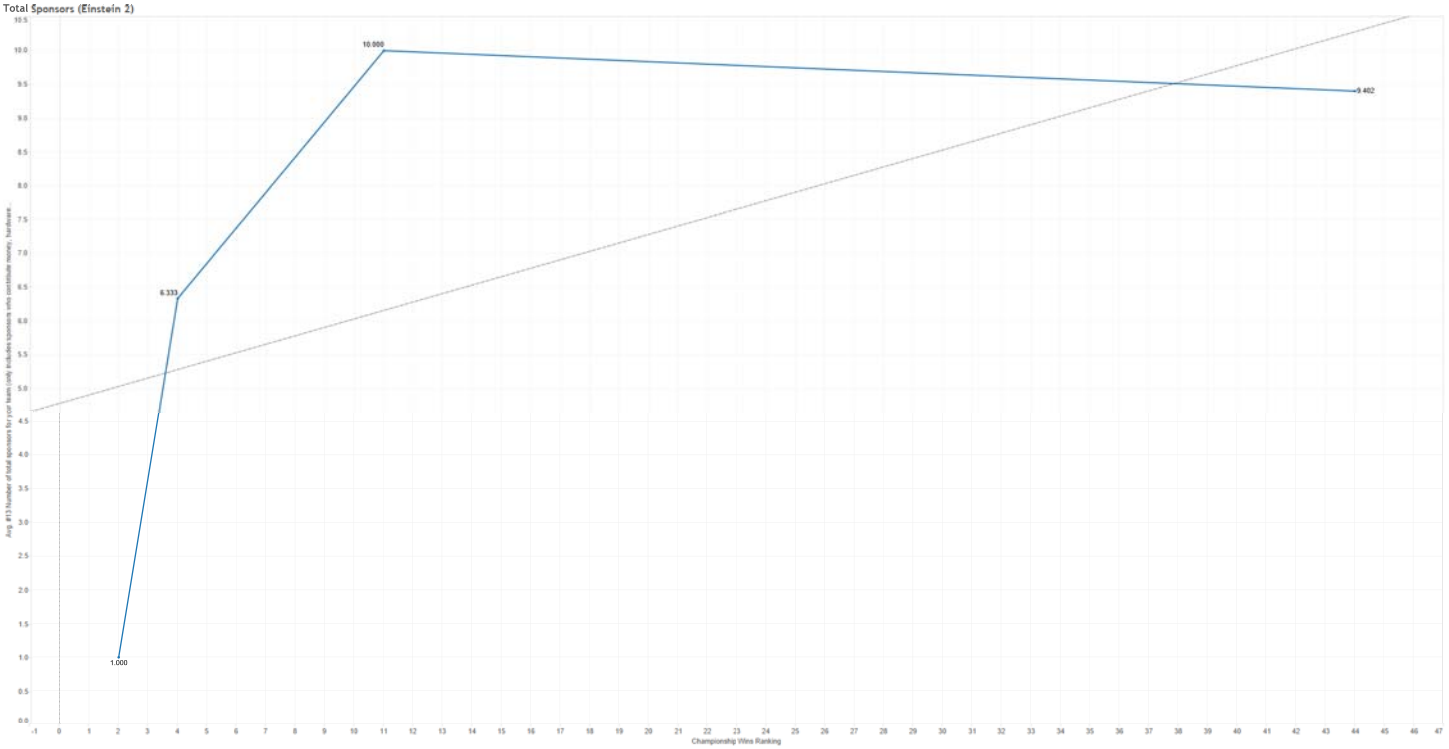


Trend Lines Model

A linear trend model is computed for average of #13 Number of total sponsors for your team (only includes sponsors who contribute money, hardware... given Einstein Rank.

Model formula: (Einstein Rank + intercept)
Number of modeled observations: 4
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 2
SSE (sum squared error): 32.906
MSE (mean squared error): 16.453
R-Squared: 0.352395
Standard error: 4.05623
p-value (significance): 0.406371

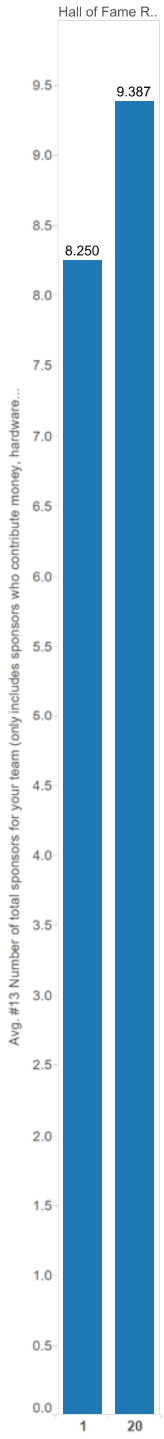
Total Sponsors (Einstein 2)



Trend Lines Model
A linear trend model is computed for average of #13 Number of total sponsors for your team (only includes sponsors who contribute money, hardware... given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 1
Residual degrees of freedom (DF): 14
SSE (sum squared error): 21.2251
MSE (mean squared error): 1.44337
R-Squared: 0.837155
Standard error: 1.2014
p-value (significance): < 0.0001

Total Sponsors (Hall of Fame)

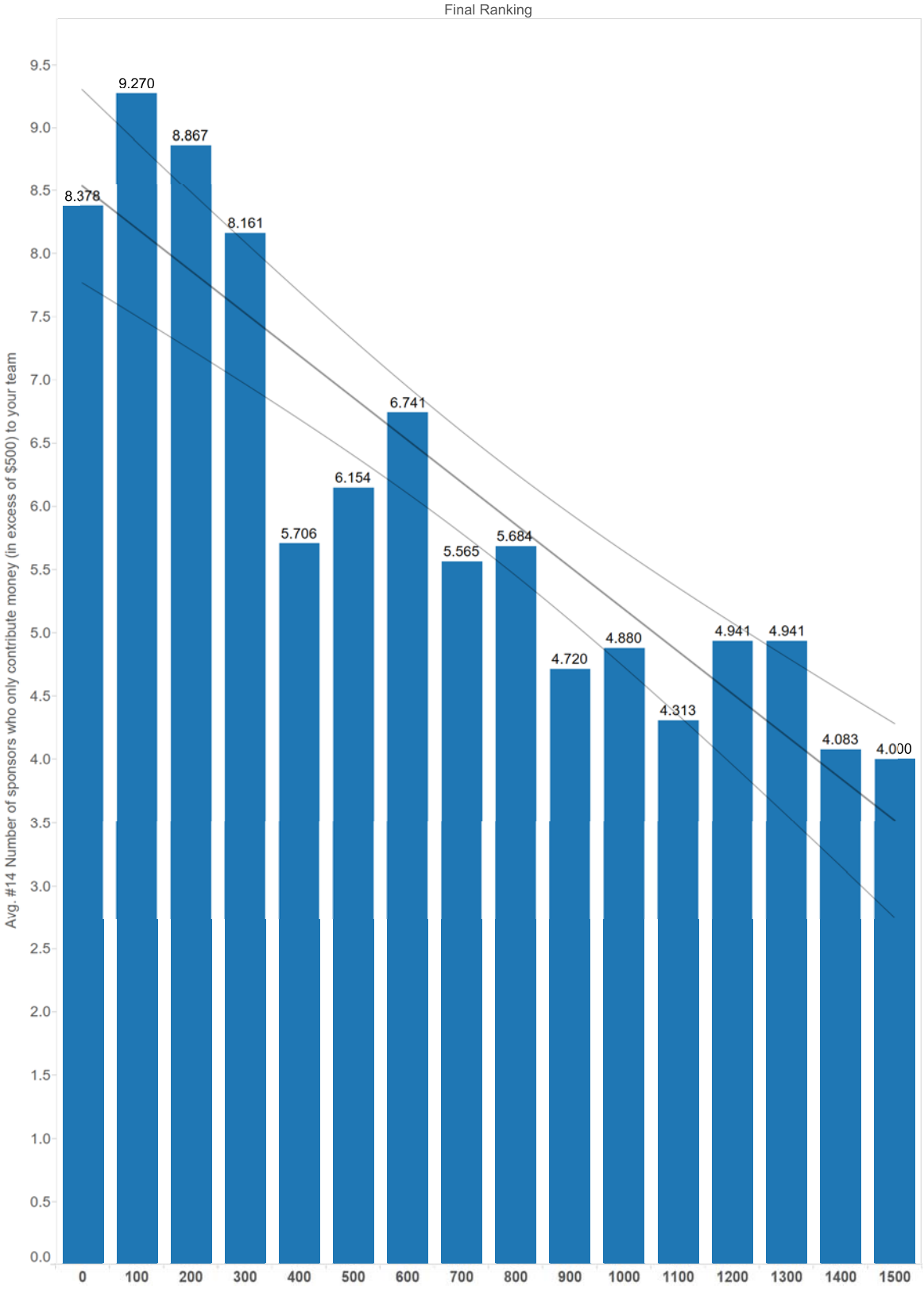


Trend Lines Model

A linear trend model is computed for average of #13 Number of total sponsors for your team (only includes sponsors who contribute money, hardware... given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + $intercept$)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 20.2072
MSE (mean squared error): 1.44337
R-Squared: 0.837195
Standard error: 1.2014
p-value (significance): < 0.0001

Monetary Sponsors (Final)

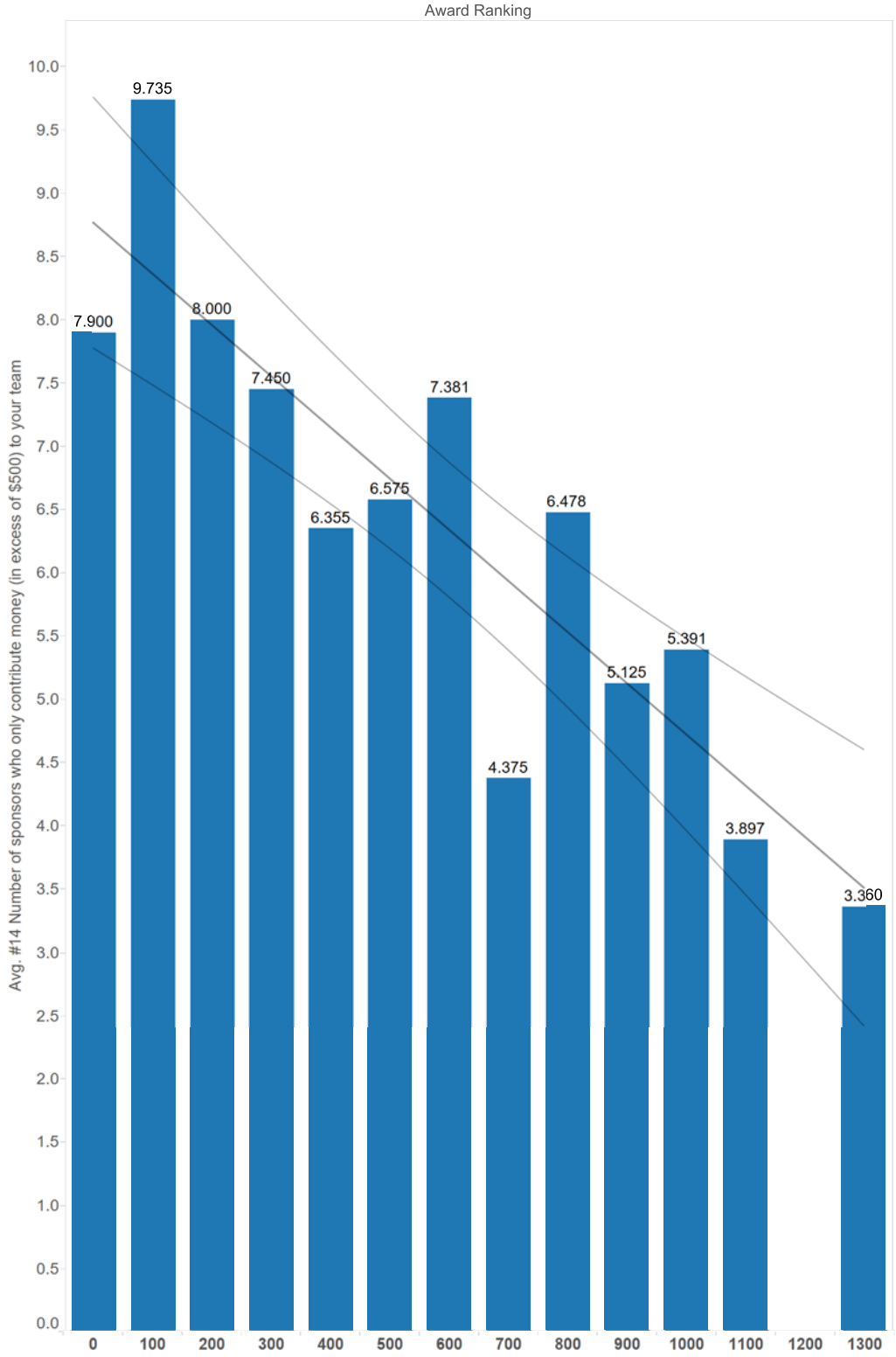


Trend Lines Model

A linear trend model is computed for average of #14 Number of sponsors who only contribute money (in excess of $500) to your team given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 7.83363
MSE (mean squared error): 0.559545
R-Squared: 0.829087
Standard error: 0.748027
p-value (significance): < 0.0001

Monetary Sponsors (Awards)

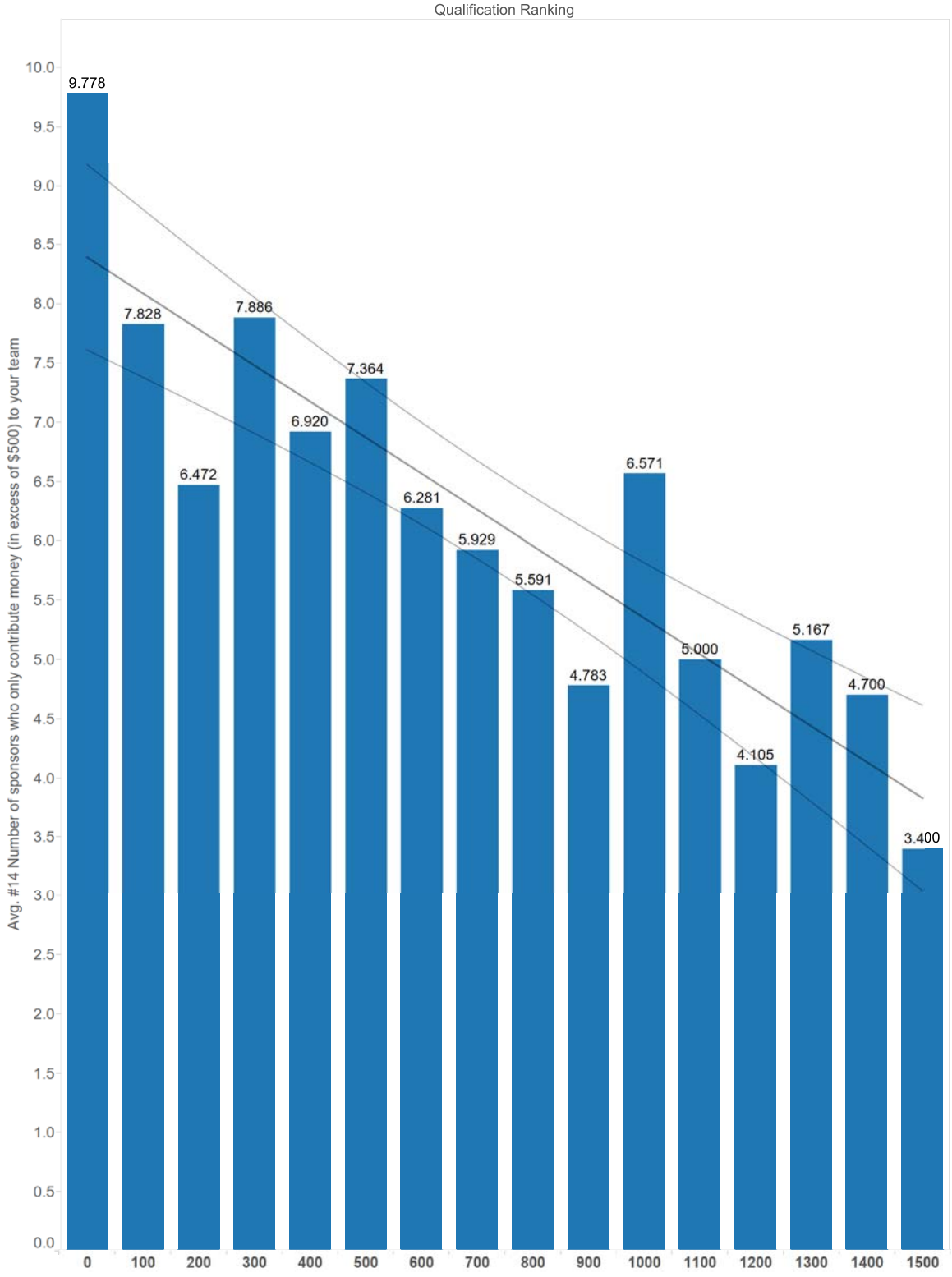


Trend Lines Model

A linear trend model is computed for average of #14 Number of sponsors who only contribute money (in excess of $500) to your team given Award Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Award Rank (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 8.37136
MSE (mean squared error): 0.761033
R-Squared: 0.791672
Standard error: 0.872372
p-value (significance): < 0.0001

Monetary Sponsors (Quals)

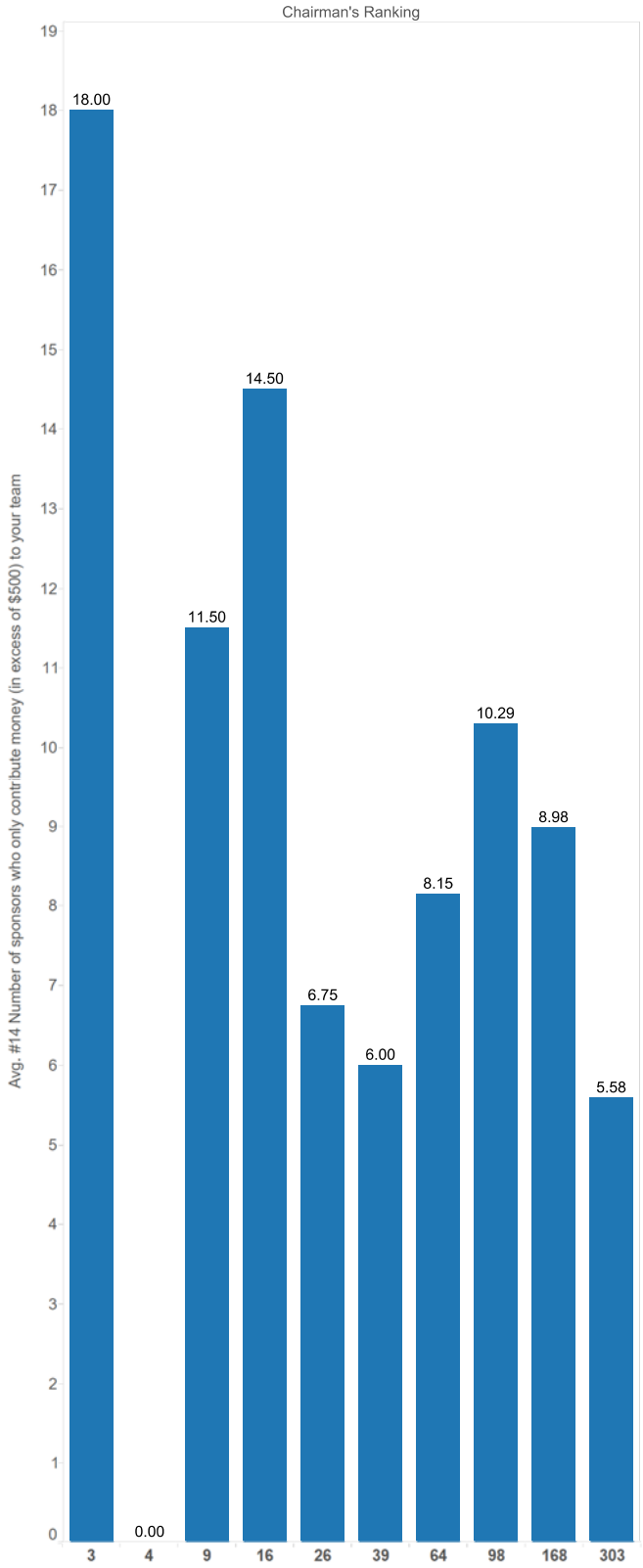


Trend Lines Model

A linear trend model is computed for average of #14 Number of sponsors who only contribute money (in excess of $500) to your team given Quals Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Quals Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 8.20458
MSE (mean squared error): 0.586042
R-Squared: 0.793307
Standard error: 0.765534
p-value (significance): < 0.0001

Monetary Sponsors (Chairman's)

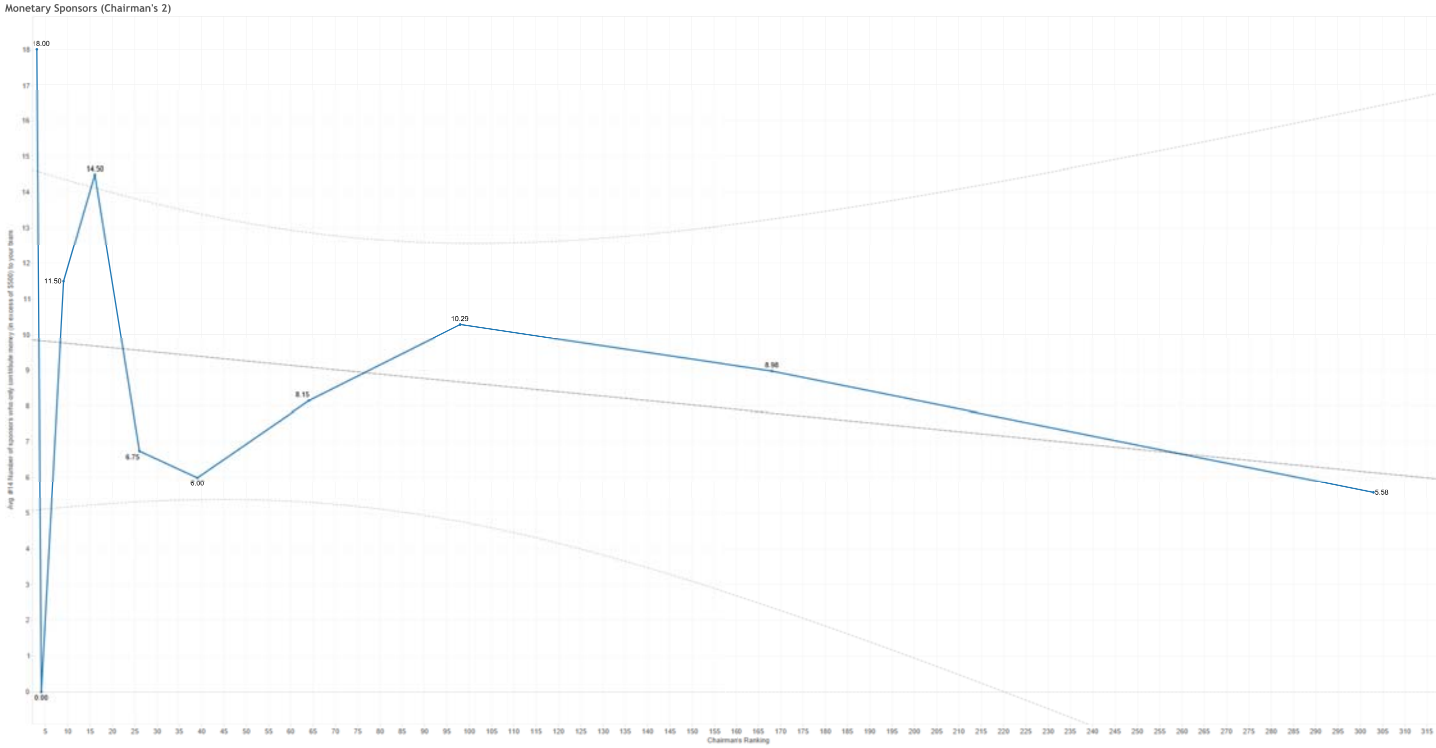


Trend Lines Model

A linear trend model is computed for average of #14 Number of sponsors who only contribute money (in excess of $500) to your team given Chairman's Rank.

Model formula: (Chairman's Rank + intercept)
Number of modeled observations: 10
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 8
SSE (sum squared error): 213.997
MSE (mean squared error): 26.7496
R-Squared: 0.0556726
Standard error: 5.172
p-value (significance): 0.511646

Monetary Sponsors (Chairman's 2)



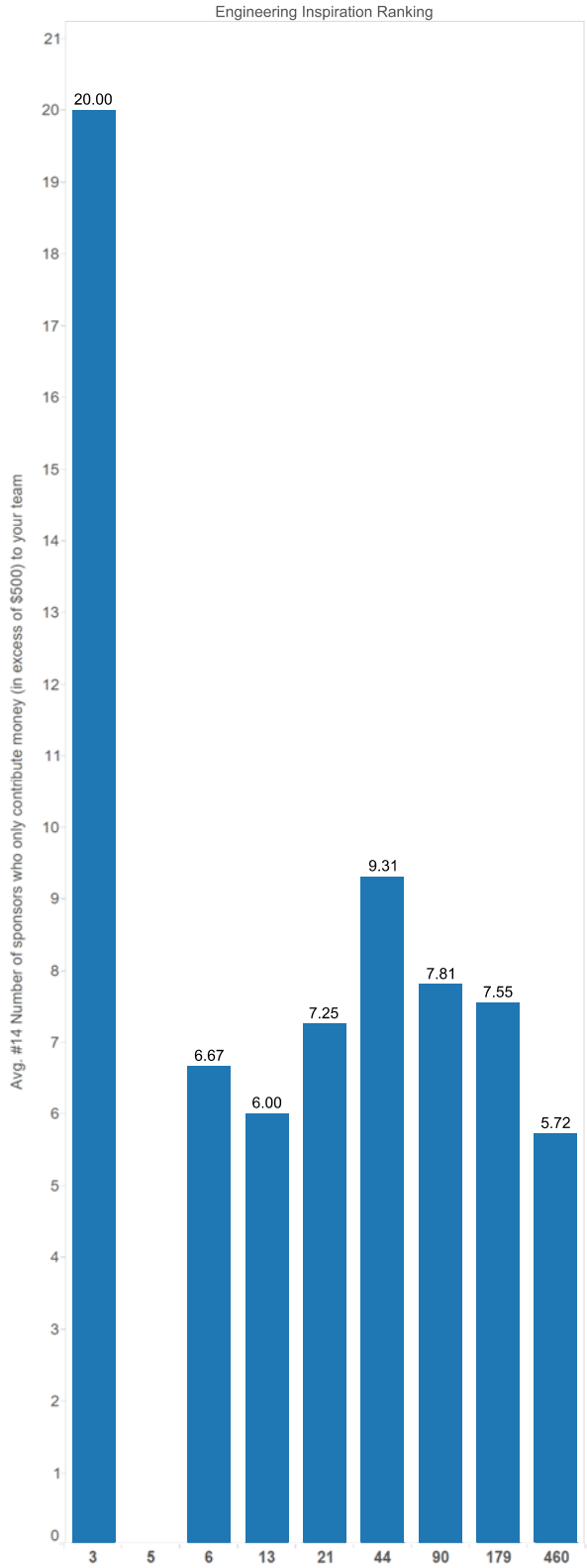
Trend Lines Model

A linear trend model is computed for average of #14 Number of sponsors who only contribute money (in excess of $500) to your team given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)

Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 7.83363
MSE (mean squared error): 0.559545
R-Squared: 0.329087
Standard error: 0.748027
p-value (significance): < 0.0001

Monetary Sponsors (Inspiration)

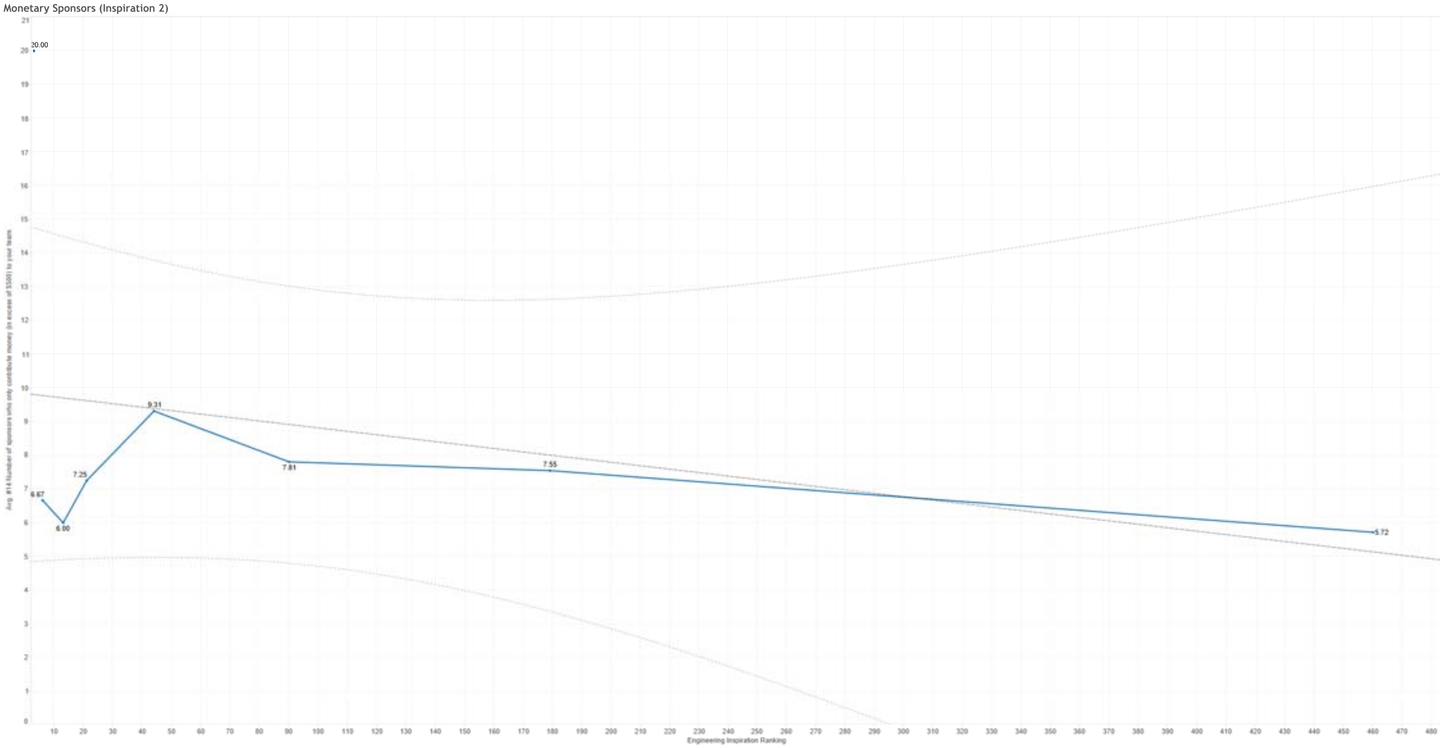


Trend Lines Model

A linear trend model is computed for average of #14 Number of sponsors who only contribute money (in excess of $500) to your team given Inspiration Rank.

Model formula: (Inspiration Rank + intercept)
Number of modeled observations: 8
Number of filtered observations: 1
Model degrees of freedom: 2
Residual degrees of freedom (DF): 6
SSE (sum squared error): 134.713
MSE (mean squared error): 22.4522
R-Squared: 0.116899
Standard error: 4.73837
p-value (significance): 0.407137

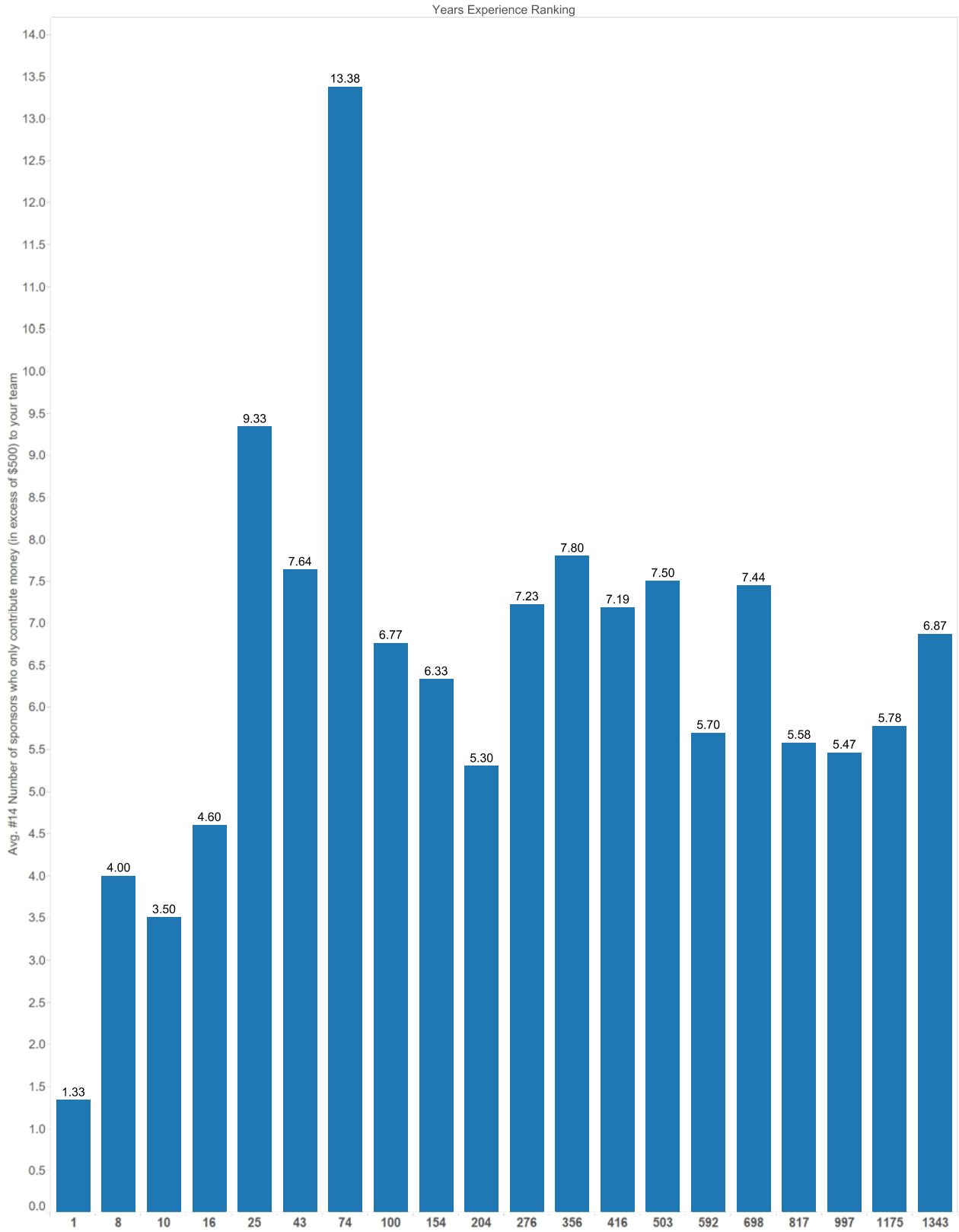
Monetary Sponsors (Inspiration 2)



Trend Lines Model
A linear trend model is computed for average of #14 Number of sponsors who only contribute money (in excess of $500) to your team given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 7.83363
MSE (mean squared error): 0.559545
R-Squared: 0.329087
Standard error: 0.748027
p-value (significance): < 0.0001

Monetary Sponsors (Years)

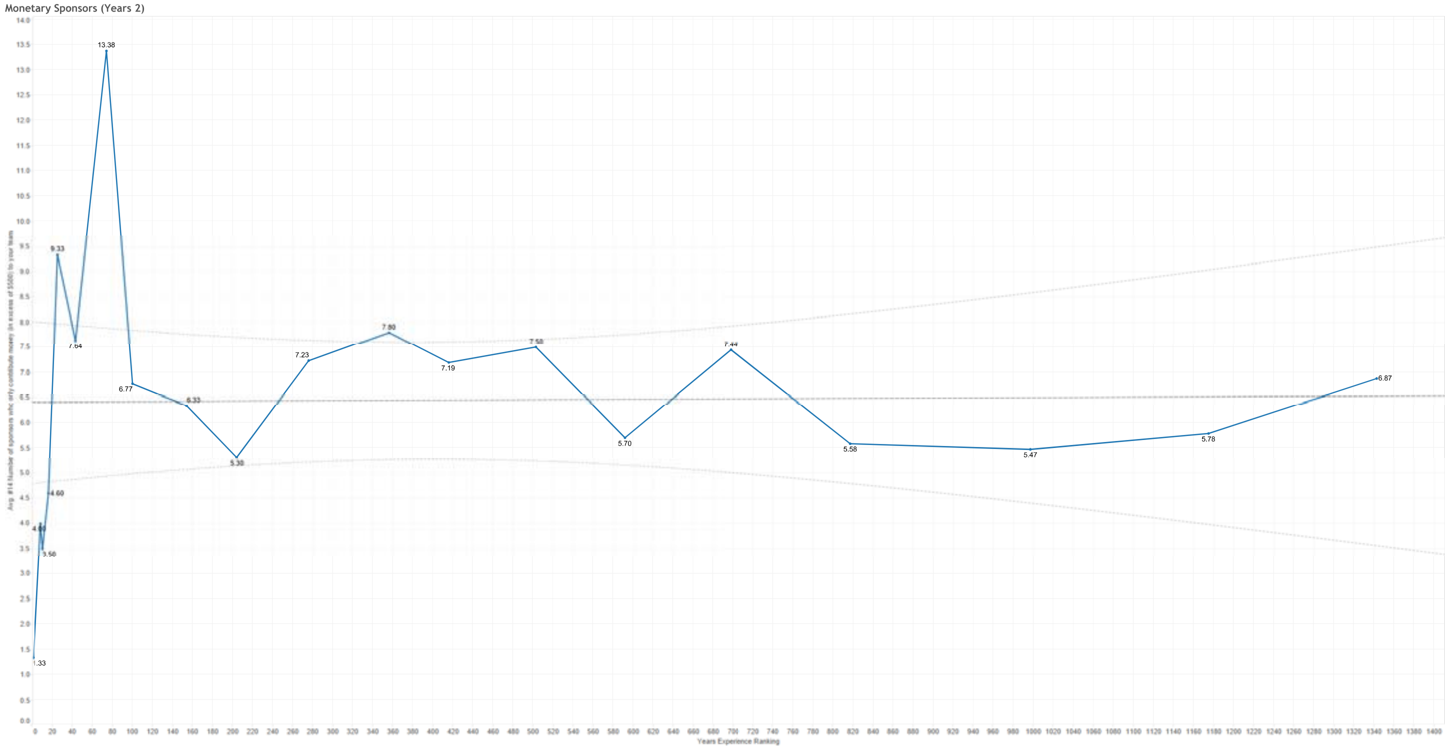


Trend Lines Model

A linear trend model is computed for average of #14 Number of sponsors who only contribute money (in excess of $500) to your team given Years Rank.

Model formula: (Years Rank + intercept)
Number of modeled observations: 20
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 18
SSE (sum squared error): 111.375
MSE (mean squared error): 6.18749
R-Squared: 0.0002387
Standard error: 2.48747
p-value (significance): 0.94845

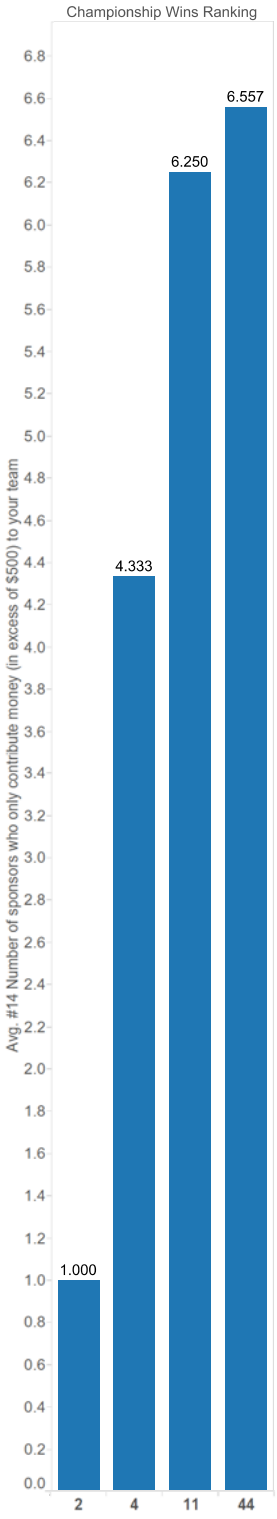
Monetary Sponsors (Years 2)



Trend Lines Model
A linear trend model is computed for average of #14 Number of sponsors who only contribute money (in excess of $500) to your team given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 7.83363
MSE (mean squared error): 0.559545
R-Squared: 0.829087
Standard error: 0.748027
p-value (significance): < 0.0001

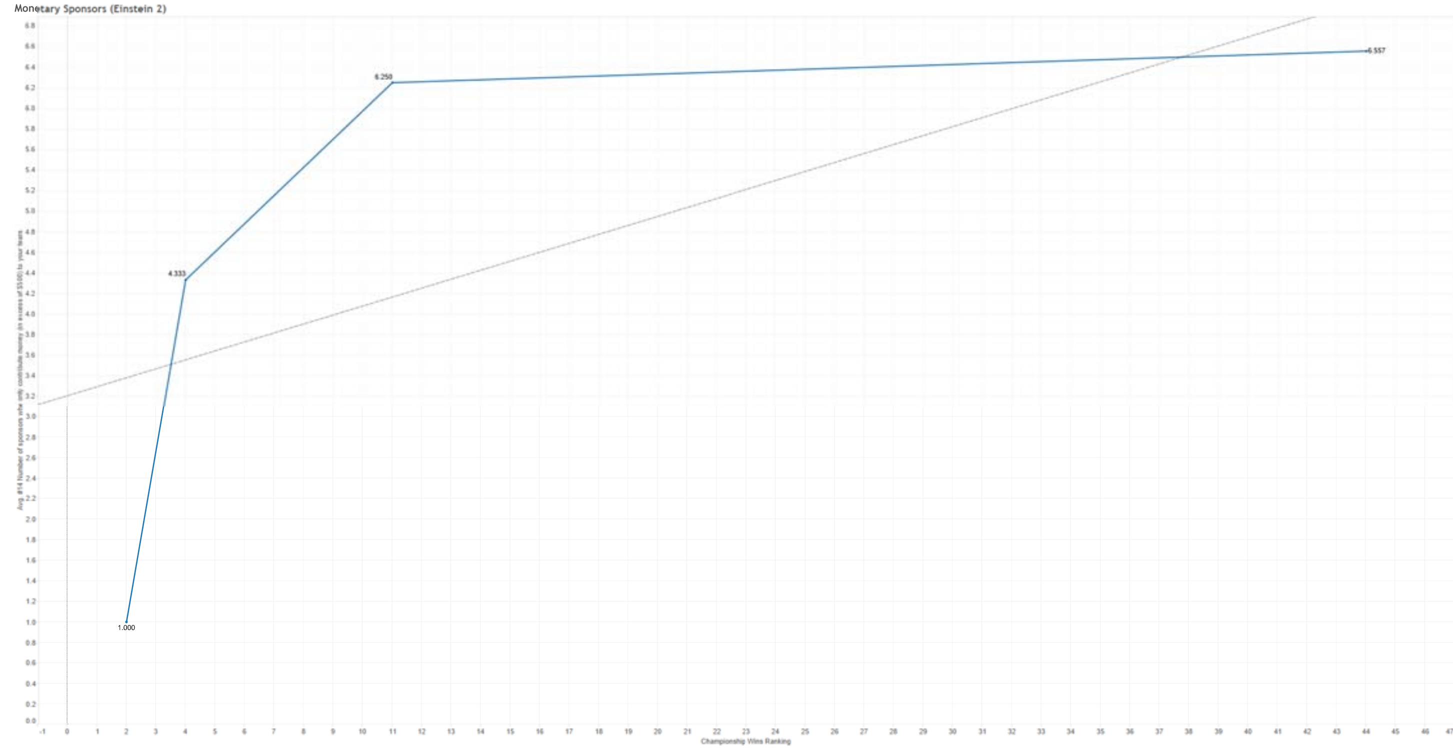
Monetary Sponsors (Einstein)



Trend Lines Model
A linear trend model is computed for average of #14 Number of sponsors who only contribute money (in excess of $500) to your team given Einstein Rank.

Model formula: (Einstein Rank + intercept)
Number of modeled observations: 4
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 2
SSE (sum squared error): 10.8551
MSE (mean squared error): 5.42754
R-Squared: 0.445193
Standard error: 2.32971
p-value (significance): 0.332772

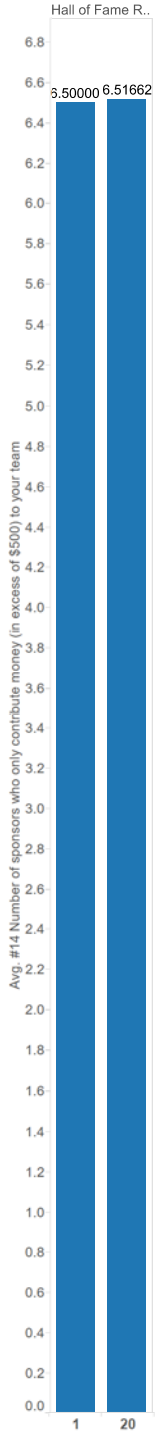
Monetary Sponsors (Einstein 2)



Trend Lines Model
A linear trend model is computed for average of #14 Number of sponsors who only contribute money (in excess of $500) to your team given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 7.83363
MSE (mean squared error): 0.559545
R-Squared: 0.829087
Standard error: 0.748027
p-value (significance): < 0.0001

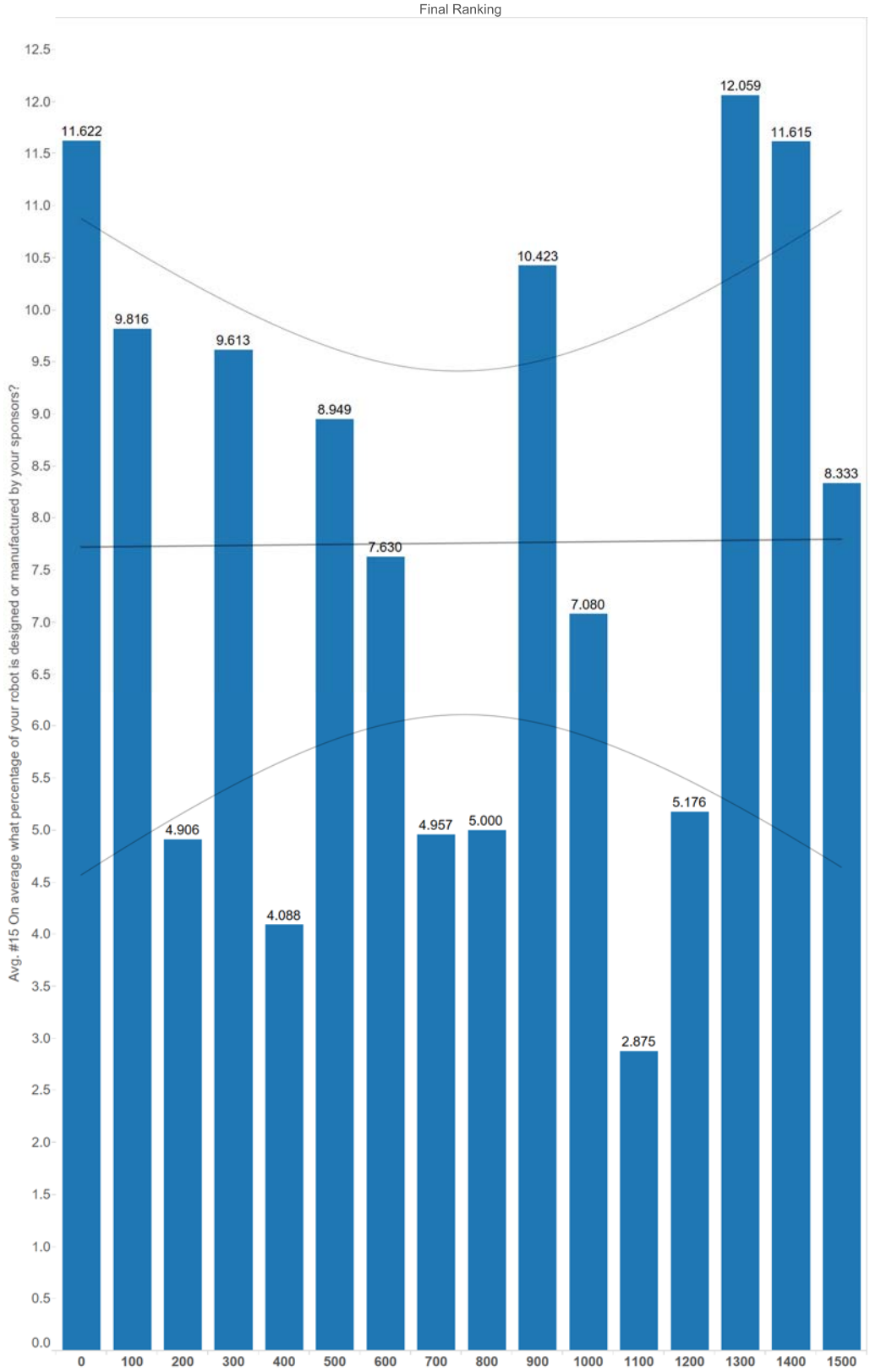
Monetary Sponsors (Hall of Fame)



Trend Lines Model
A linear trend model is computed for average of #14 Number of sponsors who only contribute money (in excess of $500) to your team given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 7.83363
MSE (mean squared error): 0.559545
R-Squared: 0.829087
Standard error: 0.748027
p-value (significance): < 0.0001

Percentage of Robot Manufactured by Sponsors (Final)

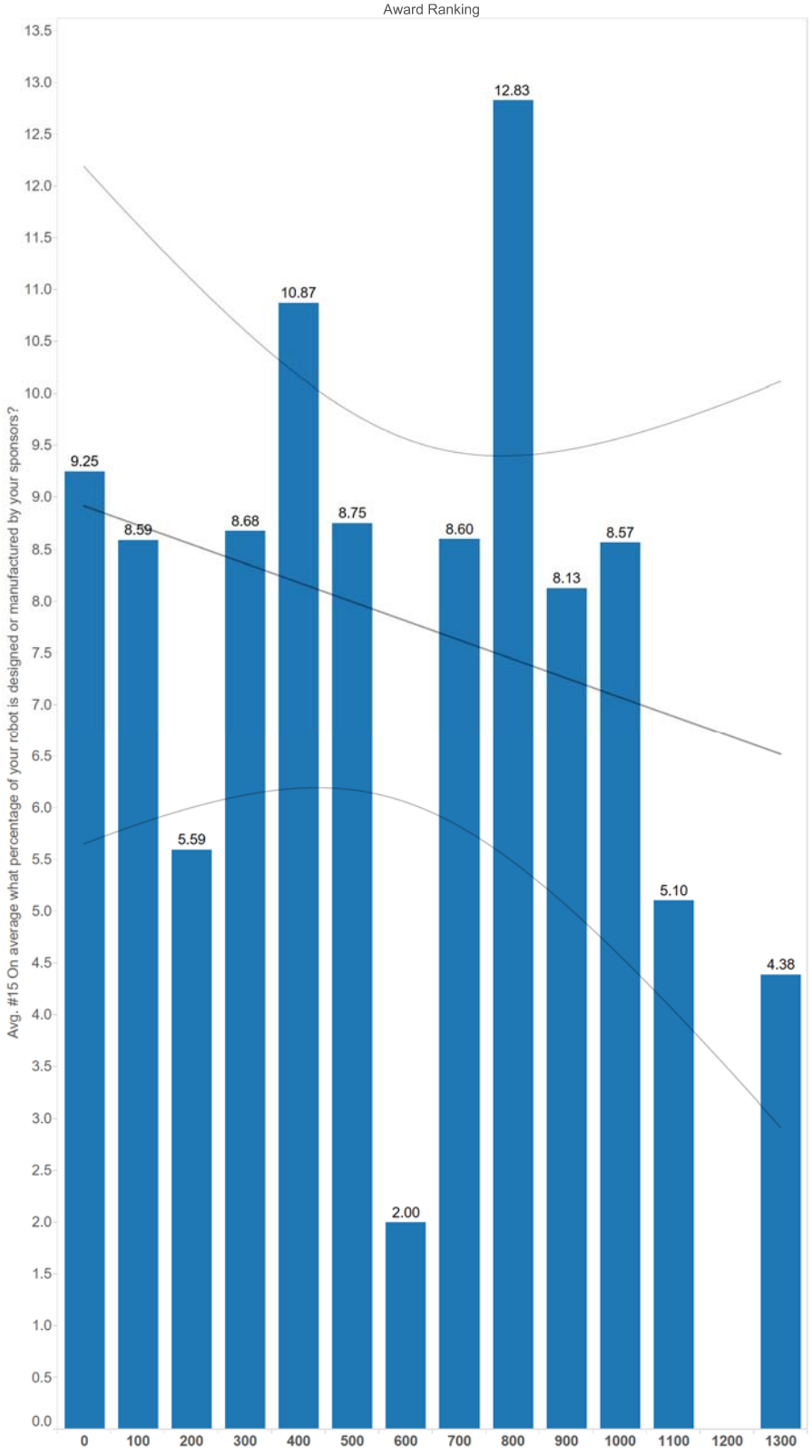


Trend Lines Model

A linear trend model is computed for average of #15 On average what percentage of your robot is designed or manufactured by your sponsors? given Final Rank (bin).

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 132.861
MSE (mean squared error): 9.49006
R-Squared: 6.429e-05
Standard error: 3.08059
p-value (significance): 0.976489

Percentage of Robot Manufactured by Sponsors (Awards)

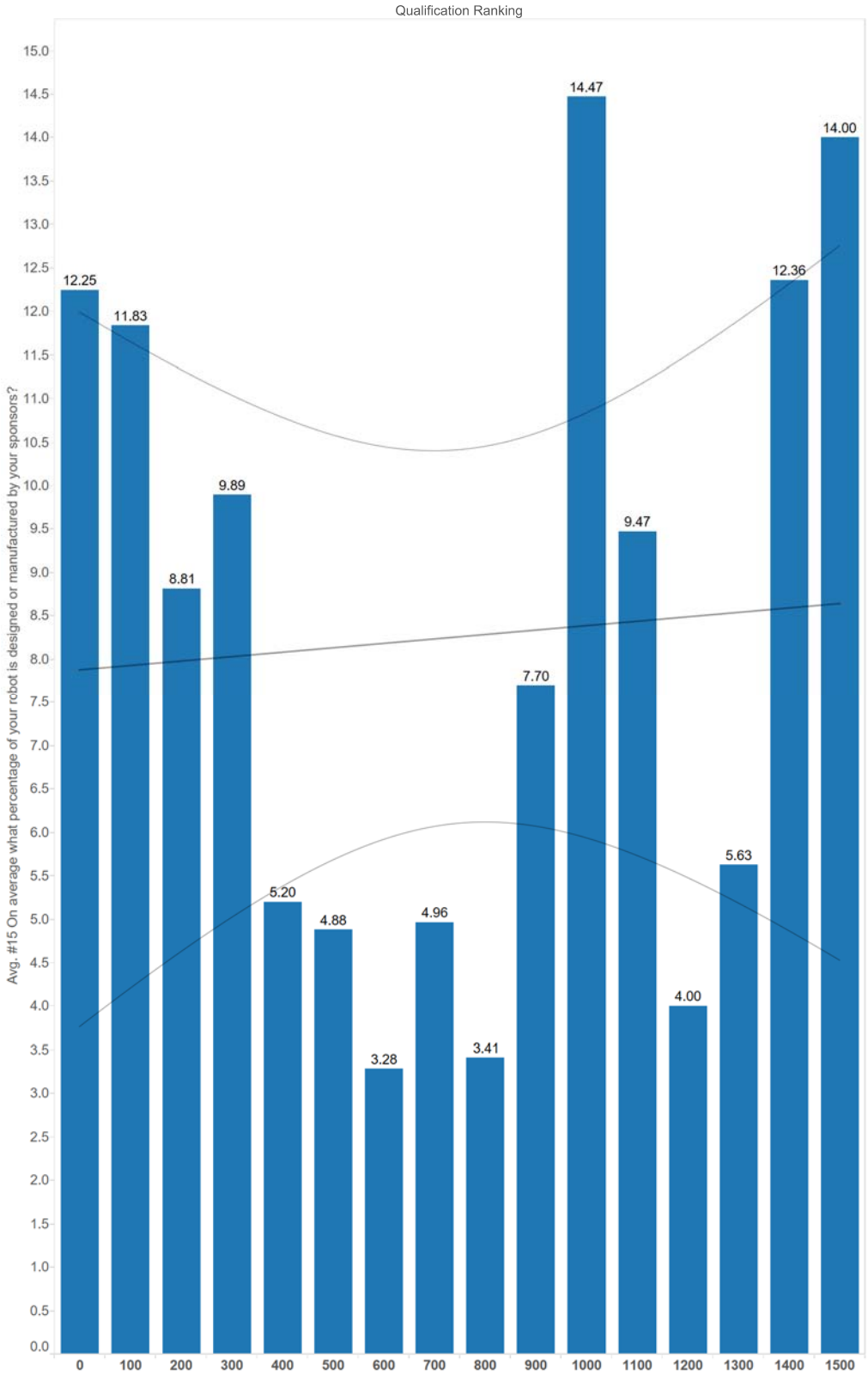


Trend Lines Model

A linear trend model is computed for average of #15 On average what percentage of your robot is designed or manufactured by your sponsors? given Award Rank (bin).

Model formula: (Award Rank (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 91.2158
MSE (mean squared error): 8.29234
R-Squared: 0.0680045
Standard error: 2.87964
p-value (significance): 0.389492

Percentage of Robot Manufactured by Sponsors (Quals)

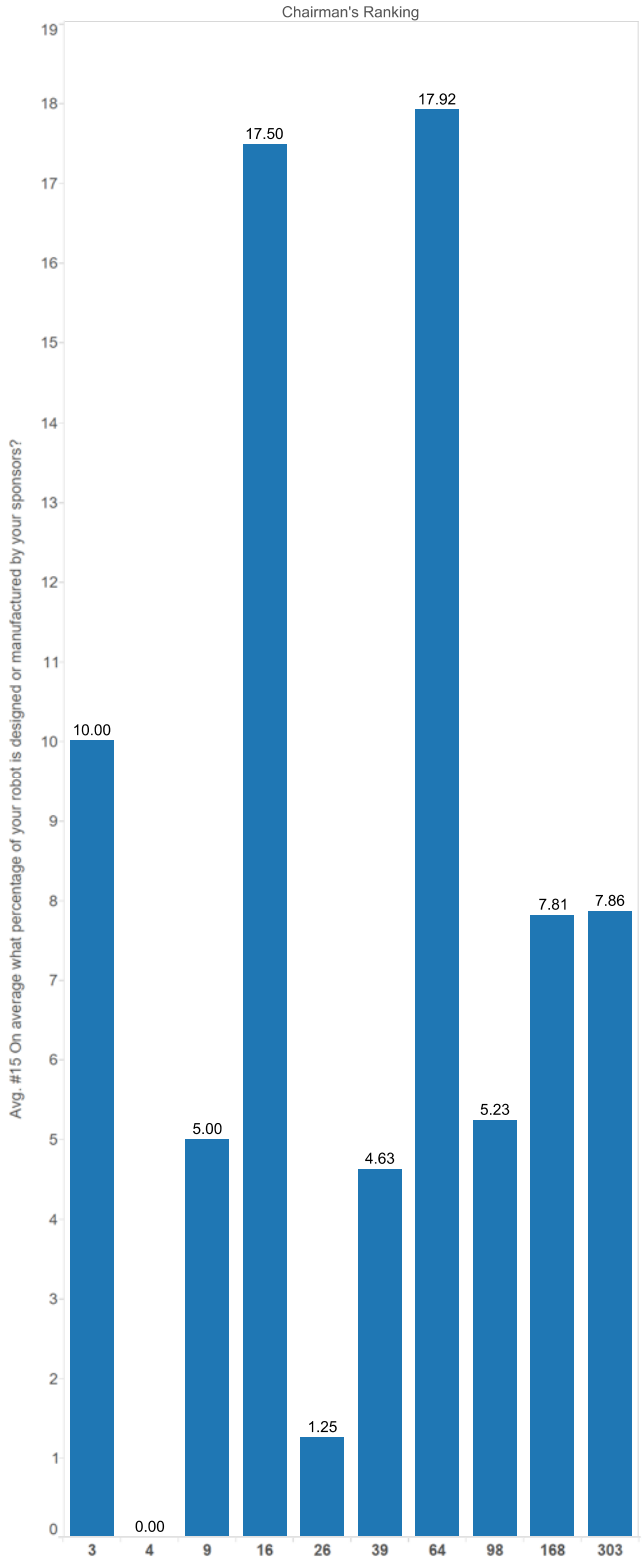


Trend Lines Model

A linear trend model is computed for average of #15 On average what percentage of your robot is designed or manufactured by your sponsors? given Quals Rank (bin).

Model formula: (Quals Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 225.933
MSE (mean squared error): 16.138
R-Squared: 0.0038907
Standard error: 4.01722
p-value (significance): 0.818492

Percentage of Robot Manufactured by Sponsors (Chairman's)

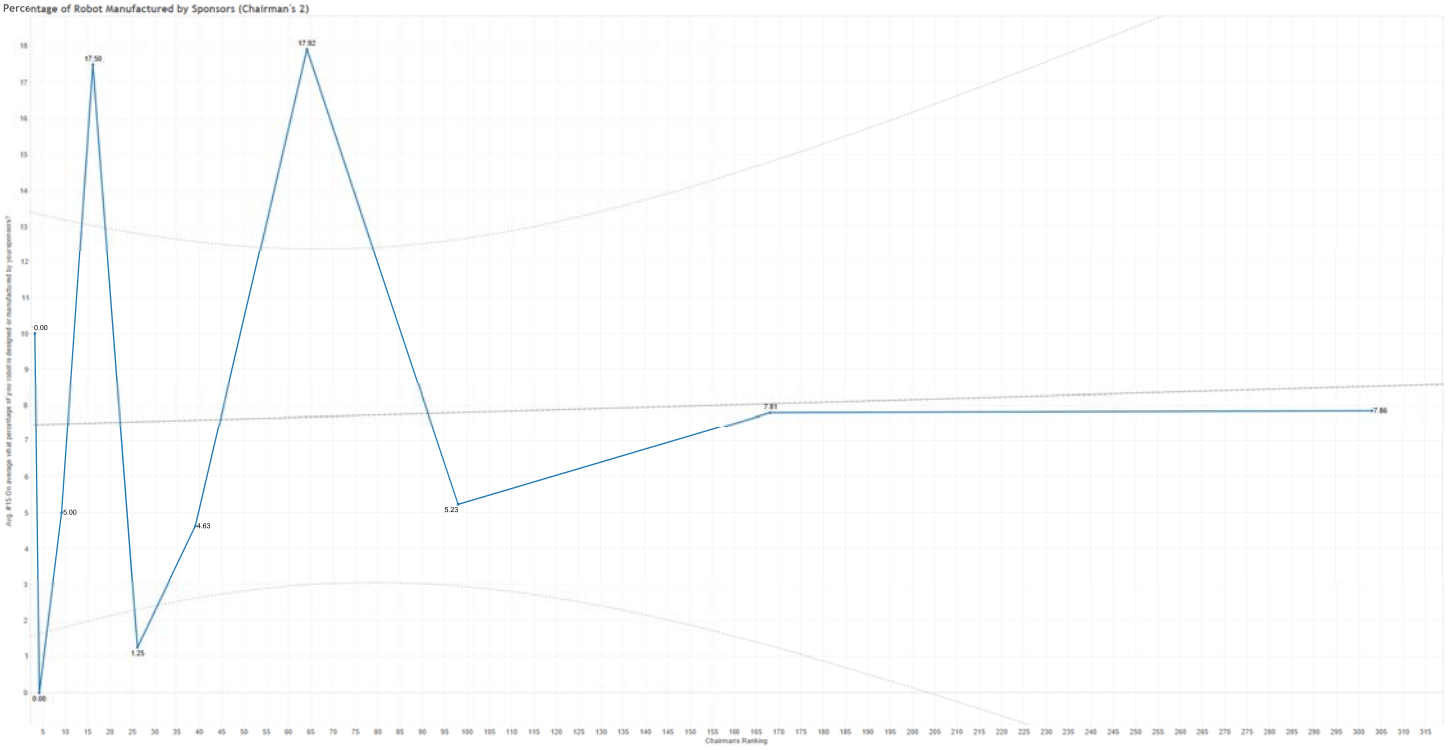


Trend Lines Model

A linear trend model is computed for average of #15 On average what percentage of your robot is designed or manufactured by your sponsors? given Chairman's Rank.

Model formula: (Chairman's Rank + intercept)
Number of modeled observations: 10
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 8
SSE (sum squared error): 328.615
MSE (mean squared error): 41.0769
R-Squared: 0.0029803
Standard error: 6.40912
p-value (significance): 0.880935

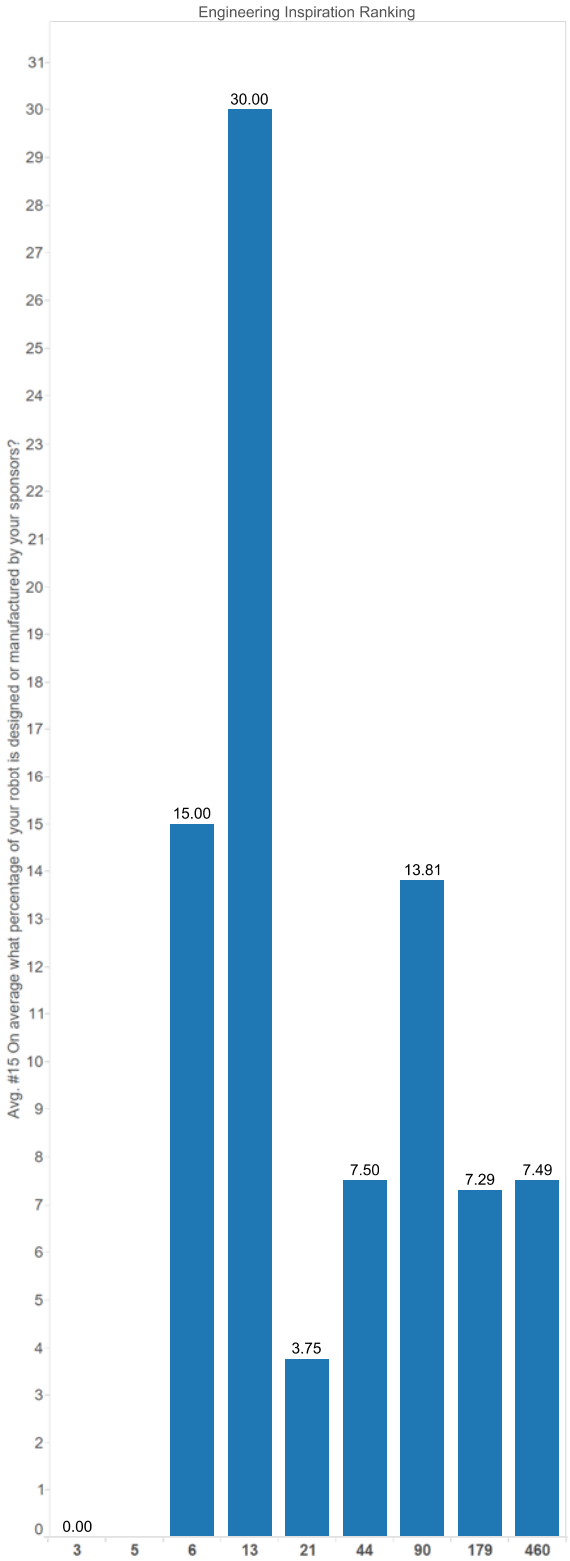
Percentage of Robot Manufactured by Sponsors (Chairman's 2)



Trend Lines Model
A linear trend model is computed for average of #15 On average what percentage of your robot is designed or manufactured by your sponsors? given Final Rank (bin).

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (Sum squared error): 132.861
MSE (Mean squared error): 9.49008
R-Squared: 0.429435
Standard Error: 3.08058
p-value (Significance): 0.976489

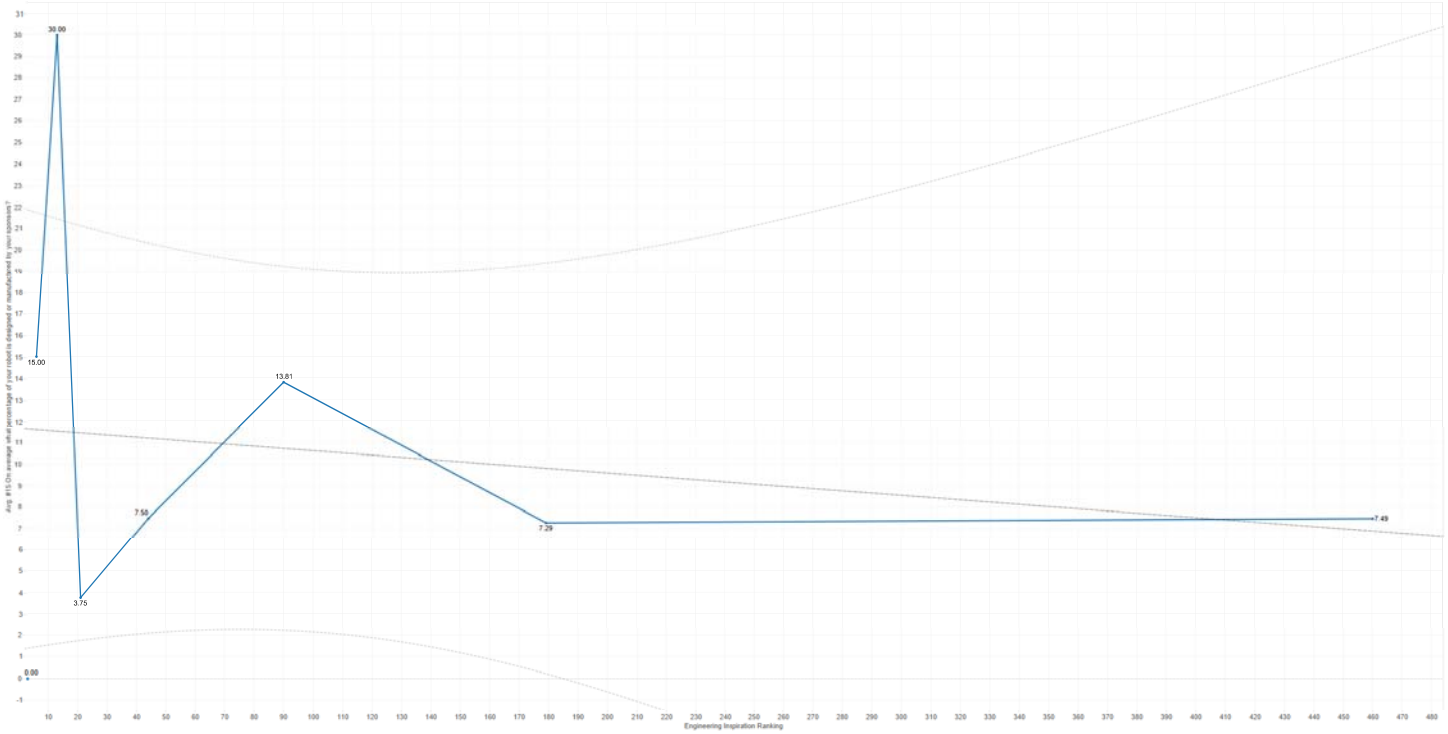
Percentage of Robot Manufactured by Sponsors (Inspiration)



Trend Lines Model
A linear trend model is computed for average of #15 On average what percentage of your robot is designed or manufactured by your sponsors? given Inspiration Rank.

Model formula: (Inspiration Rank + intercept)
Number of modeled observations: 8
Number of filtered observations: 1
Model degrees of freedom: 2
Residual degrees of freedom (DF): 6
SSE (sum squared error): 577.176
MSE (mean squared error): 96.196
R-Squared: 0.0308017
Standard error: 9.80796
p-value (significance): 0.677624

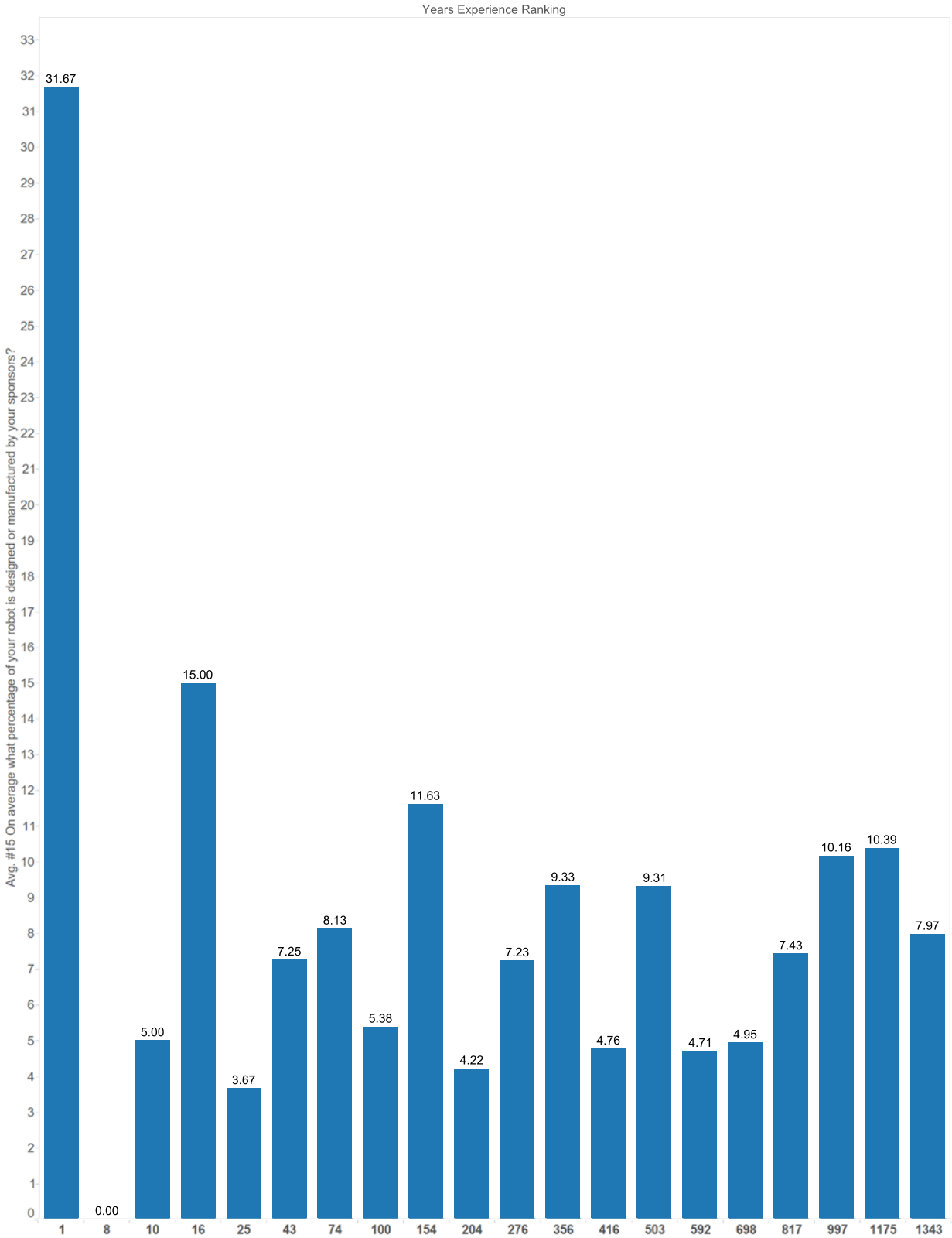
Percentage of Robot Manufactured by Sponsors (Inspiration 2)



Trend Lines Model
A linear trend model is computed for average of #15 On average what percentage of your robot is designed or manufactured by your sponsors? given Final Rank (bin).

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 132.961
MSE (mean squared error): 9.49686
R-Squared: 0.429435
Standard error: 3.08159
p-value (significance): 0.976489

Percentage of Robot Manufactured by Sponsors (Years)

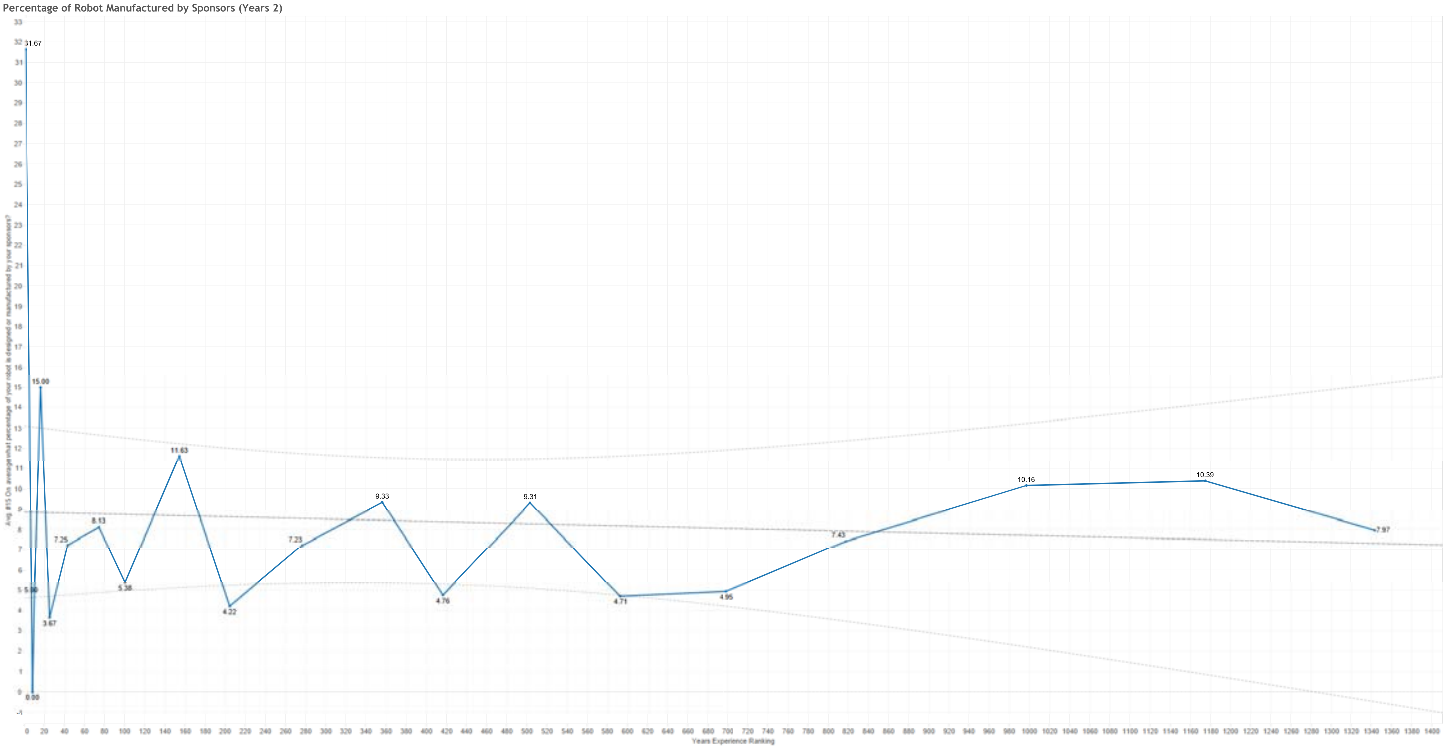


Trend Lines Model

A linear trend model is computed for average of #15 On average what percentage of your robot is designed or manufactured by your sponsors? given Years Rank.

Model formula: (Years Rank + intercept)
Number of modeled observations: 20
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 18
SSE (sum squared error): 773.543
MSE (mean squared error): 42.9746
R-Squared: 0.0055407
Standard error: 6.5555
p-value (significance): 0.755128

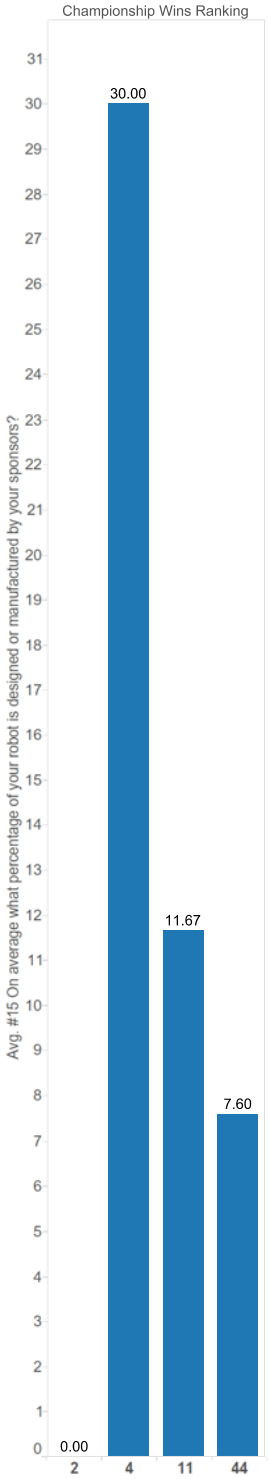
Percentage of Robot Manufactured by Sponsors (Years 2)



Trend Lines Model
A linear trend model is computed for average of #15 On average what percentage of your robot is designed or manufactured by your sponsors? given Final Rank (bin).

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 132.861
MSE (mean squared error): 9.49006
R-Squared: 6.429e-05
Standard error: 3.08059
p-value (significance): 0.976489

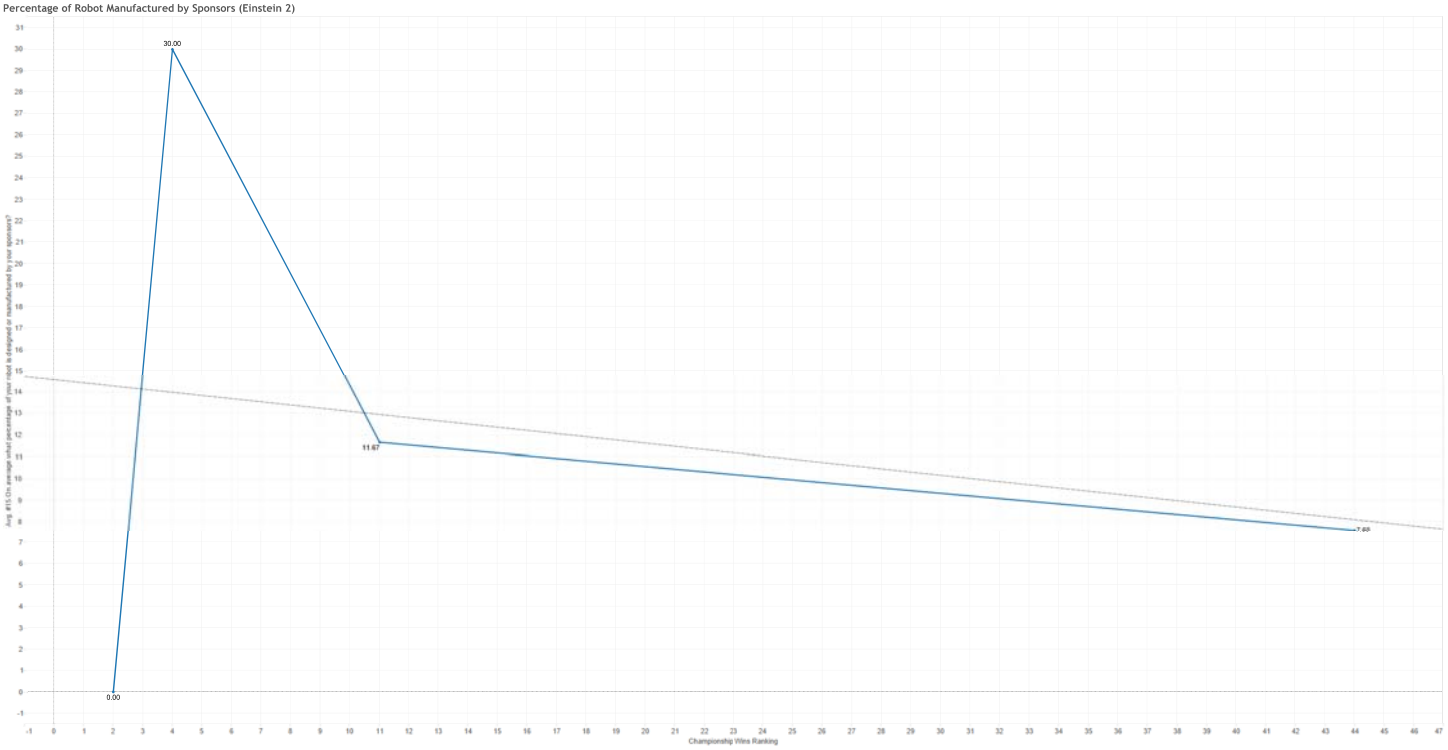
Percentage of Robot Manufactured by Sponsors (Einstein)



Trend Lines Model
A linear trend model is computed for average of #15 On average what percentage of your robot is designed or manufactured by your sponsors? given Einstein Rank.

Model formula: (Einstein Rank + intercept)
Number of modeled observations: 4
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 2
SSE (sum squared error): 462.285
MSE (mean squared error): 231.143
R-Squared: 0.050857
Standard error: 15.2034
p-value (significance): 0.774485

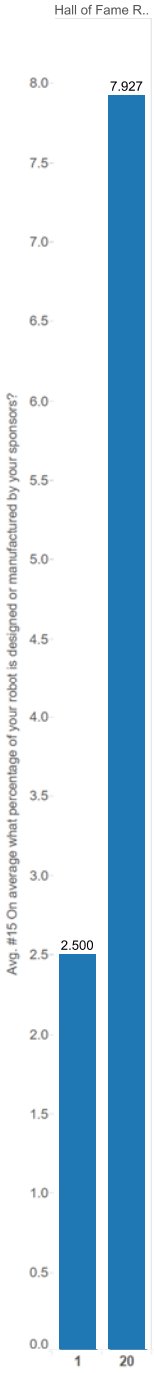
Percentage of Robot Manufactured by Sponsors (Einstein 2)



Trend Lines Model
A linear trend model is computed for average of #15 On average what percentage of your robot is designed or manufactured by your sponsors? given Final Rank (bin).

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 15
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 132.881
MSE (mean squared error): 9.49006
R-Squared: 0.423435
Standard error: 3.08059
p-value (significance): 0.076489

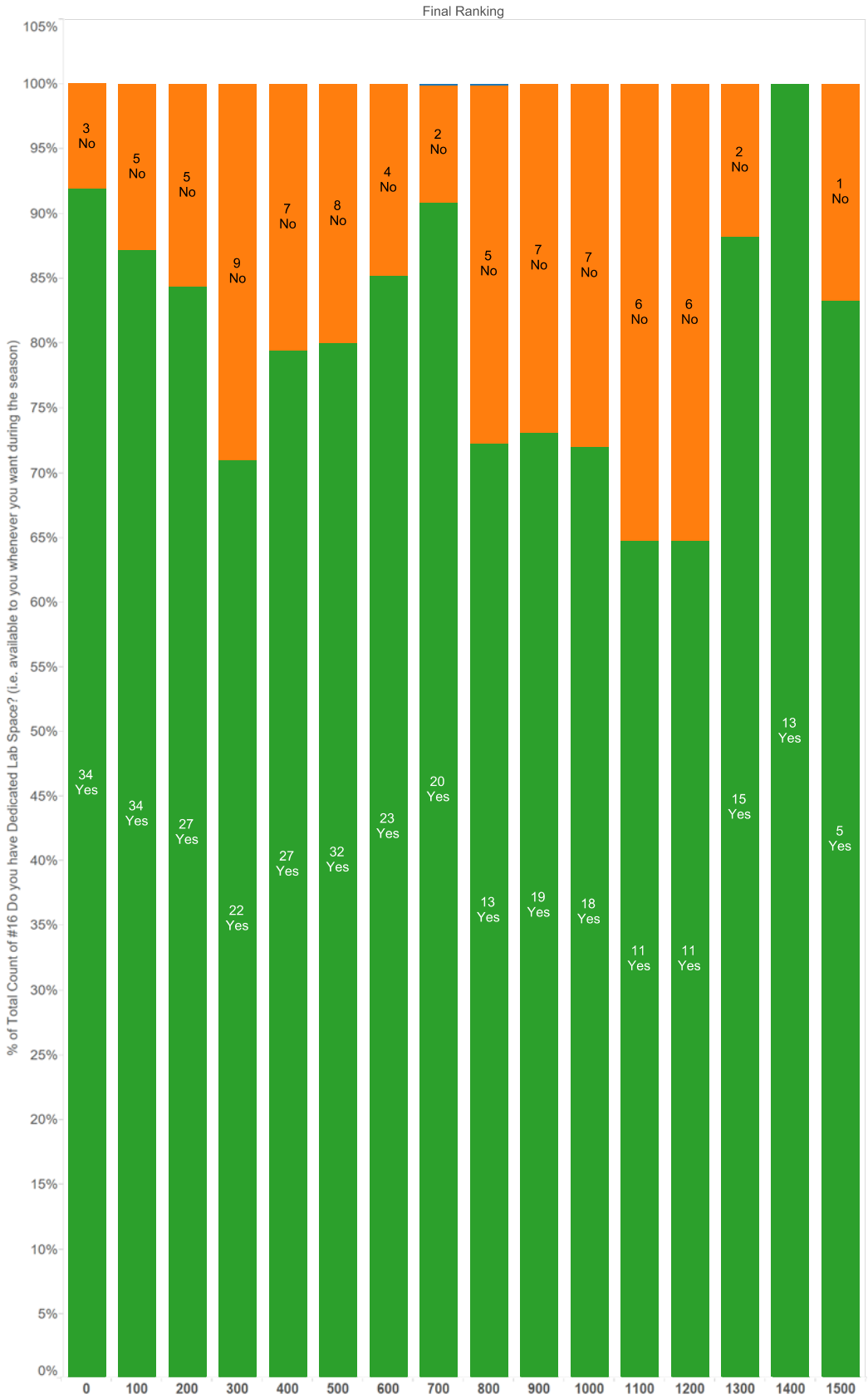
Percentage of Robot Manufactured by Sponsors (Hall of Fame)



Trend Lines Model
A linear trend model is computed for average of #15 On average what percentage of your robot is designed or manufactured by your sponsors? given Final Rank (bin).

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 132.861
MSE (mean squared error): 9.49006
R-Squared: 6.429e-05
Standard error: 3.08059
p-value (significance): 0.976489

Lab Space (Final)

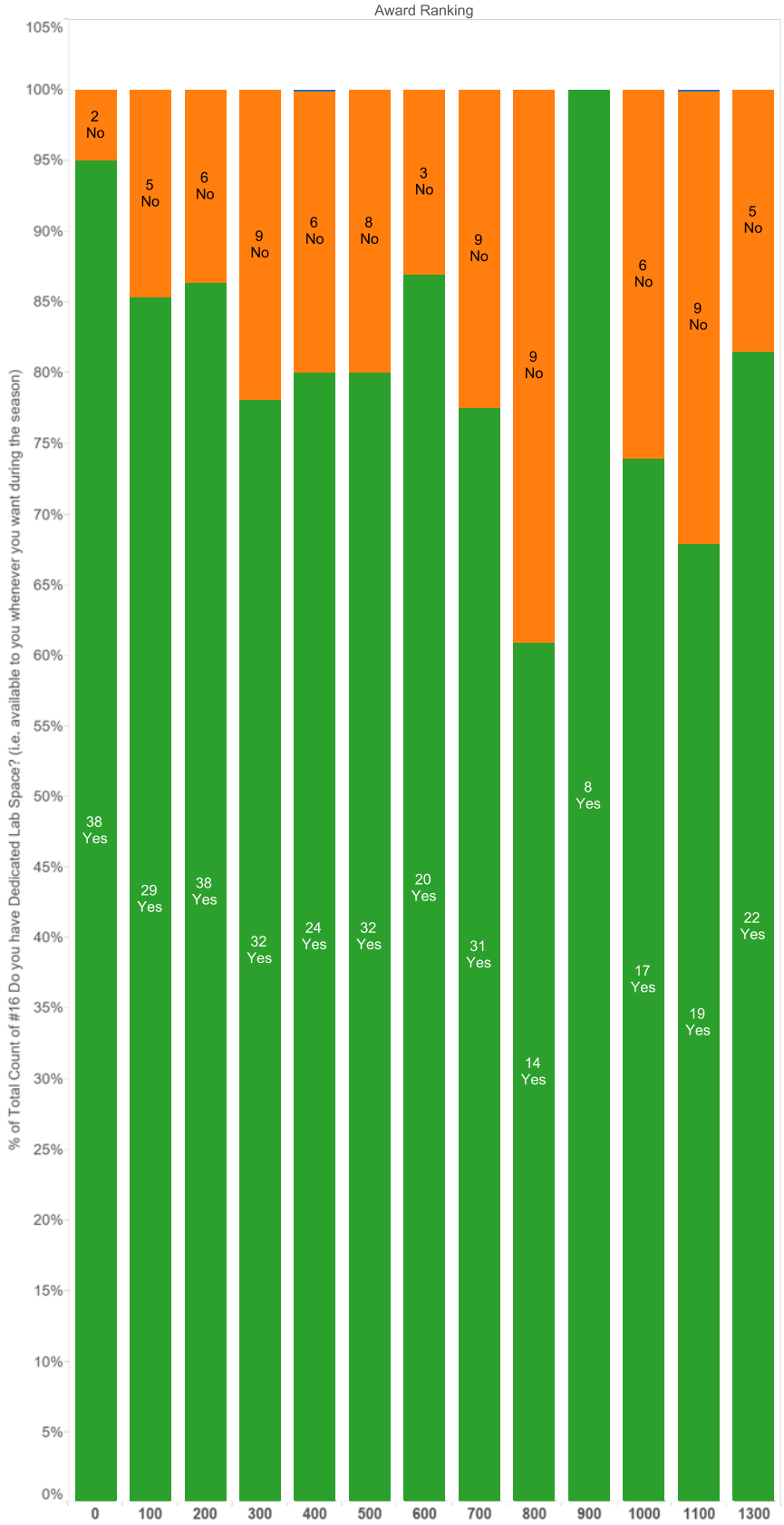


% of Total Count of #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season) for each Final Ranking. Color shows details about #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season). The marks are labeled by count of #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season) and #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season).

#16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season)

- Null
- No
- Yes

Lab Space (Awards)

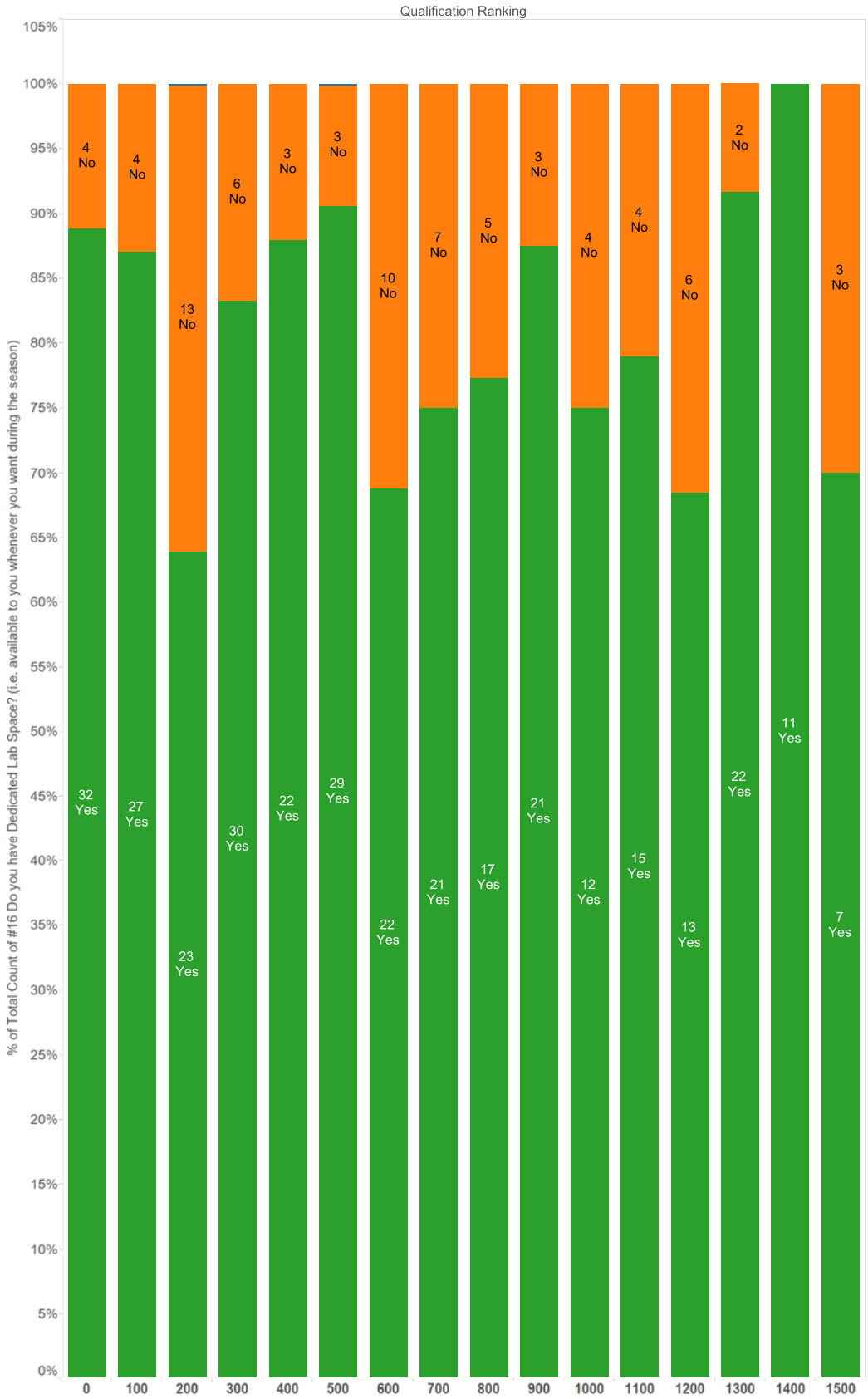


% of Total Count of #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season) for each Award Ranking. Color shows details about #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season). The marks are labeled by count of #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season) and #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season).

#16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season)

- Null
- No
- Yes

Lab Space (Quals)

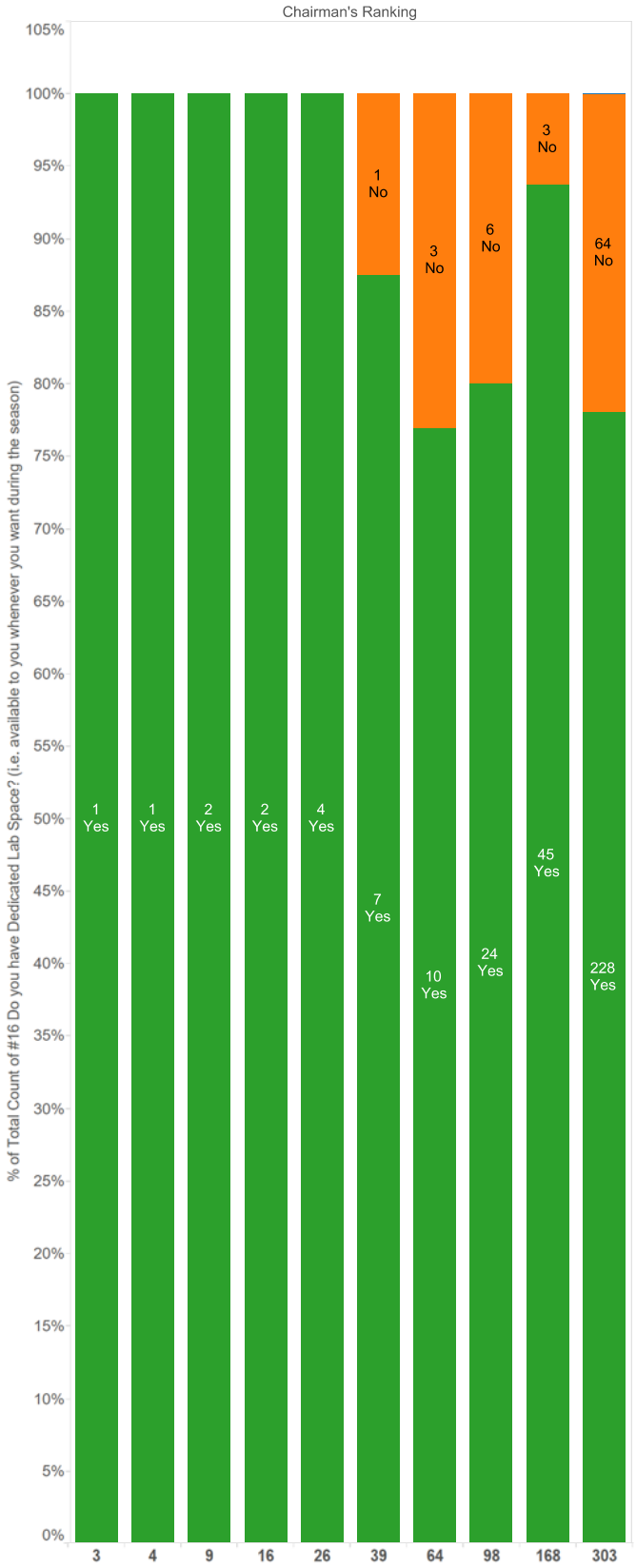


% of Total Count of #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season) for each Qualification Ranking. Color shows details about #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season). The marks are labeled by count of #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season) and #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season).

#16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season)

- Null
- No
- Yes

Lab Space (Chairman's)

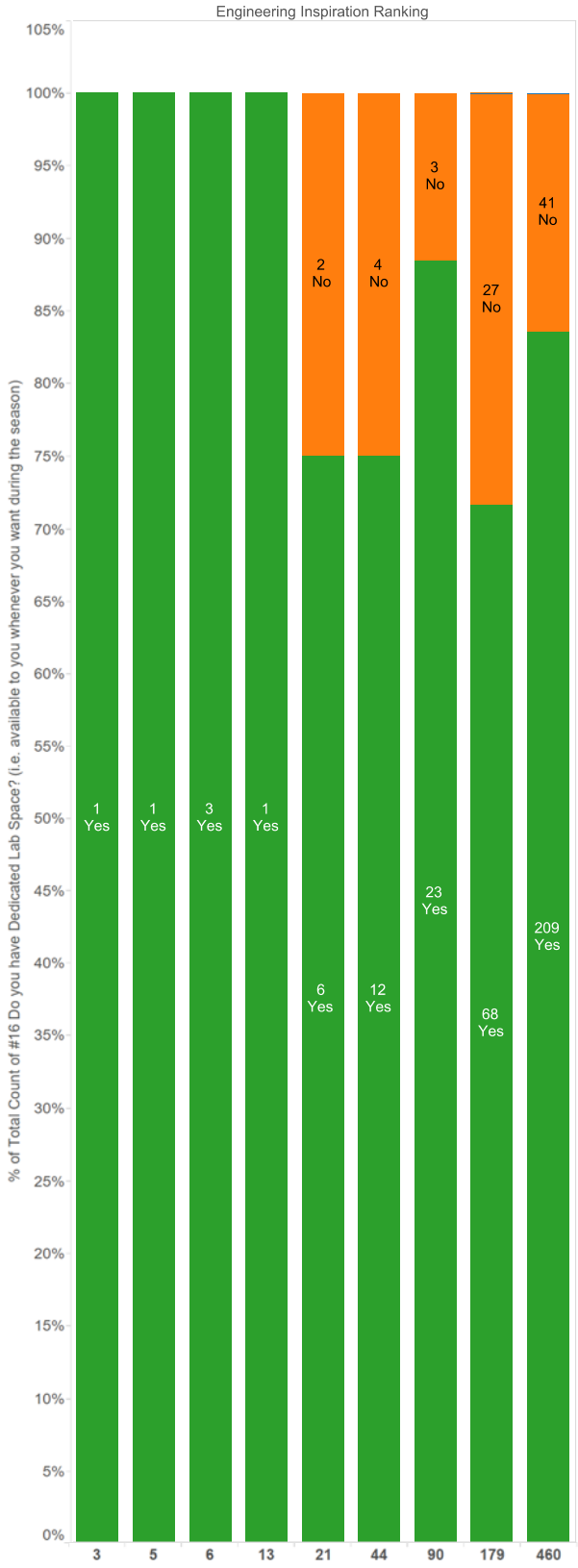


% of Total Count of #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season) for each Chairman's Ranking. Color shows details about #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season). The marks are labeled by count of #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season) and #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season).

#16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season)

- Null
- No
- Yes

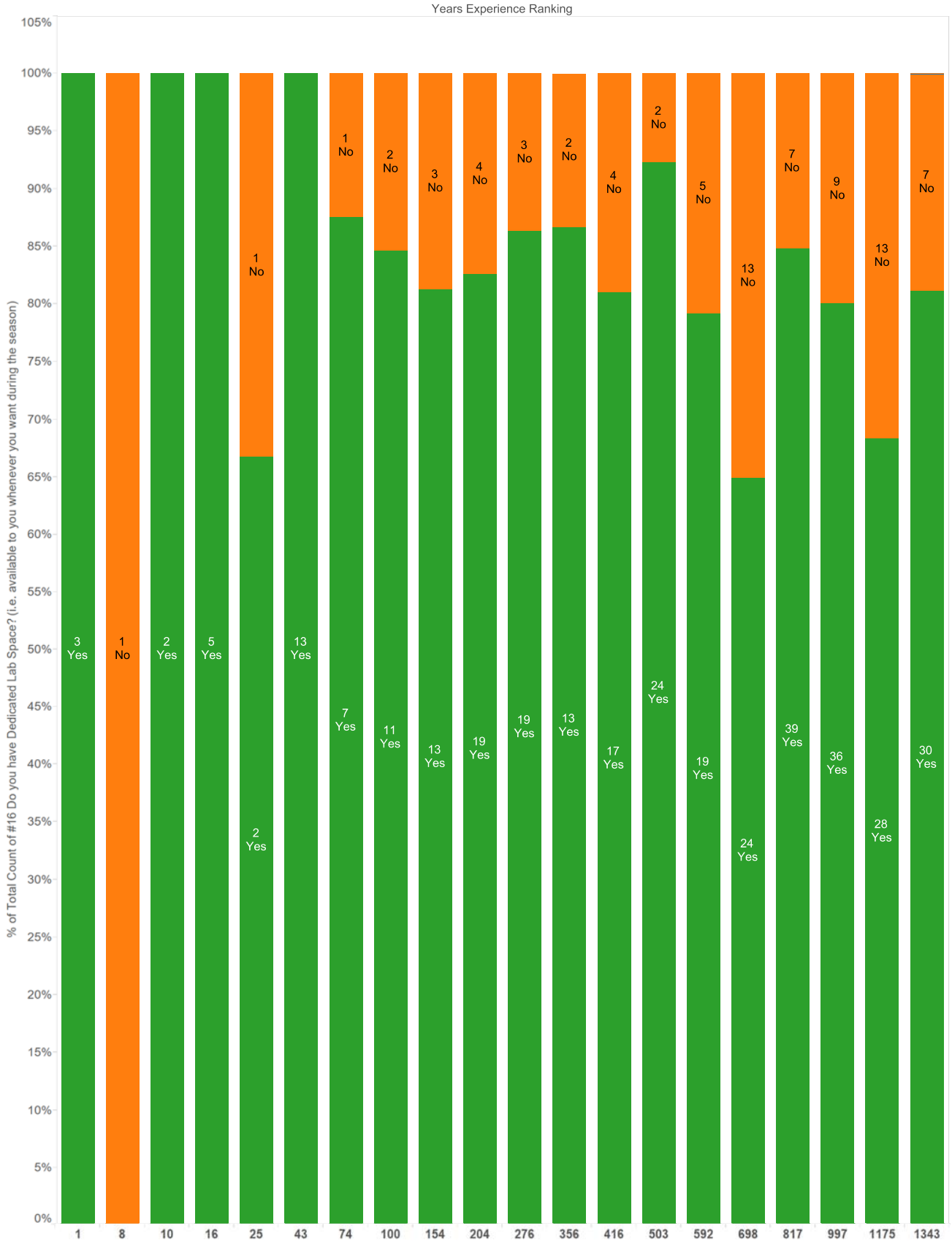
Lab Space (Inspiration)



% of Total Count of #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season) for each Engineering Inspiration Ranking. Color shows details about #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season). The marks are labeled by count of #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season) and #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season).

#16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season)
- Null
- No
- Yes

Lab Space (Years)

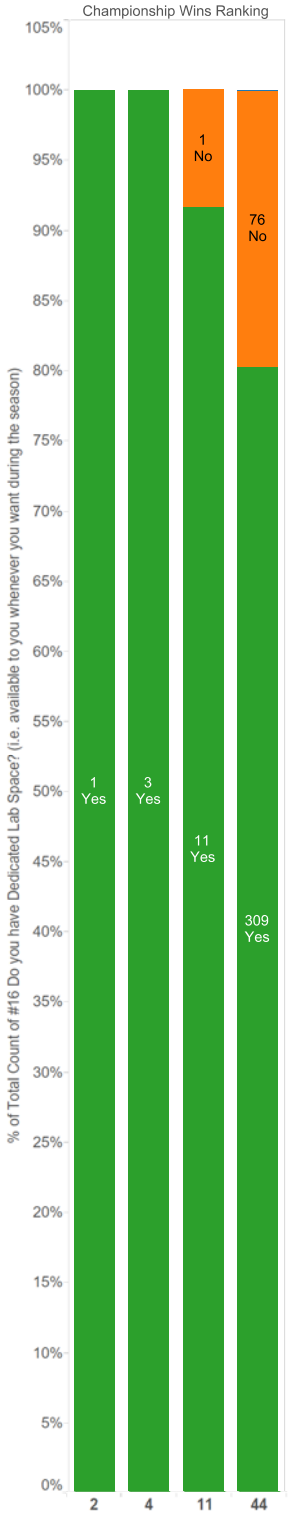


% of Total Count of #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season) for each Years Experience Ranking. Color shows details about #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season). The marks are labeled by count of #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season) and #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season).

#16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season)

- Null
- No
- Yes

Lab Space (Einstein)

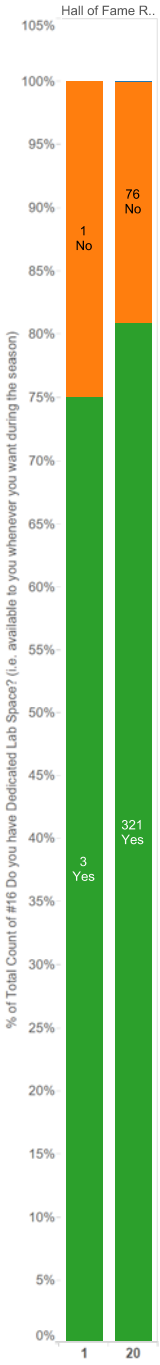


% of Total Count of #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season) for each Championship Wins Ranking. Color shows details about #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season). The marks are labeled by count of #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season) and #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season).

#16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season)

- Null
- No
- Yes

Lab Space (Hall of Fame)

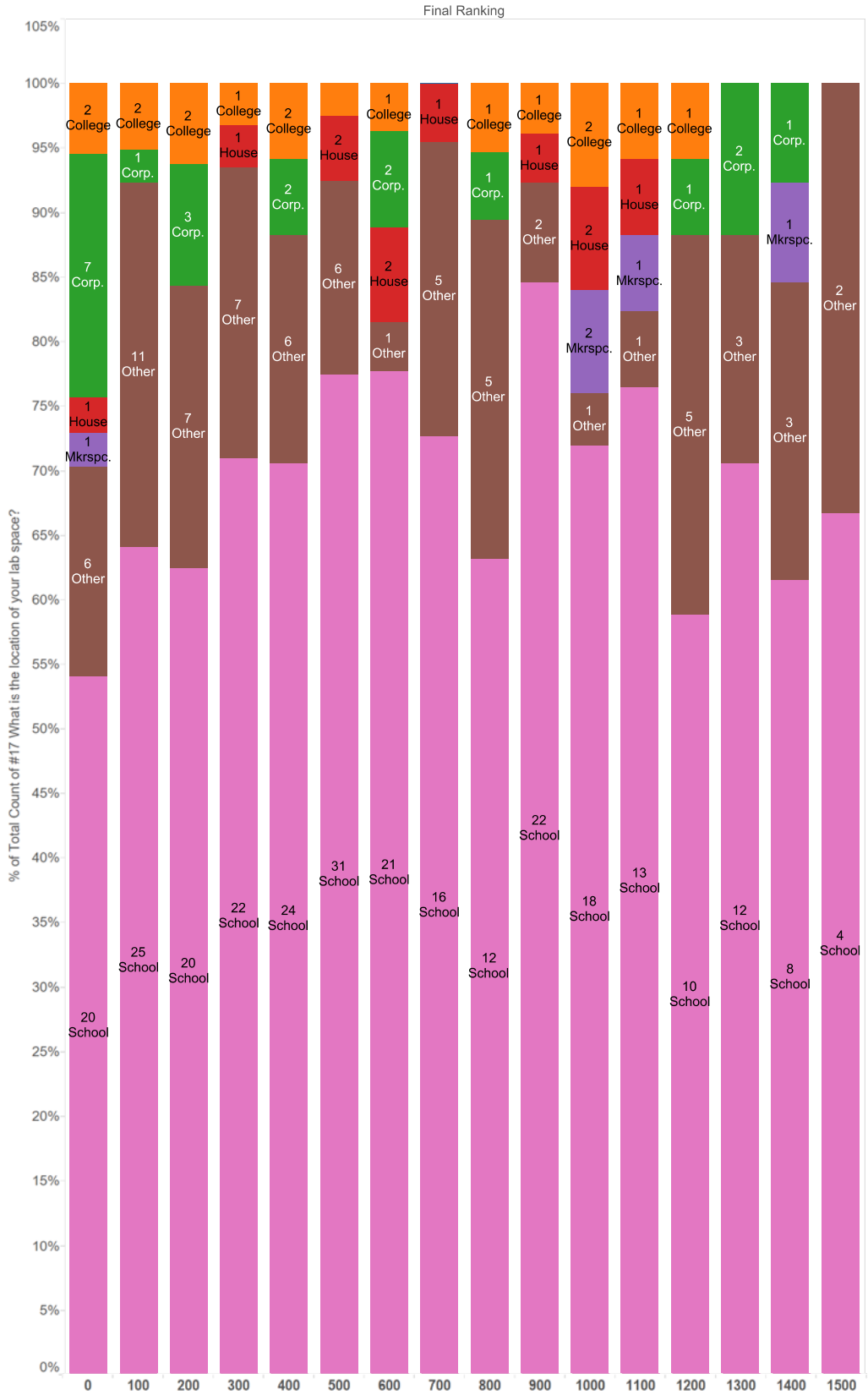


% of Total Count of #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season) for each Hall of Fame Ranking. Color shows details about #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season). The marks are labeled by count of #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season) and #16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season).

#16 Do you have Dedicated Lab Space? (i.e. available to you whenever you want during the season)

- Null
- No
- Yes

Location of Lab Space (Final)

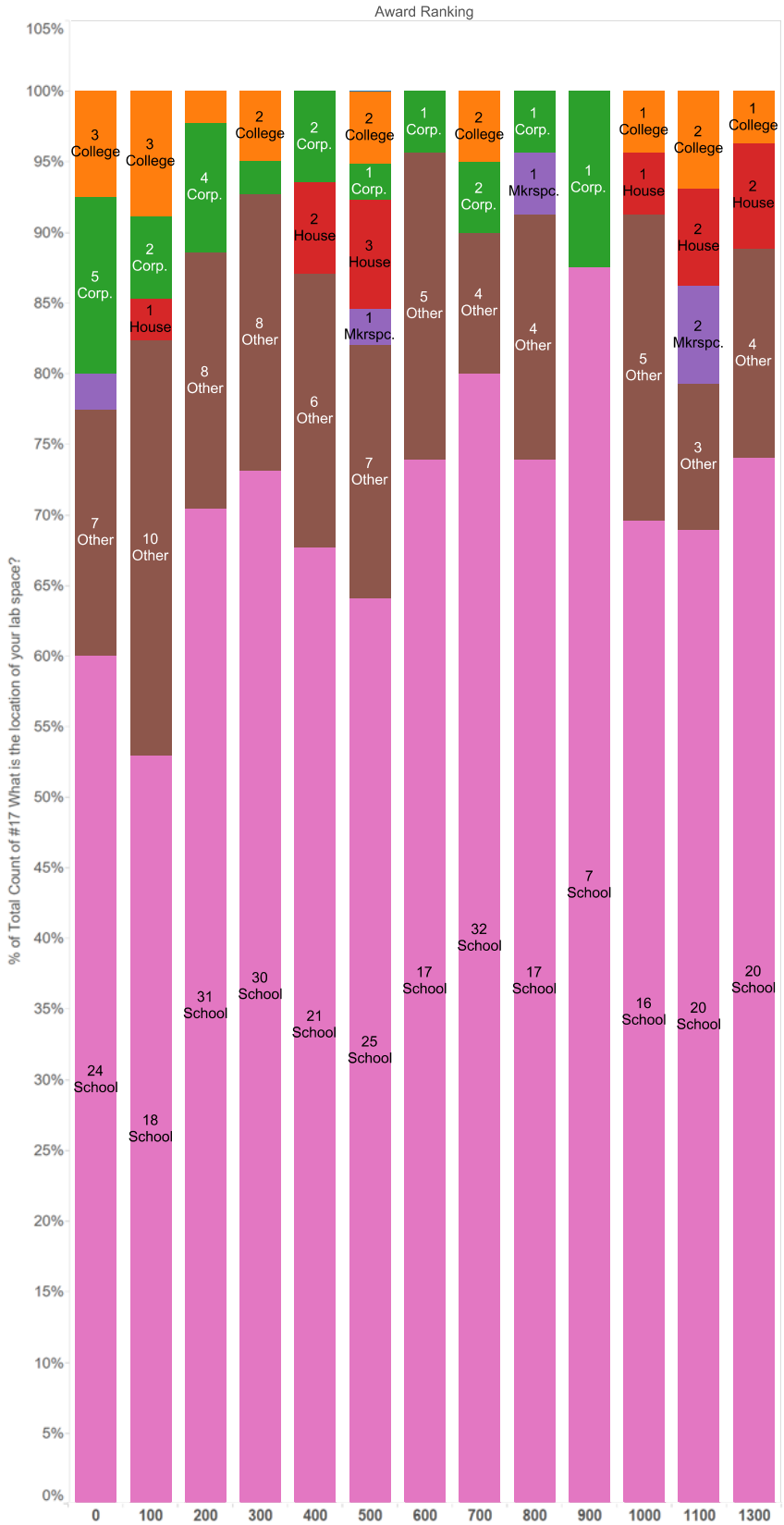


% of Total Count of #17 What is the location of your lab space? for each Final Ranking. Color shows details about #17 What is the location of your lab space?. The marks are labeled by count of #17 What is the location of your lab space? and #17 What is the location of your lab space?.

#17 What is the location of your lab space?

- Null
- College
- Corp.
- House
- Mkrspc.
- Other
- School

Location of Lab Space (Awards)

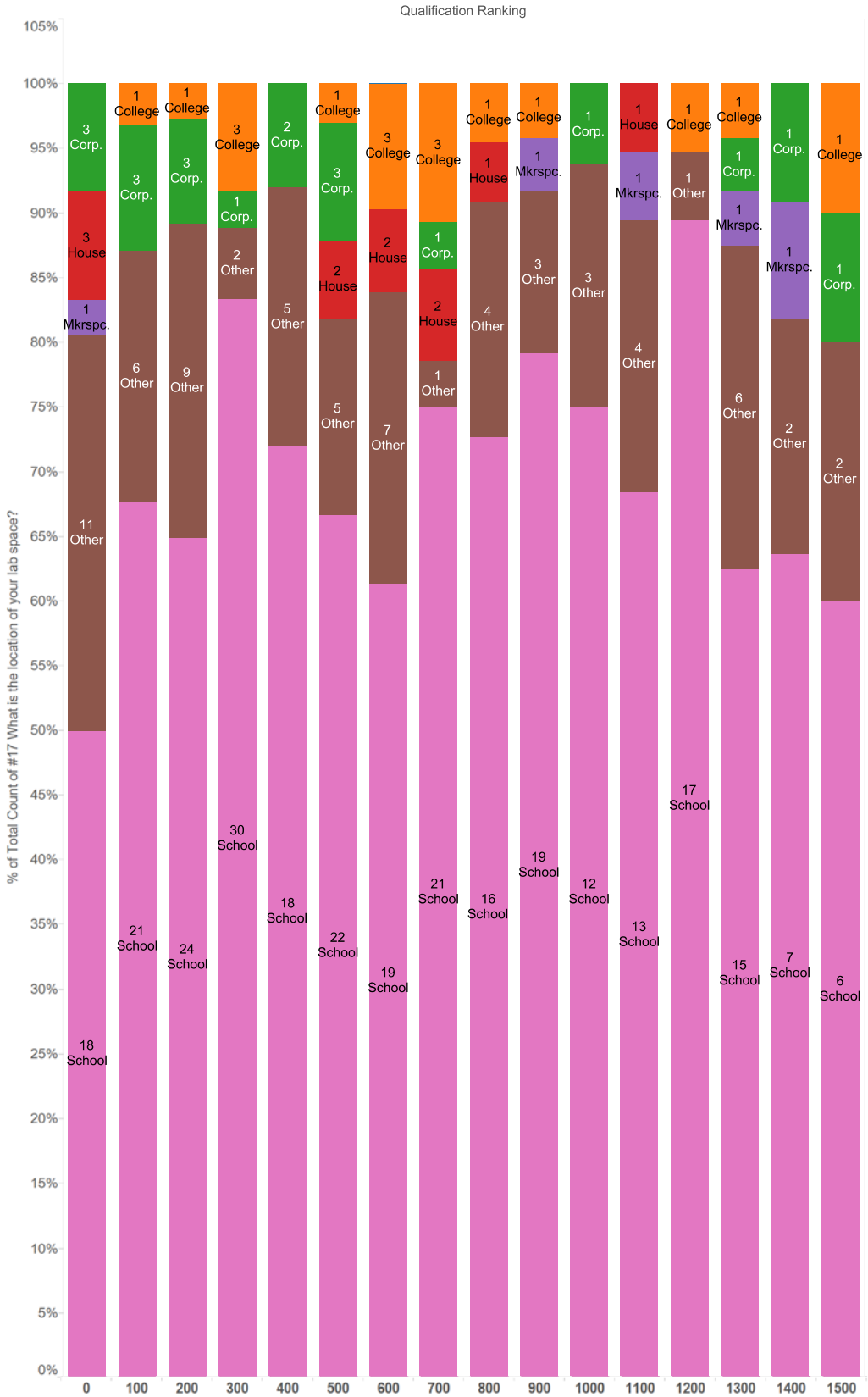


% of Total Count of #17 What is the location of your lab space? for each Award Ranking. Color shows details about #17 What is the location of your lab space?. The marks are labeled by count of #17 What is the location of your lab space? and #17 What is the location of your lab space?.

#17 What is the location of your lab space?

- Null
- College
- Corp.
- House
- Mkrspc.
- Other
- School

Location of Lab Space (Quals)

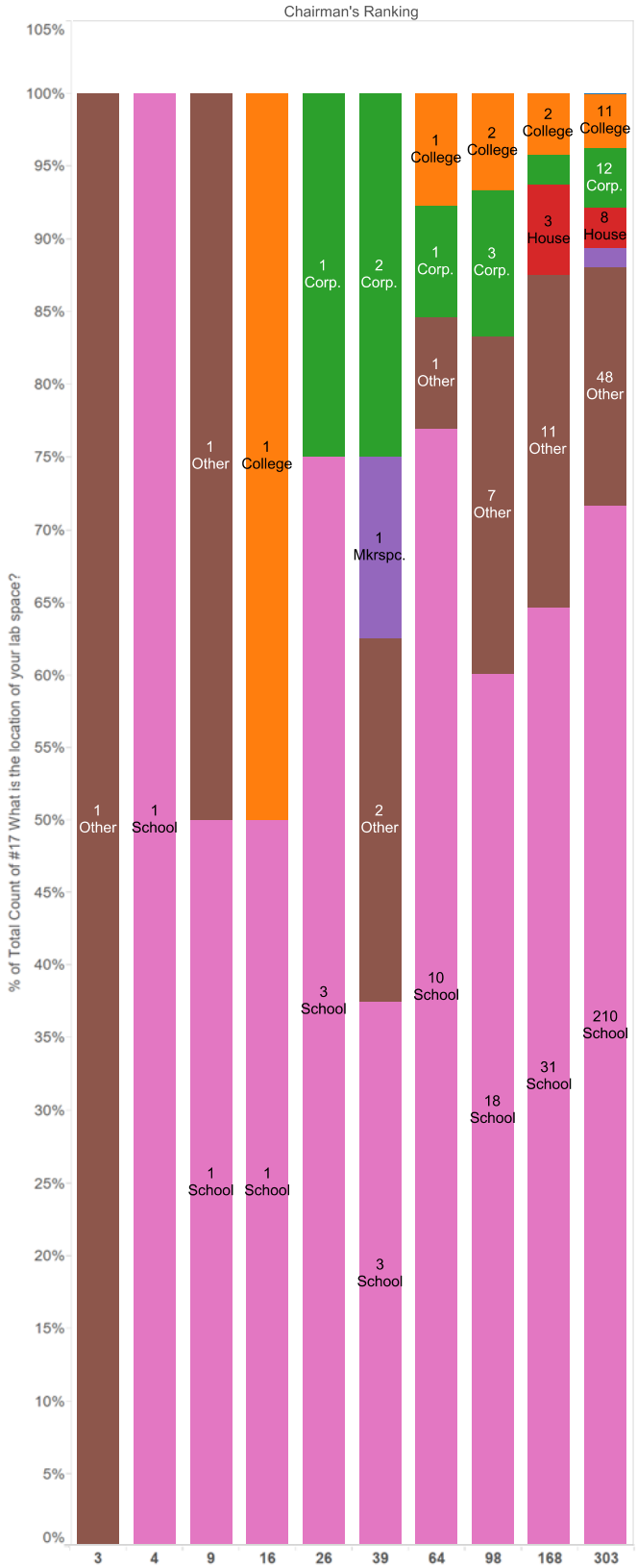


% of Total Count of #17 What is the location of your lab space? for each Qualification Ranking. Color shows details about #17 What is the location of your lab space?. The marks are labeled by count of #17 What is the location of your lab space? and #17 What is the location of your lab space?.

#17 What is the location of your lab space?

- Null
- College
- Corp.
- House
- Mkrspc.
- Other
- School

Location of Lab Space (Chairman's)

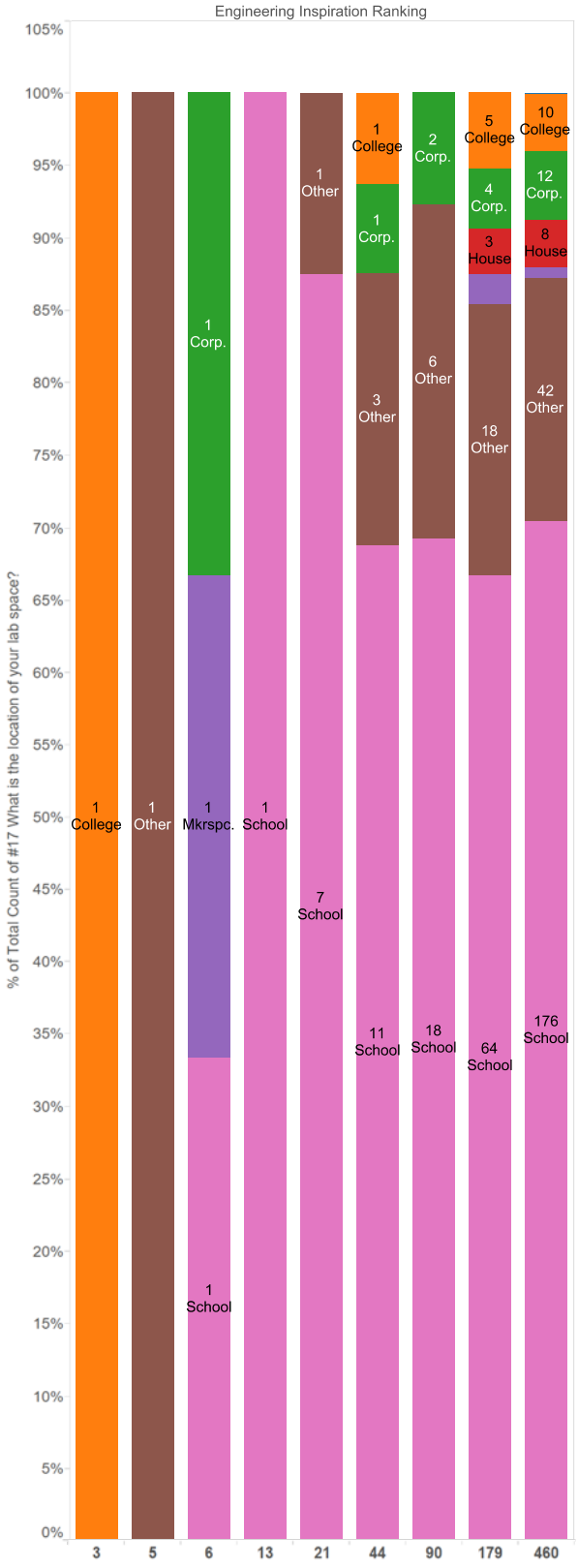


% of Total Count of #17 What is the location of your lab space? for each Chairman's Ranking. Color shows details about #17 What is the location of your lab space?. The marks are labeled by count of #17 What is the location of your lab space? and #17 What is the location of your lab space?.

#17 What is the location of your lab space?

- Null
- College
- Corp.
- House
- Mkrspc.
- Other
- School

Location of Lab Space (Inspiration)

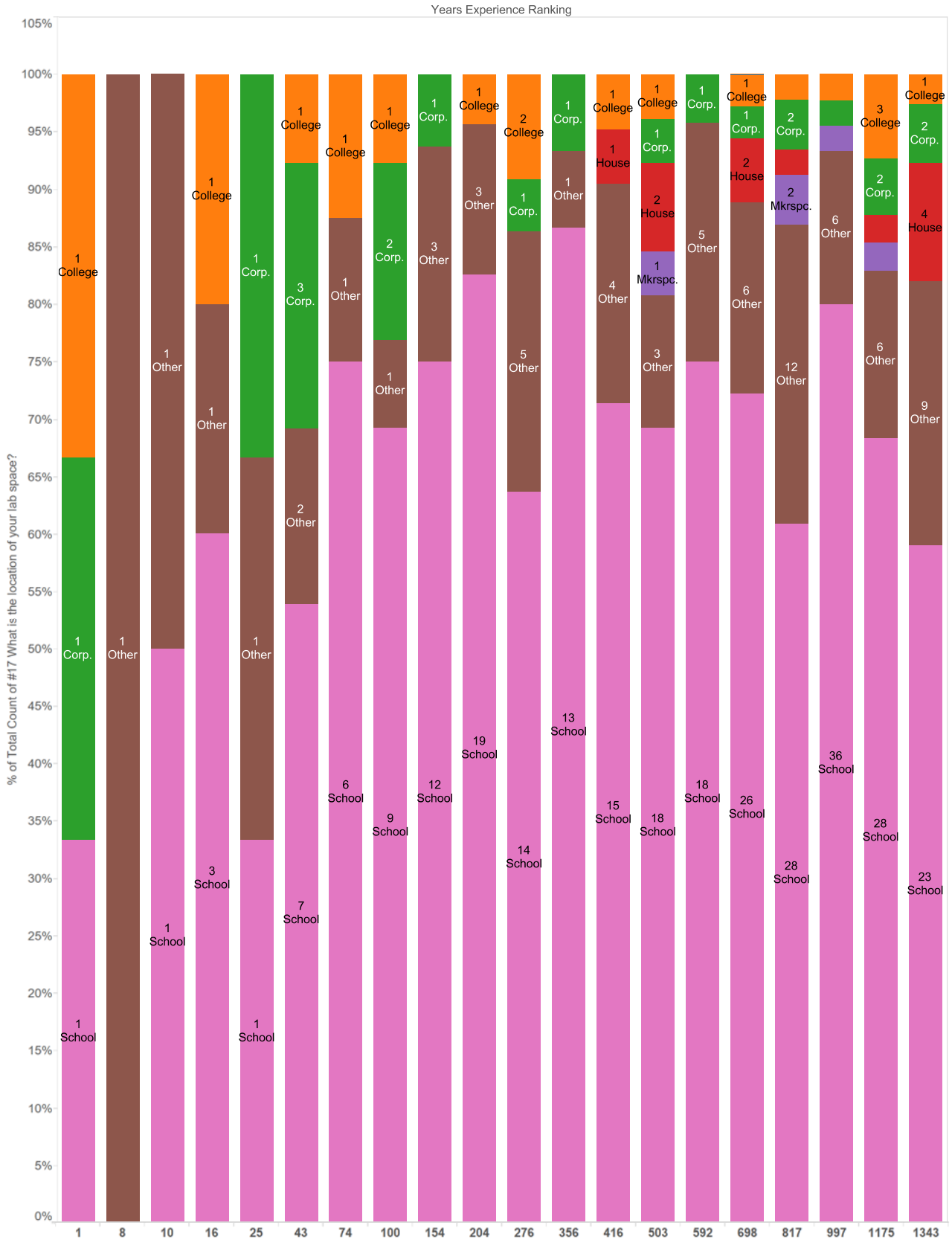


% of Total Count of #17 What is the location of your lab space? for each Engineering Inspiration Ranking. Color shows details about #17 What is the location of your lab space?. The marks are labeled by count of #17 What is the location of your lab space? and #17 What is the location of your lab space?.

#17 What is the location of your lab space?

- Null
- College
- Corp.
- House
- Mkrspc.
- Other
- School

Location of Lab Space (Years)

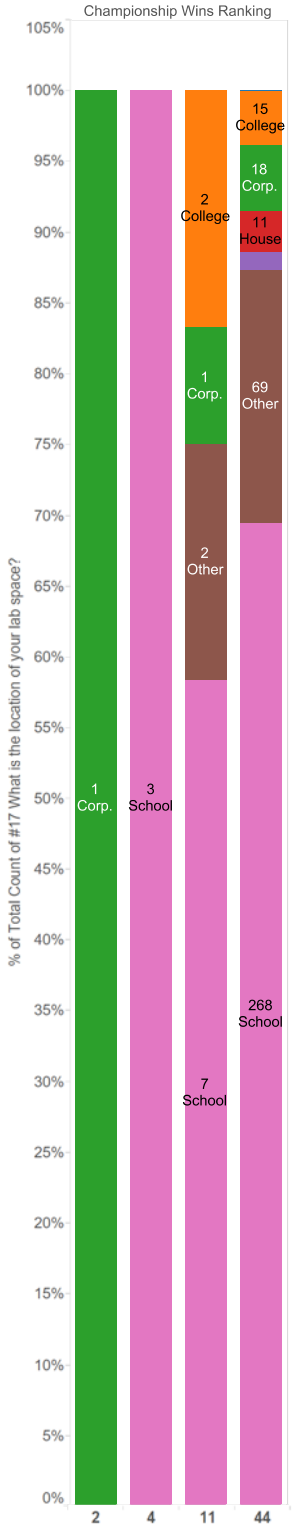


% of Total Count of #17 What is the location of your lab space? for each Years Experience Ranking. Color shows details about #17 What is the location of your lab space?. The marks are labeled by count of #17 What is the location of your lab space? and #17 What is the location of your lab space?.

#17 What is the location of your lab space?

- Null
- College
- Corp.
- House
- Mkrspc.
- Other
- School

Location of Lab Space (Einstein)

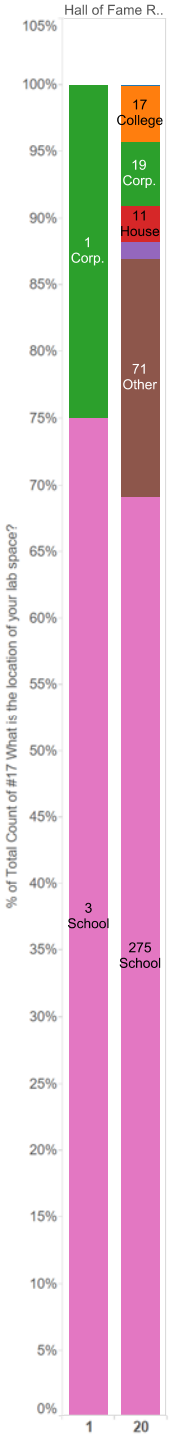


% of Total Count of #17 What is the location of your lab space? for each Championship Wins Ranking. Color shows details about #17 What is the location of your lab space?. The marks are labeled by count of #17 What is the location of your lab space? and #17 What is the location of your lab space?.

#17 What is the location of your lab space?

- Null
- College
- Corp.
- House
- Mkrspc.
- Other
- School

Location of Lab Space (Hall of Fame)

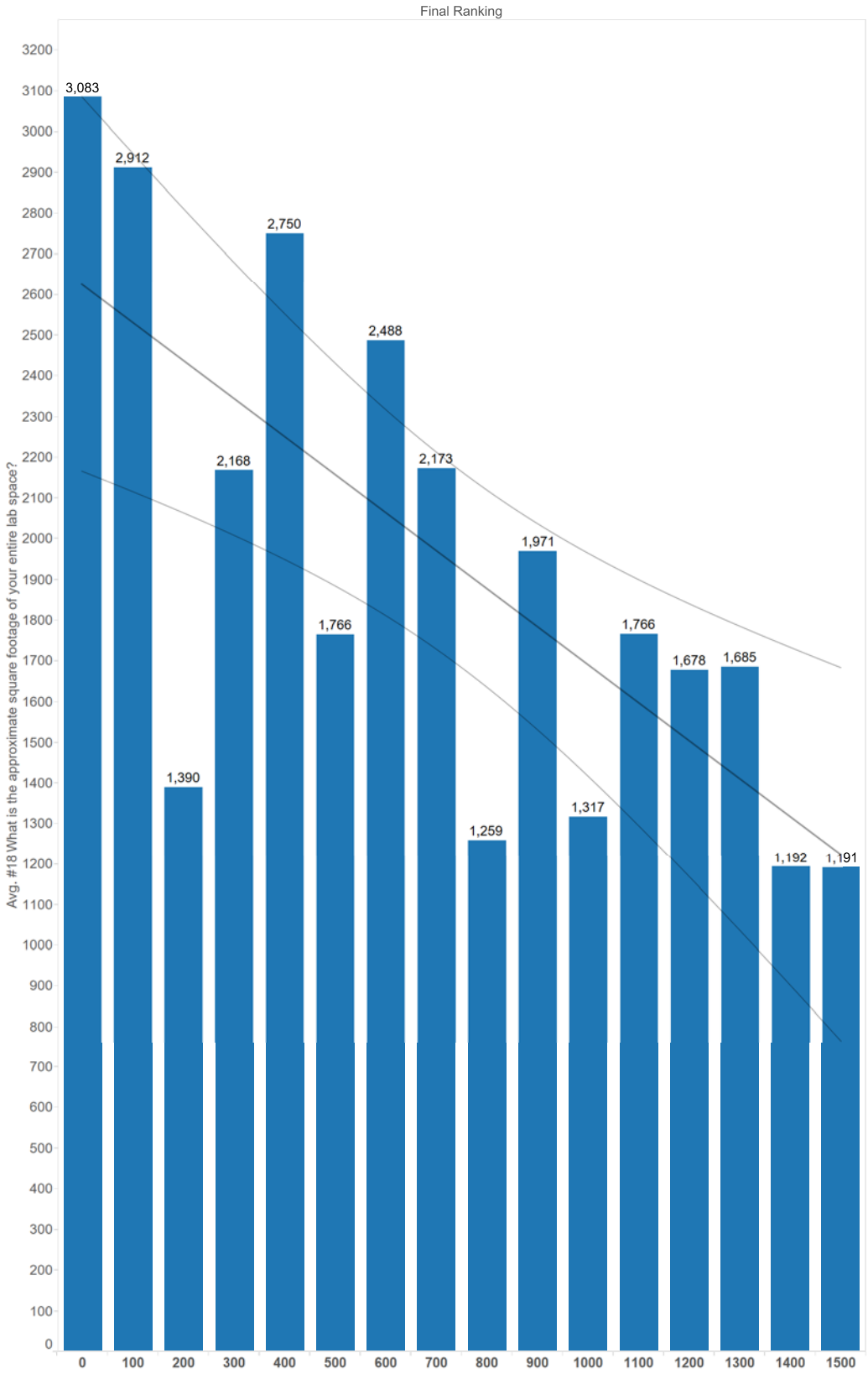


% of Total Count of #17 What is the location of your lab space? for each Hall of Fame Ranking. Color shows details about #17 What is the location of your lab space?. The marks are labeled by count of #17 What is the location of your lab space? and #17 What is the location of your lab space?.

#17 What is the location of your lab space?

- Null
- College
- Corp.
- House
- Mkrspc.
- Other
- School

Square Footage of Lab Space (Final)

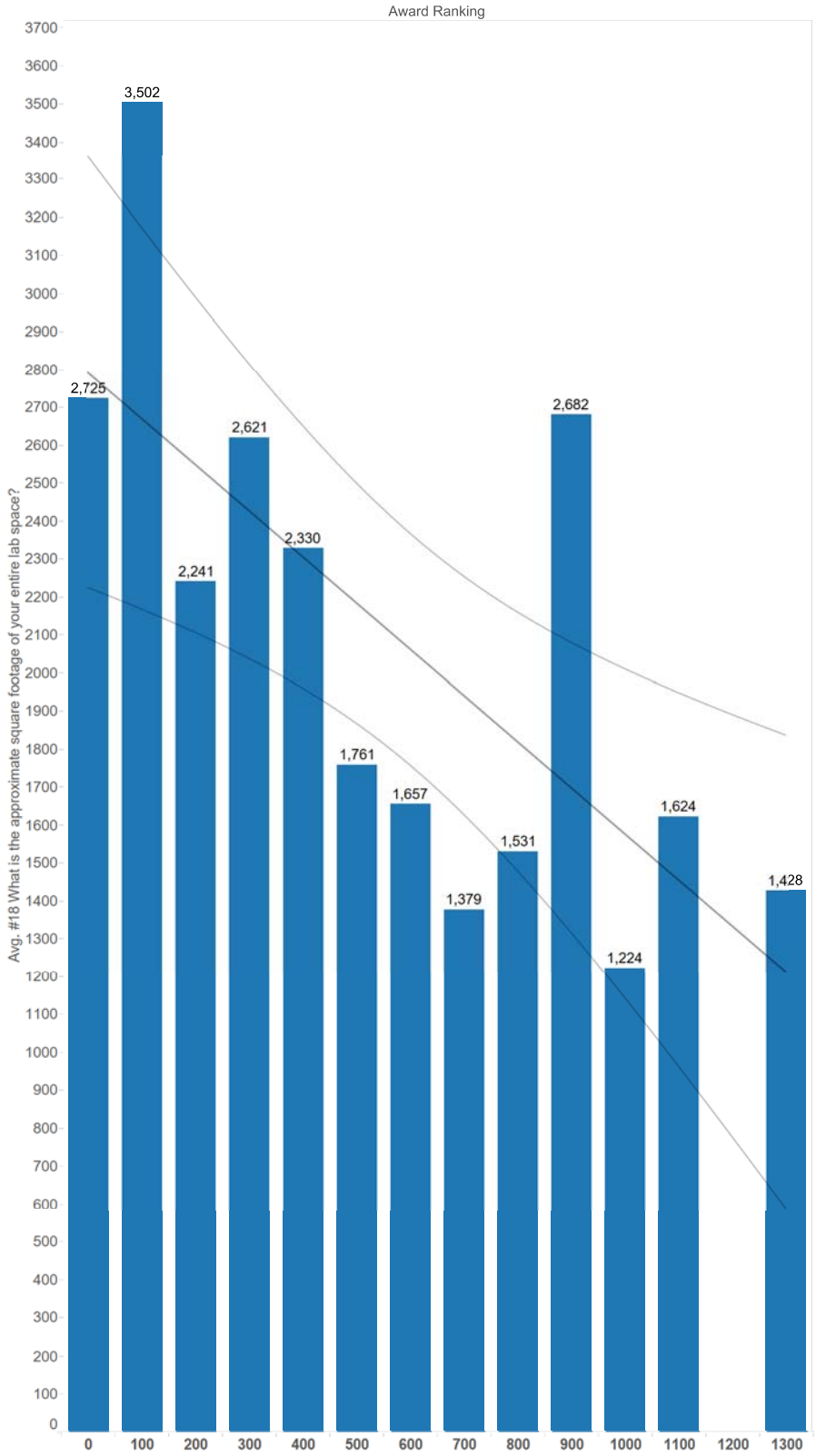


Trend Lines Model

A linear trend model is computed for average of #18 What is the approximate square footage of your entire lab space? given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 2.81659e+06
MSE (mean squared error): 201185
R-Squared: 0.512802
Standard error: 448.537
p-value (significance): 0.0018073

Square Footage of Lab Space (Awards)

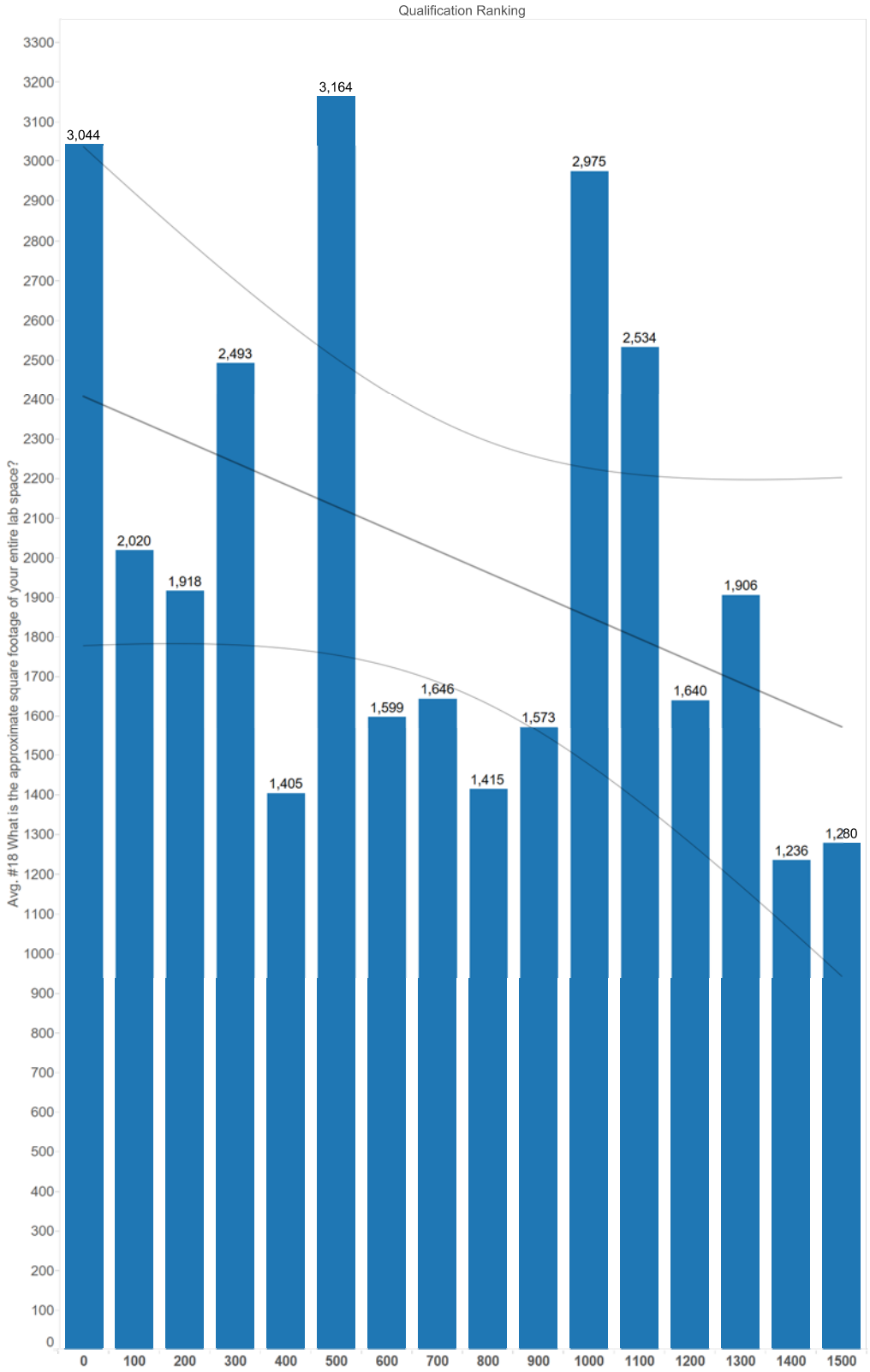


Trend Lines Model

A linear trend model is computed for average of #18 What is the approximate square footage of your entire lab space? given Award Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Award Rank (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 2.74025e+06
MSE (mean squared error): 249113
R-Squared: 0.51182
Standard error: 499.112
p-value (significance): 0.0059714

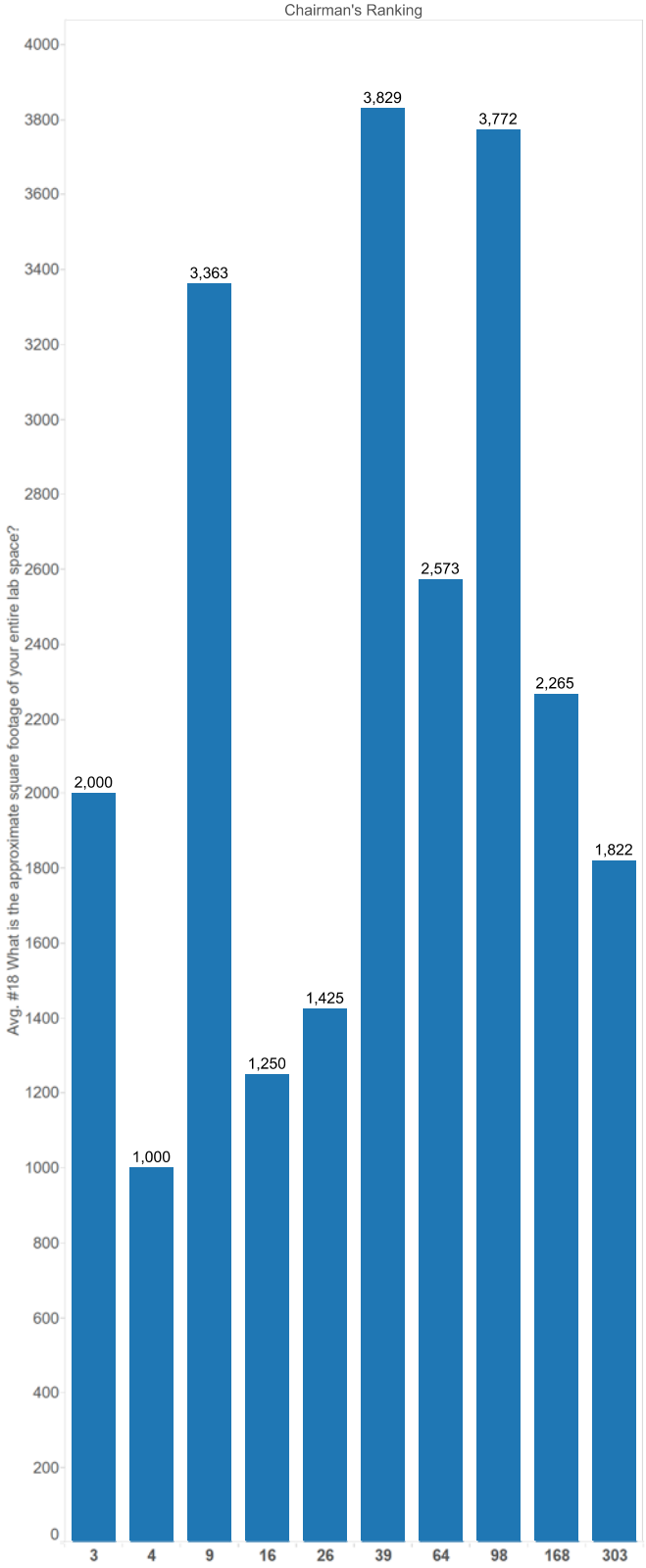
Square Footage of Lab Space (Quals)



Trend Lines Model
A linear trend model is computed for average of #18 What is the approximate square footage of your entire lab space? given Quals Rank (bin).

Model formula: (Quals Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 5.28358e+06
MSE (mean squared error): 377399
R-Squared: 0.165852
Standard error: 614.328
p-value (significance): 0.117436

Square Footage of Lab Space (Chairman's)

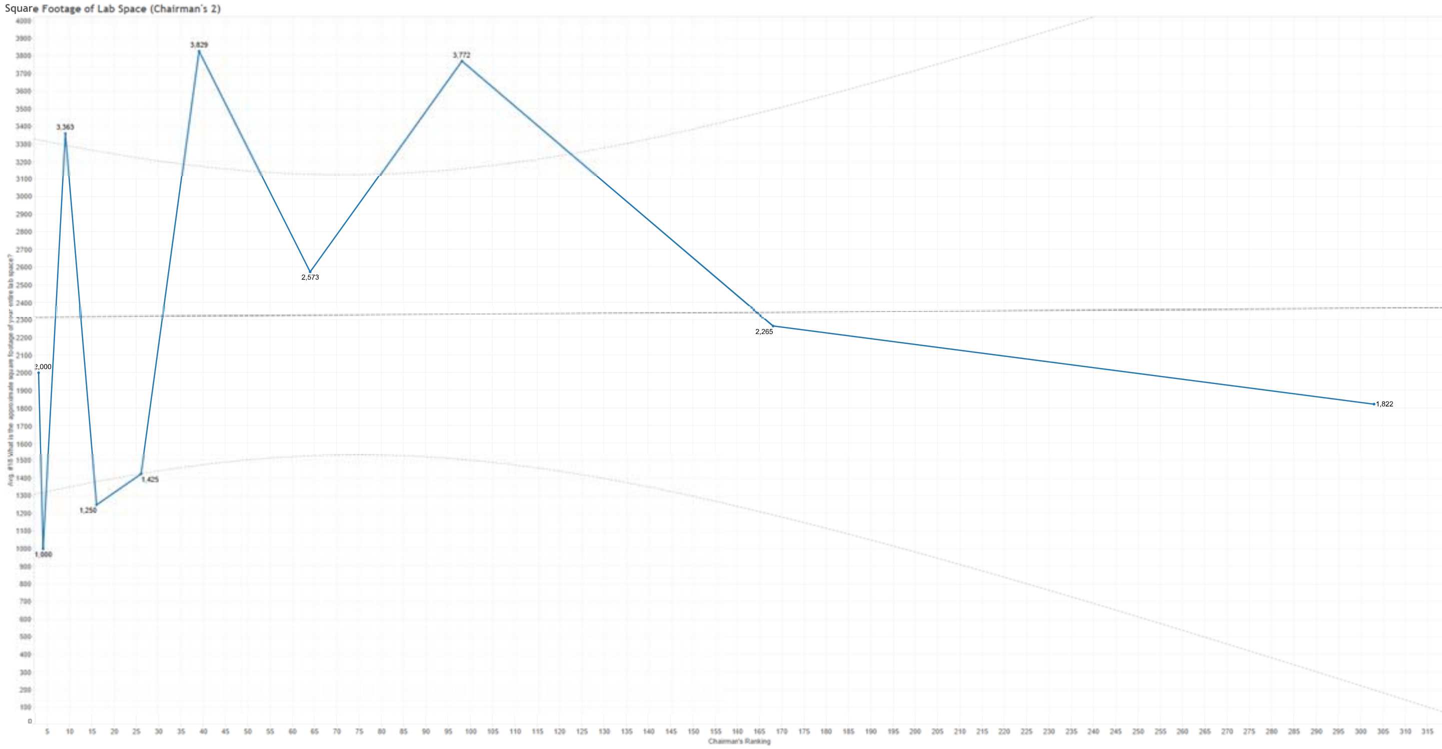


Trend Lines Model

A linear trend model is computed for average of #18 What is the approximate square footage of your entire lab space? given Chairman's Rank.

Model formula: (Chairman's Rank + intercept)
Number of modeled observations: 10
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 8
SSE (sum squared error): 9.57536e+06
MSE (mean squared error): 1.19692e+06
R-Squared: 0.0002039
Standard error: 1094.04
p-value (significance): 0.968769

Square Footage of Lab Space (Chairman's 2)

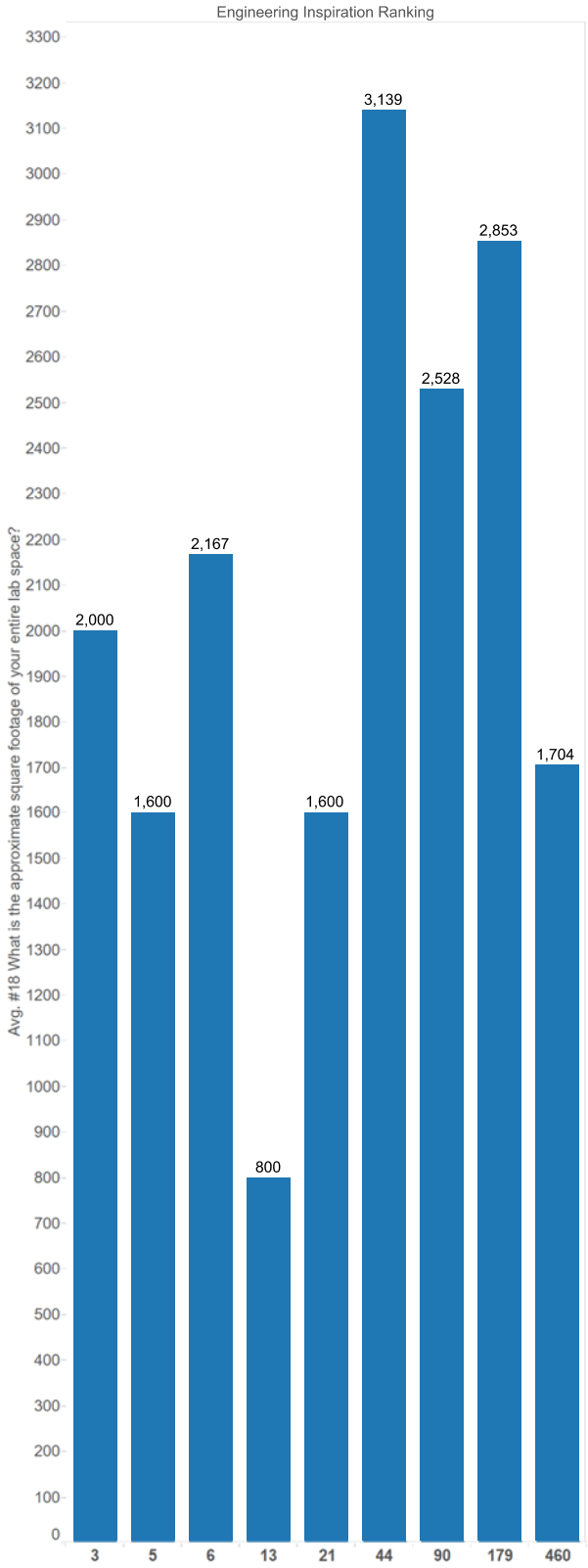


Trend Lines Model

A linear trend model is computed for average of #18 What is the approximate square footage of your entire lab space? given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 2.81659e+06
MSE (mean squared error): 201185
R-Squared: 0.512802
Standard error: 448.537
p-value (significance): 0.0018073

Square Footage of Lab Space (Inspiration)

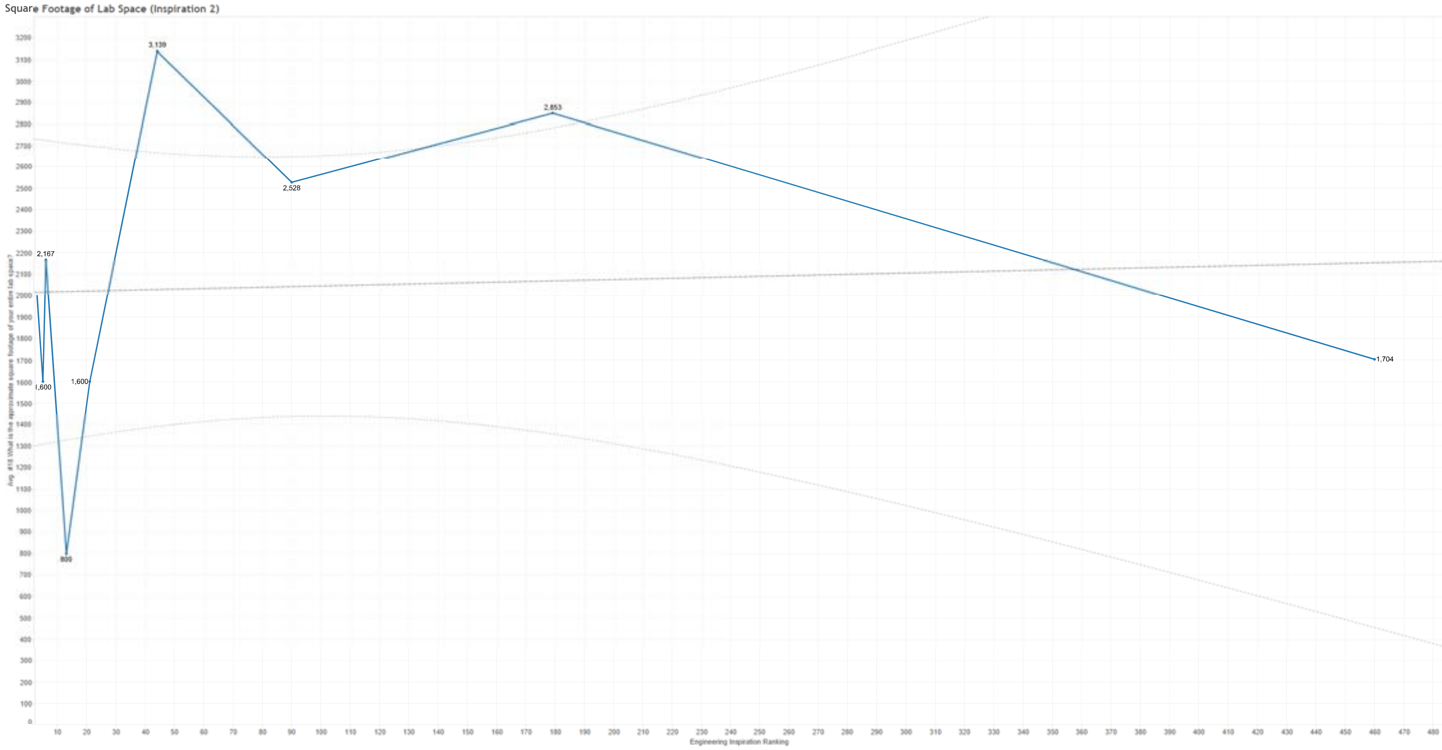


Trend Lines Model

A linear trend model is computed for average of #18 What is the approximate square footage of your entire lab space? given Inspiration Rank.

Model formula: (Inspiration Rank + intercept)
Number of modeled observations: 9
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 7
SSE (sum squared error): 4.14672e+06
MSE (mean squared error): 592388
R-Squared: 0.0038044
Standard error: 769.668
p-value (significance): 0.874744

Square Footage of Lab Space (Inspiration 2)

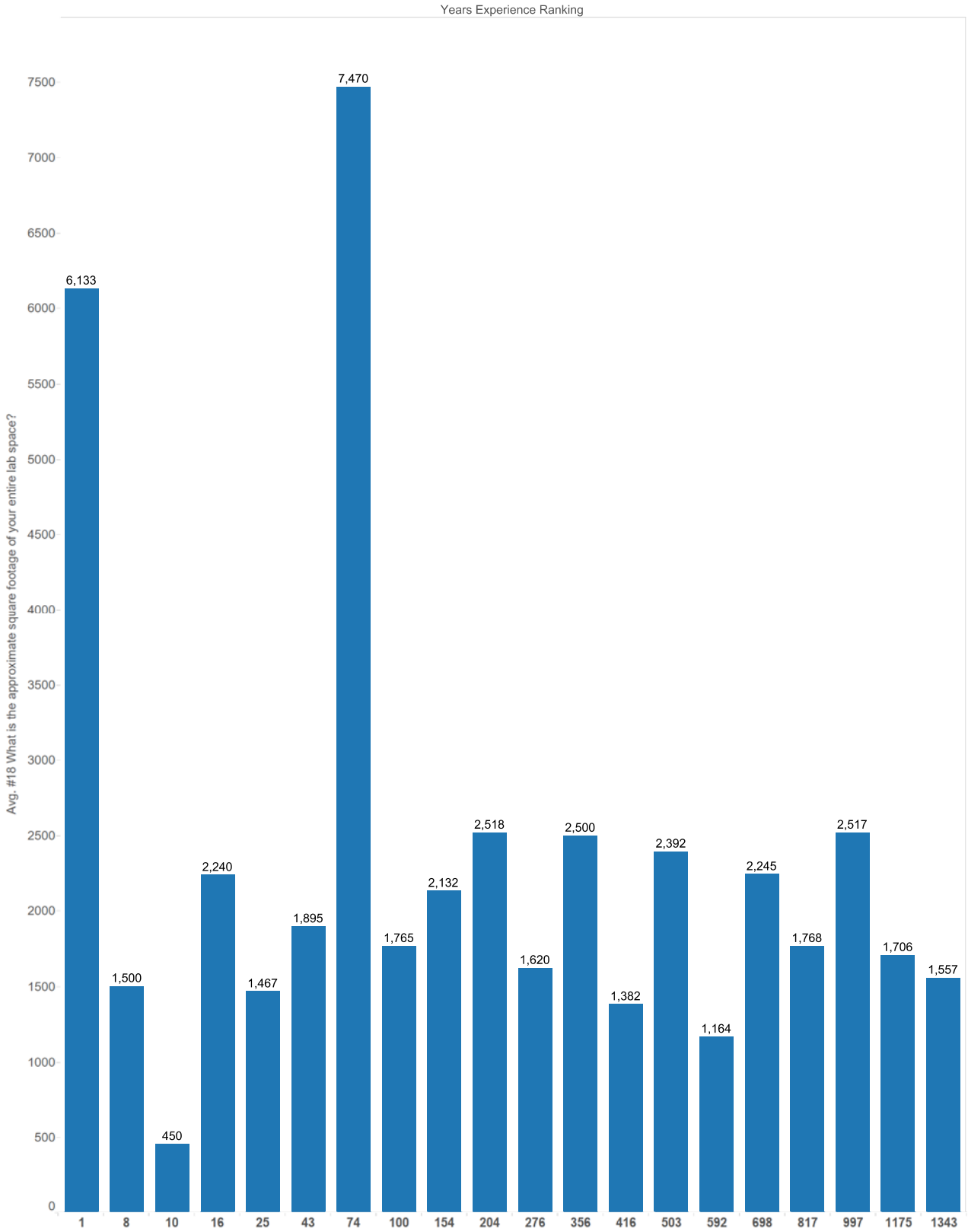


Trend Lines Model

A linear trend model is computed for average of #18 What is the approximate square footage of your entire lab space? given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 2.81659e+06
MSE (mean squared error): 201185
R-Squared: 0.512802
Standard error: 448.537
p-value (significance): 0.0018073

Square Footage of Lab Space (Years)

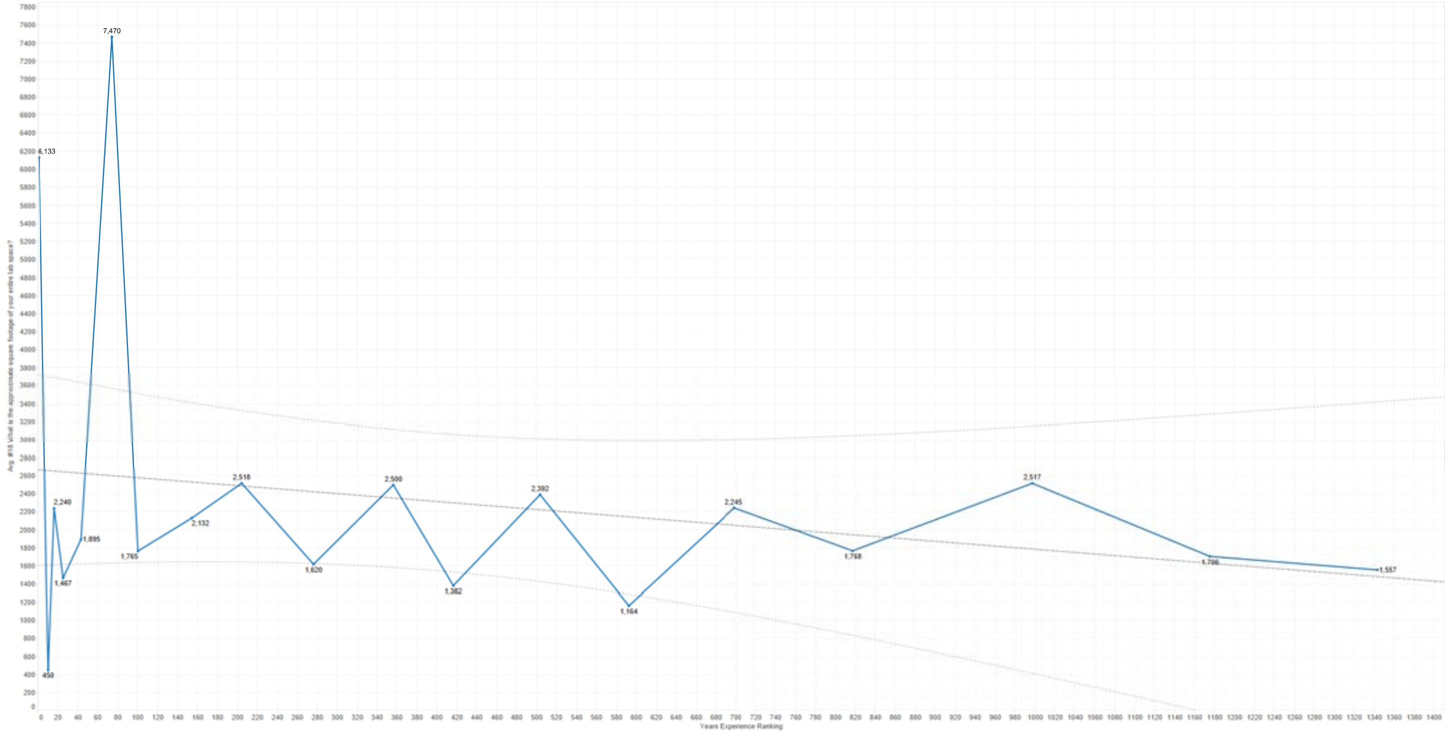


Trend Lines Model

A linear trend model is computed for average of #18 What is the approximate square footage of your entire lab space? given Years Rank.

Model formula: (Years Rank + intercept)
Number of modeled observations: 20
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 18
SSE (sum squared error): 4.79758e+07
MSE (mean squared error): 2.66532e+06
R-Squared: 0.0515335
Standard error: 1632.58
p-value (significance): 0.335801

Square Footage of Lab Space (Years 2)

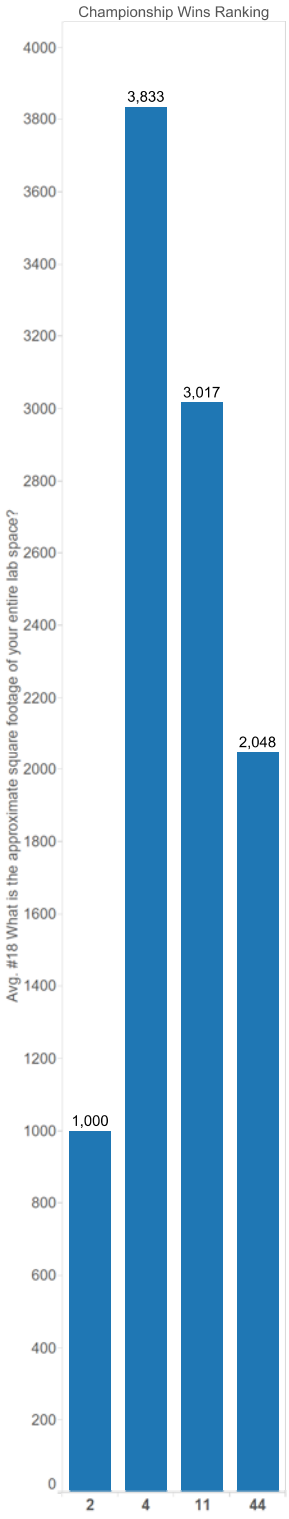


Trend Lines Model

A linear trend model is computed for average of #18 What is the approximate square footage of your entire lab space? given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 2.81659e+06
MSE (mean squared error): 201185
R-Squared: 0.512802
Standard error: 448.537
p-value (significance): 0.0018073

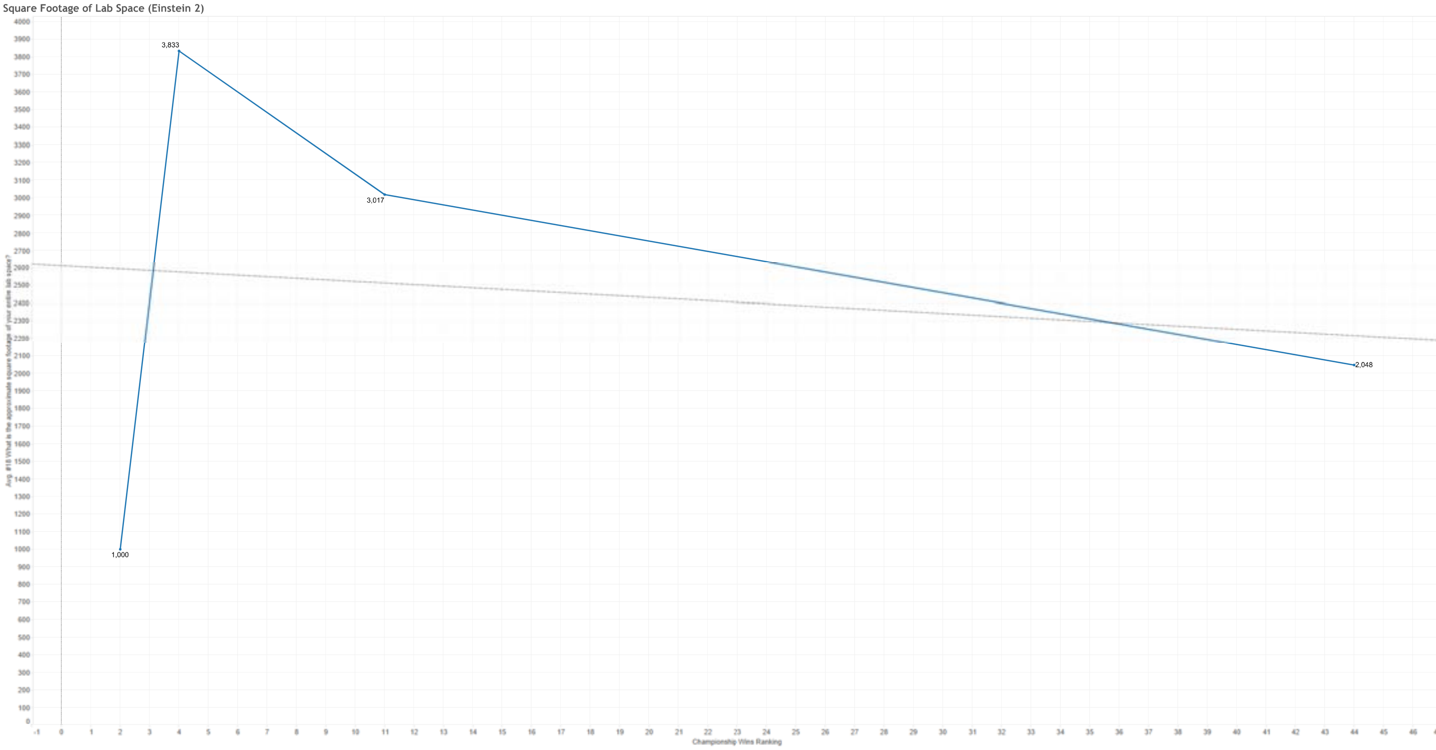
Square Footage of Lab Space (Einstein)



Trend Lines Model
A linear trend model is computed for average of #18 What is the approximate square footage of your entire lab space? given Einstein Rank.

Model formula: (Einstein Rank + intercept)
Number of modeled observations: 4
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 2
SSE (sum squared error): 4.40371e+06
MSE (mean squared error): 2.20186e+06
R-Squared: 0.020666
Standard error: 1483.87
p-value (significance): 0.856243

Square Footage of Lab Space (Einstein 2)

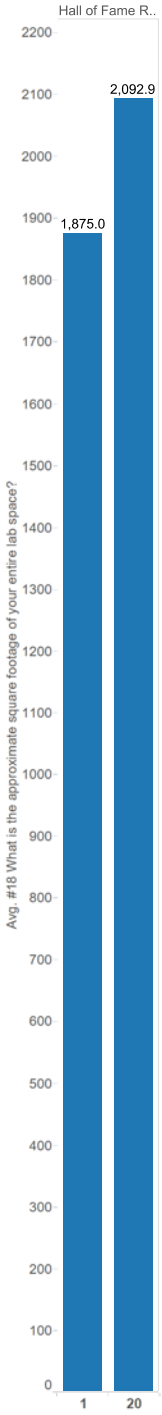


Trend Lines Model

A linear trend model is computed for average of #18 What is the approximate square footage of your entire lab space? given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 2.81659e+06
MSE (mean squared error): 201185
R-Squared: 0.512802
Standard error: 448.537
p-value (significance): 0.0018073

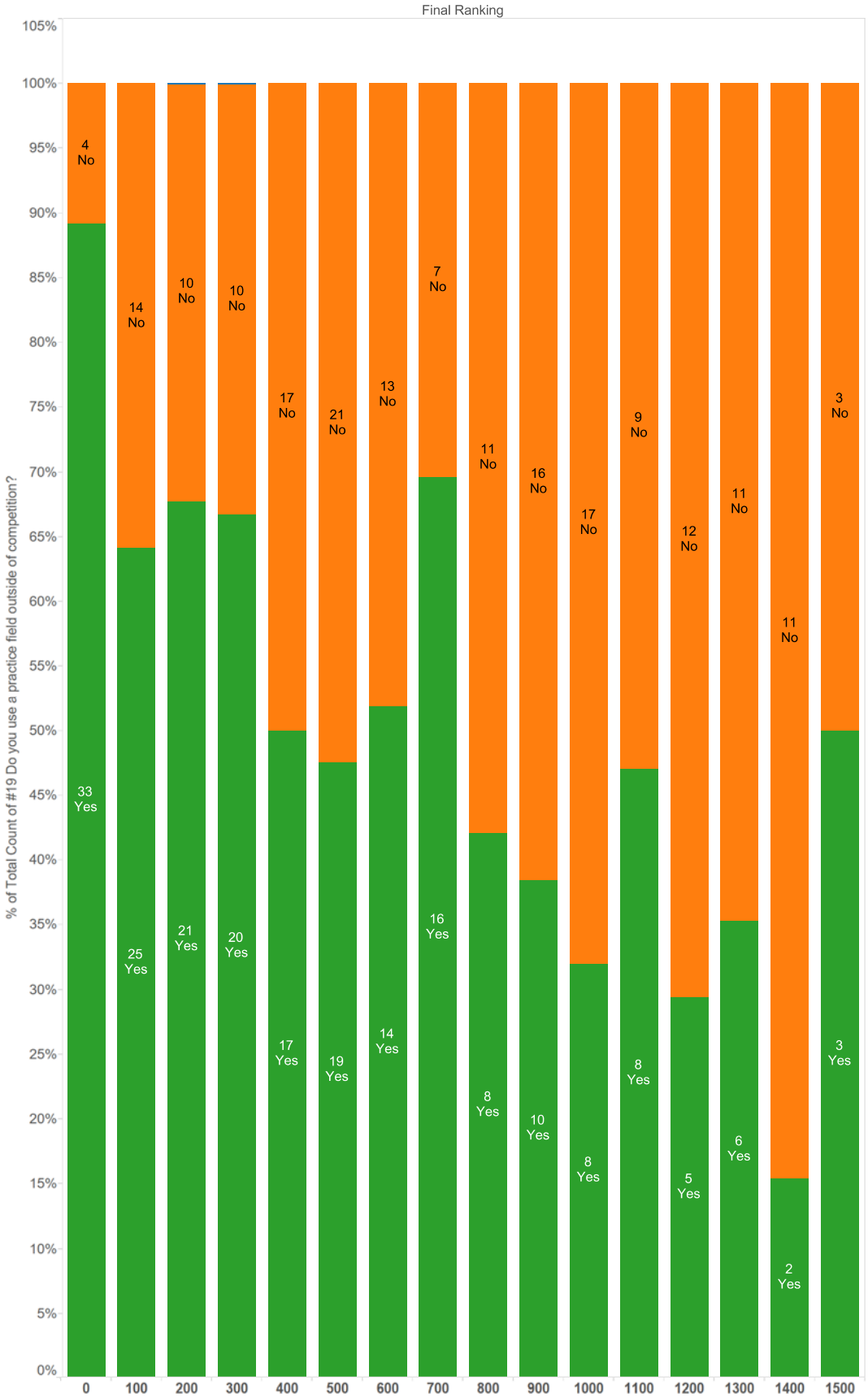
Square Footage of Lab Space (Hall of Fame)



Trend Lines Model
A linear trend model is computed for average of #18 What is the approximate square footage of your entire lab space? given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 2.81659e+06
MSE (mean squared error): 201185
R-Squared: 0.512802
Standard error: 448.537
p-value (significance): 0.0018073

Practice Field (Final)

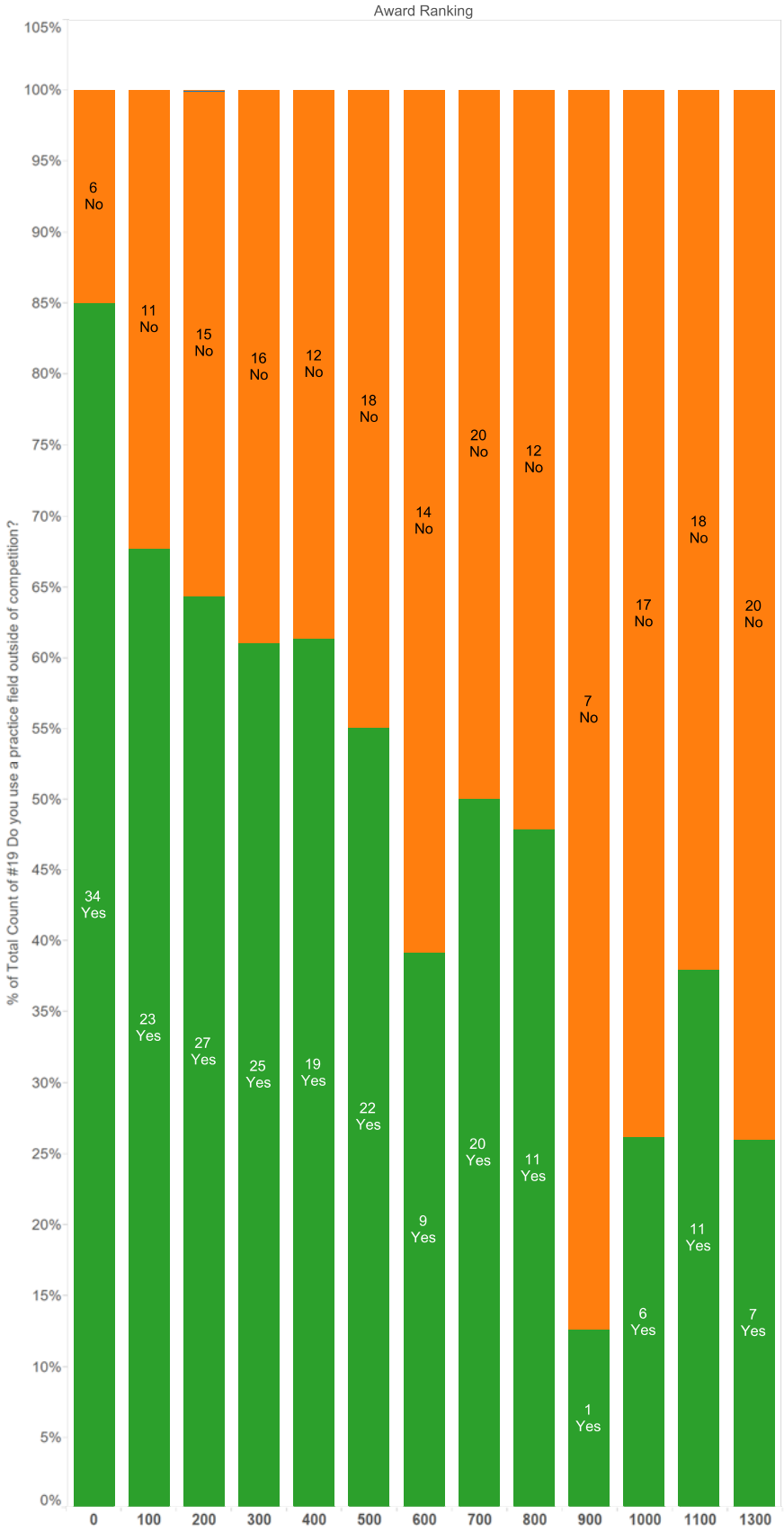


% of Total Count of #19 Do you use a practice field outside of competition? for each Final Ranking. Color shows details about #19 Do you use a practice field outside of competition?. The marks are labeled by count of #19 Do you use a practice field outside of competition? and #19 Do you use a practice field outside of competition?.

#19 Do you use a practice field outside of competition?

- Null
- No
- Yes

Practice Field (Awards)

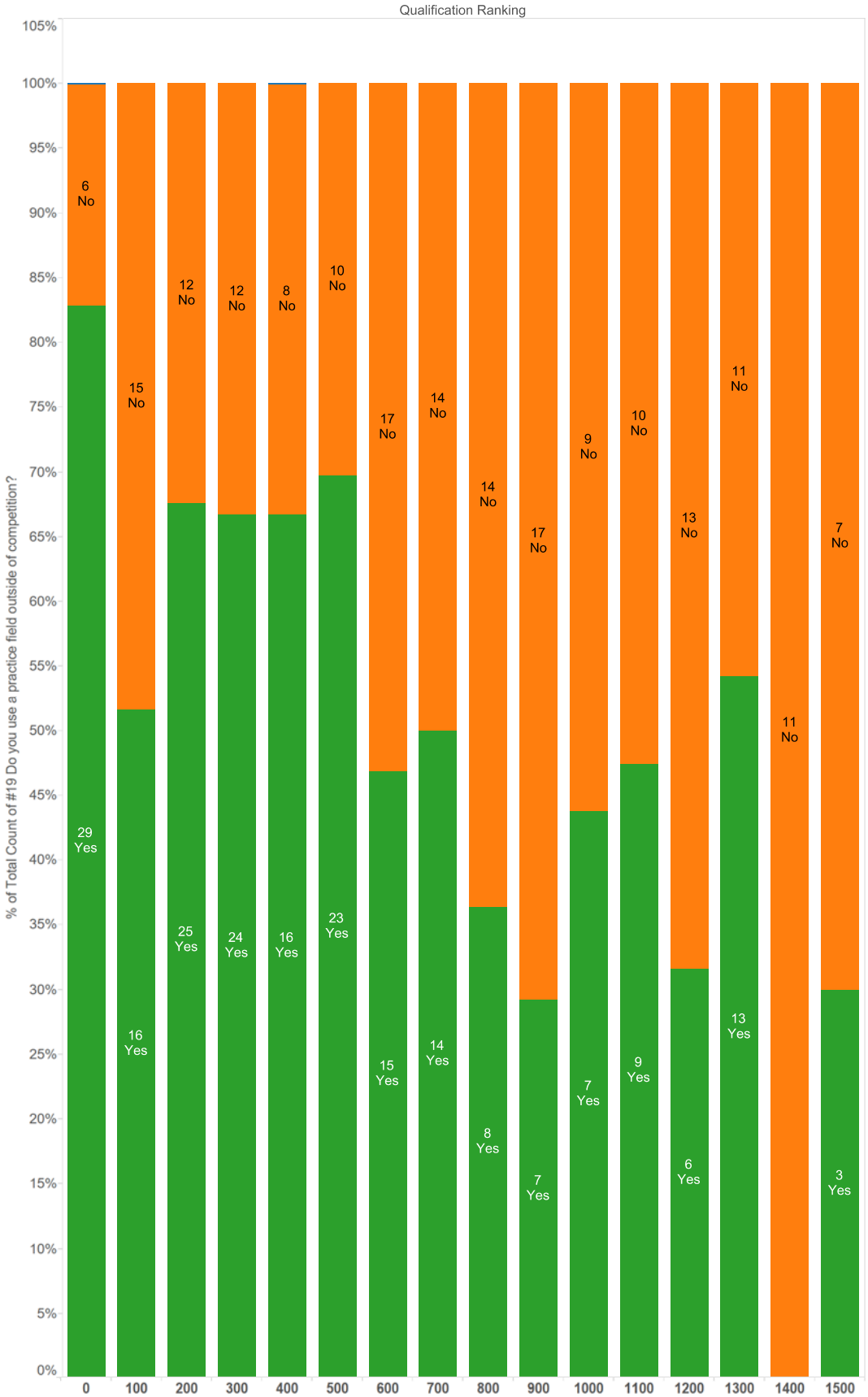


% of Total Count of #19 Do you use a practice field outside of competition? for each Award Ranking. Color shows details about #19 Do you use a practice field outside of competition?. The marks are labeled by count of #19 Do you use a practice field outside of competition? and #19 Do you use a practice field outside of competition?.

#19 Do you use a practice field outside of competition?

- Null
- No
- Yes

Practice Field (Quals)

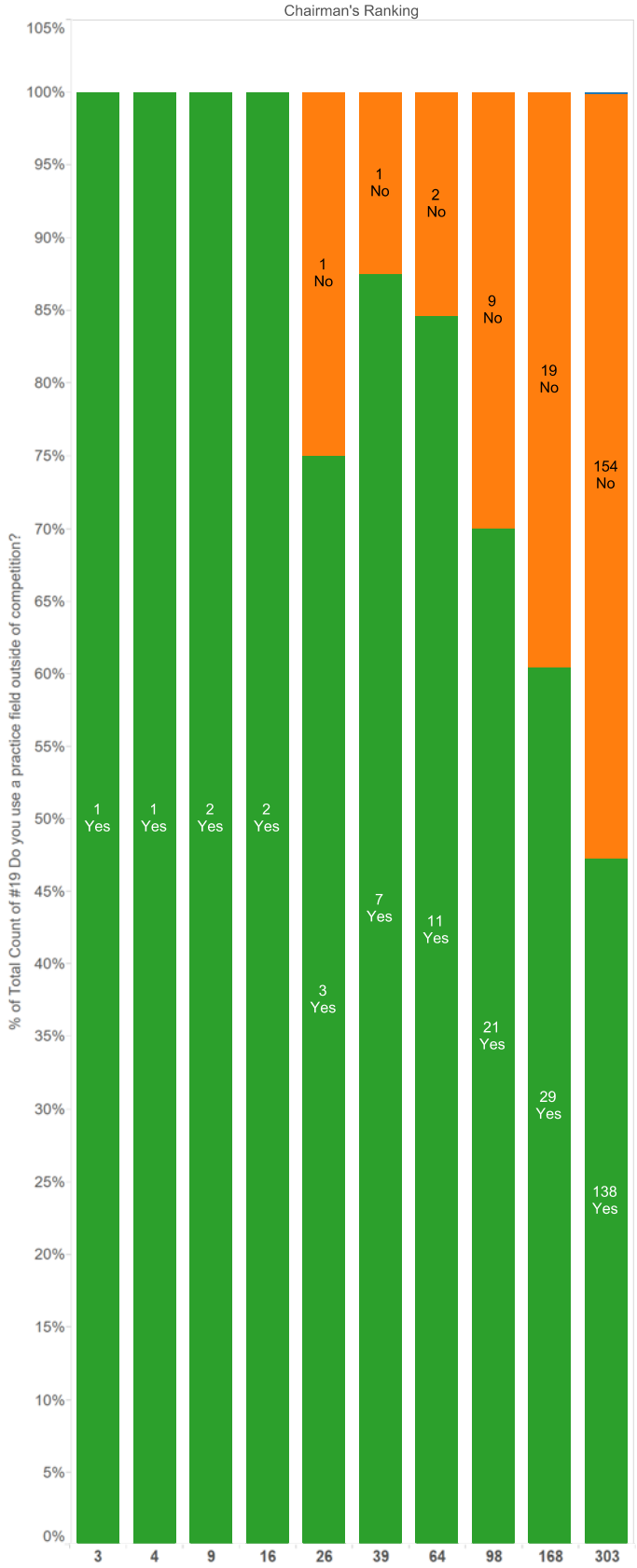


% of Total Count of #19 Do you use a practice field outside of competition? for each Qualification Ranking. Color shows details about #19 Do you use a practice field outside of competition?. The marks are labeled by count of #19 Do you use a practice field outside of competition? and #19 Do you use a practice field outside of competition?.

#19 Do you use a practice field outside of competition?

- Null
- No
- Yes

Practice Field (Chairman's)

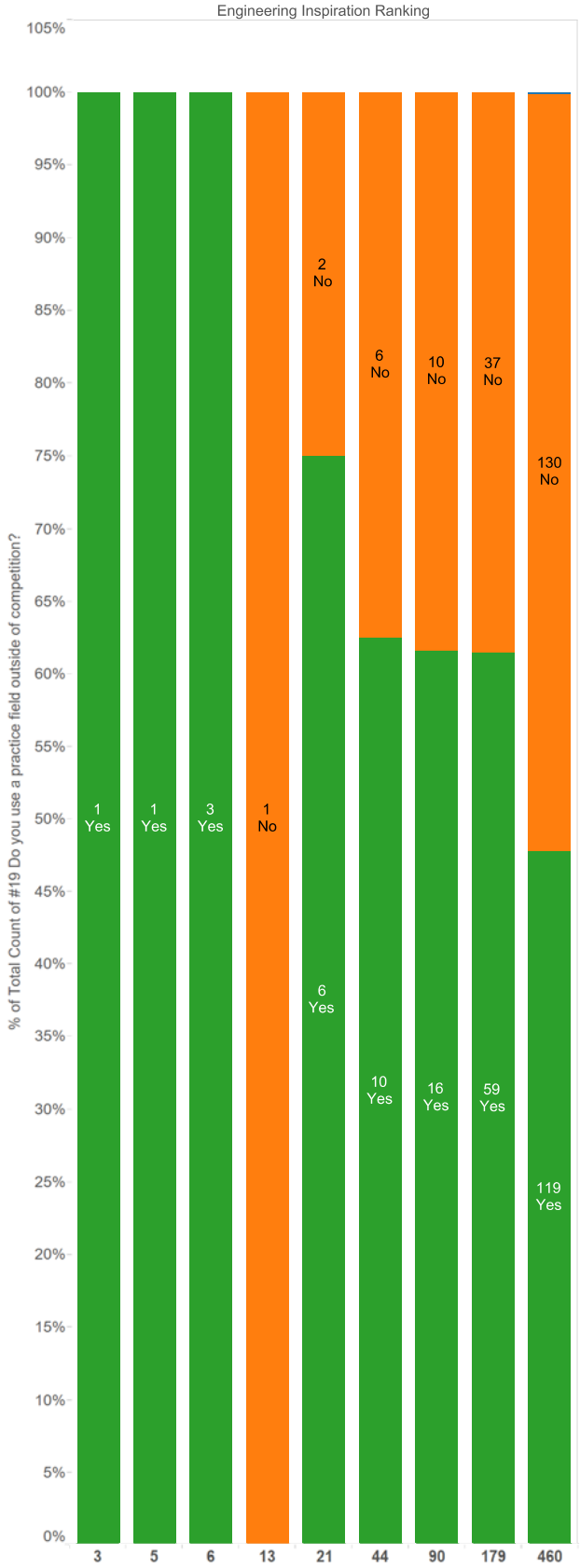


% of Total Count of #19 Do you use a practice field outside of competition? for each Chairman's Ranking. Color shows details about #19 Do you use a practice field outside of competition?. The marks are labeled by count of #19 Do you use a practice field outside of competition? and #19 Do you use a practice field outside of competition?.

#19 Do you use a practice field outside of competition?

- Null
- No
- Yes

Practice Field (Inspiration)

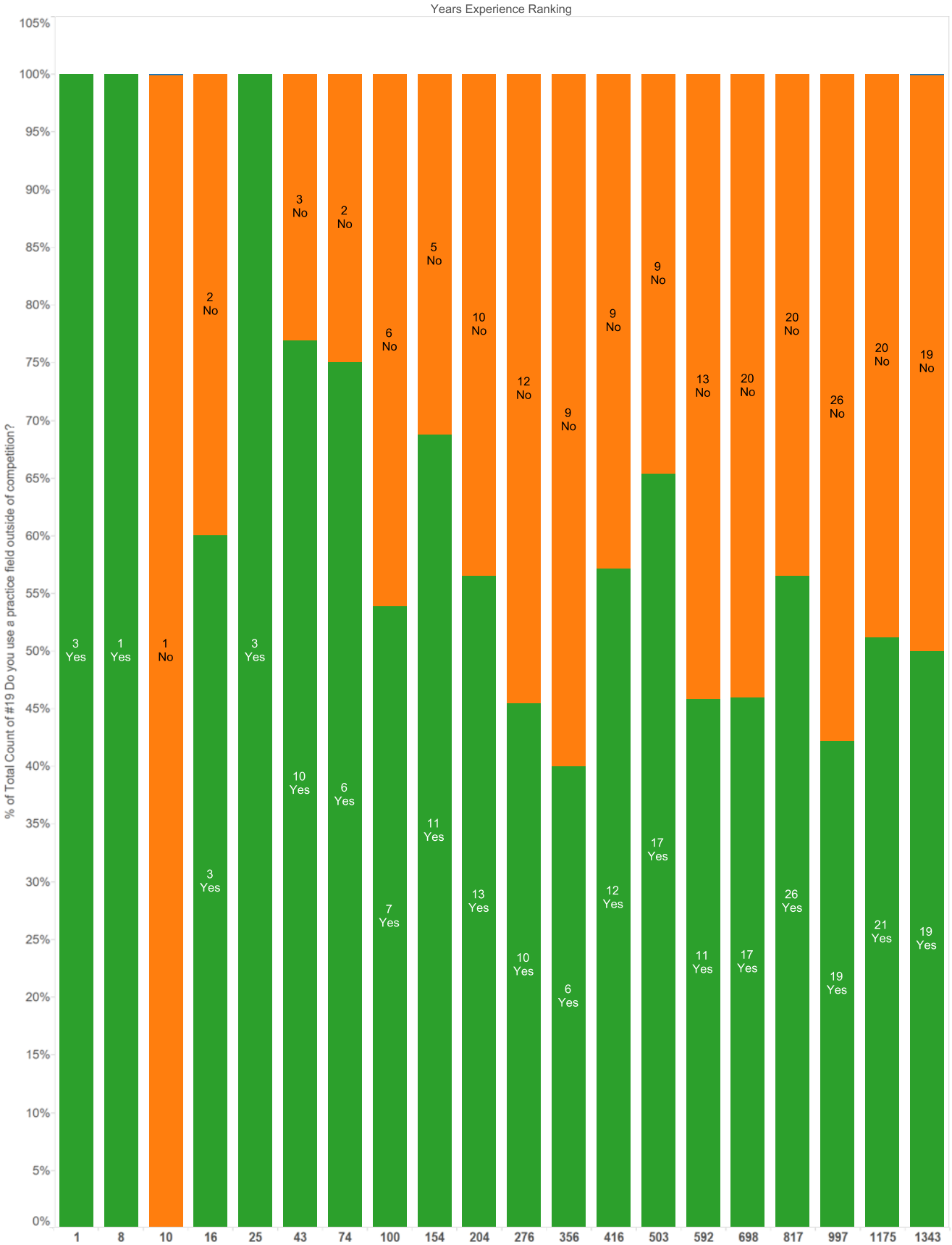


% of Total Count of #19 Do you use a practice field outside of competition? for each Engineering Inspiration Ranking. Color shows details about #19 Do you use a practice field outside of competition?. The marks are labeled by count of #19 Do you use a practice field outside of competition? and #19 Do you use a practice field outside of competition?.

#19 Do you use a practice field outside of competition?

- Null
- No
- Yes

Practice Field (Years)

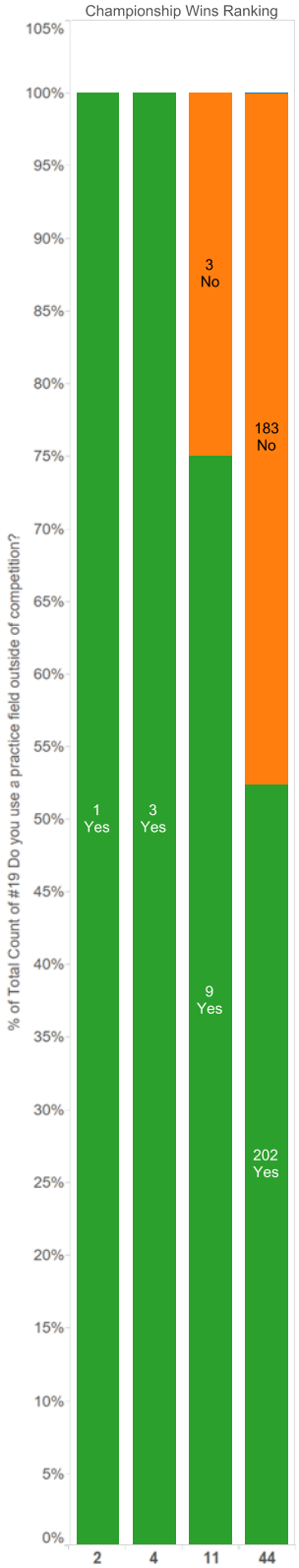


% of Total Count of #19 Do you use a practice field outside of competition? for each Years Experience Ranking. Color shows details about #19 Do you use a practice field outside of competition?. The marks are labeled by count of #19 Do you use a practice field outside of competition? and #19 Do you use a practice field outside of competition?.

#19 Do you use a practice field outside of competition?

- Null
- No
- Yes

Practice Field (Einstein)

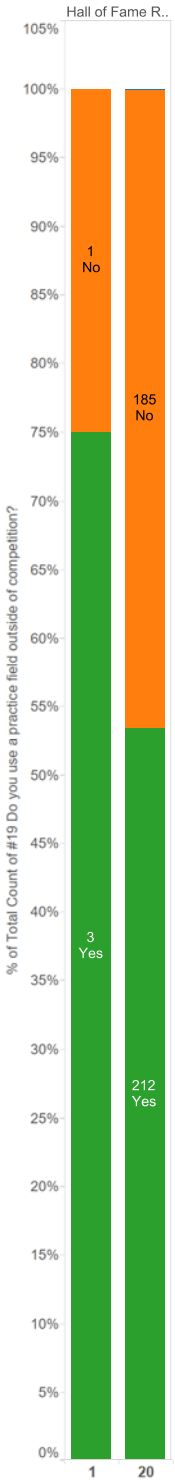


% of Total Count of #19 Do you use a practice field outside of competition? for each Championship Wins Ranking. Color shows details about #19 Do you use a practice field outside of competition?. The marks are labeled by count of #19 Do you use a practice field outside of competition? and #19 Do you use a practice field outside of competition?.

#19 Do you use a practice field outside of competition?

- Null
- No
- Yes

Practice Field (Hall of Fame)



% of Total Count of #19 Do you use a practice field outside of competition? for each Hall of Fame Ranking. Color shows details about #19 Do you use a practice field outside of competition?. The marks are labeled by count of #19 Do you use a practice field outside of competition? and #19 Do you use a practice field outside of competition?.

#19 Do you use a practice field outside of competition?

- Null
- No
- Yes

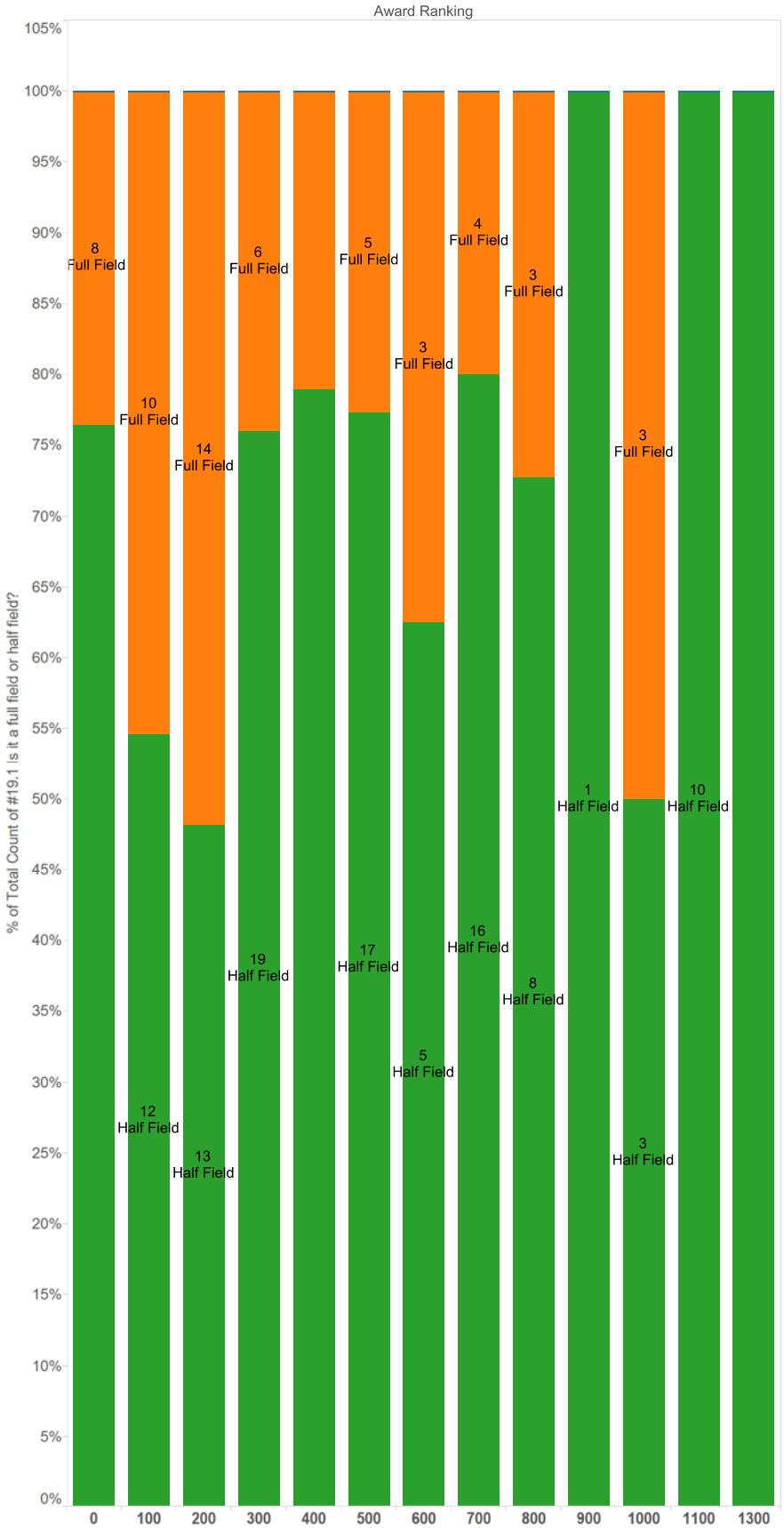
Full or Half Practice Feild (Final)

% of Total Count of #19.1 Is it a full field or half field? for each Final Ranking. Color shows details about #19.1 Is it a full field or half field?. The marks are labeled by count of #19.1 Is it a full field or half field? and #19.1 Is it a full field or half field?.

#19.1 Is it a full field or half field?

- Null
- Full Field
- Half Field

Full or Half Practice Feild (Awards)

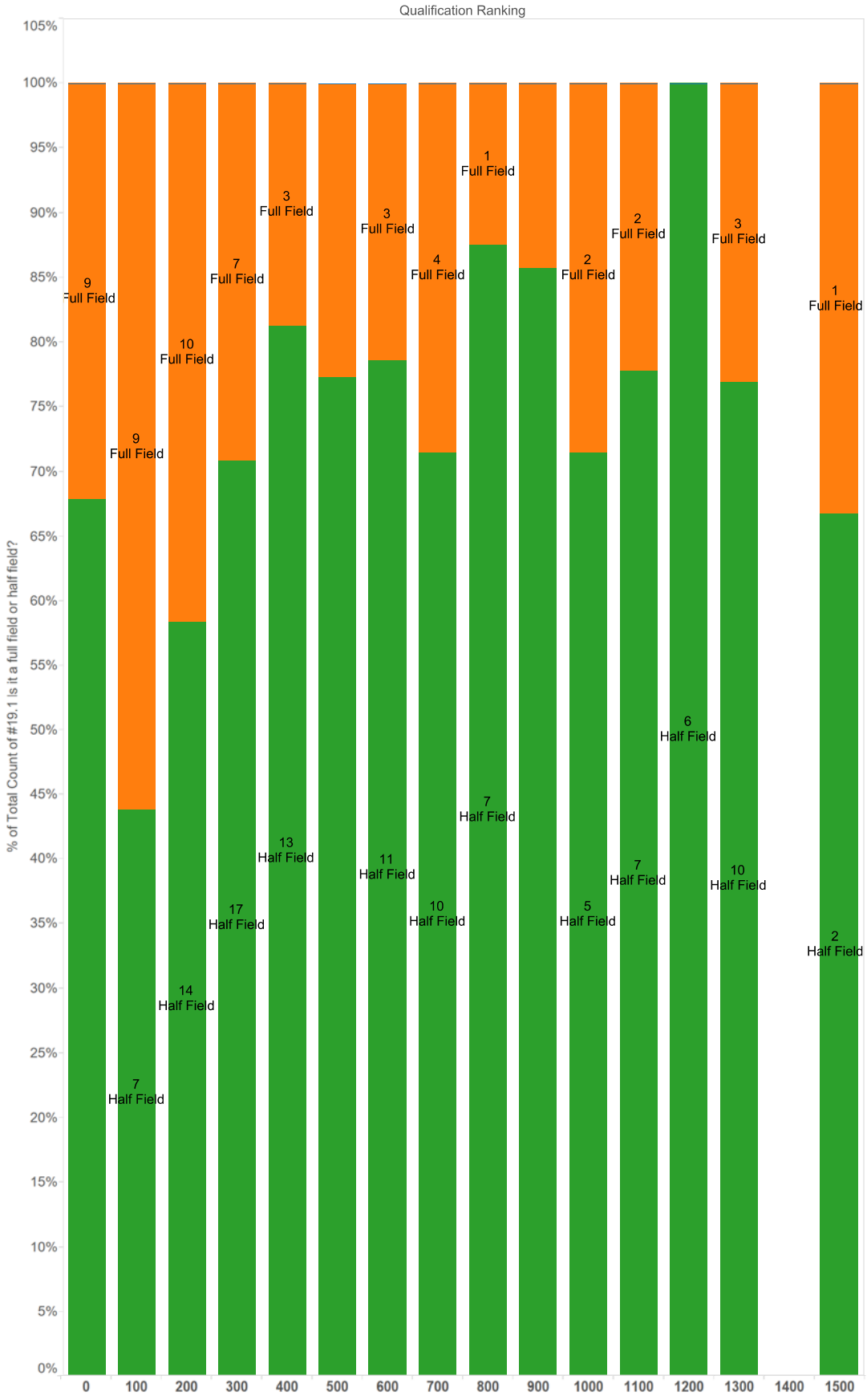


% of Total Count of #19.1 Is it a full field or half field? for each Award Ranking. Color shows details about #19.1 Is it a full field or half field?. The marks are labeled by count of #19.1 Is it a full field or half field? and #19.1 Is it a full field or half field?.

#19.1 Is it a full field or half field?

- Null
- Full Field
- Half Field

Full or Half Practice Feild (Quals)

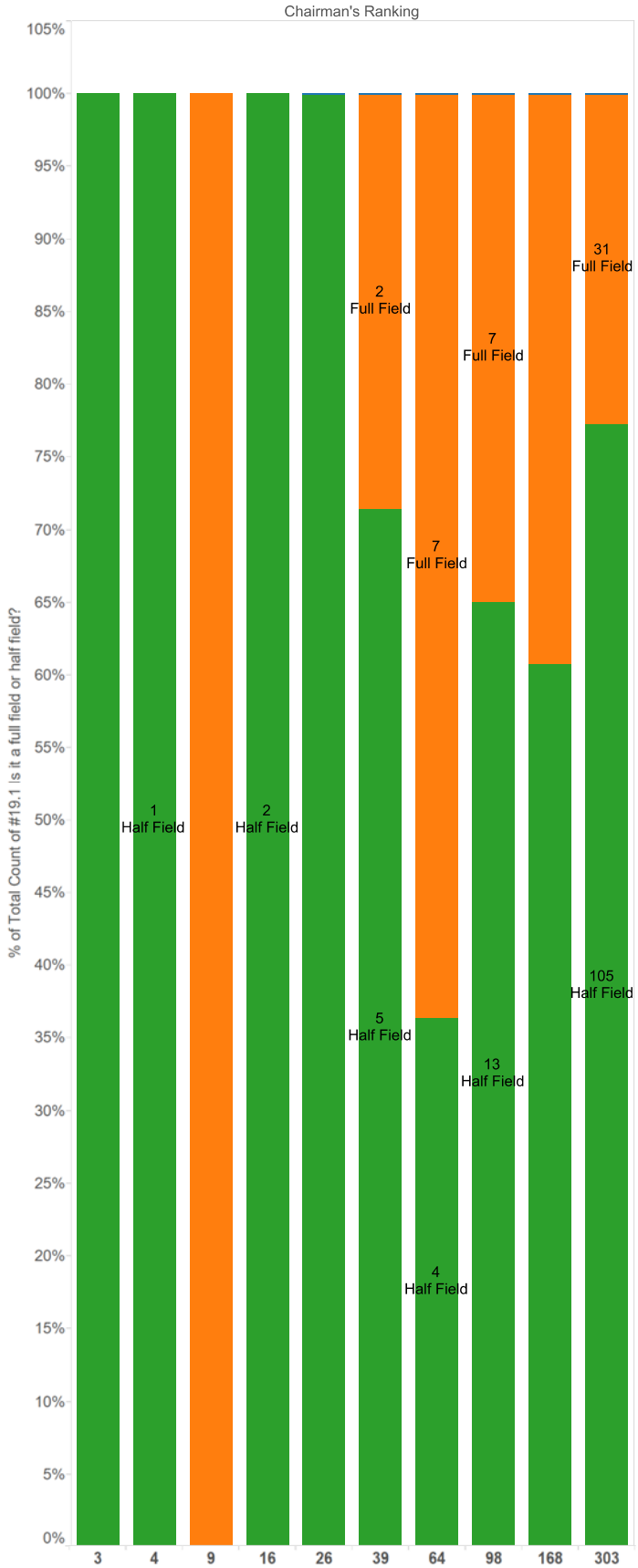


% of Total Count of #19.1 Is it a full field or half field? for each Qualification Ranking. Color shows details about #19.1 Is it a full field or half field?. The marks are labeled by count of #19.1 Is it a full field or half field? and #19.1 Is it a full field or half field?.

#19.1 Is it a full field or half field?

- Null
- Full Field
- Half Field

Full or Half Practice Feild (Chairman's)

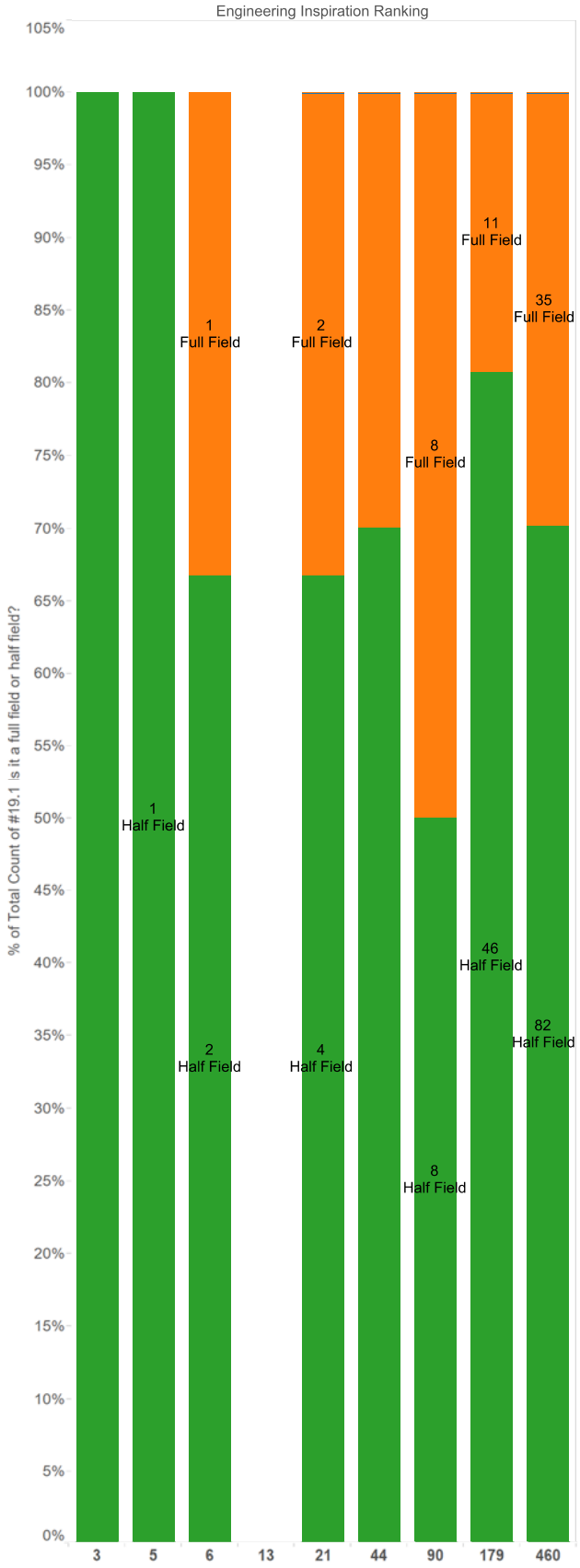


% of Total Count of #19.1 Is it a full field or half field? for each Chairman's Ranking. Color shows details about #19.1 Is it a full field or half field?. The marks are labeled by count of #19.1 Is it a full field or half field? and #19.1 Is it a full field or half field?.

#19.1 Is it a full field or half field?

- Null
- Full Field
- Half Field

Full or Half Practice Feild (Inspiration)

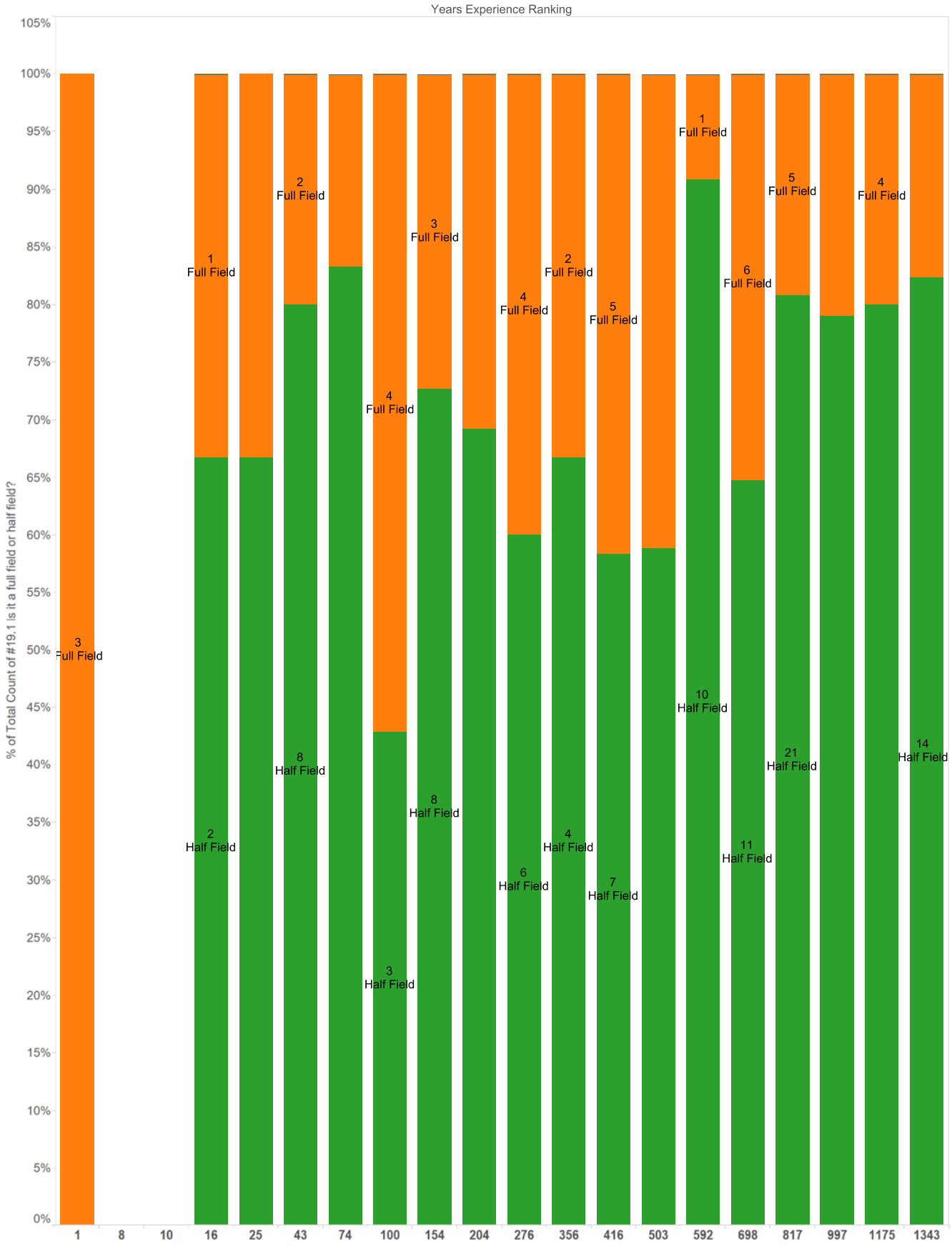


% of Total Count of #19.1 Is it a full field or half field? for each Engineering Inspiration Ranking. Color shows details about #19.1 Is it a full field or half field?. The marks are labeled by count of #19.1 Is it a full field or half field? and #19.1 Is it a full field or half field?.

#19.1 Is it a full field or half field?

- Null
- Full Field
- Half Field

Full or Half Practice Feild (Years)

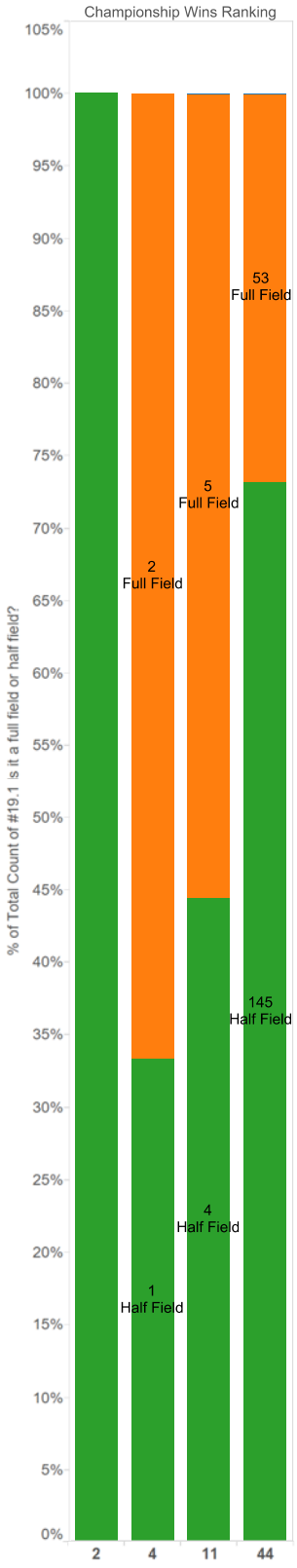


% of Total Count of #19.1 Is it a full field or half field? for each Years Experience Ranking. Color shows details about #19.1 Is it a full field or half field?. The marks are labeled by count of #19.1 Is it a full field or half field? and #19.1 Is it a full field or half field?.

#19.1 Is it a full field or half field?

- Null
- Full Field
- Half Field

Full or Half Practice Feild (Einstein)

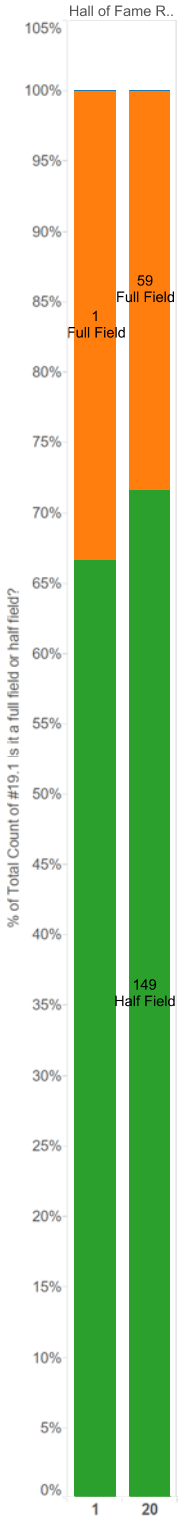


% of Total Count of #19.1 Is it a full field or half field? for each Championship Wins Ranking. Color shows details about #19.1 Is it a full field or half field?. The marks are labeled by count of #19.1 Is it a full field or half field? and #19.1 Is it a full field or half field?.

#19.1 Is it a full field or half field?

- Null
- Full Field
- Half Field

Full or Half Practice Feild (Hall of Fame)

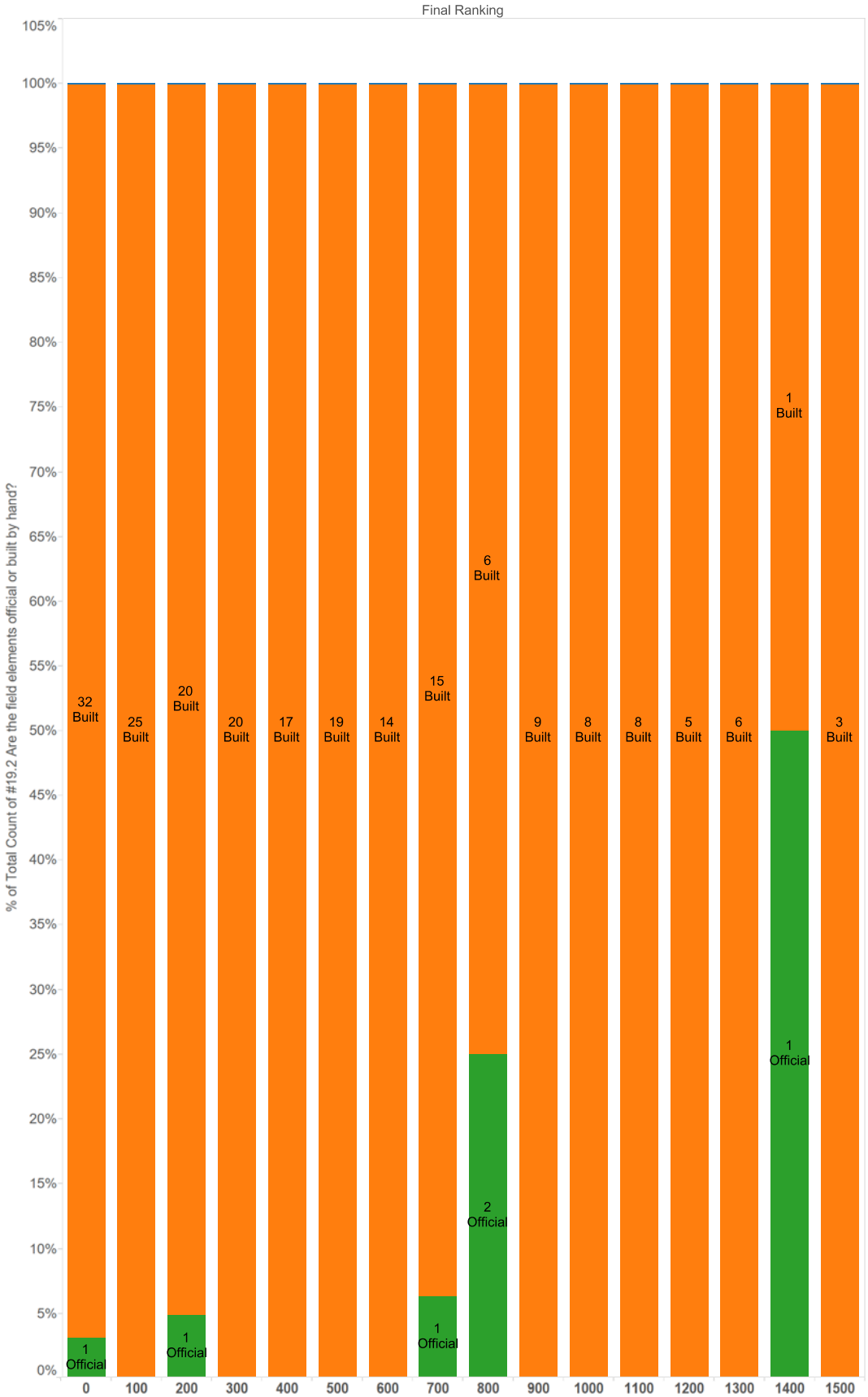


% of Total Count of #19.1 Is it a full field or half field? for each Hall of Fame Ranking. Color shows details about #19.1 Is it a full field or half field?. The marks are labeled by count of #19.1 Is it a full field or half field? and #19.1 Is it a full field or half field?.

#19.1 Is it a full field or half field?

- Null
- Full Field
- Half Field

Official or Built by Hand (Final)

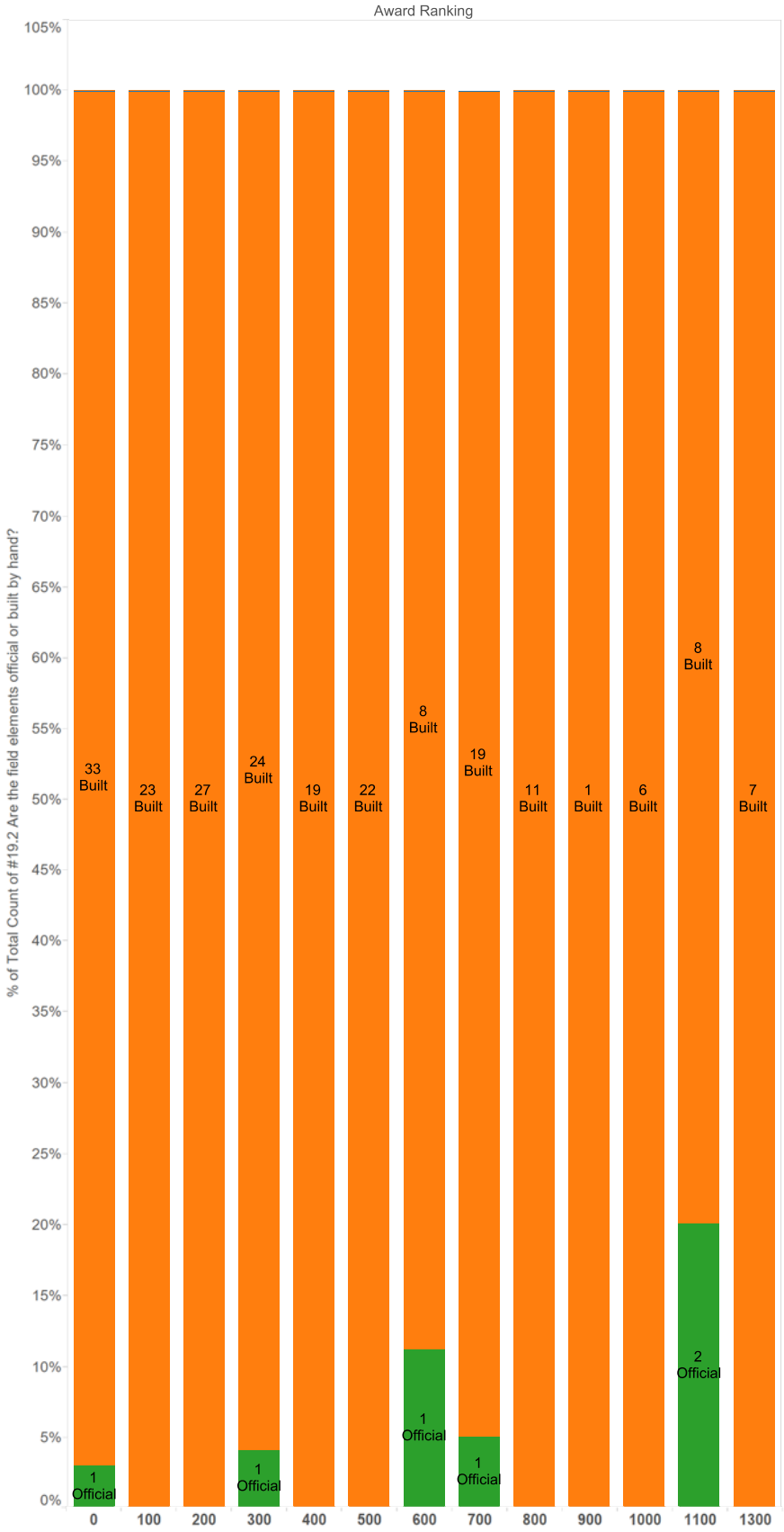


% of Total Count of #19.2 Are the field elements official or built by hand? for each Final Ranking. Color shows details about #19.2 Are the field elements official or built by hand?. The marks are labeled by count of #19.2 Are the field elements official or built by hand? and #19.2 Are the field elements official or built by hand?.

#19.2 Are the field elements official or built by hand?

- Null
- Built
- Official

Official or Built by Hand (Awards)

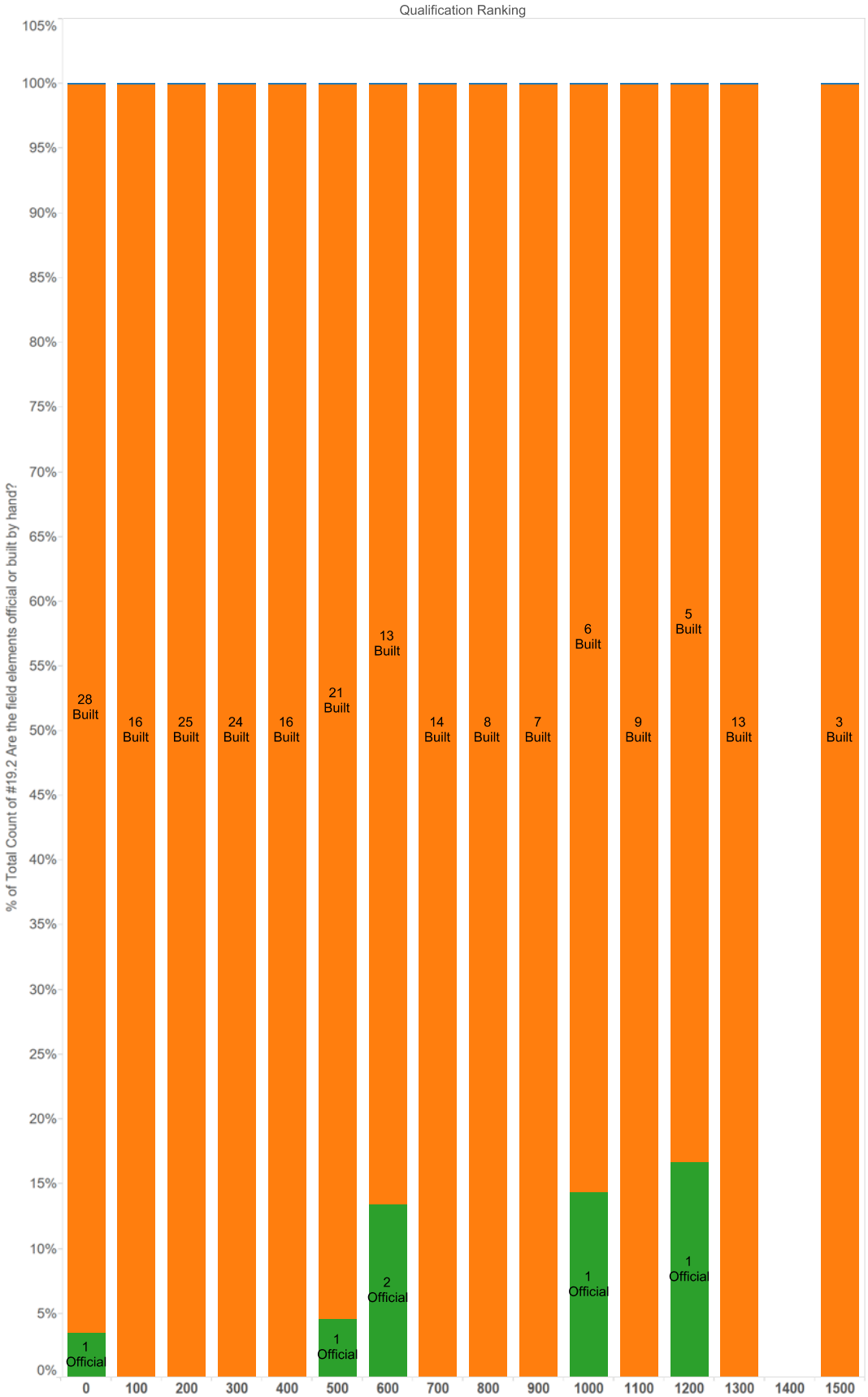


% of Total Count of #19.2 Are the field elements official or built by hand? for each Award Ranking. Color shows details about #19.2 Are the field elements official or built by hand?. The marks are labeled by count of #19.2 Are the field elements official or built by hand? and #19.2 Are the field elements official or built by hand?.

#19.2 Are the field elements official or built by hand?

- Null
- Built
- Official

Official or Built by Hand (Quals)

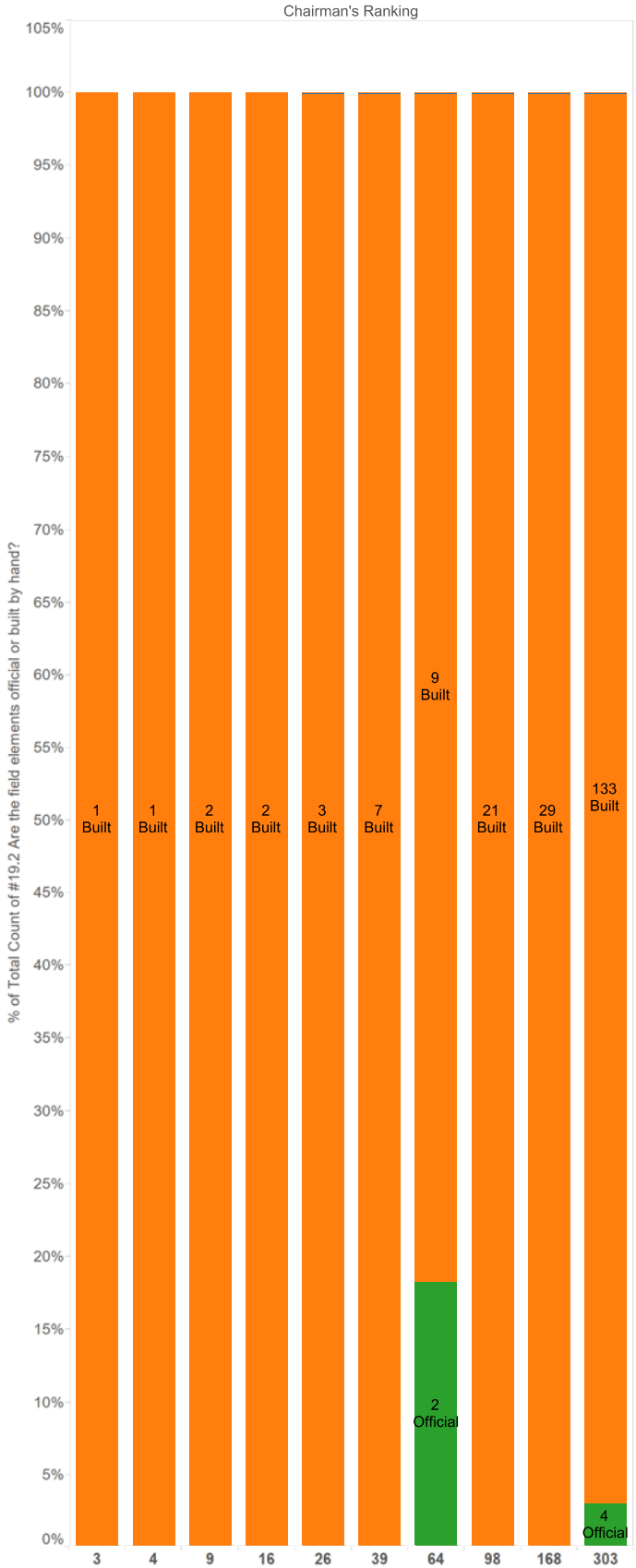


% of Total Count of #19.2 Are the field elements official or built by hand? for each Qualification Ranking. Color shows details about #19.2 Are the field elements official or built by hand?. The marks are labeled by count of #19.2 Are the field elements official or built by hand? and #19.2 Are the field elements official or built by hand?.

#19.2 Are the field elements official or built by hand?

- Null
- Built
- Official

Official or Built by Hand (Chairman's)

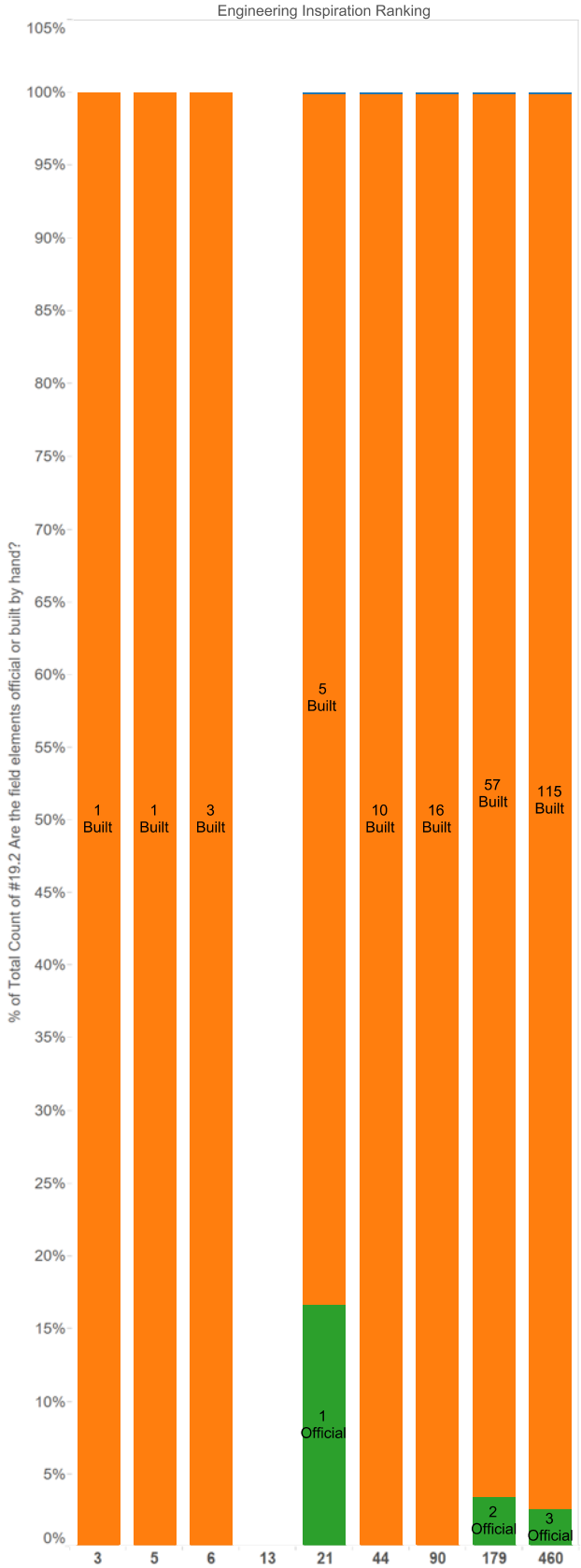


% of Total Count of #19.2 Are the field elements official or built by hand? for each Chairman's Ranking. Color shows details about #19.2 Are the field elements official or built by hand?. The marks are labeled by count of #19.2 Are the field elements official or built by hand? and #19.2 Are the field elements official or built by hand?.

#19.2 Are the field elements official or built by hand?

- Null
- Built
- Official

Official or Built by Hand (Inspiration)

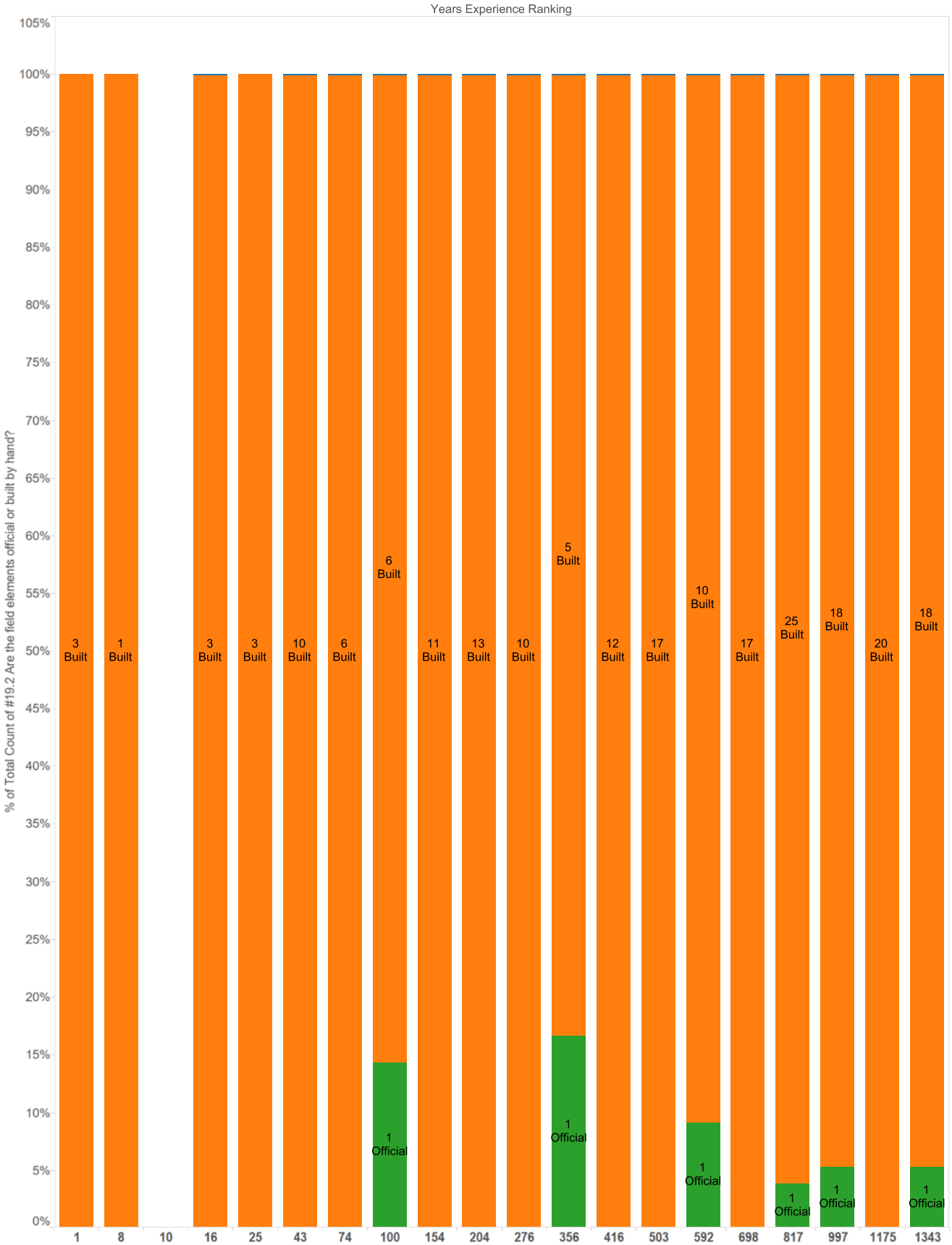


% of Total Count of #19.2 Are the field elements official or built by hand? for each Engineering Inspiration Ranking. Color shows details about #19.2 Are the field elements official or built by hand?. The marks are labeled by count of #19.2 Are the field elements official or built by hand? and #19.2 Are the field elements official or built by hand?.

#19.2 Are the field elements official or built by hand?

- Null
- Built
- Official

Official or Built by Hand (Years)

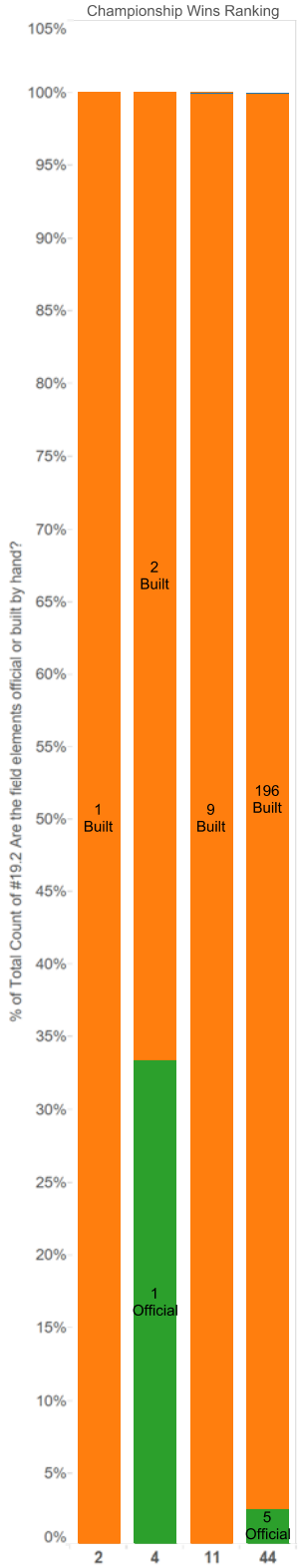


% of Total Count of #19.2 Are the field elements official or built by hand? for each Years Experience Ranking. Color shows details about #19.2 Are the field elements official or built by hand?. The marks are labeled by count of #19.2 Are the field elements official or built by hand? and #19.2 Are the field elements official or built by hand?.

#19.2 Are the field elements official or built by hand?

- Null
- Built
- Official

Official or Built by Hand (Einstein)

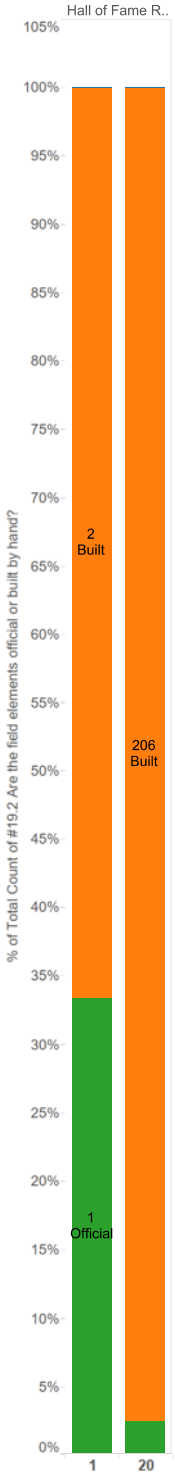


% of Total Count of #19.2 Are the field elements official or built by hand? for each Championship Wins Ranking. Color shows details about #19.2 Are the field elements official or built by hand?. The marks are labeled by count of #19.2 Are the field elements official or built by hand? and #19.2 Are the field elements official or built by hand?.

#19.2 Are the field elements official or built by hand?

- Null
- Built
- Official

Official or Built by Hand (Hall of Fame)

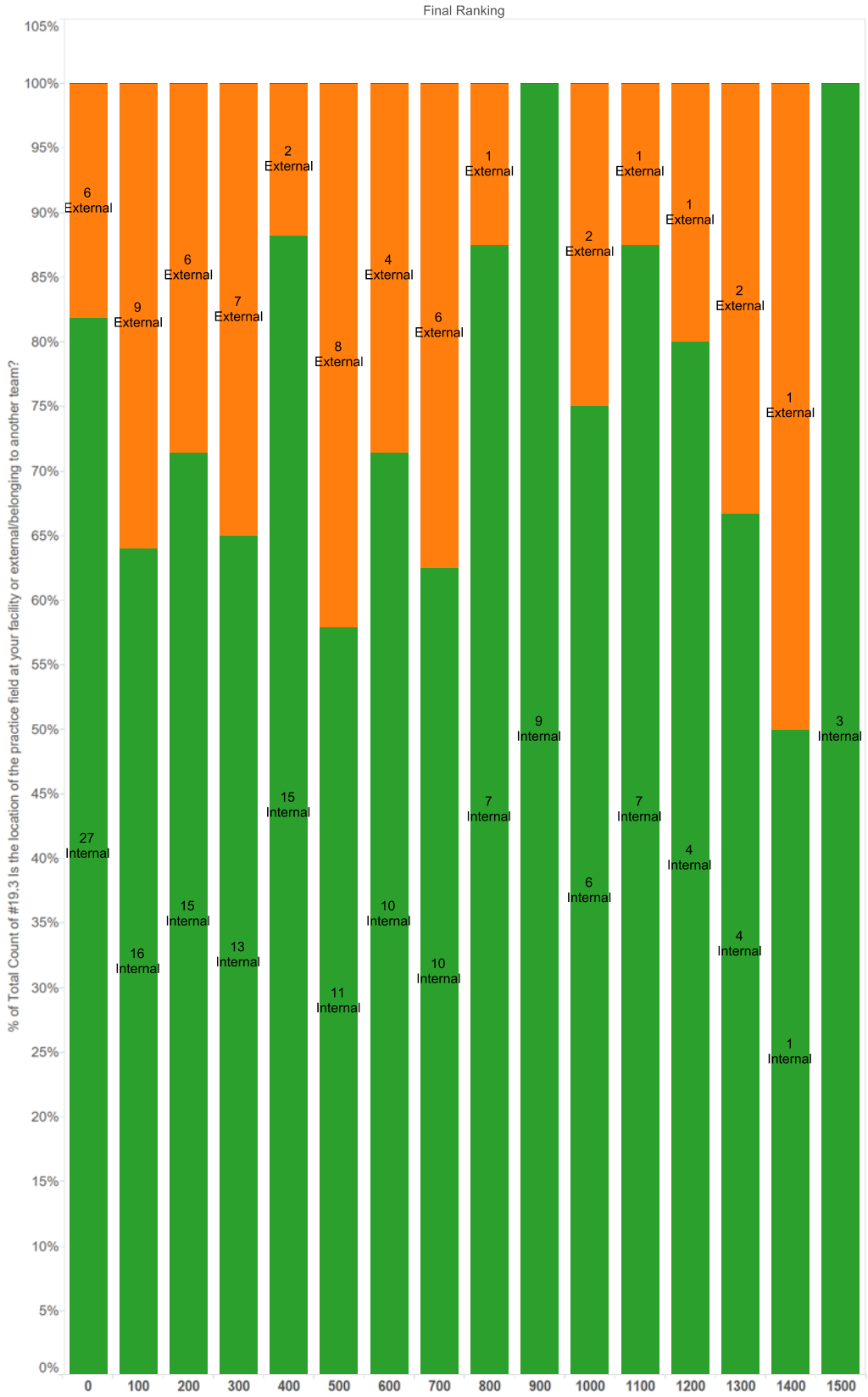


% of Total Count of #19.2 Are the field elements official or built by hand? for each Hall of Fame Ranking. Color shows details about #19.2 Are the field elements official or built by hand?. The marks are labeled by count of #19.2 Are the field elements official or built by hand? and #19.2 Are the field elements official or built by hand?.

#19.2 Are the field elements official or built by hand?

- Null
- Built
- Official

Practice Feild Location (Final)

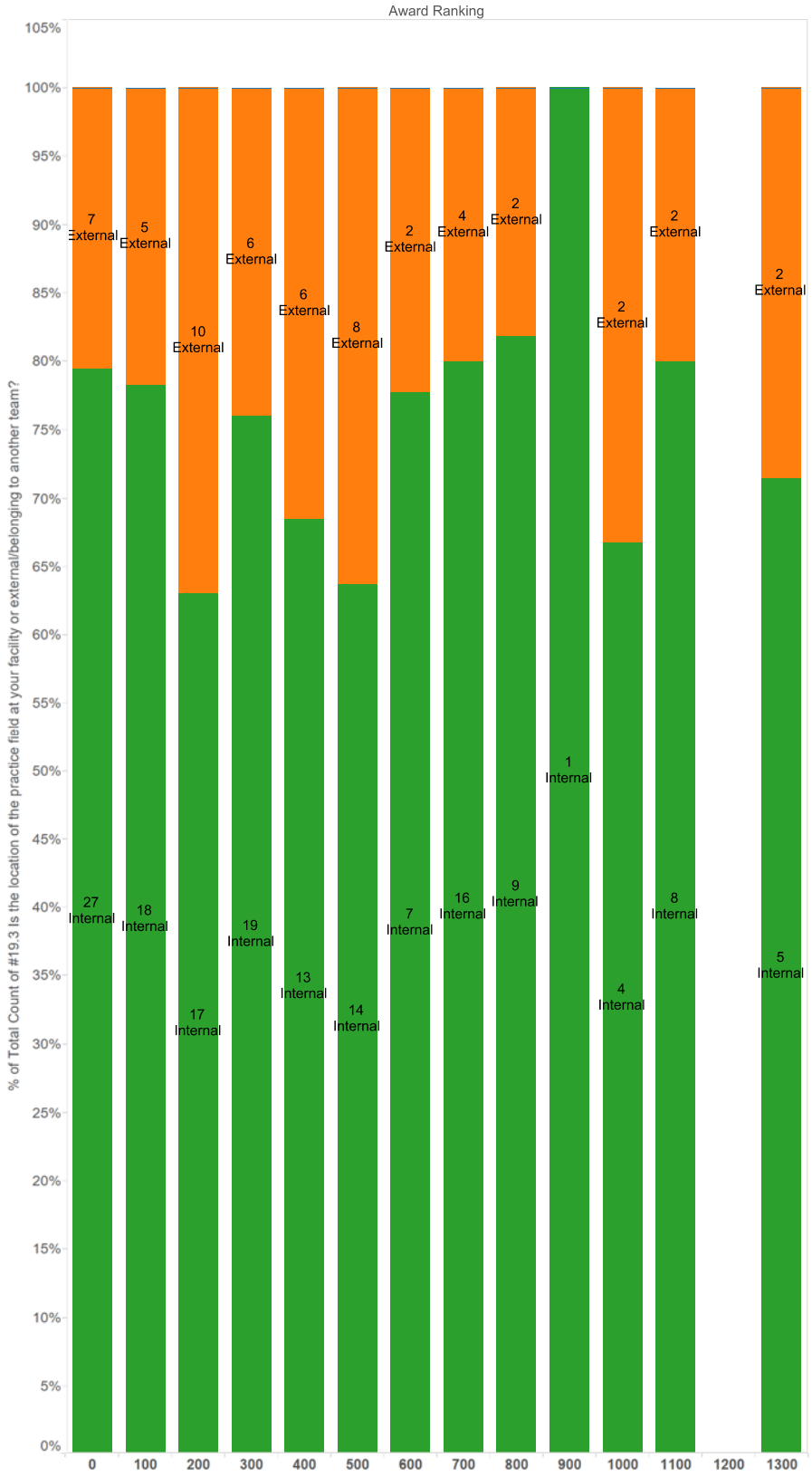


% of Total Count of #19.3 Is the location of the practice field at your facility or external/belonging to another team? for each Final Ranking. Color shows details about #19.3 Is the location of the practice field at your facility or external/belonging to another team?. The marks are labeled by count of #19.3 Is the location of the practice field at your facility or external/belonging to another team? and #19.3 Is the location of the practice field at your facility or external/belonging to another team?. The data is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned? and #19 Do you use a practice field outside of competition?. The #10 How is your drive team (driver, operator, human player, and/or coach) assigned? filter excludes Null. The #19 Do you use a practice field outside of competition? filter keeps No and Yes.

#19.3 Is the location of the practice field at your facility or external/belonging to another team?

- Null
- External
- Internal

Practice Feild Location (Awards)

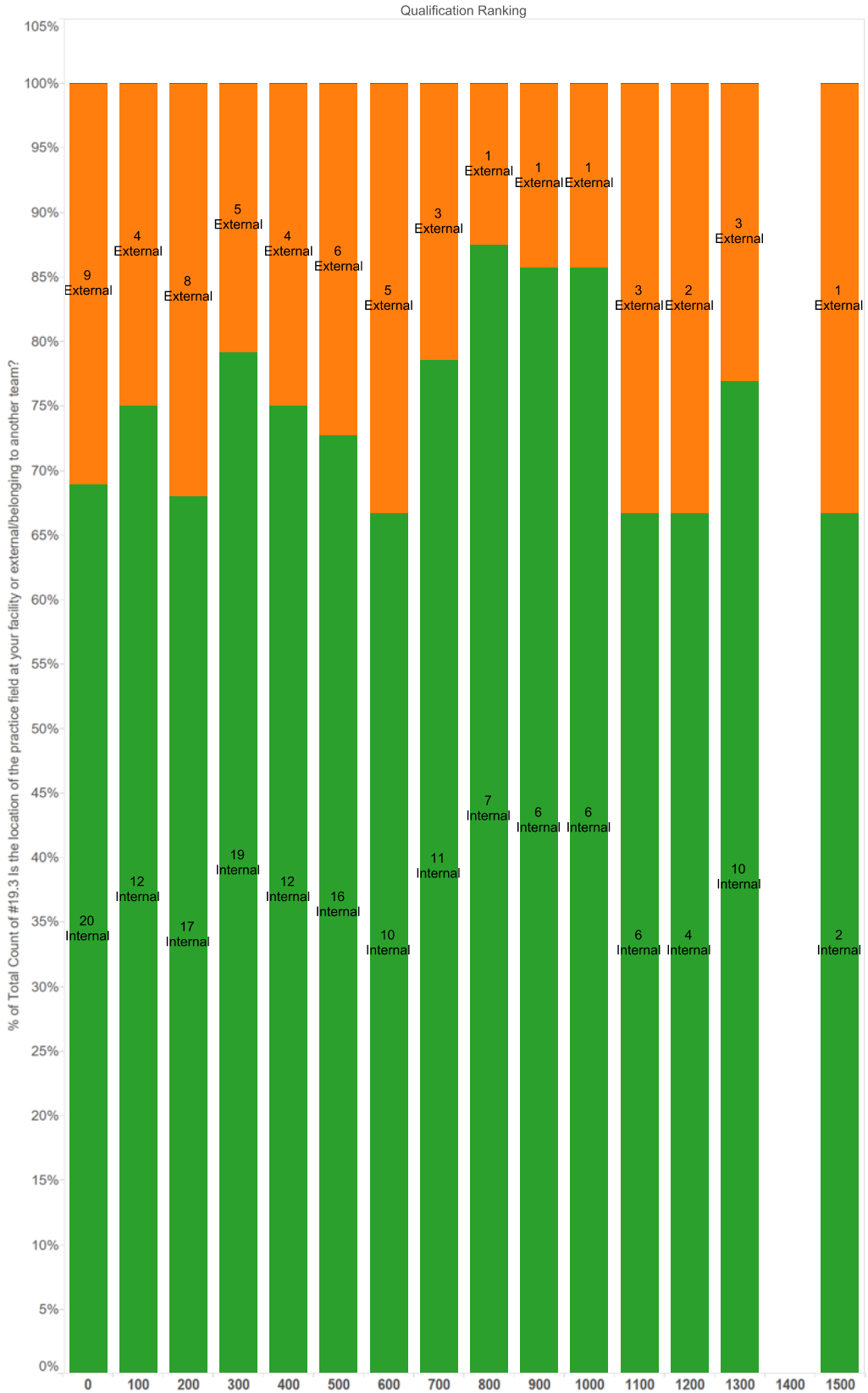


% of Total Count of #19.3 Is the location of the practice field at your facility or external/belonging to another team? for each Award Ranking. Color shows details about #19.3 Is the location of the practice field at your facility or external/belonging to another team?. The marks are labeled by count of #19.3 Is the location of the practice field at your facility or external/belonging to another team? and #19.3 Is the location of the practice field at your facility or external/belonging to another team?. The data is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned? and #19 Do you use a practice field outside of competition?. The #10 How is your drive team (driver, operator, human player, and/or coach) assigned? filter excludes Null. The #19 Do you use a practice field outside of competition? filter keeps No and Yes.

#19.3 Is the location of the practice field at your facility or external/belonging to another team?

- Null
- External
- Internal

Practice Feild Location (Quals)



% of Total Count of #19.3 Is the location of the practice field at your facility or external/belonging to another team? for each Qualification Ranking. Color shows details about #19.3 Is the location of the practice field at your facility or external/belonging to another team?. The marks are labeled by count of #19.3 Is the location of the practice field at your facility or external/belonging to another team? and #19.3 Is the location of the practice field at your facility or external/belonging to another team?. The data is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned? and #19 Do you use a practice field outside of competition?. The #10 How is your drive team (driver, operator, human player, and/or coach) assigned? filter excludes Null. The #19 Do you use a practice field outside of competition? filter keeps No and Yes.

#19.3 Is the location of the practice field at your facility or external/belonging to another team?

- Null
- External
- Internal

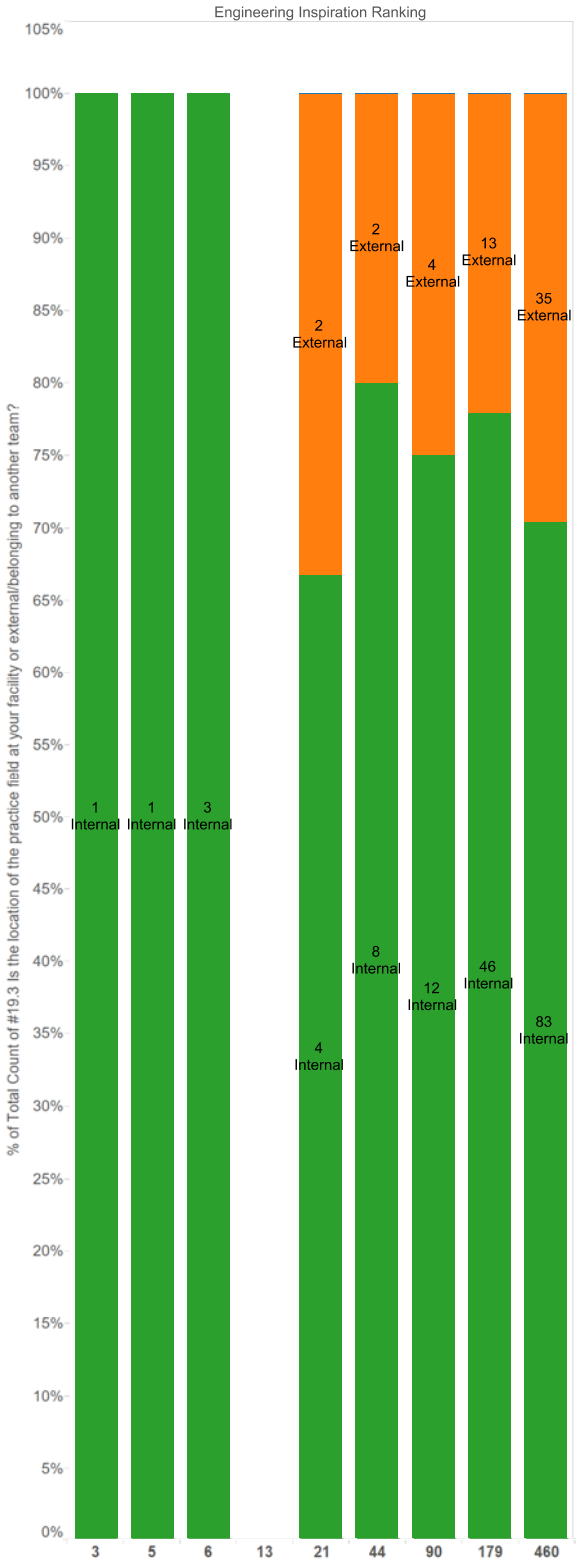
Practice Feild Location (Chairman's)

% of Total Count of #19.3 Is the location of the practice field at your facility or external/belonging to another team? for each Chairman's Ranking. Color shows details about #19.3 Is the location of the practice field at your facility or external/belonging to another team?. The marks are labeled by count of #19.3 Is the location of the practice field at your facility or external/belonging to another team? and #19.3 Is the location of the practice field at your facility or external/belonging to another team?. The data is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned? and #19 Do you use a practice field outside of competition?. The #10 How is your drive team (driver, operator, human player, and/or coach) assigned? filter excludes Null. The #19 Do you use a practice field outside of competition? filter keeps No and Yes.

#19.3 Is the location of the practice field at your facility or external/belonging to another team?

- Null
- External
- Internal

Practice Feild Location (Inspiration)

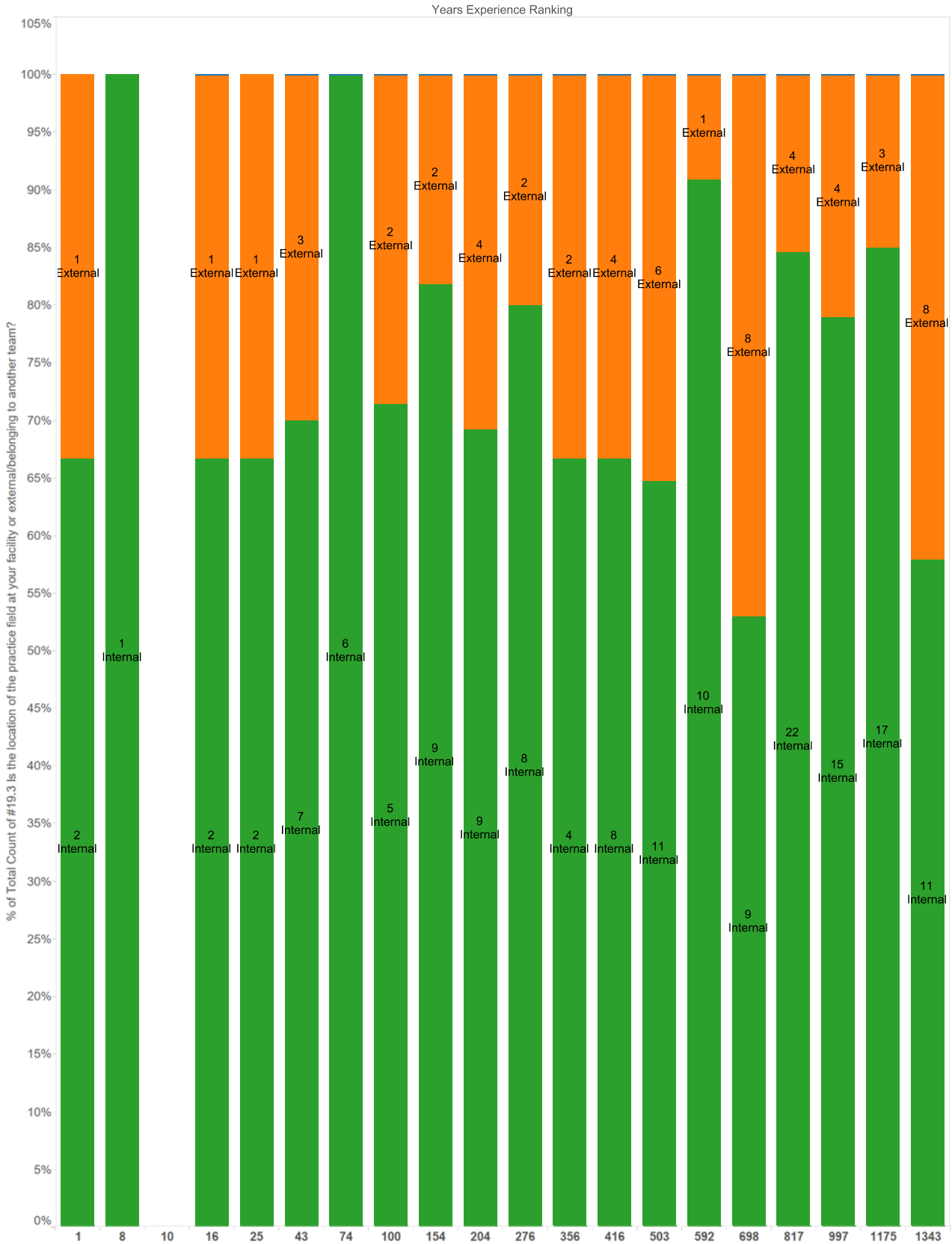


% of Total Count of #19.3 Is the location of the practice field at your facility or external/belonging to another team? for each Engineering Inspiration Ranking. Color shows details about #19.3 Is the location of the practice field at your facility or external/belonging to another team?. The marks are labeled by count of #19.3 Is the location of the practice field at your facility or external/belonging to another team? and #19.3 Is the location of the practice field at your facility or external/belonging to another team?. The data is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned? and #19 Do you use a practice field outside of competition?. The #10 How is your drive team (driver, operator, human player, and/or coach) assigned? filter excludes Null. The #19 Do you use a practice field outside of competition? filter keeps No and Yes.

#19.3 Is the location of the practice field at your facility or external/belonging to another team?

- Null
- External
- Internal

Practice Feild Location (Years)

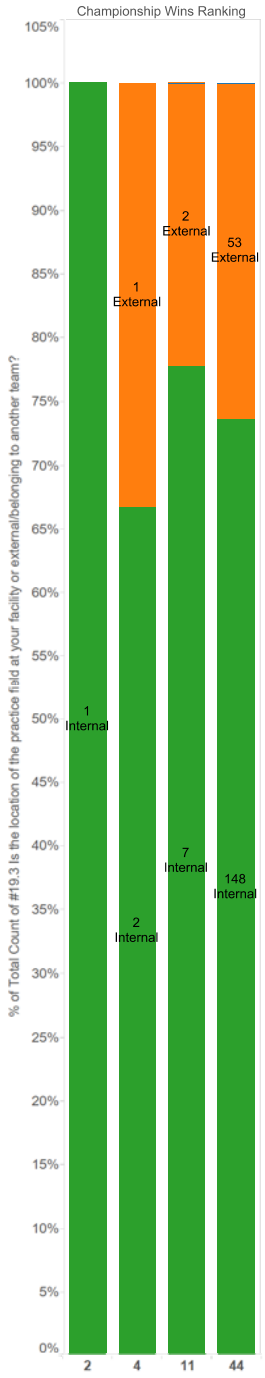


% of Total Count of #19.3 Is the location of the practice field at your facility or external/belonging to another team? for each Years Experience Ranking. Color shows details about #19.3 Is the location of the practice field at your facility or external/belonging to another team?. The marks are labeled by count of #19.3 Is the location of the practice field at your facility or external/belonging to another team? and #19.3 Is the location of the practice field at your facility or external/belonging to another team?. The data is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned? and #19 Do you use a practice field outside of competition?. The #10 How is your drive team (driver, operator, human player, and/or coach) assigned? filter excludes Null. The #19 Do you use a practice field outside of competition? filter keeps No and Yes.

#19.3 Is the location of the practice field at your facility or external/belonging to another team?

- Null
- External
- Internal

Practice Feild Location (Einstein)

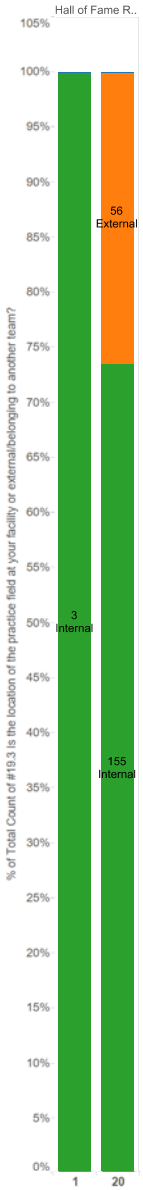


% of Total Count of #19.3 Is the location of the practice field at your facility or external/belonging to another team? for each Championship Wins Ranking. Color shows details about #19.3 Is the location of the practice field at your facility or external/belonging to another team?. The marks are labeled by count of #19.3 Is the location of the practice field at your facility or external/belonging to another team? and #19.3 Is the location of the practice field at your facility or external/belonging to another team?. The data is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned? and #19 Do you use a practice field outside of competition?. The #10 How is your drive team (driver, operator, human player, and/or coach) assigned? filter excludes Null. The #19 Do you use a practice field outside of competition? filter keeps No and Yes.

#19.3 Is the location of the practice field at your facility or external/belonging to another team?

- Null
- External
- Internal

Practice Feild Location (Hall of Fame)

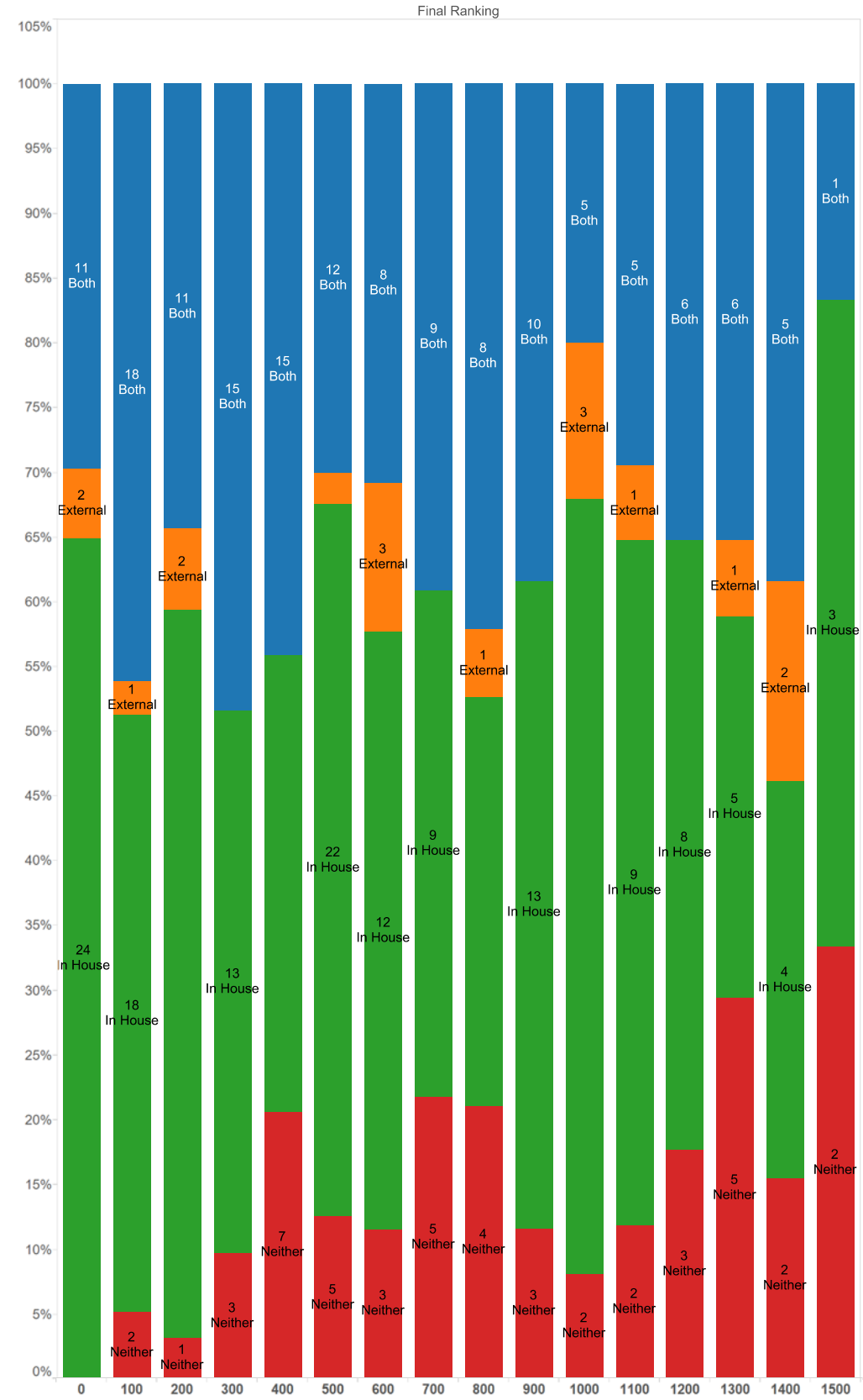


% of Total Count of #19.3 Is the location of the practice field at your facility or external/belonging to another team? for each Hall of Fame Ranking. Color shows details about #19.3 Is the location of the practice field at your facility or external/belonging to another team?. The marks are labeled by count of #19.3 Is the location of the practice field at your facility or external/belonging to another team? and #19.3 Is the location of the practice field at your facility or external/belonging to another team?. The data is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned? and #19 Do you use a practice field outside of competition?. The #10 How is your drive team (driver, operator, human player, and/or coach) assigned? filter excludes Null. The #19 Do you use a practice field outside of competition? filter keeps No and Yes.

#19.3 Is the location of the practice field at your facility or external/belonging to another team?

- Null
- External
- Internal

Machine Shop (Final)

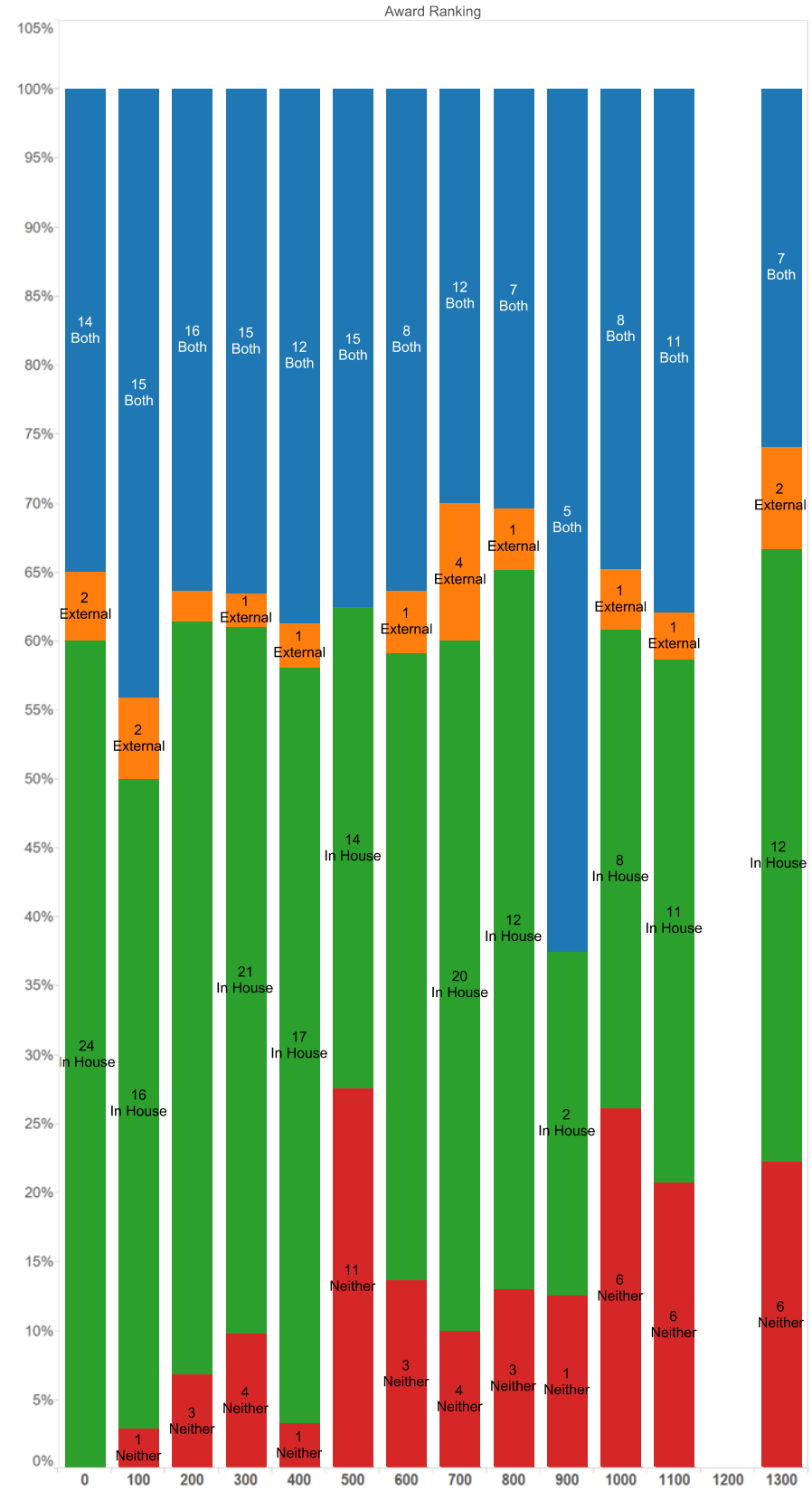


% of Total Count of #20 What types of machine shops do you have access to? for each Final Ranking. Color shows details about #20 What types of machine shops do you have access to?. The marks are labeled by count of #20 What types of machine shops do you have access to? and #20 What types of machine shops do you have access to?. The data is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned?, which excludes Null. The view is filtered on #20 What types of machine shops do you have access to?, which excludes Null.

#20 What types of machine shops do you have access to?

- Both
- External
- In House
- Neither

Machine Shop (Awards)

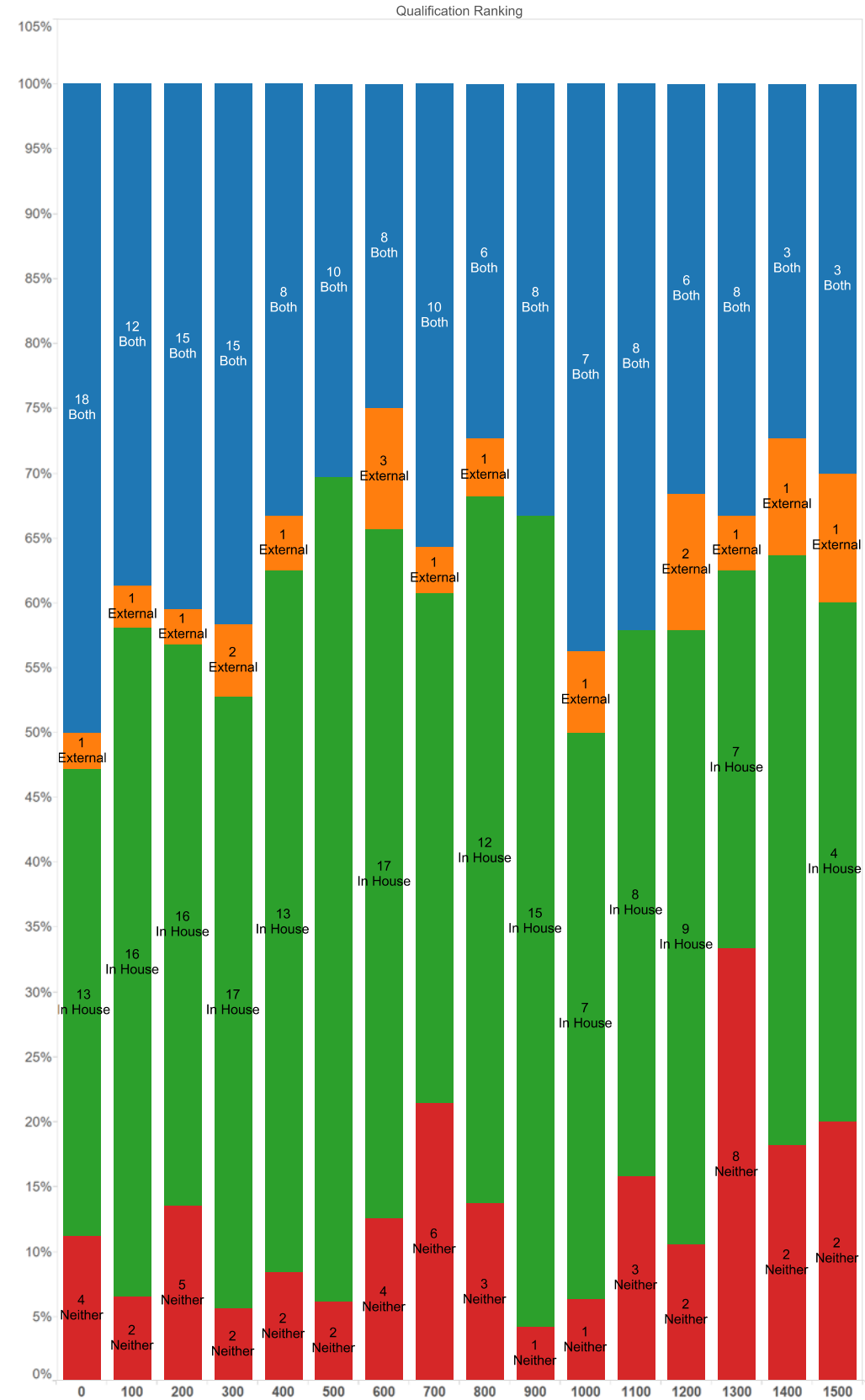


% of Total Count of #20 What types of machine shops do you have access to? for each Award Ranking. Color shows details about #20 What types of machine shops do you have access to?. The marks are labeled by count of #20 What types of machine shops do you have access to? and #20 What types of machine shops do you have access to?. The data is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned?, which excludes Null. The view is filtered on #20 What types of machine shops do you have access to?, which excludes Null.

#20 What types of machine shops do you have access to?

- Both
- External
- In House
- Neither

Machine Shop (Quals)

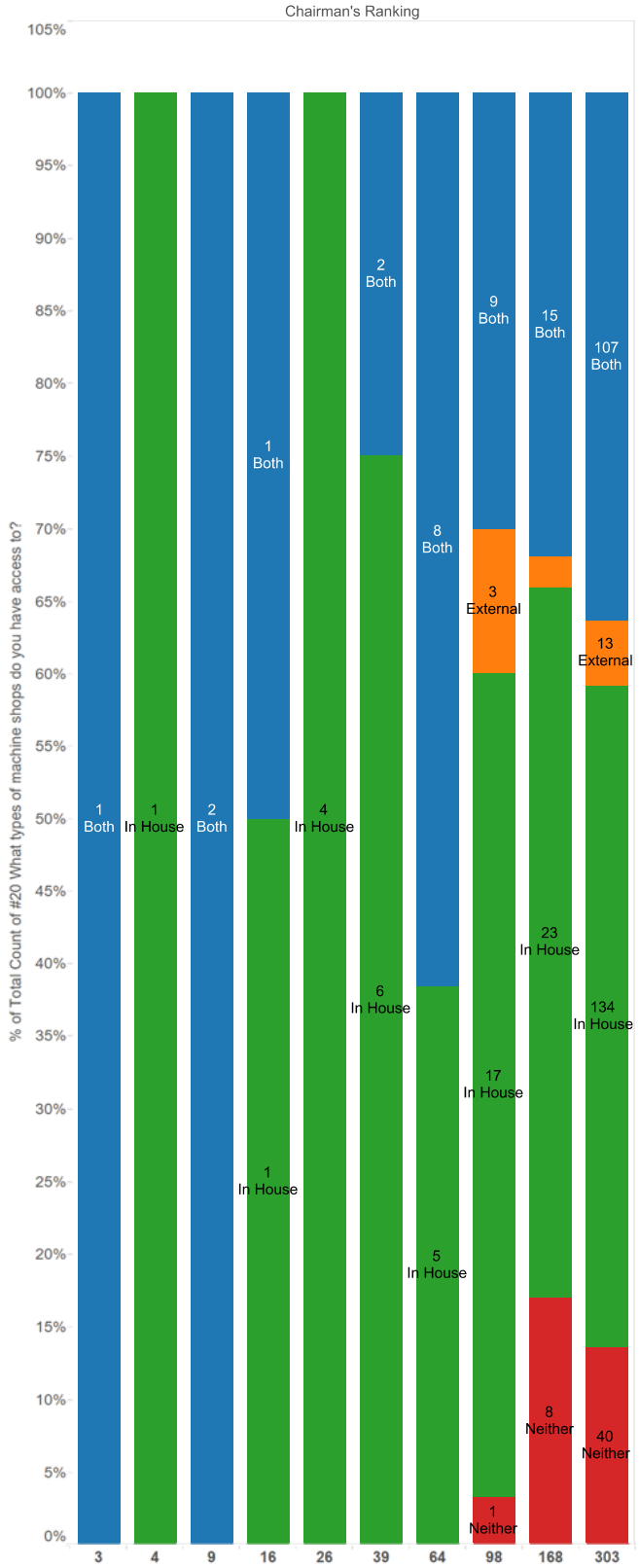


% of Total Count of #20 What types of machine shops do you have access to? for each Qualification Ranking. Color shows details about #20 What types of machine shops do you have access to?. The marks are labeled by count of #20 What types of machine shops do you have access to? and #20 What types of machine shops do you have access to?. The data is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned?, which excludes Null. The view is filtered on #20 What types of machine shops do you have access to?, which excludes Null.

#20 What types of machine shops do you have access to?

- Both
- External
- In House
- Neither

Machine Shop (Chairman's)

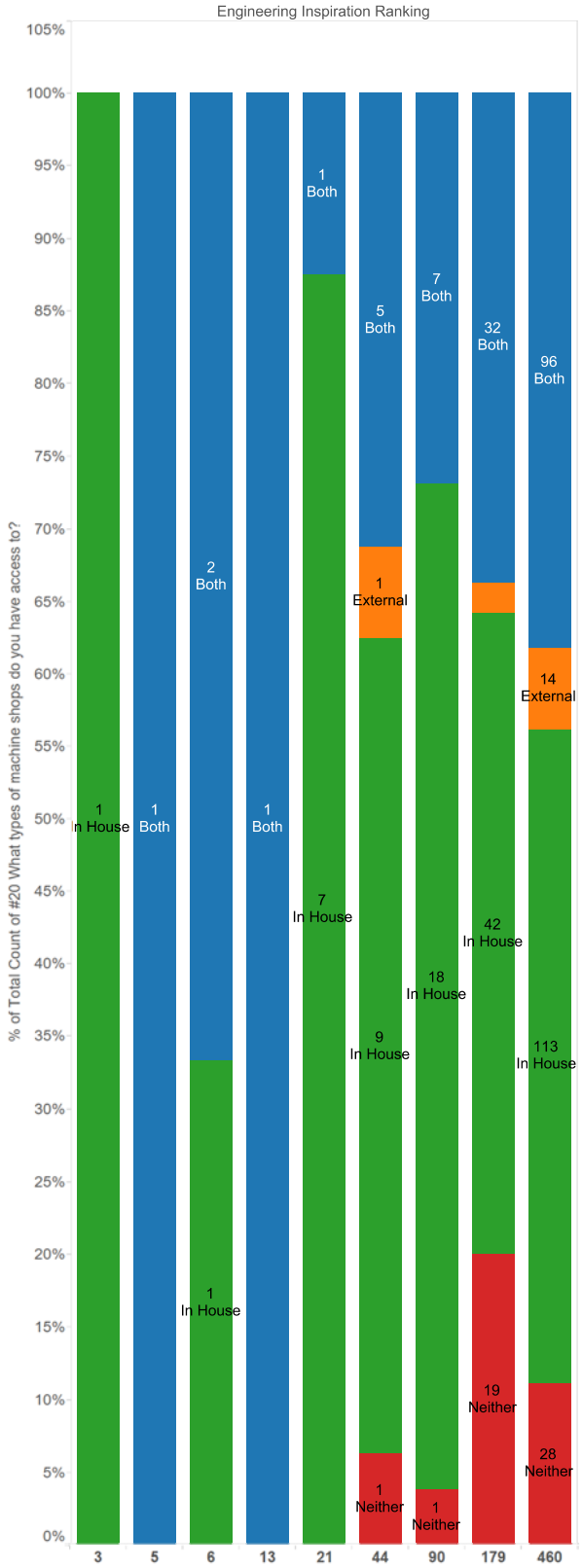


% of Total Count of #20 What types of machine shops do you have access to? for each Chairman's Ranking. Color shows details about #20 What types of machine shops do you have access to?. The marks are labeled by count of #20 What types of machine shops do you have access to? and #20 What types of machine shops do you have access to?. The data is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned?, which excludes Null. The view is filtered on #20 What types of machine shops do you have access to?, which excludes Null.

#20 What types of machine shops do you have access to?

- Both
- External
- In House
- Neither

Machine Shop (Inspiration)

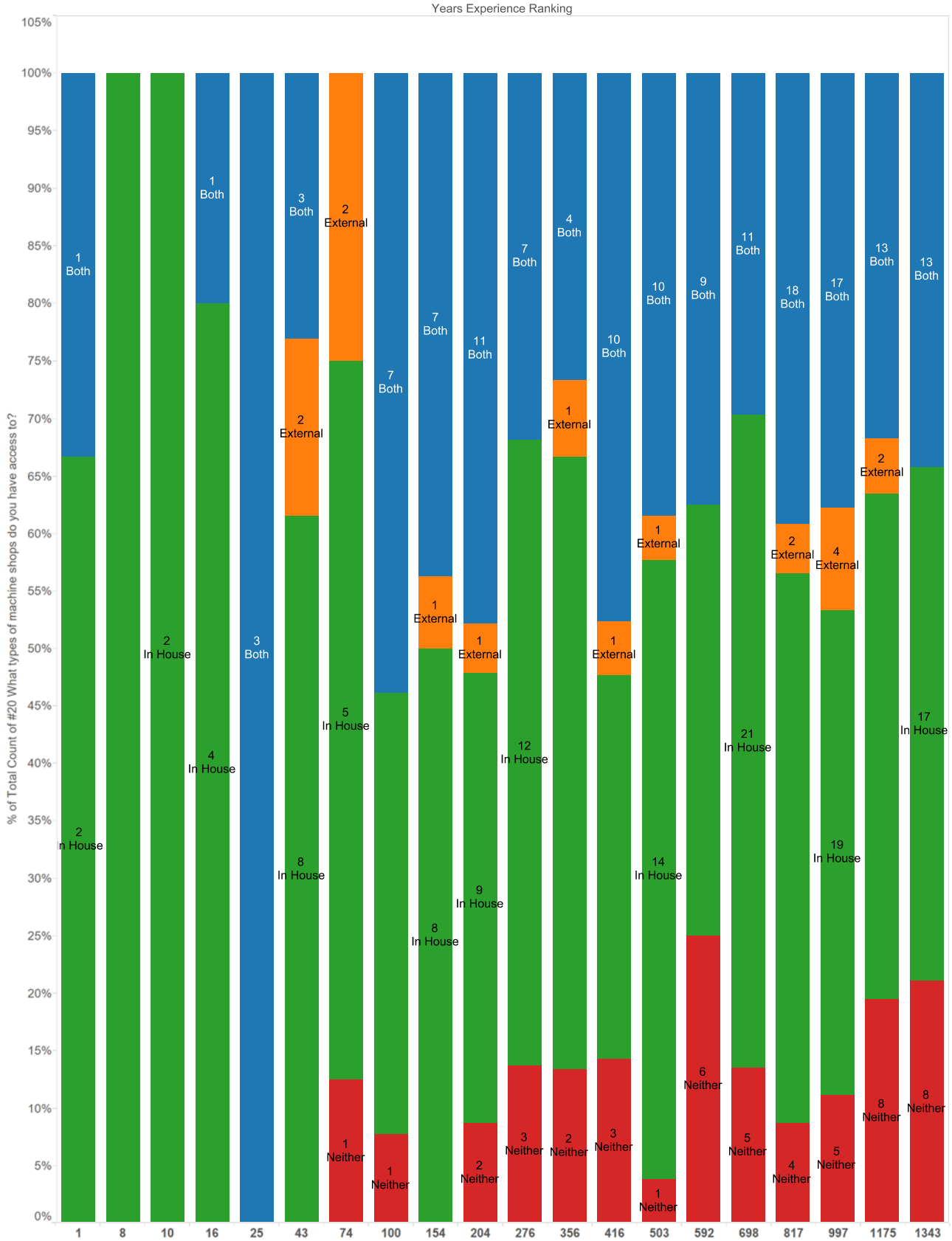


% of Total Count of #20 What types of machine shops do you have access to? for each Engineering Inspiration Ranking. Color shows details about #20 What types of machine shops do you have access to?. The marks are labeled by count of #20 What types of machine shops do you have access to? and #20 What types of machine shops do you have access to?. The data is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned?, which excludes Null. The view is filtered on #20 What types of machine shops do you have access to?, which excludes Null.

#20 What types of machine shops do you have access to?

- Both
- External
- In House
- Neither

Machine Shop (Years)

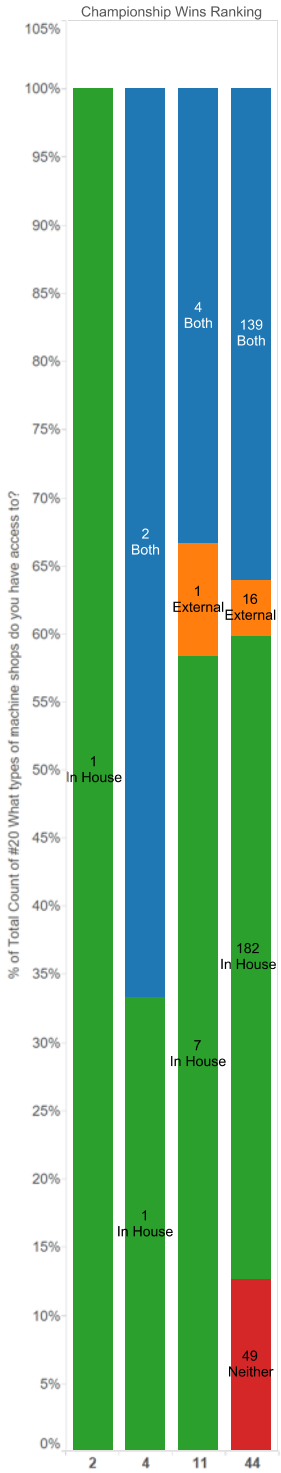


% of Total Count of #20 What types of machine shops do you have access to? for each Years Experience Ranking. Color shows details about #20 What types of machine shops do you have access to?. The marks are labeled by count of #20 What types of machine shops do you have access to? and #20 What types of machine shops do you have access to?. The data is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned?, which excludes Null. The view is filtered on #20 What types of machine shops do you have access to?, which excludes Null.

#20 What types of machine shops do you have access to?

- Both
- External
- In House
- Neither

Machine Shop (Einstein)

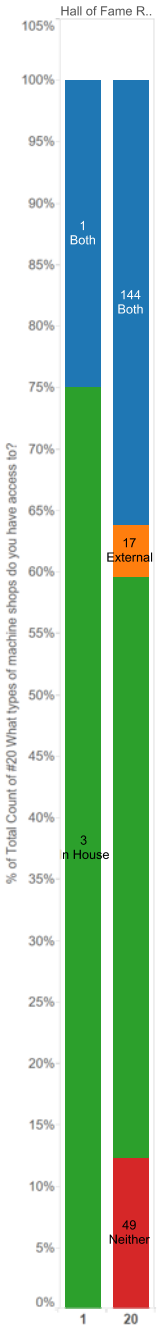


% of Total Count of #20 What types of machine shops do you have access to? for each Championship Wins Ranking. Color shows details about #20 What types of machine shops do you have access to?. The marks are labeled by count of #20 What types of machine shops do you have access to? and #20 What types of machine shops do you have access to?. The data is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned?, which excludes Null. The view is filtered on #20 What types of machine shops do you have access to?, which excludes Null.

#20 What types of machine shops do you have access to?

- Both
- External
- In House
- Neither

Machine Shop (Hall of Fame)



% of Total Count of #20 What types of machine shops do you have access to? for each Hall of Fame Ranking. Color shows details about #20 What types of machine shops do you have access to?. The marks are labeled by count of #20 What types of machine shops do you have access to? and #20 What types of machine shops do you have access to?. The data is filtered on #10 How is your drive team (driver, operator, human player, and/or coach) assigned?, which excludes Null. The view is filtered on #20 What types of machine shops do you have access to?, which excludes Null.

#20 What types of machine shops do you have access to?

- Both
- External
- In House
- Neither

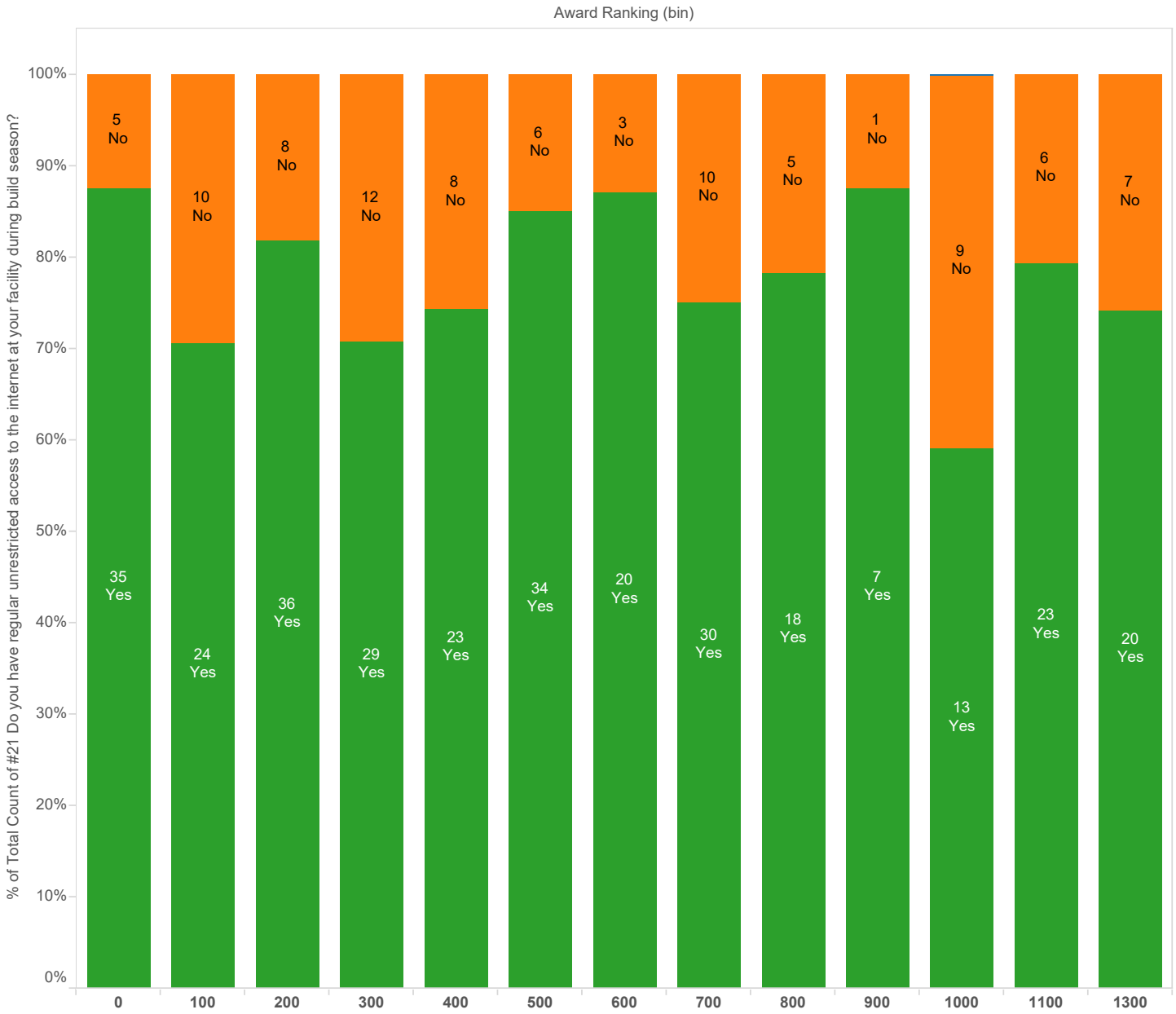
Internet Access vs Final Ranking (bin)

% of Total Count of #21 Do you have regular unrestricted access to the internet at your facility during build season? for each Final Ranking (bin). Color shows details about #21 Do you have regular unrestricted access to the internet at your facility during build season?. The marks are labeled by count of #21 Do you have regular unrestricted access to the internet at your facility during build season? and #21 Do you have regular unrestricted access to the internet at your facility during build season?.

#21 Do you have regular unrestricted access to the internet at your facility during build season?

- Null
- No
- Yes

Internet Access vs Award Ranking Component (bin)

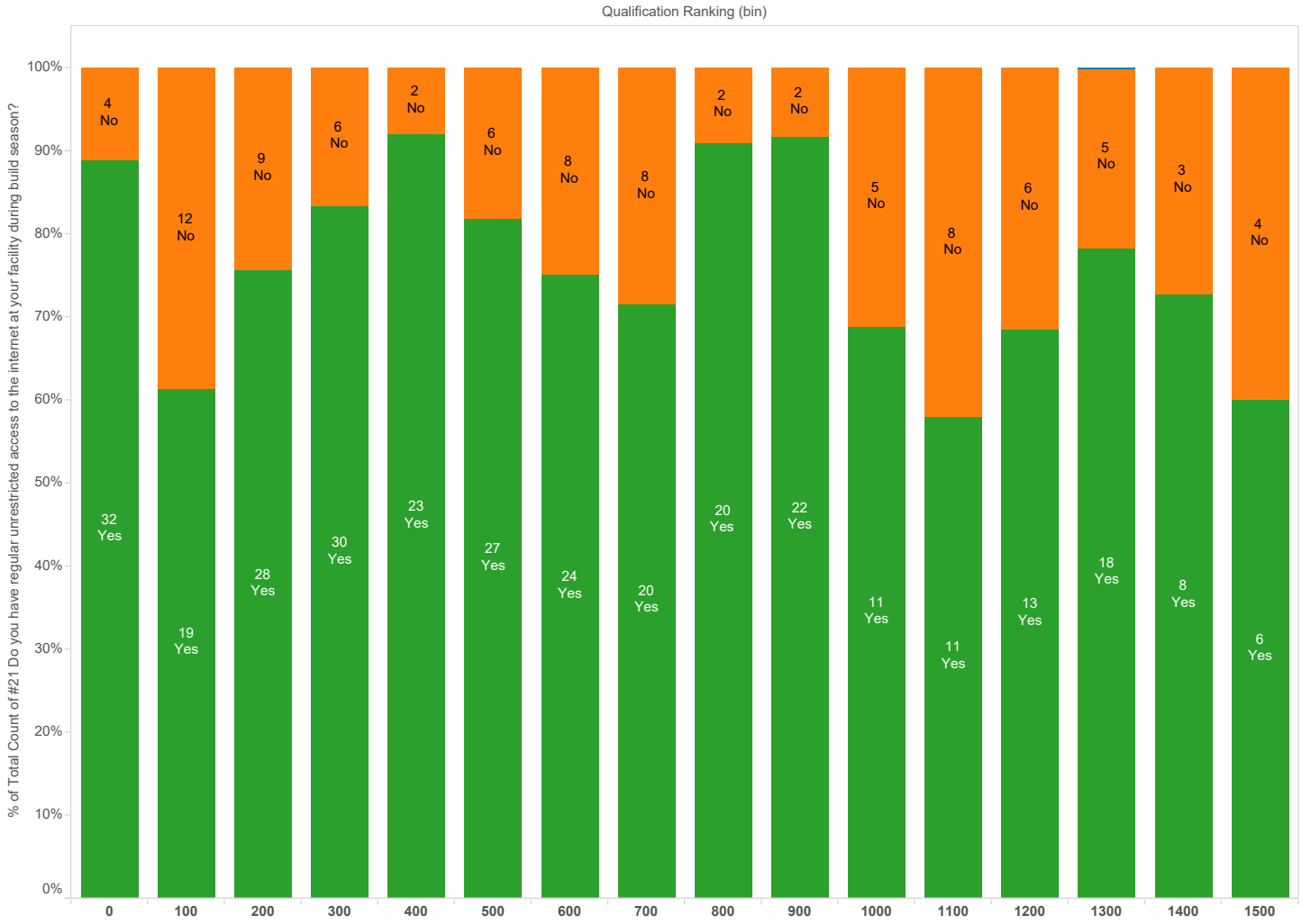


% of Total Count of #21 Do you have regular unrestricted access to the internet at your facility during build season? for each Award Ranking (bin). Color shows details about #21 Do you have regular unrestricted access to the internet at your facility during build season?. The marks are labeled by count of #21 Do you have regular unrestricted access to the internet at your facility during build season? and #21 Do you have regular unrestricted access to the internet at your facility during build season?.

#21 Do you have regular unrestricted access to the internet at your facility during build season?

- Null
- No
- Yes

Internet Access vs Qualification Ranking Component (bin)

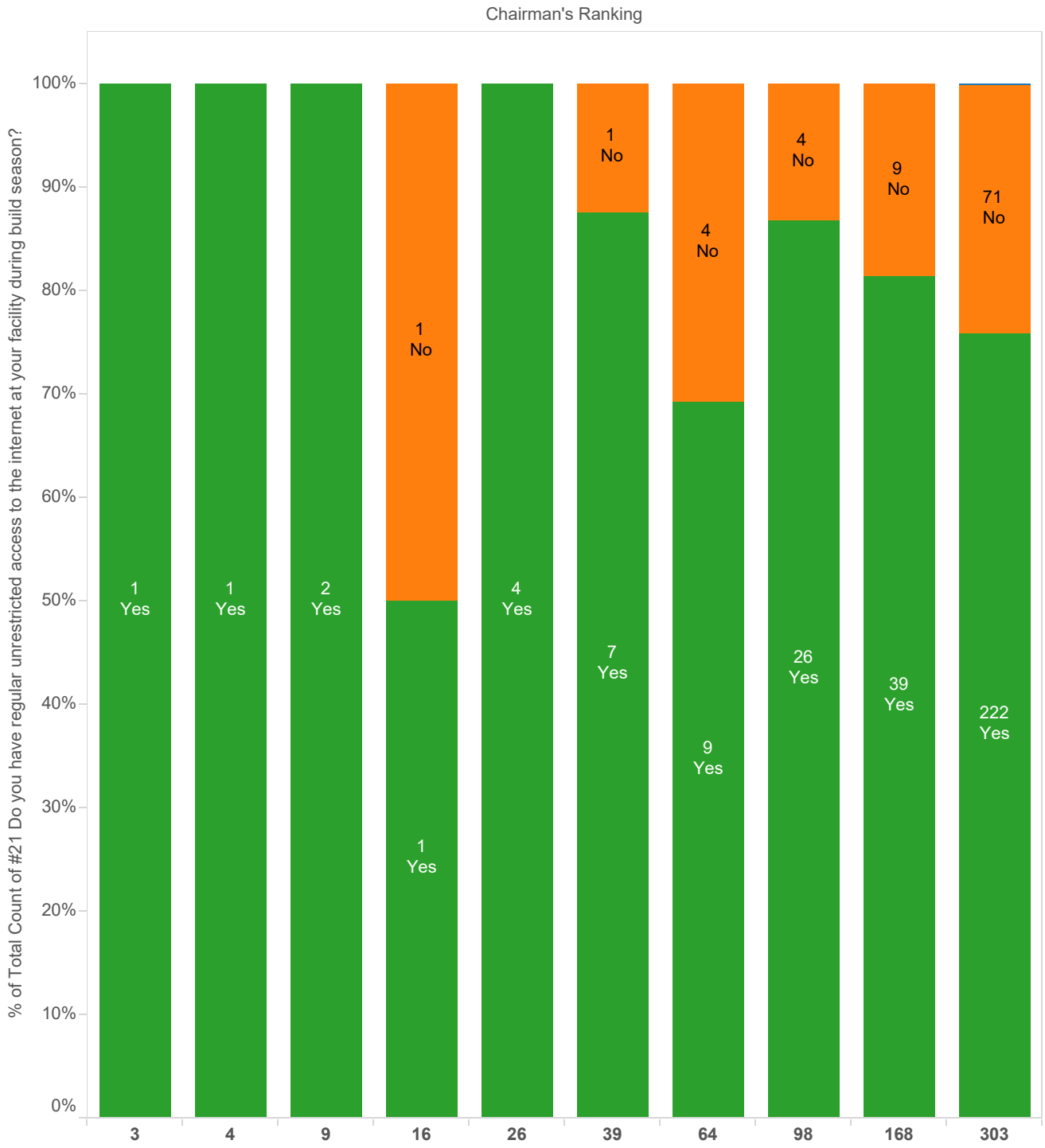


% of Total Count of #21 Do you have regular unrestricted access to the internet at your facility during build season? for each Qualification Ranking (bin). Color shows details about #21 Do you have regular unrestricted access to the internet at your facility during build season?. The marks are labeled by count of #21 Do you have regular unrestricted access to the internet at your facility during build season? and #21 Do you have regular unrestricted access to the internet at your facility during build season?.

#21 Do you have regular unrestricted access to the internet at your facility during build season?

- Null
- No
- Yes

Internet Access vs Chairman's Ranking Component

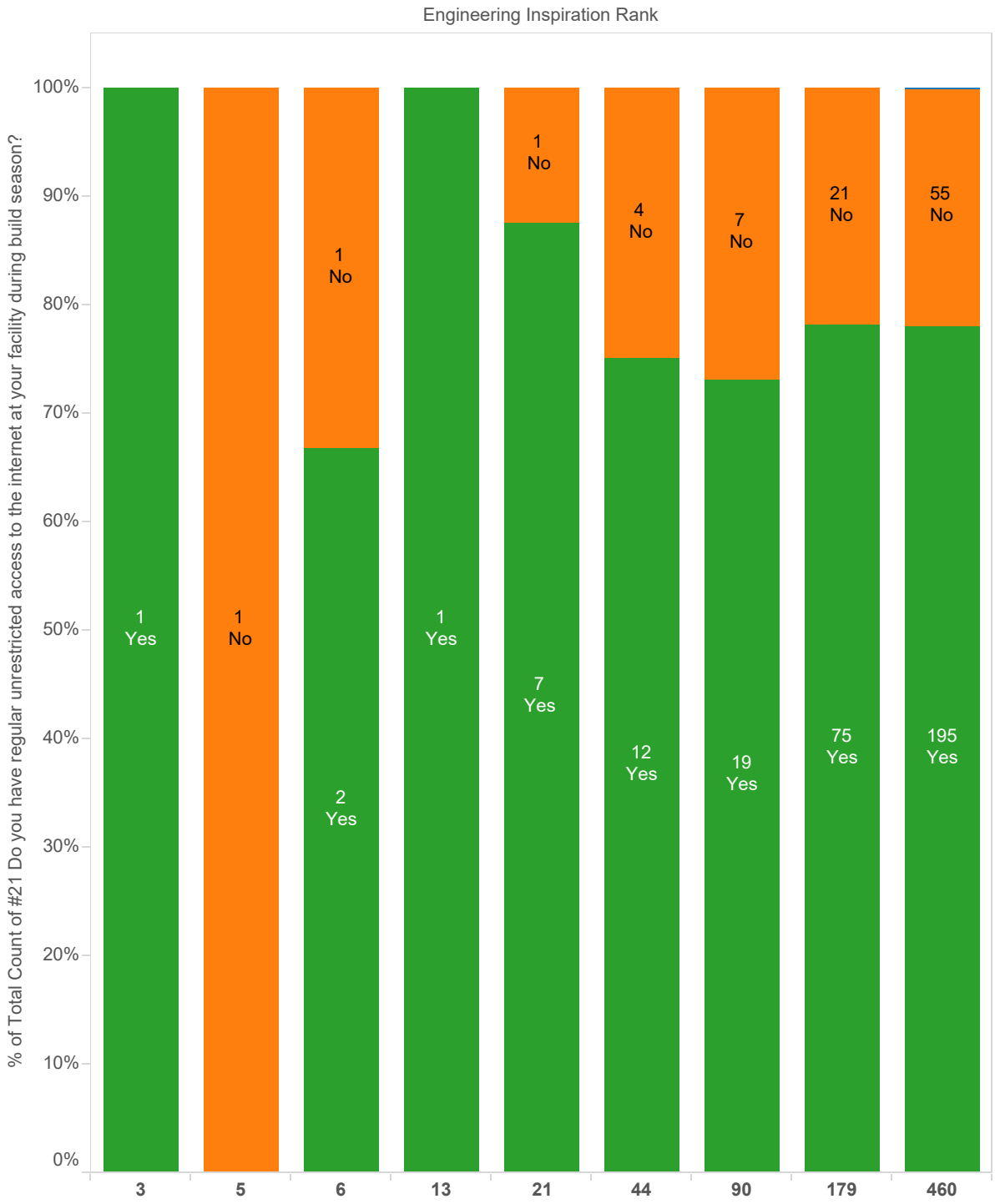


% of Total Count of #21 Do you have regular unrestricted access to the internet at your facility during build season? for each Chairman's Ranking. Color shows details about #21 Do you have regular unrestricted access to the internet at your facility during build season?. The marks are labeled by count of #21 Do you have regular unrestricted access to the internet at your facility during build season? and #21 Do you have regular unrestricted access to the internet at your facility during build season?.

#21 Do you have regular unrestricted access to the internet at your facility during build season?

- Null
- No
- Yes

Internet Access vs Engineering Inspiration Ranking Component

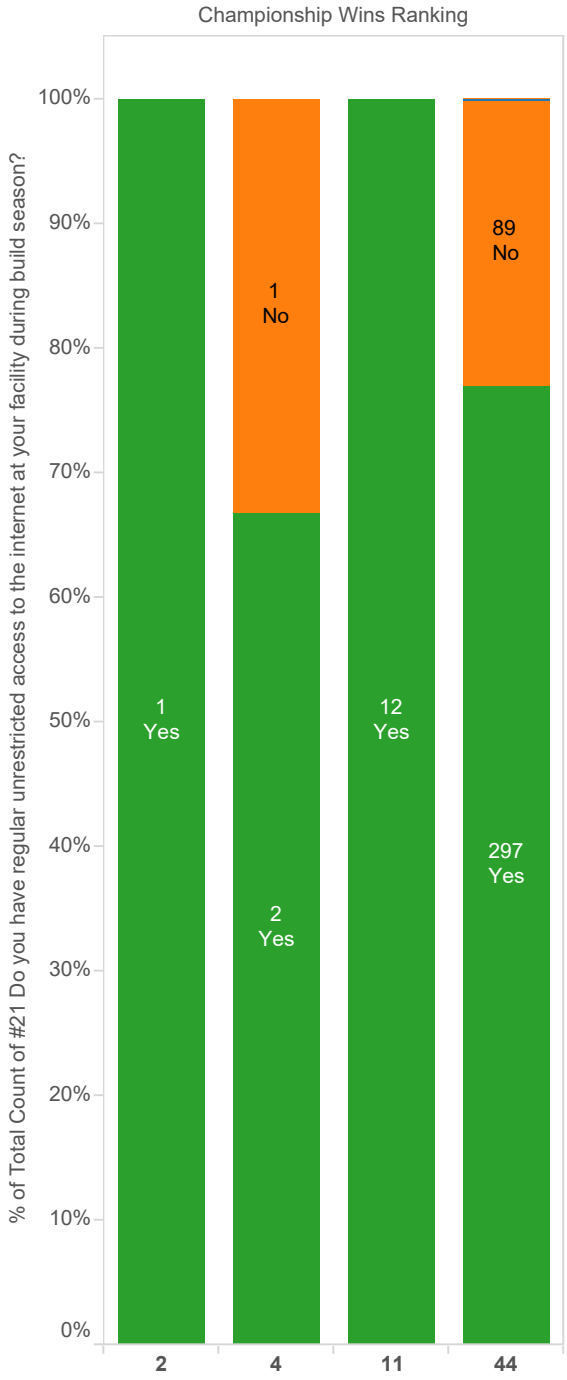


% of Total Count of #21 Do you have regular unrestricted access to the internet at your facility during build season? for each Engineering Inspiration Rank. Color shows details about #21 Do you have regular unrestricted access to the internet at your facility during build season?. The marks are labeled by count of #21 Do you have regular unrestricted access to the internet at your facility during build season? and #21 Do you have regular unrestricted access to the internet at your facility during build season?.

#21 Do you have regular unrestricted access to the internet at your facility during build season?

- Null
- No
- Yes

Internet Access vs Championship Wins Ranking Component

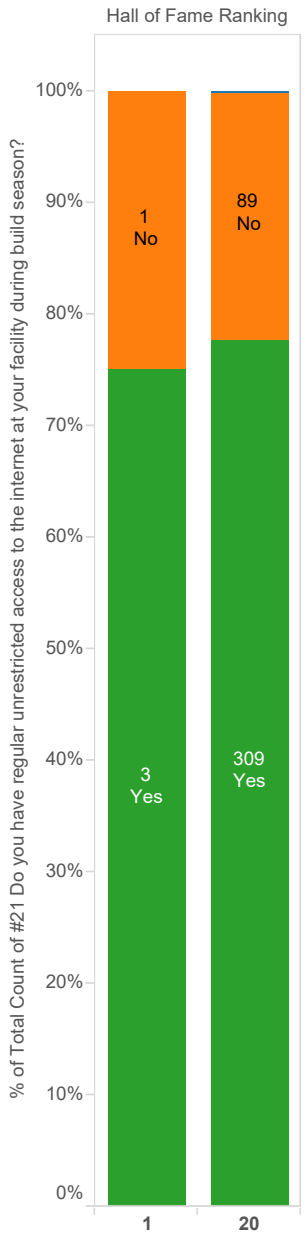


% of Total Count of #21 Do you have regular unrestricted access to the internet at your facility during build season? for each Championship Wins Ranking. Color shows details about #21 Do you have regular unrestricted access to the internet at your facility during build season?. The marks are labeled by count of #21 Do you have regular unrestricted access to the internet at your facility during build season? and #21 Do you have regular unrestricted access to the internet at your facility during build season?.

#21 Do you have regular unrestricted access to the internet at your facility during build season?

- Null
- No
- Yes

Internet Access vs Hall of Fame Ranking Component

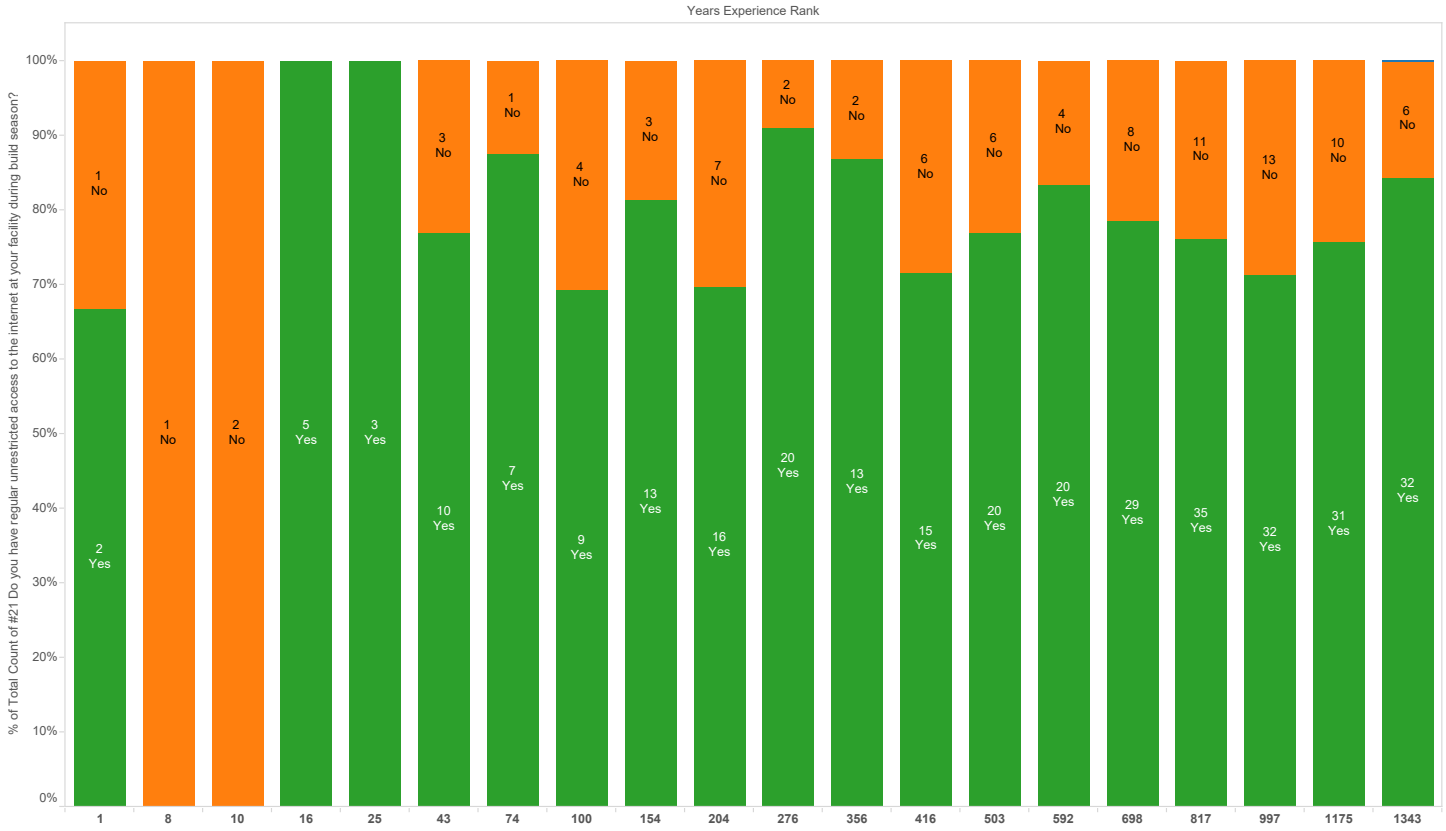


% of Total Count of #21 Do you have regular unrestricted access to the internet at your facility during build season? for each Hall of Fame Ranking. Color shows details about #21 Do you have regular unrestricted access to the internet at your facility during build season?. The marks are labeled by count of #21 Do you have regular unrestricted access to the internet at your facility during build season? and #21 Do you have regular unrestricted access to the internet at your facility during build season?.

#21 Do you have regular unrestricted access to the internet at your facility during build season?

- Null
- No
- Yes

Internet Access vs Years Experience Ranking Component

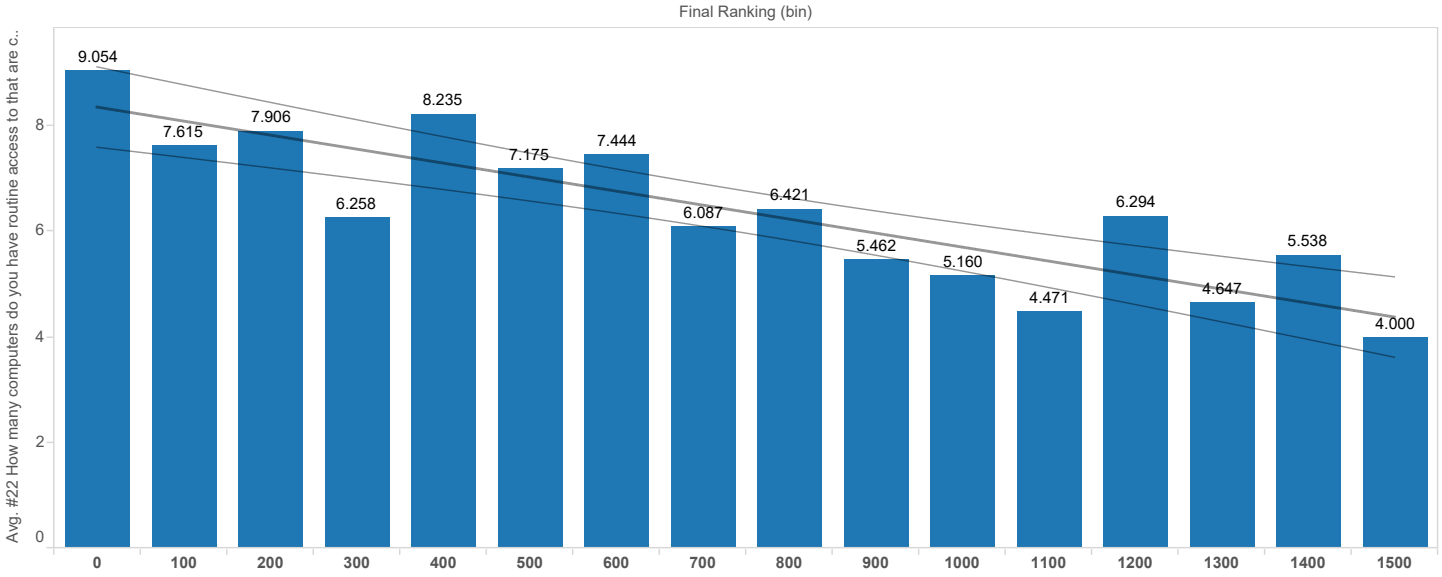


% of Total Count of #21 Do you have regular unrestricted access to the internet at your facility during build season? for each Years Experience Rank. Color shows details about #21 Do you have regular unrestricted access to the internet at your facility during build season?. The marks are labeled by count of #21 Do you have regular unrestricted access to the internet at your facility during build season? and #21 Do you have regular unrestricted access to the internet at your facility during build season?.

#21 Do you have regular unrestricted access to the internet at your facility during build season?

- Null
- No
- Yes

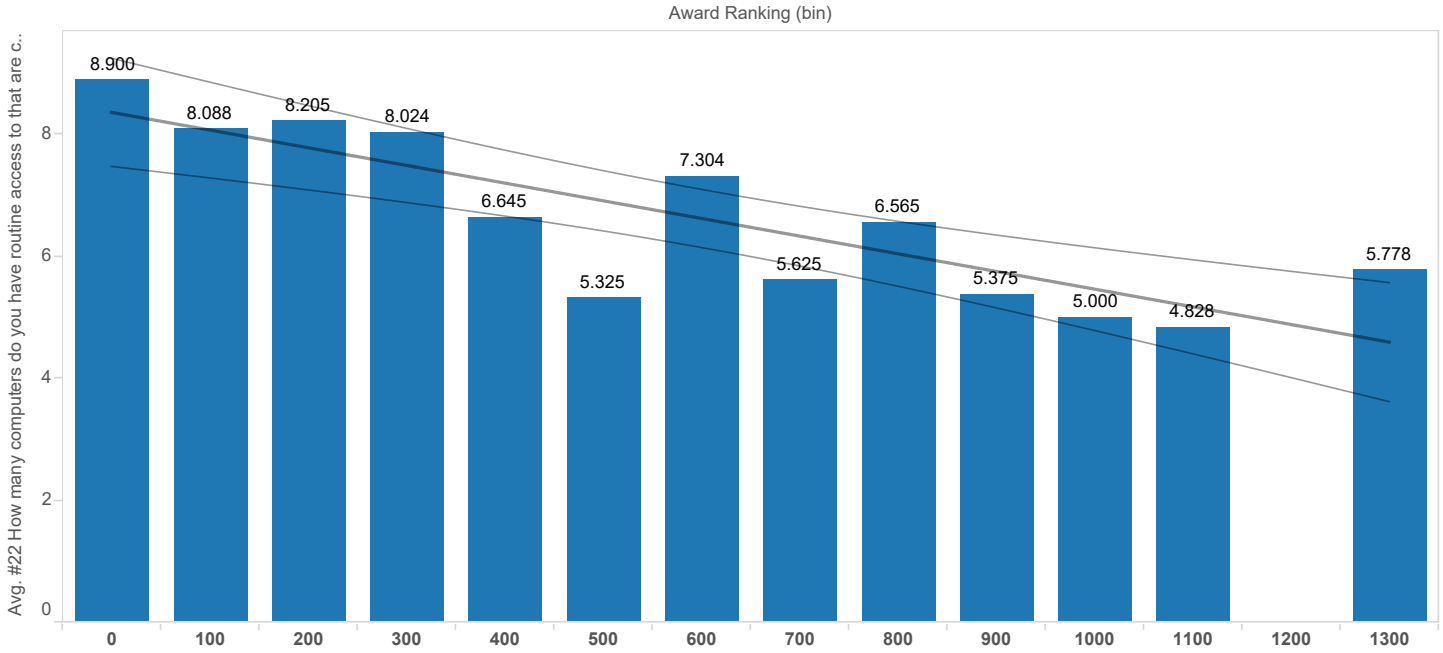
Average CAD/Programming Capable Computers vs Final Ranking (bin)



Trend Lines Model
A linear trend model is computed for average of #22 How many computers do you have routine access to that are capable of programming, CADing, and... given Final Rank (bin). The model may be significant at p <= 0.05.

Model formula: (Final Rank (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 7.74637
MSE (mean squared error): 0.553312
R-Squared: 0.755408
Standard error: 0.743849
p-value (significance): < 0.0001

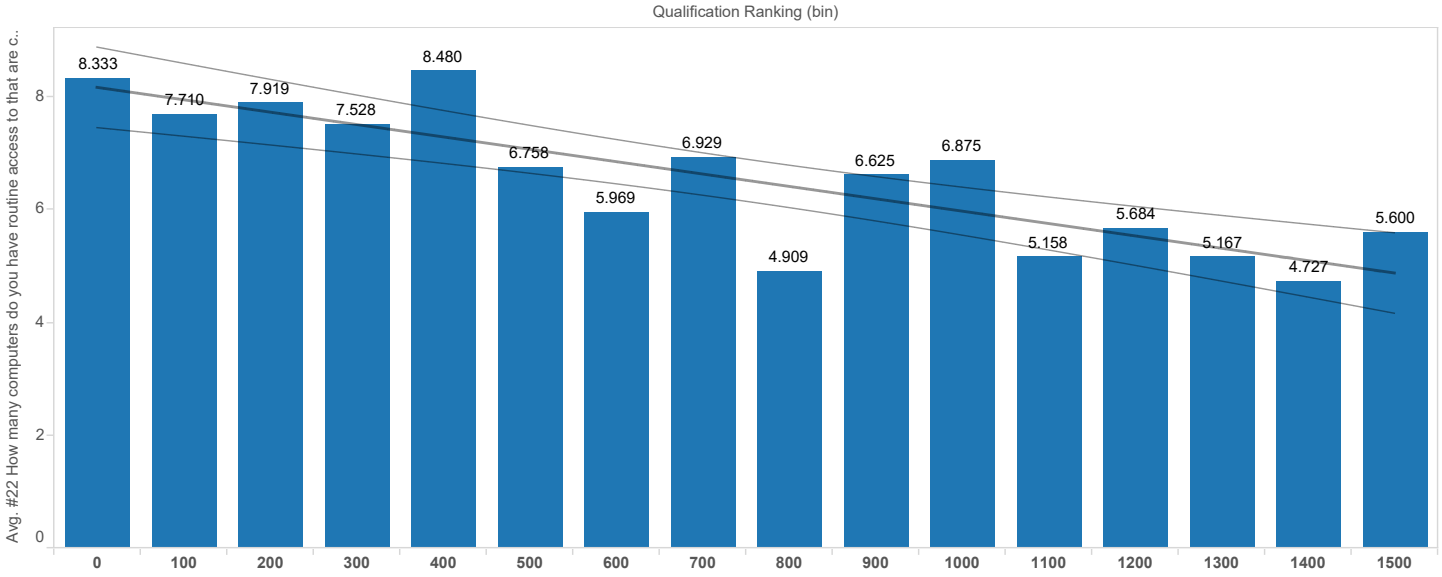
Average CAD/Programming Capable Computers vs Award Ranking Component (bin)



Trend Lines Model
A linear trend model is computed for average of #22 How many computers do you have routine access to that are capable of programming, CADing, and... given Award Ranking (bin). The model may be significant at p <= 0.05.

Model formula: (Award Ranking (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 6.69841
MSE (mean squared error): 0.608946
R-Squared: 0.70953
Standard error: 0.78035
p-value (significance): 0.0003021

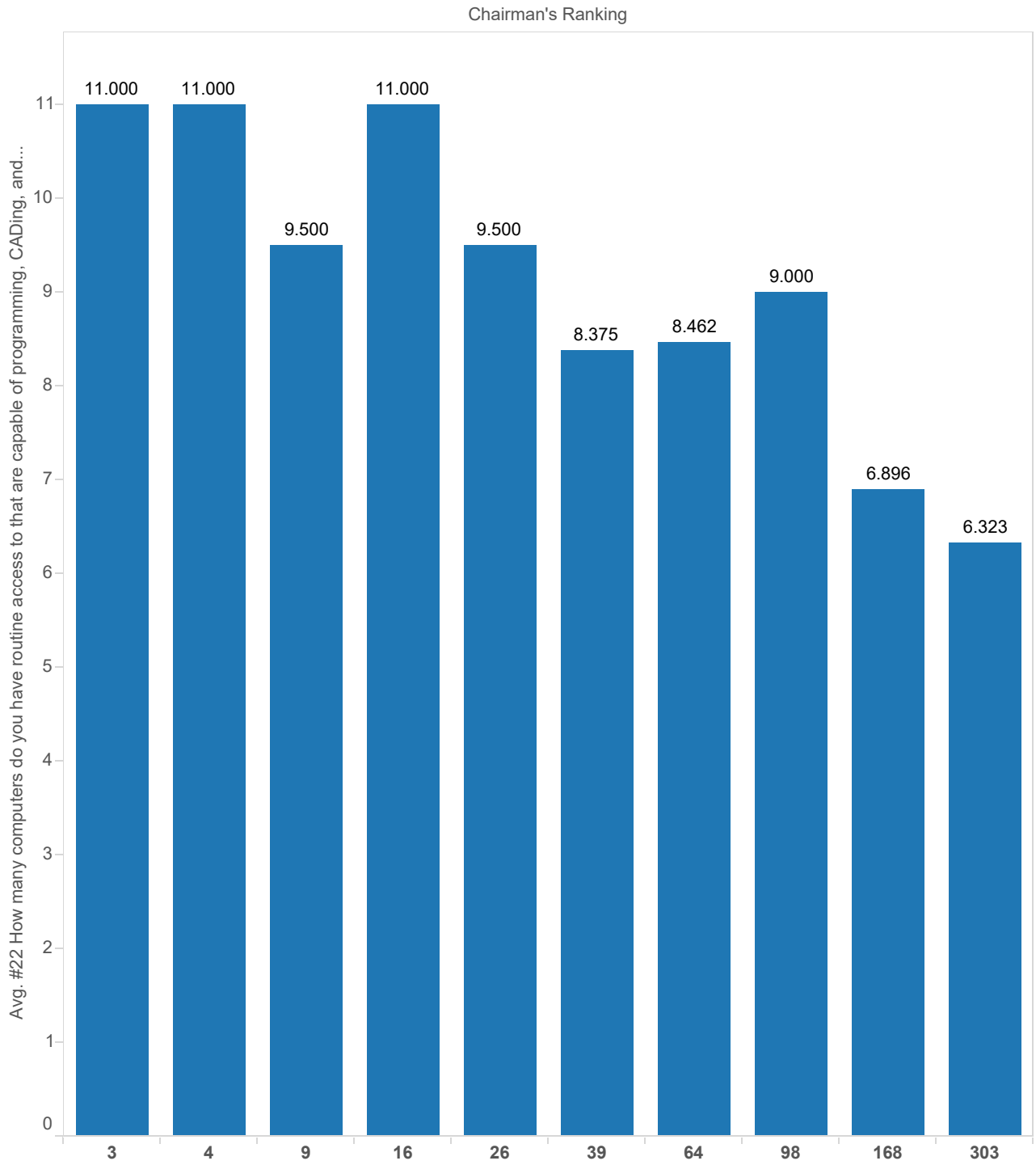
Average CAD/Programming Capable Computers vs Qualification Ranking Component (bin)



Trend Lines Model
A linear trend model is computed for average of #22 How many computers do you have routine access to that are capable of programming, CADing, and... given Qualification Ranking (bin). The model may be significant at p <= 0.05.

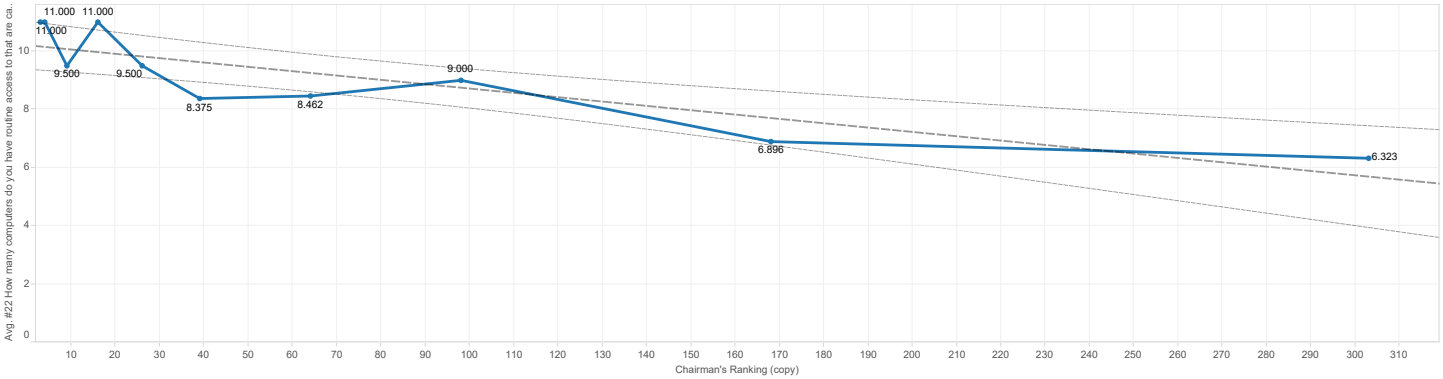
Model formula: (Qualification Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 6.82006
MSE (mean squared error): 0.487147
R-Squared: 0.706317
Standard error: 0.697959
p-value (significance): < 0.0001

Average CAD/Programming Capable Computers vs Chairman's Ranking Component



Average of #22 How many computers do you have routine access to that are capable of programming, CADing, and... for each Chairman's Ranking. The marks are labeled by average of #22 How many computers do you have routine access to that are capable of programming, CADing, and....

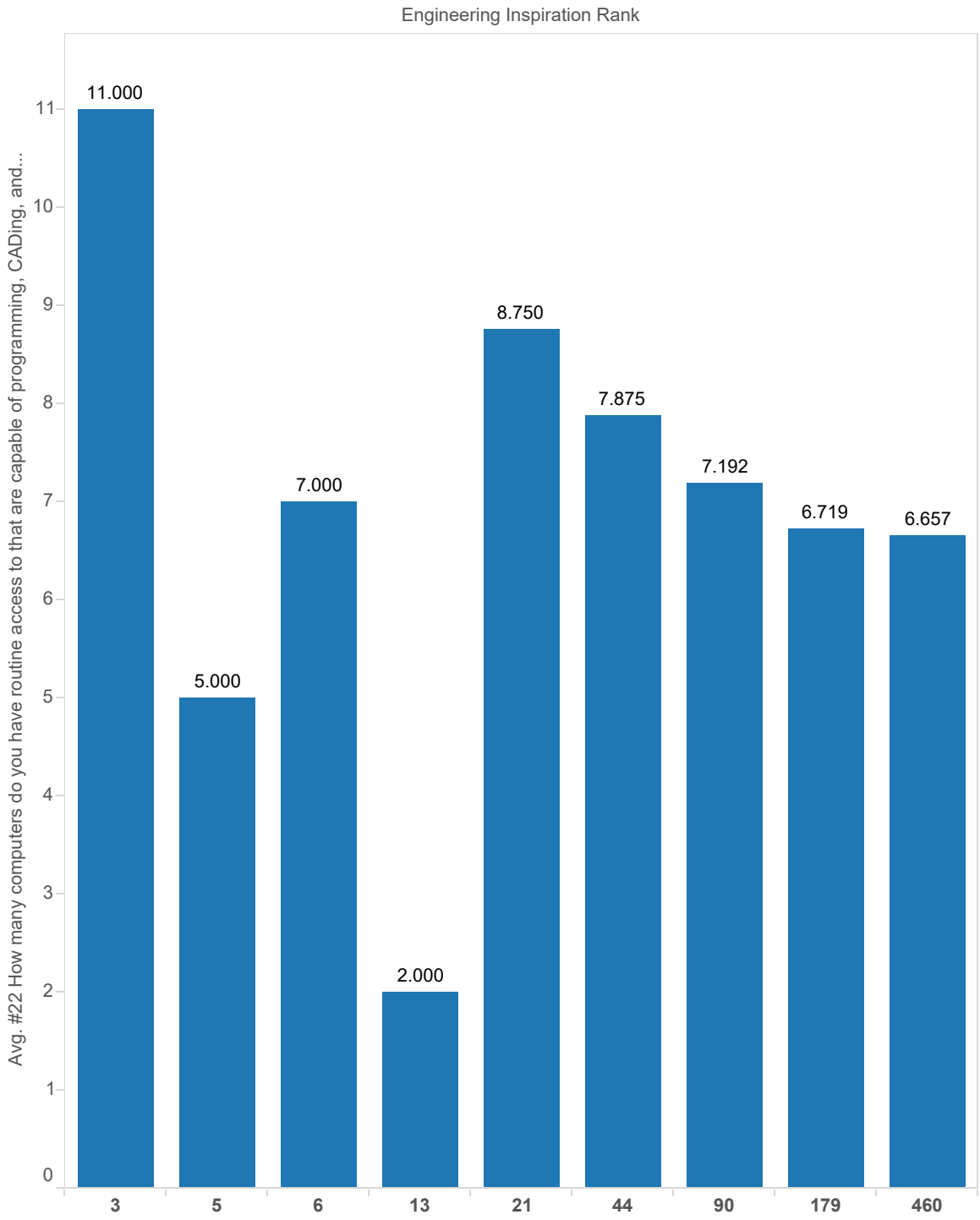
Average CAD/Programming Capable Computers vs Chairman's Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #22 How many computers do you have routine access to that are capable of programming, CADing, and... given Chairman's Ranking (copy). The model may be significant at p <= 0.05.

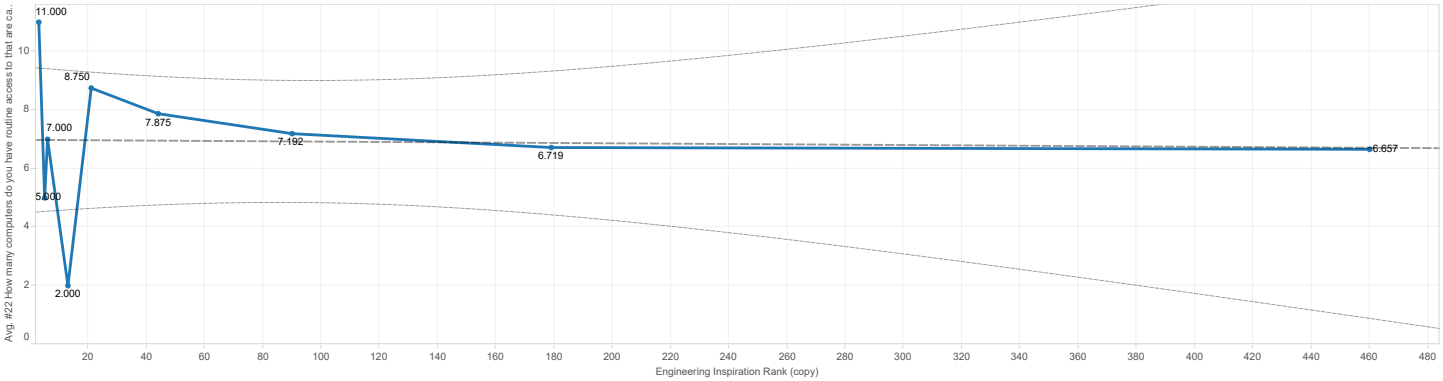
Model formula: (Chairman's Ranking (copy) + intercept)
Number of modeled observations: 10
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 8
SSE (sum squared error): 6.22758
MSE (mean squared error): 0.778448
R-Squared: 0.747486
Standard error: 0.882297
p-value (significance): 0.0012457

Average CAD/Programming Capable Computers vs Engineering Inspiration Ranking Component



Average of #22 How many computers do you have routine access to that are capable of programming, CADing, and... for each Engineering Inspiration Rank. The marks are labeled by average of #22 How many computers do you have routine access to that are capable of programming, CADing, and....

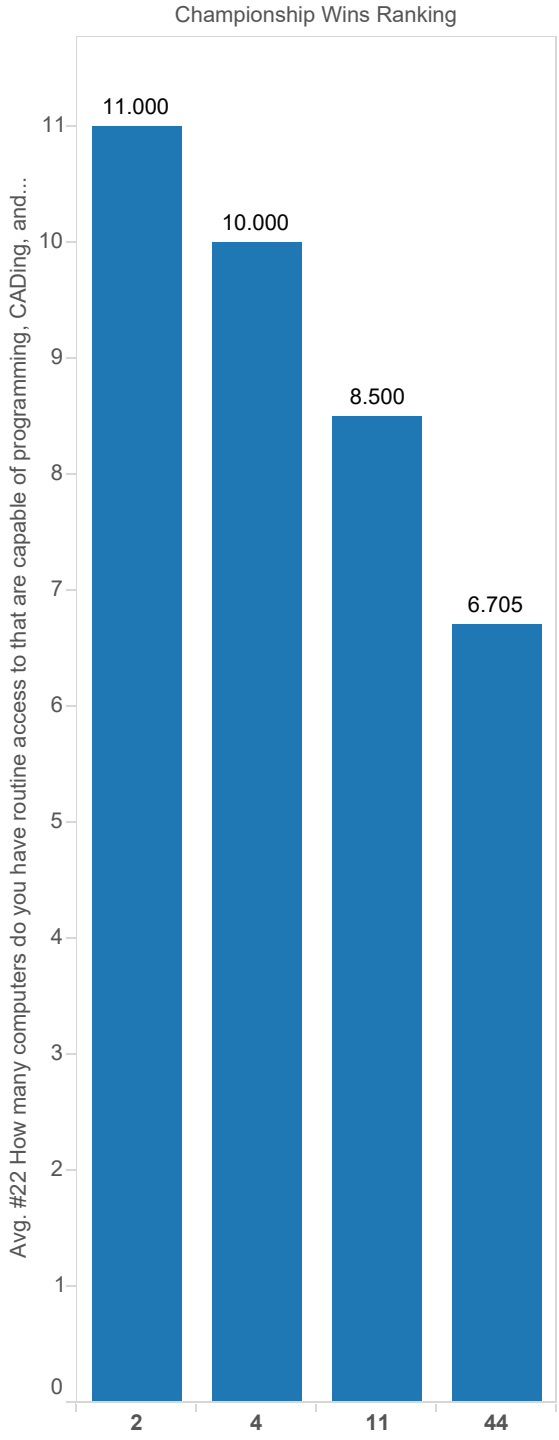
Average CAD/Programming Capable Computers vs Engineering Inspiration Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #22 How many computers do you have routine access to that are capable of programming, CADing, and... given Inspiration Rank (copy).

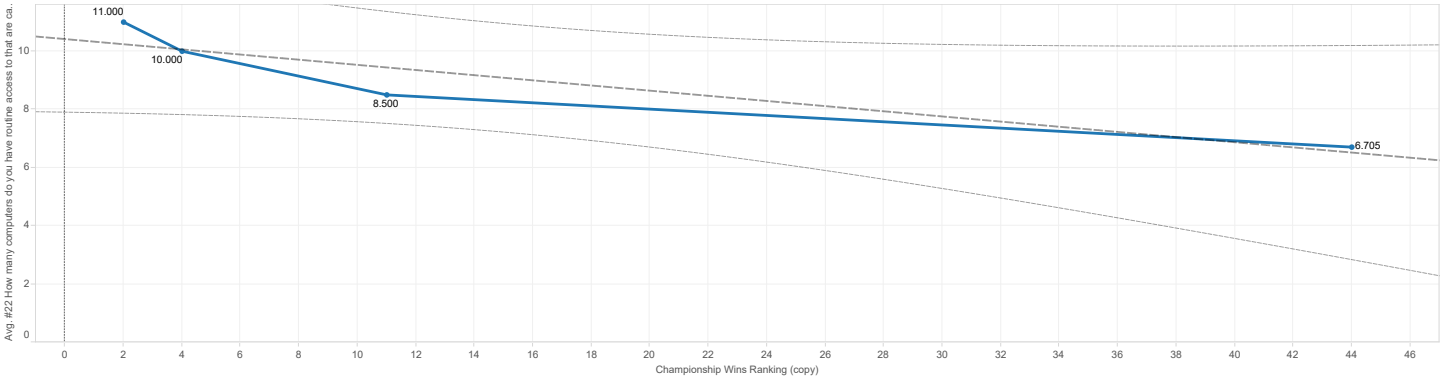
Model formula: (Inspiration Rank (copy) + intercept)
Number of modeled observations: 9
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 7
SSE (sum squared error): 48.9281
MSE (mean squared error): 6.98973
R-Squared: 0.0012497
Standard error: 2.64381
p-value (significance): 0.928059

Average CAD/Programming Capable Computers vs Championship Wins Ranking Component



Average of #22 How many computers do you have routine access to that are capable of programming, CADing, and... for each Championship Wins Ranking. The marks are labeled by average of #22 How many computers do you have routine access to that are capable of programming, CADing, and....

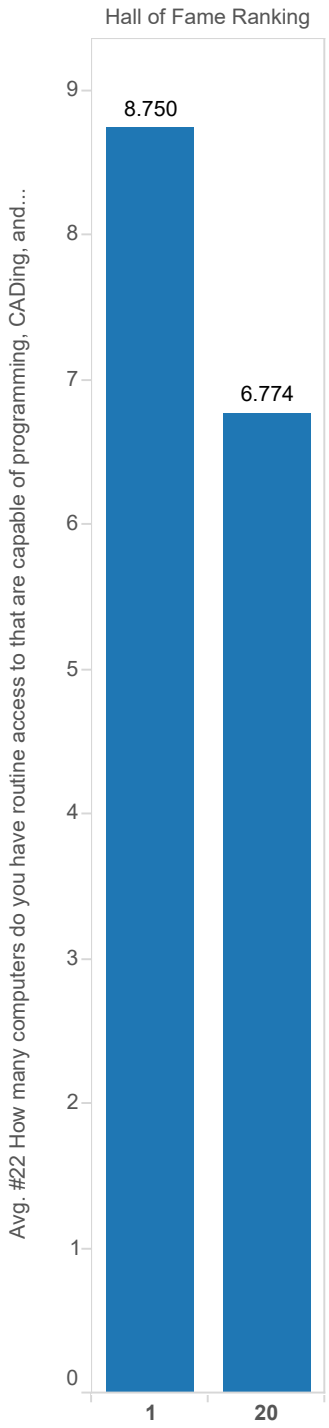
Average CAD/Programming Capable Computers vs Championship Wins Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #22 How many computers do you have routine access to that are capable of programming, CADing, and... given Championship Wins Ranking (copy).

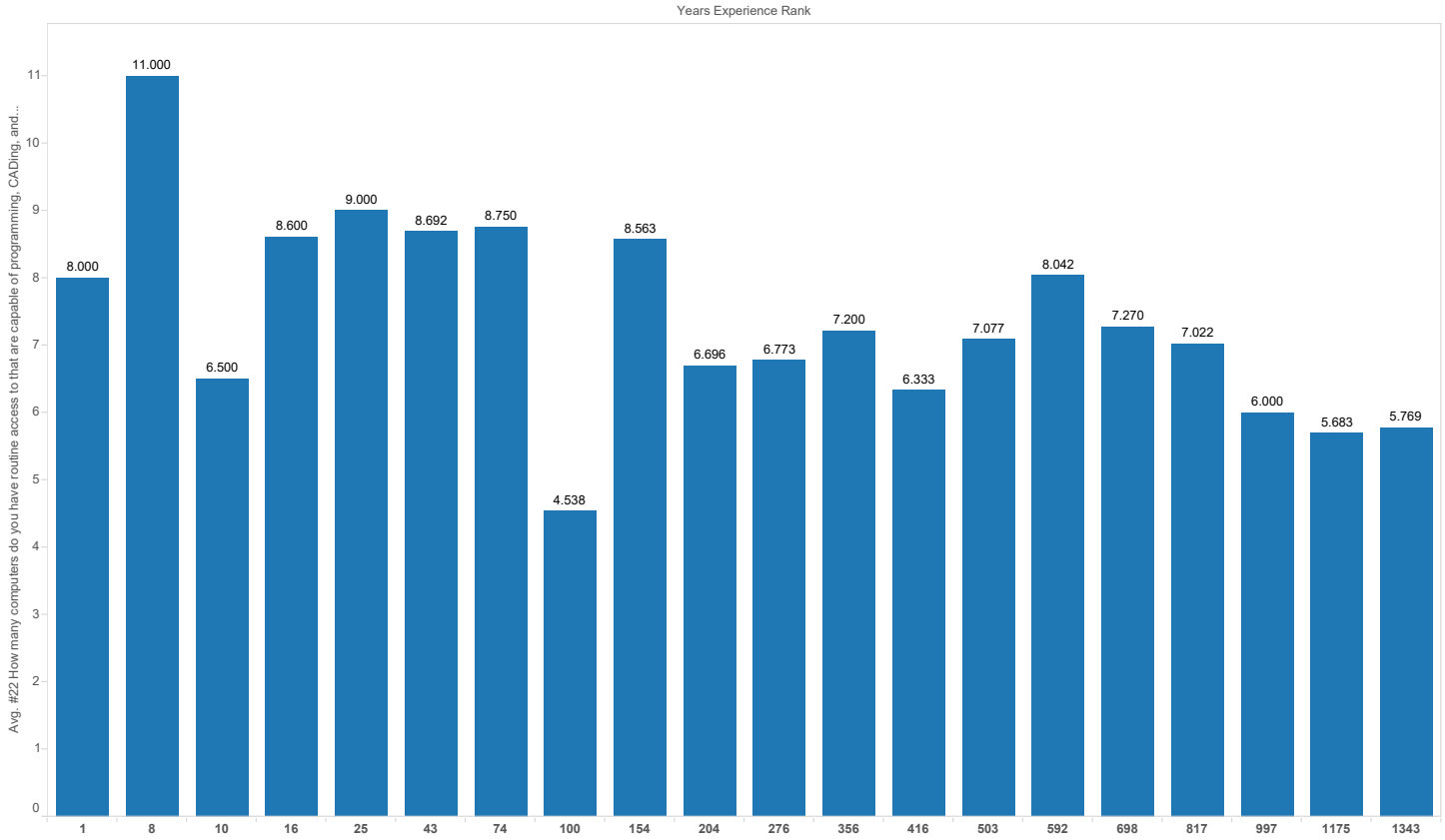
Model formula: (Championship Wins Ranking (copy) + intercept)
Number of modeled observations: 4
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 2
SSE (sum squared error): 1.504
MSE (mean squared error): 0.752002
R-Squared: 0.856823
Standard error: 0.867181
p-value (significance): 0.0743526

Average CAD/Programming Capable Computers vs Hall of Fame Ranking Component



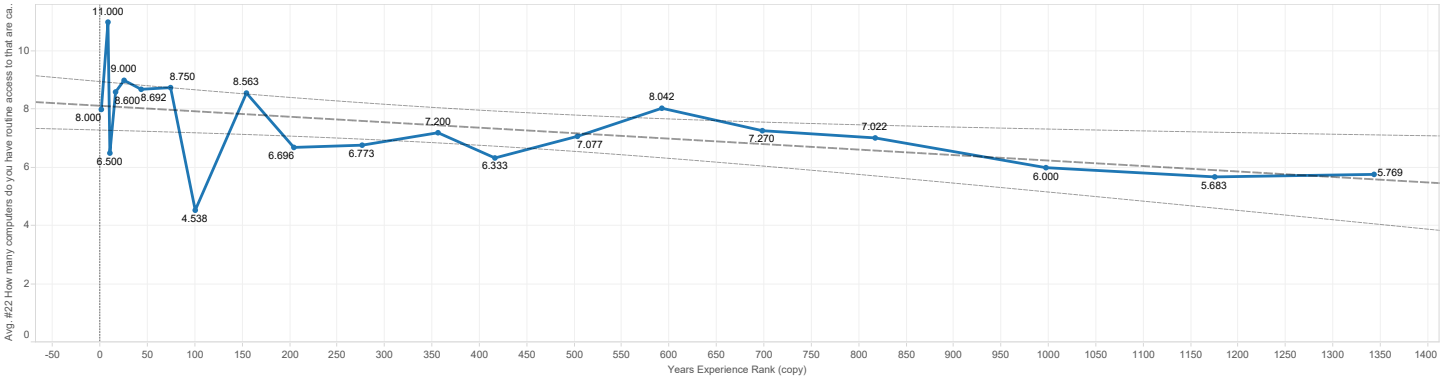
Average of #22 How many computers do you have routine access to that are capable of programming, CADing, and... for each Hall of Fame Ranking. The marks are labeled by average of #22 How many computers do you have routine access to that are capable of programming, CADing, and....

Average CAD/Programming Capable Computers vs Years of Experience Ranking Component



Average of #22 How many computers do you have routine access to that are capable of programming, CADing, and... for each Years Experience Rank. The marks are labeled by average of #22 How many computers do you have routine access to that are capable of programming, CADing, and....

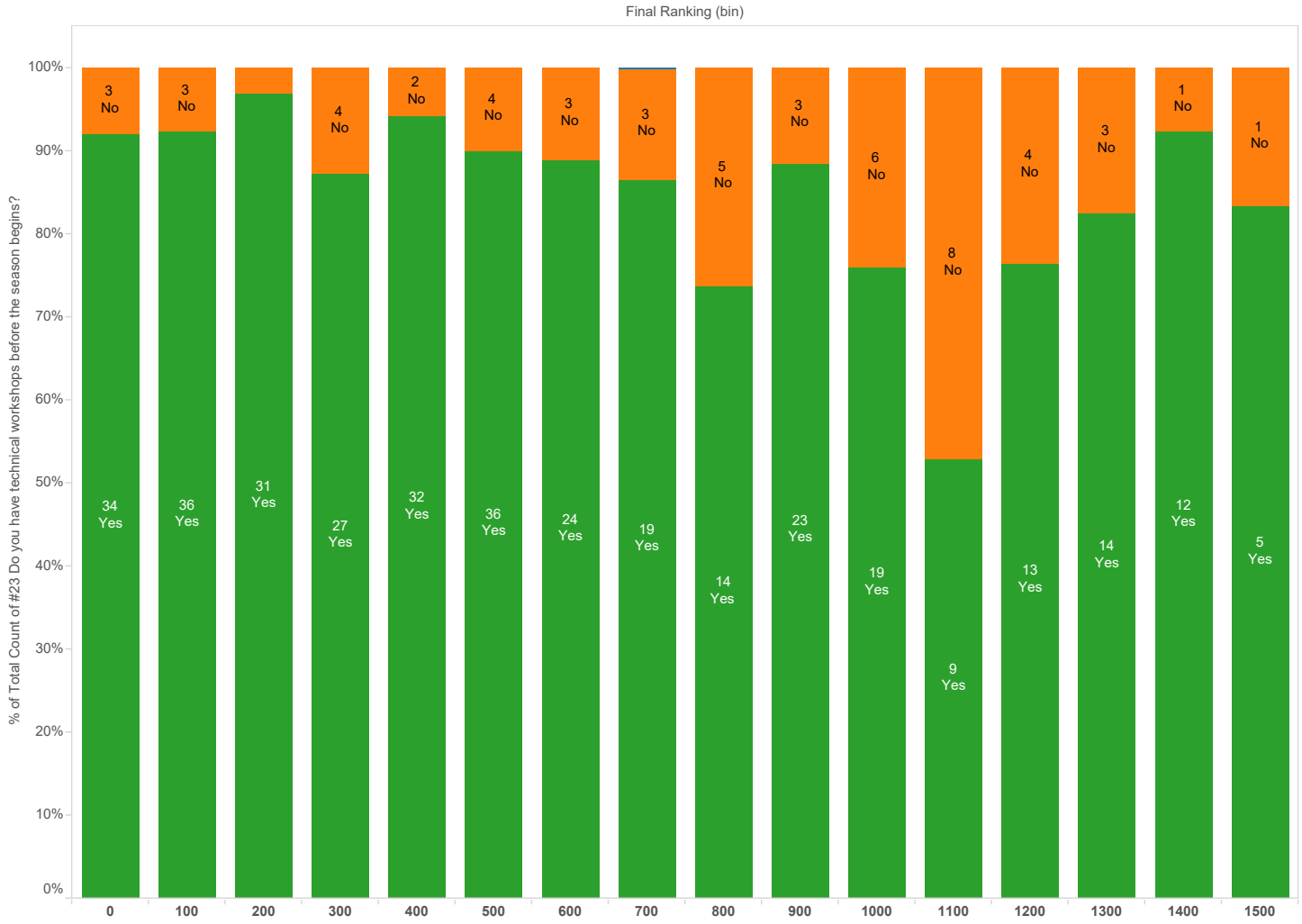
Average CAD/Programming Capable Computers vs Years of Experience Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #22 How many computers do you have routine access to that are capable of programming, CADing, and... given Years Experience Rank (copy). The model may be significant at p <= 0.05.

Model formula: (Years Experience Rank (copy) + intercept)
Number of modeled observations: 20
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 18
SSE (sum squared error): 29.6161
MSE (mean squared error): 1.64534
R-Squared: 0.285694
Standard error: 1.28271
p-value (significance): 0.015185

Technical Workshops vs Final Ranking (bin)

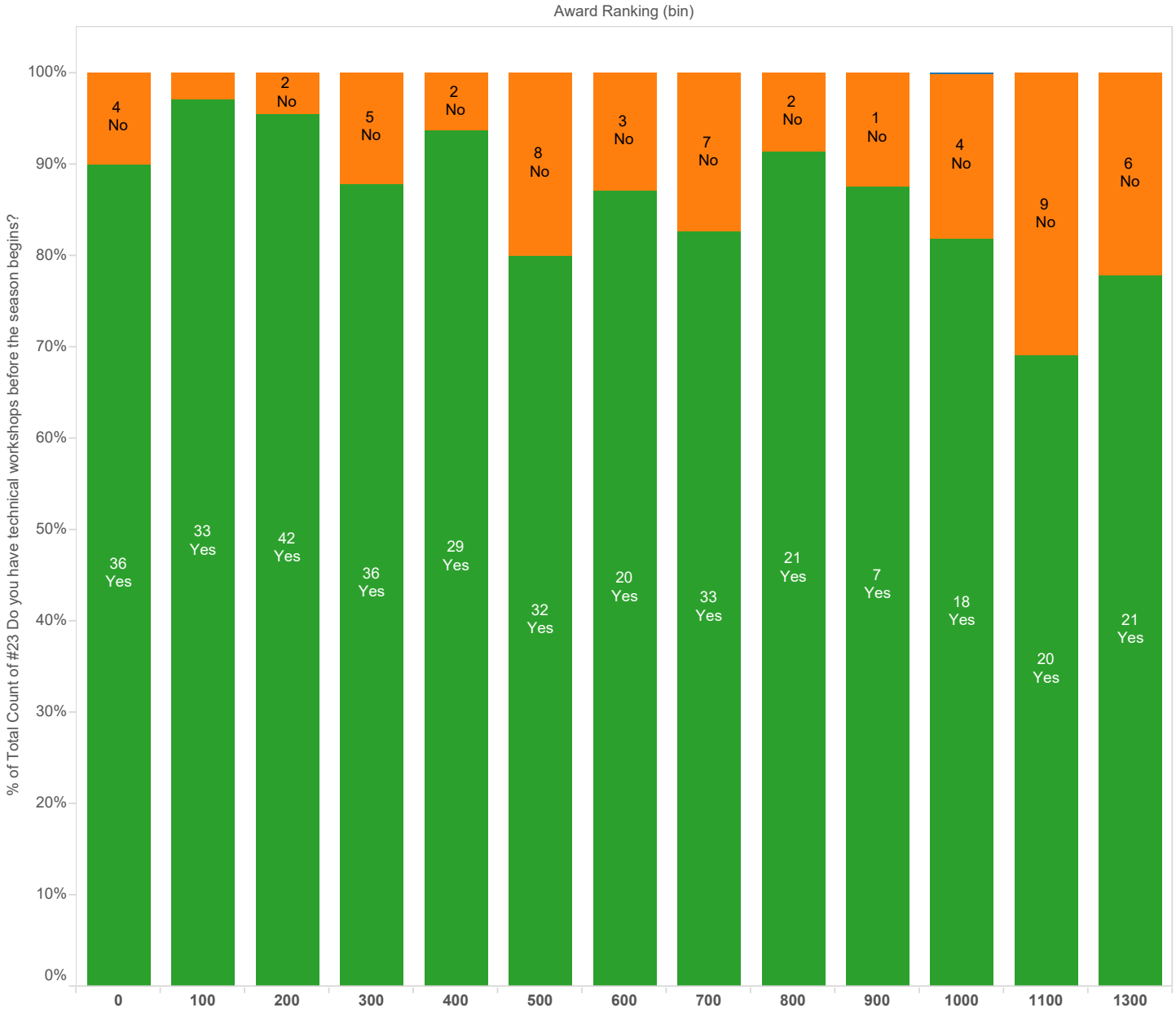


% of Total Count of #23 Do you have technical workshops before the season begins? for each Final Ranking (bin). Color shows details about #23 Do you have technical workshops before the season begins?. The marks are labeled by count of #23 Do you have technical workshops before the season begins? and #23 Do you have technical workshops before the season begins?.

#23 Do you have technical workshops before the season begins?

- Null
- No
- Yes

Technical Workshops vs Award Ranking Component (bin)

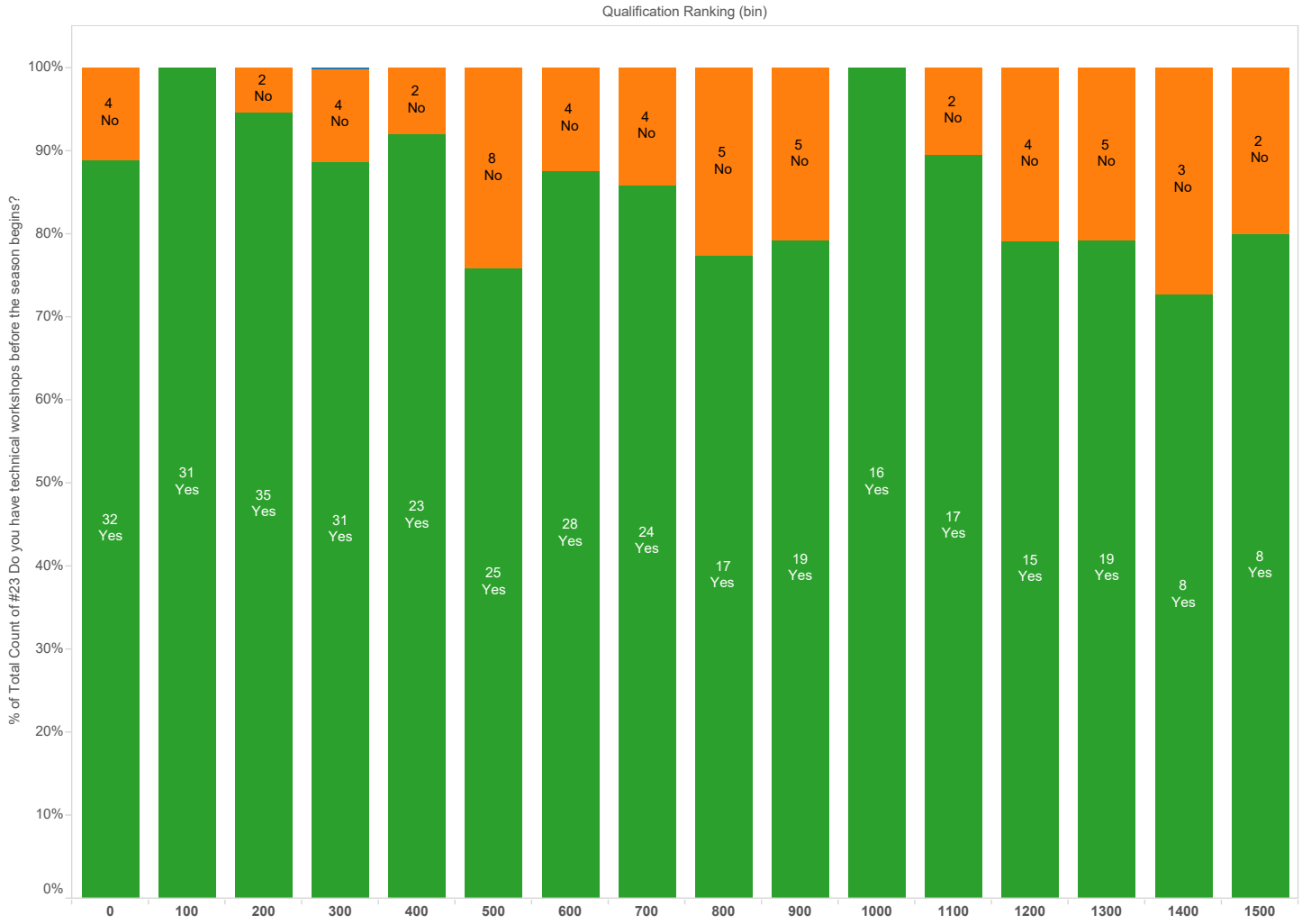


% of Total Count of #23 Do you have technical workshops before the season begins? for each Award Ranking (bin). Color shows details about #23 Do you have technical workshops before the season begins?. The marks are labeled by count of #23 Do you have technical workshops before the season begins? and #23 Do you have technical workshops before the season begins?.

#23 Do you have technical workshops before the season begins?

- Null
- No
- Yes

Technical Workshops vs Qualification Ranking Component (bin)

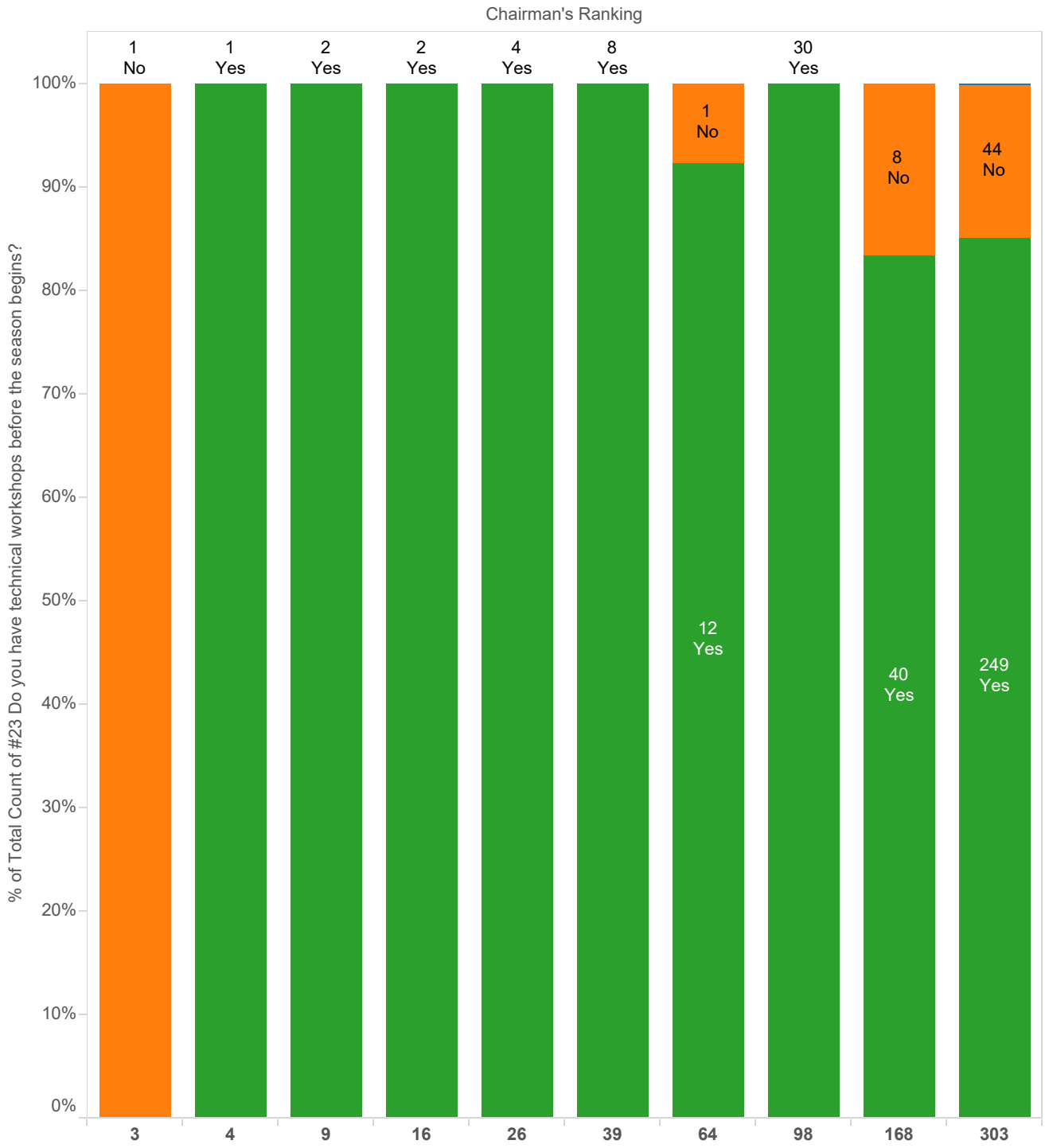


% of Total Count of #23 Do you have technical workshops before the season begins? for each Qualification Ranking (bin). Color shows details about #23 Do you have technical workshops before the season begins?. The marks are labeled by count of #23 Do you have technical workshops before the season begins? and #23 Do you have technical workshops before the season begins?.

#23 Do you have technical workshops before the season begins?

- Null
- No
- Yes

Technical Workshops vs Chairman's Ranking Component

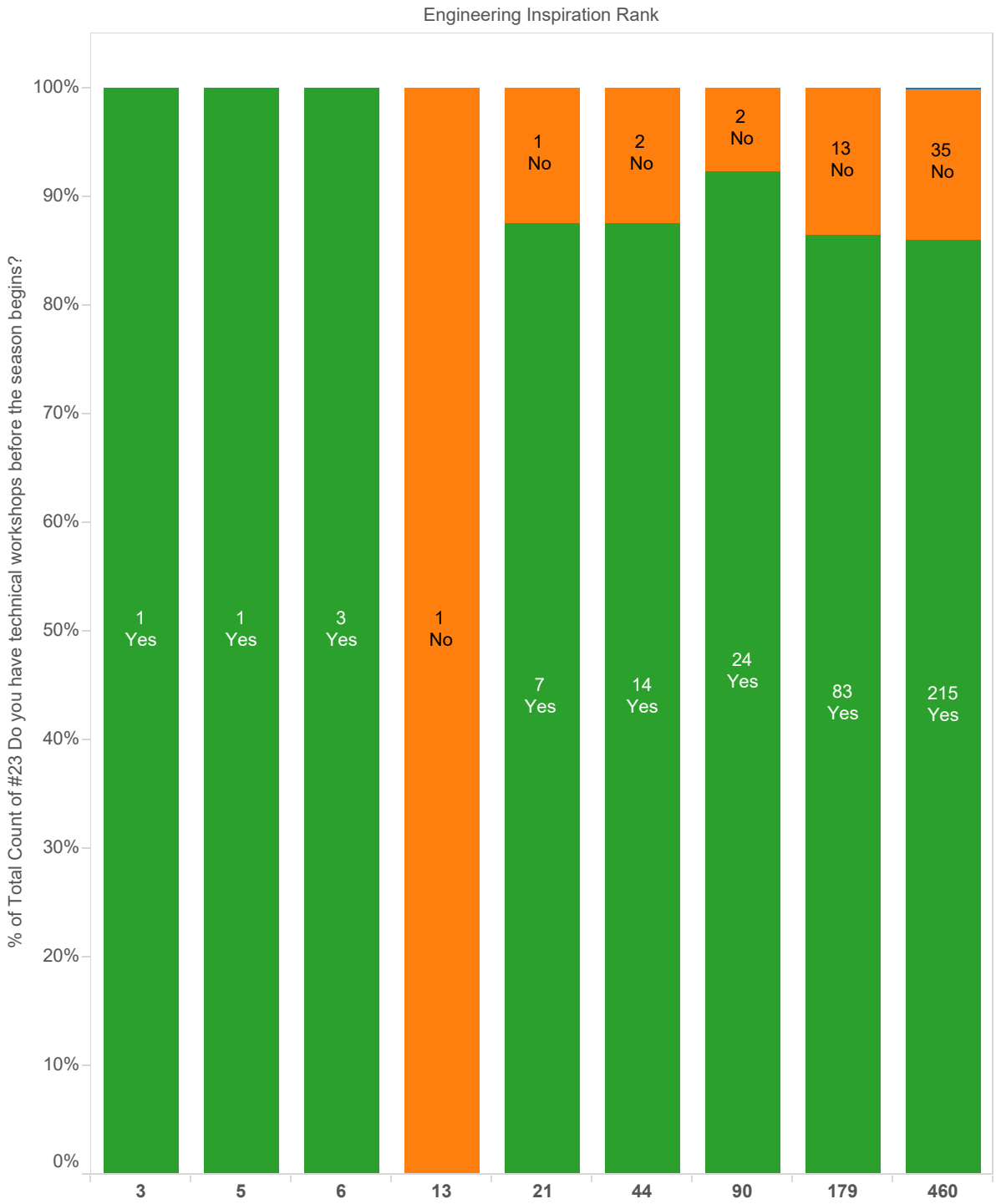


% of Total Count of #23 Do you have technical workshops before the season begins? for each Chairman's Ranking. Color shows details about #23 Do you have technical workshops before the season begins?. The marks are labeled by count of #23 Do you have technical workshops before the season begins? and #23 Do you have technical workshops before the season begins?.

#23 Do you have technical workshops before the season begins?

- Null
- No
- Yes

Technical Workshops vs Engineering Inspiration Ranking Component

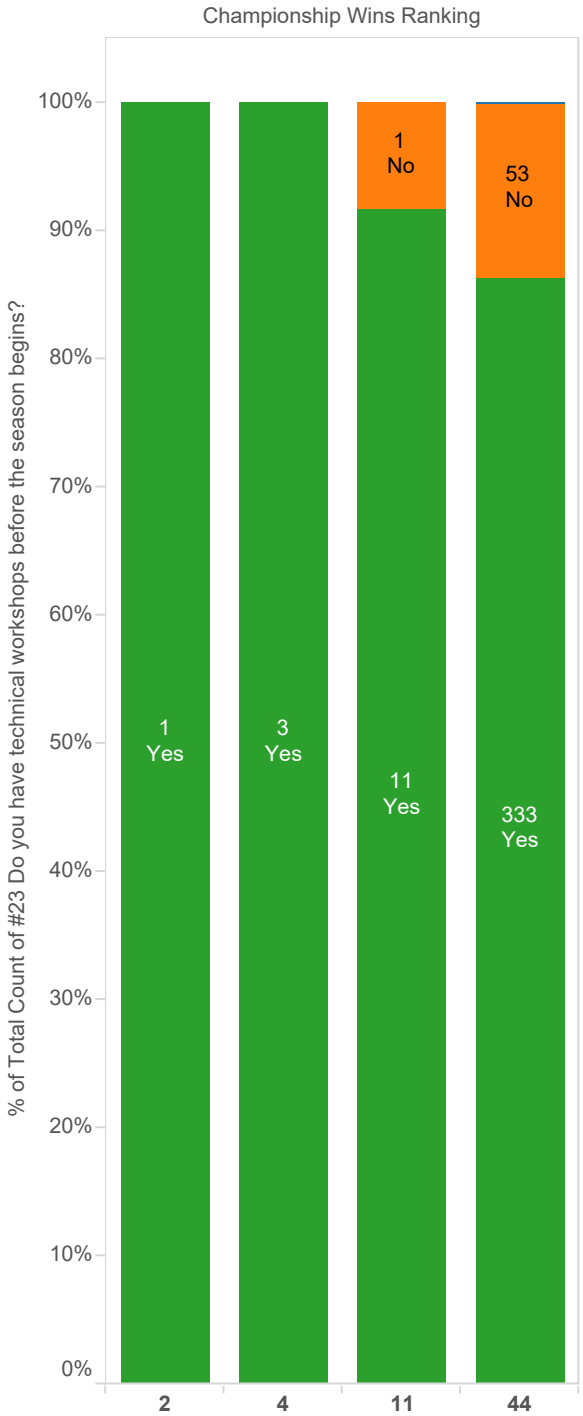


% of Total Count of #23 Do you have technical workshops before the season begins? for each Engineering Inspiration Rank. Color shows details about #23 Do you have technical workshops before the season begins?. The marks are labeled by count of #23 Do you have technical workshops before the season begins? and #23 Do you have technical workshops before the season begins?.

#23 Do you have technical workshops before the season begins?

- Null
- No
- Yes

Technical Workshops vs Championship Wins Ranking Component

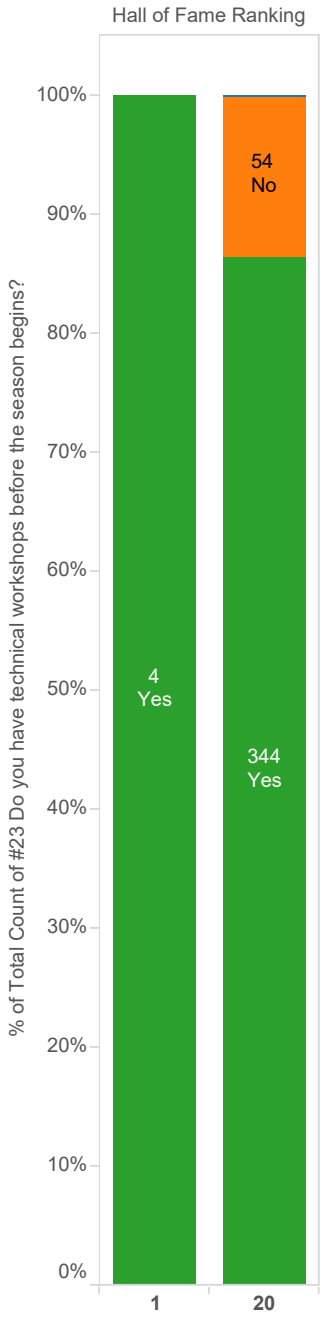


% of Total Count of #23 Do you have technical workshops before the season begins? for each Championship Wins Ranking. Color shows details about #23 Do you have technical workshops before the season begins?. The marks are labeled by count of #23 Do you have technical workshops before the season begins? and #23 Do you have technical workshops before the season begins?.

#23 Do you have technical workshops before the season begins?

- Null
- No
- Yes

Technical Workshops vs Hall of Fame Ranking Component

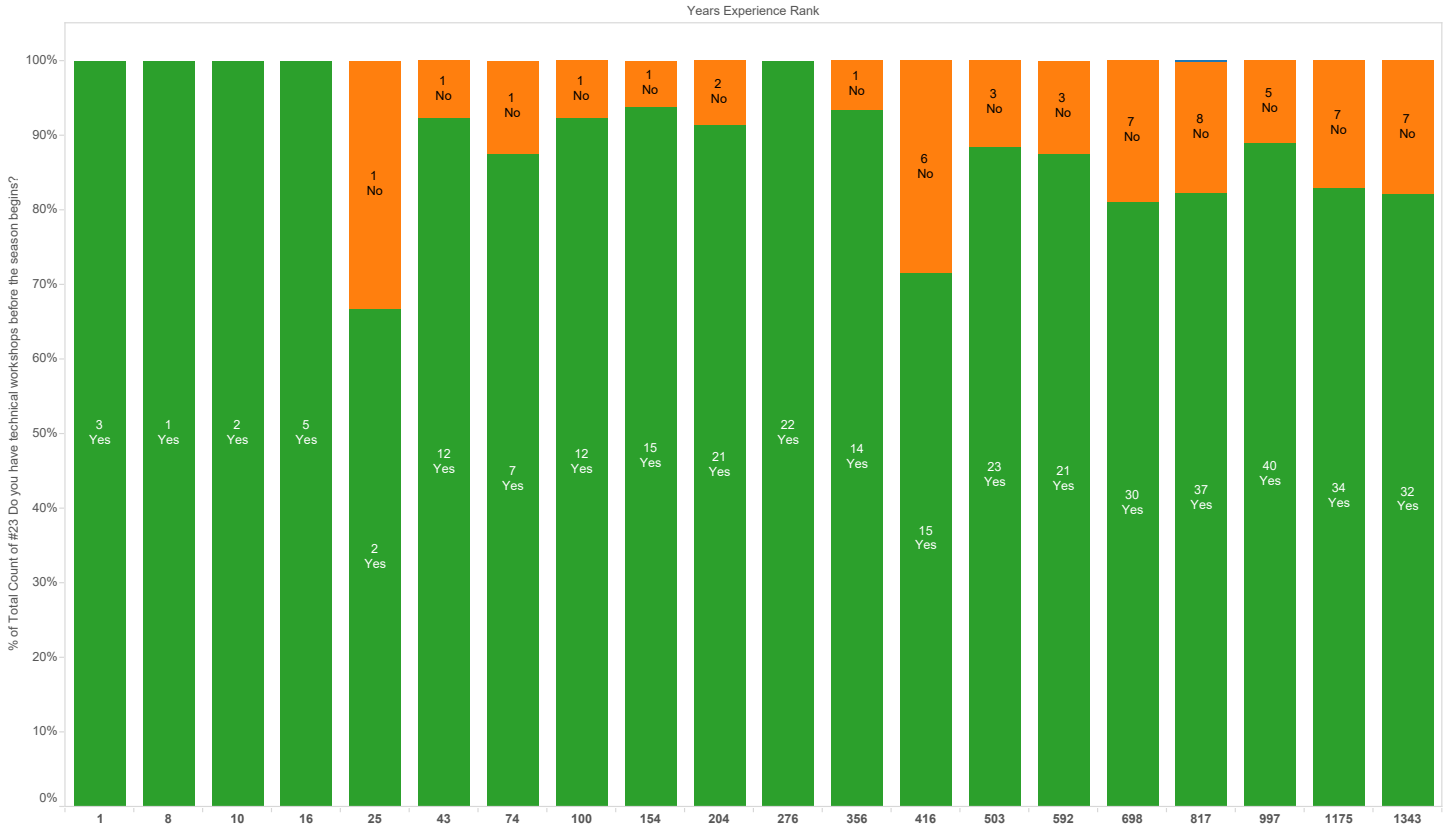


% of Total Count of #23 Do you have technical workshops before the season begins? for each Hall of Fame Ranking. Color shows details about #23 Do you have technical workshops before the season begins?. The marks are labeled by count of #23 Do you have technical workshops before the season begins? and #23 Do you have technical workshops before the season begins?.

#23 Do you have technical workshops before the season begins?

- Null
- No
- Yes

Technical Workshops vs Years Experience Ranking Component

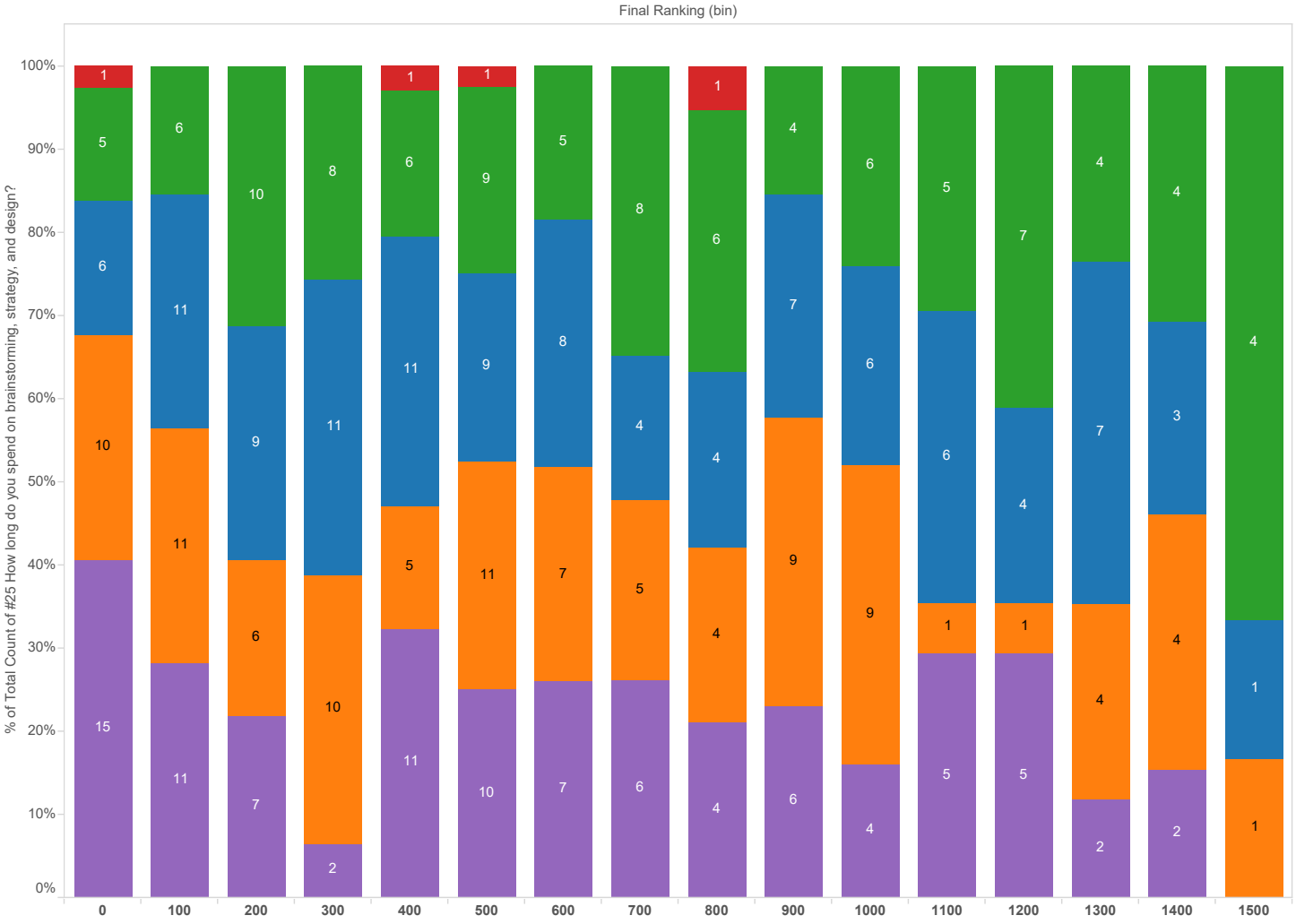


% of Total Count of #23 Do you have technical workshops before the season begins? for each Years Experience Rank. Color shows details about #23 Do you have technical workshops before the season begins?. The marks are labeled by count of #23 Do you have technical workshops before the season begins? and #23 Do you have technical workshops before the season begins?.

#23 Do you have technical workshops before the season begins?

- Null
- No
- Yes

Time Spent on Brainstorming vs Final Ranking (bin)

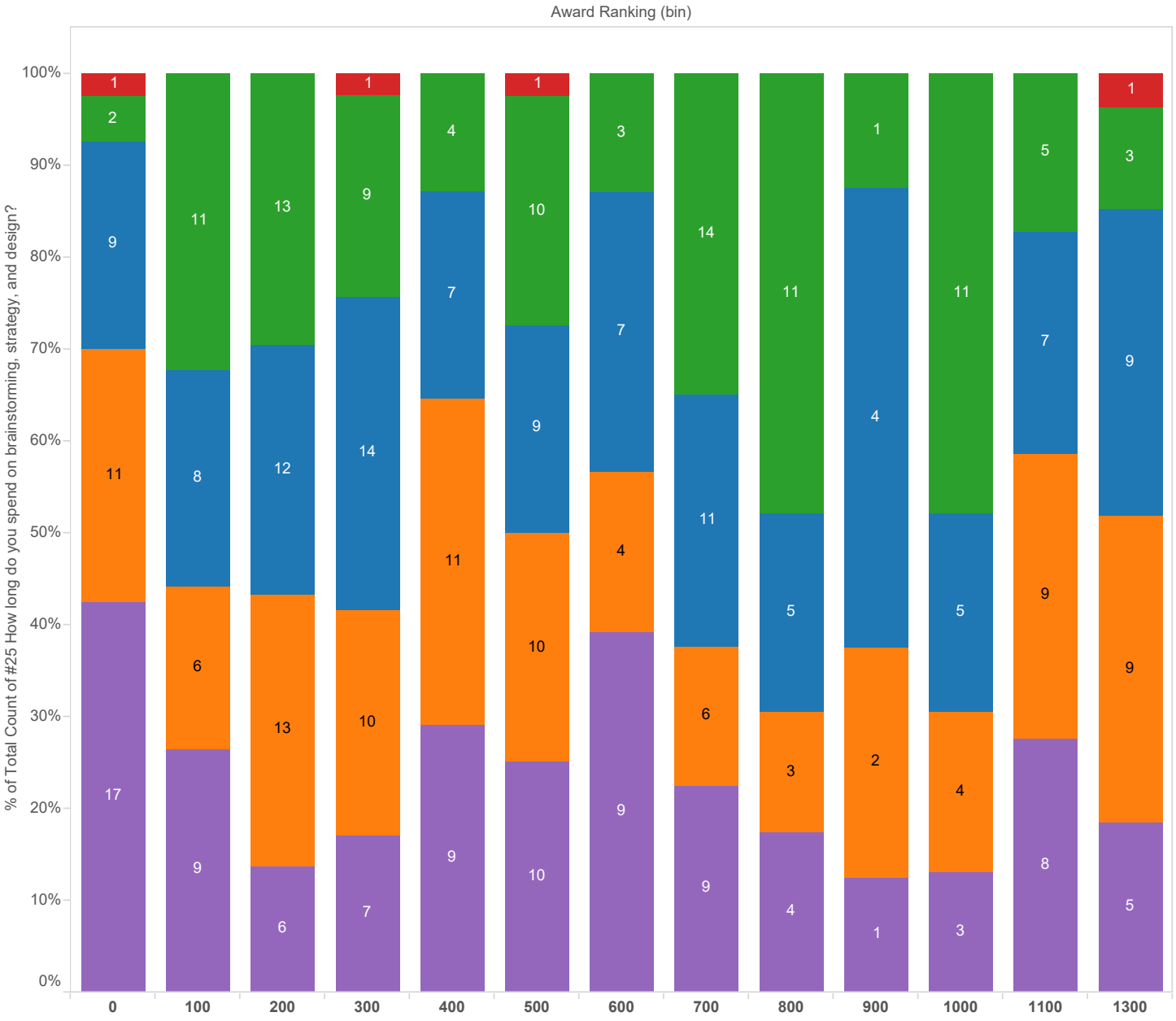


% of Total Count of #25 How long do you spend on brainstorming, strategy, and design? for each Final Ranking (bin). Color shows details about #25 How long do you spend on brainstorming, strategy, and design?. The marks are labeled by count of #25 How long do you spend on brainstorming, strategy, and design?.

#25 How long do you spend on brainstorming, strategy, and design?

- Less than or up to a day
- Between a day and 3 days
- Between 3 days and 5 days
- Between 5 days and a week
- More than a week

Time Spent on Brainstorming vs Award Ranking Component (bin)



% of Total Count of #25 How long do you spend on brainstorming, strategy, and design? for each Award Ranking (bin). Color shows details about #25 How long do you spend on brainstorming, strategy, and design?. The marks are labeled by count of #25 How long do you spend on brainstorming, strategy, and design?.

#25 How long do you spend on brainstorming, strategy, and design?

- Less than or up to a day
- Between a day and 3 days
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- Between 5 days and a week
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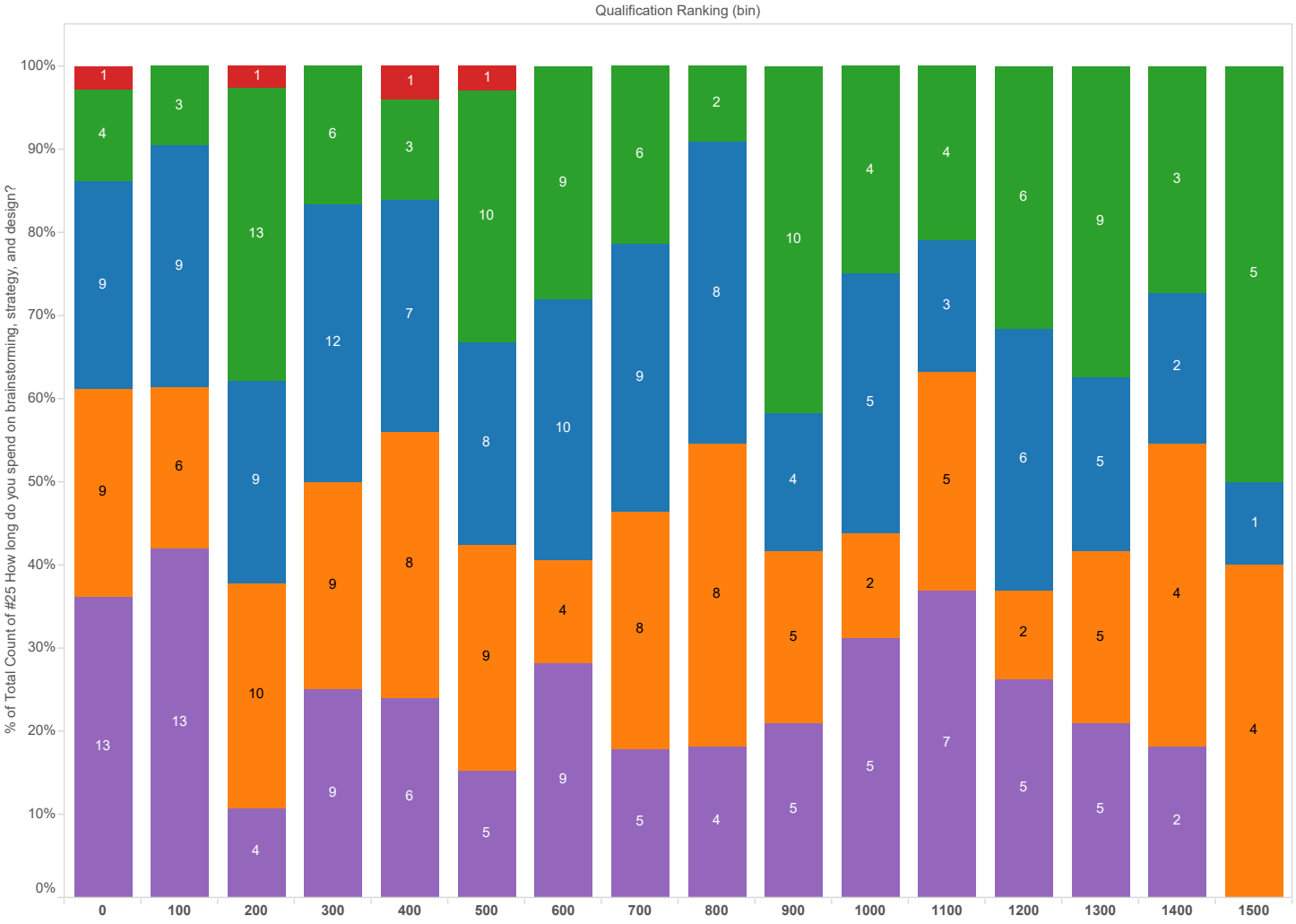
Time Spent on Brainstorming vs Qualification Ranking Component (bin)

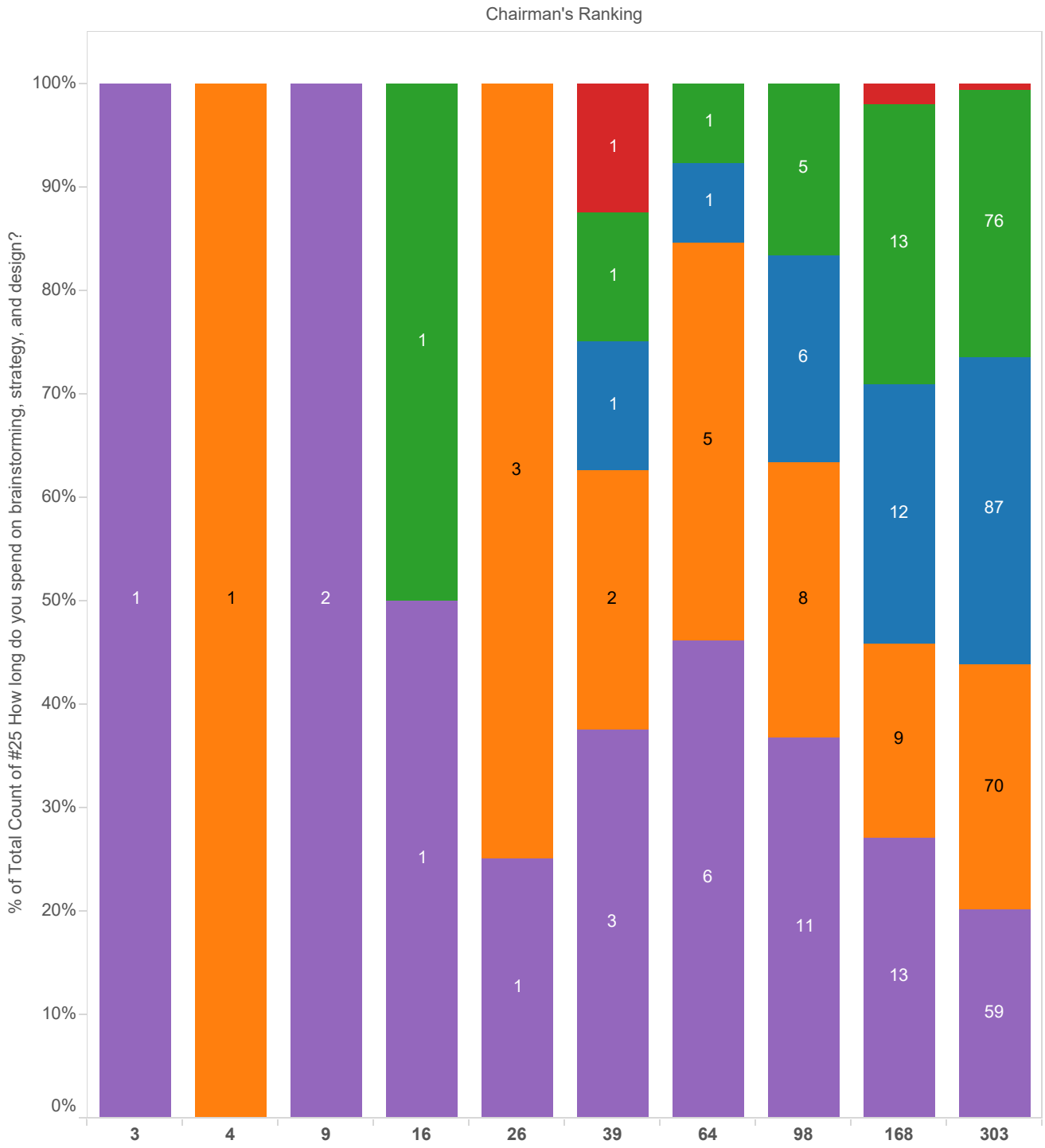


% of Total Count of #25 How long do you spend on brainstorming, strategy, and design? for each Qualification Ranking (bin). Color shows details about #25 How long do you spend on brainstorming, strategy, and design?. The marks are labeled by count of #25 How long do you spend on brainstorming, strategy, and design?.

#25 How long do you spend on brainstorming, strategy, and design?

- Less than or up to a day
- Between a day and 3 days
- Between 3 days and 5 days
- Between 5 days and a week
- More than a week

Time Spent on Brainstorming vs Chairman's Ranking Component

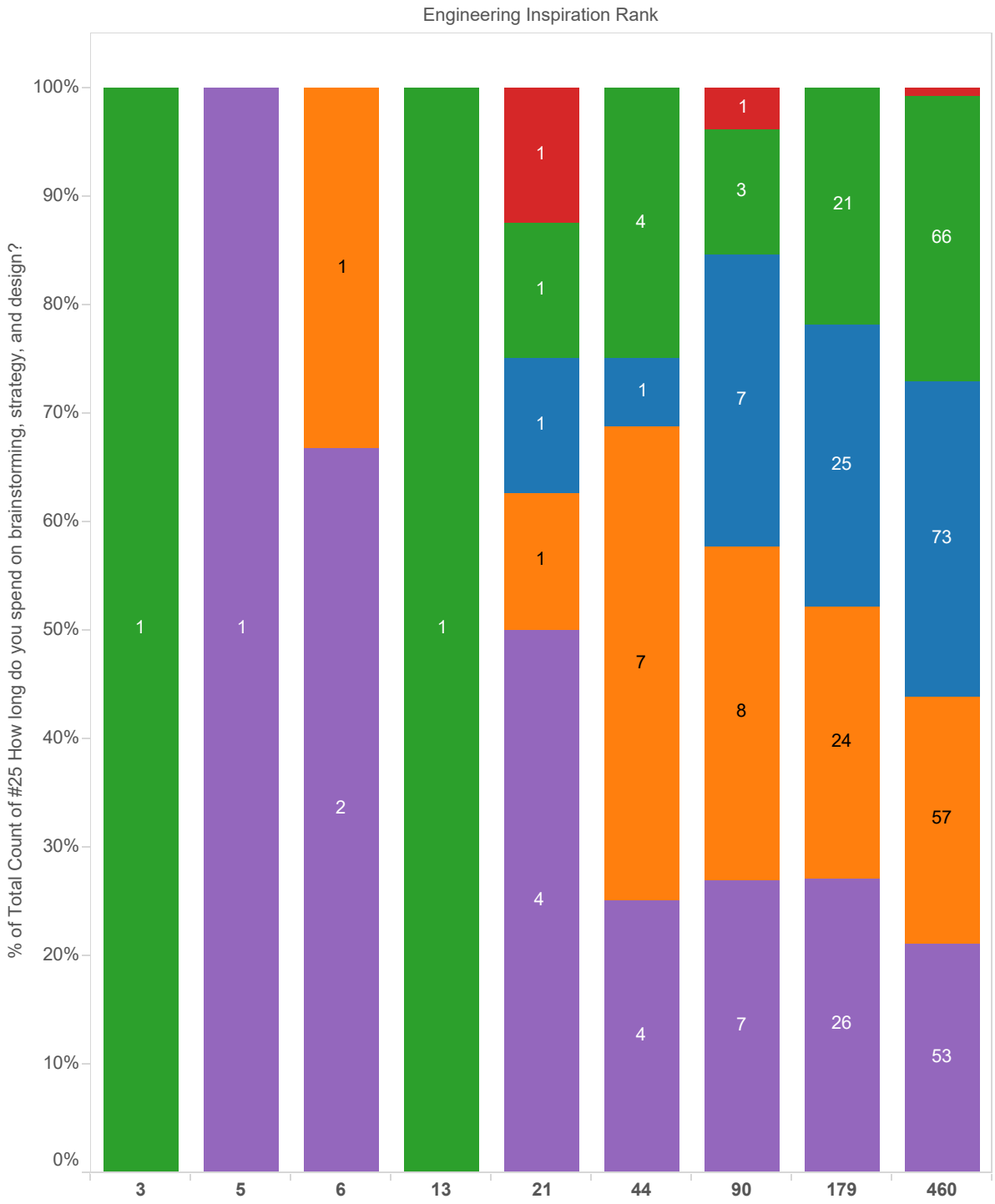


% of Total Count of #25 How long do you spend on brainstorming, strategy, and design? for each Chairman's Ranking. Color shows details about #25 How long do you spend on brainstorming, strategy, and design?. The marks are labeled by count of #25 How long do you spend on brainstorming, strategy, and design?.

#25 How long do you spend on brainstorming, strategy, and design?

- Less than or up to a day
- Between a day and 3 days
- Between 3 days and 5 days
- Between 5 days and a week
- More than a week

Time Spent on Brainstorming vs Engineering Inspiration Ranking Component

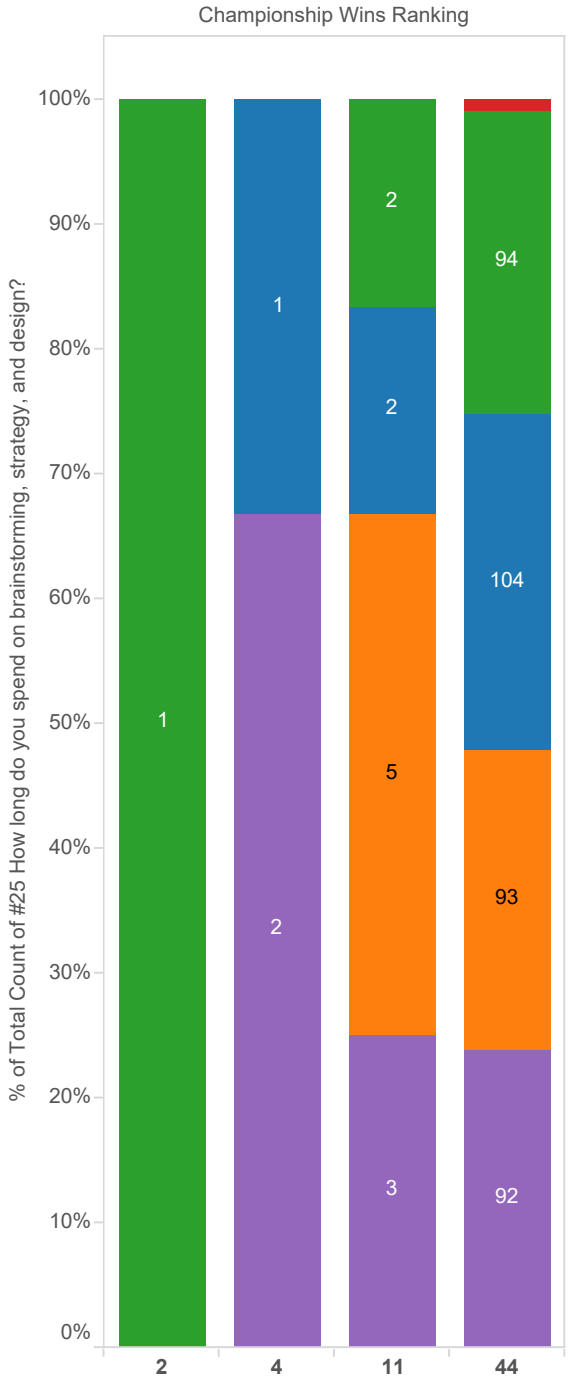


% of Total Count of #25 How long do you spend on brainstorming, strategy, and design? for each Engineering Inspiration Rank. Color shows details about #25 How long do you spend on brainstorming, strategy, and design?. The marks are labeled by count of #25 How long do you spend on brainstorming, strategy, and design?.

#25 How long do you spend on brainstorming, strategy, and design?

- Less than or up to a day
- Between a day and 3 days
- Between 3 days and 5 days
- Between 5 days and a week
- More than a week

Time Spent on Brainstorming vs Championship Wins Ranking Component

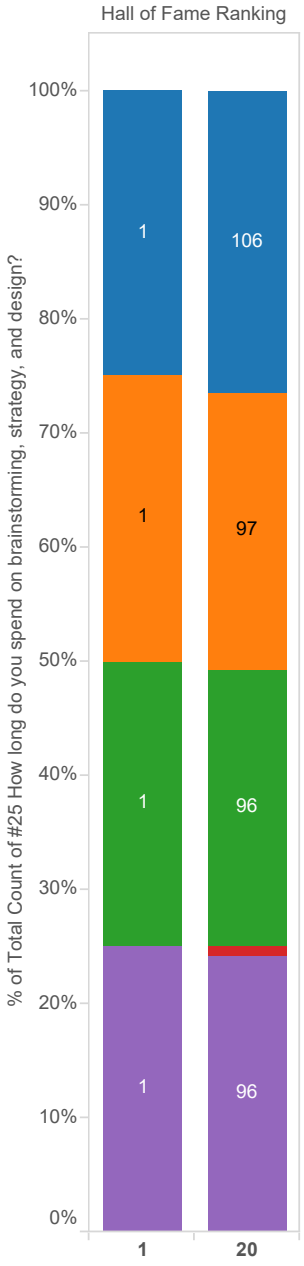


% of Total Count of #25 How long do you spend on brainstorming, strategy, and design? for each Championship Wins Ranking. Color shows details about #25 How long do you spend on brainstorming, strategy, and design?. The marks are labeled by count of #25 How long do you spend on brainstorming, strategy, and design?.

#25 How long do you spend on brainstorming, strategy, and design?

- Less than or up to a day
- Between a day and 3 days
- Between 3 days and 5 days
- Between 5 days and a week
- More than a week

Time Spent on Brainstorming vs Hall of Fame Ranking Component

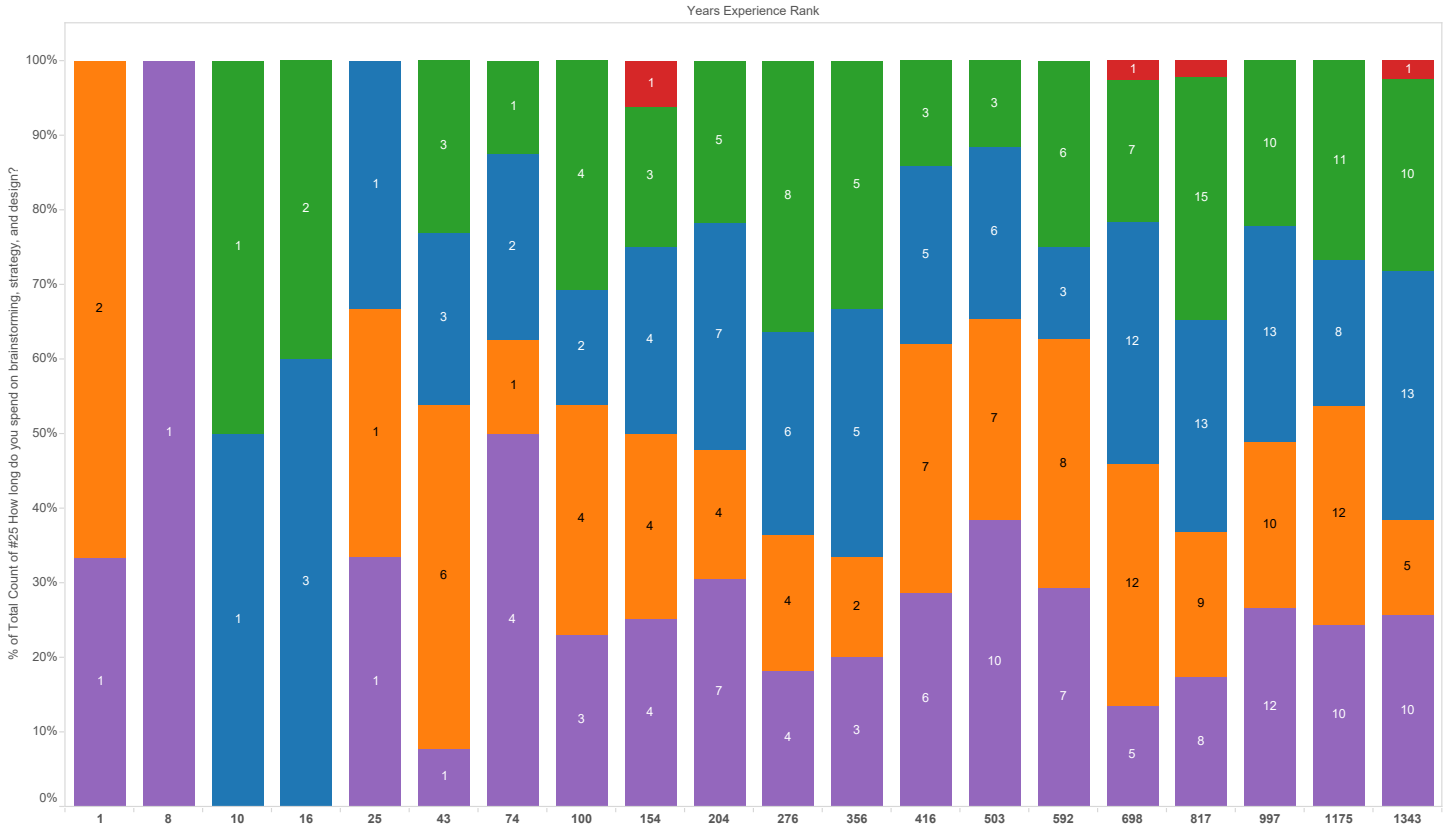


% of Total Count of #25 How long do you spend on brainstorming, strategy, and design? for each Hall of Fame Ranking. Color shows details about #25 How long do you spend on brainstorming, strategy, and design?. The marks are labeled by count of #25 How long do you spend on brainstorming, strategy, and design?.

#25 How long do you spend on brainstorming, strategy, and design?

- Between 3 days and 5 days
- Between 5 days and a week
- Between a day and 3 days
- Less than or up to a day
- More than a week

Time Spent on Brainstorming vs Years Experience Ranking Component



% of Total Count of #25 How long do you spend on brainstorming, strategy, and design? for each Years Experience Rank. Color shows details about #25 How long do you spend on brainstorming, strategy, and design?. The marks are labeled by count of #25 How long do you spend on brainstorming, strategy, and design?.

#25 How long do you spend on brainstorming, strategy, and design?

- Less than or up to a day
- Between a day and 3 days
- Between 3 days and 5 days
- Between 5 days and a week
- More than a week

Robot Design vs Final Ranking (bin)

Trend Lines Model
A linear trend model is computed for average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Blank Slate Approach *(emp given Final Ranking (bin). The model may be significant at p <= 0.05.*

Model formula: (Final Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 251.501
MSE (mean squared error): 17.9643
R-Squared: 0.433358
Standard error: 4.23844
p-value (significance): 0.0055621

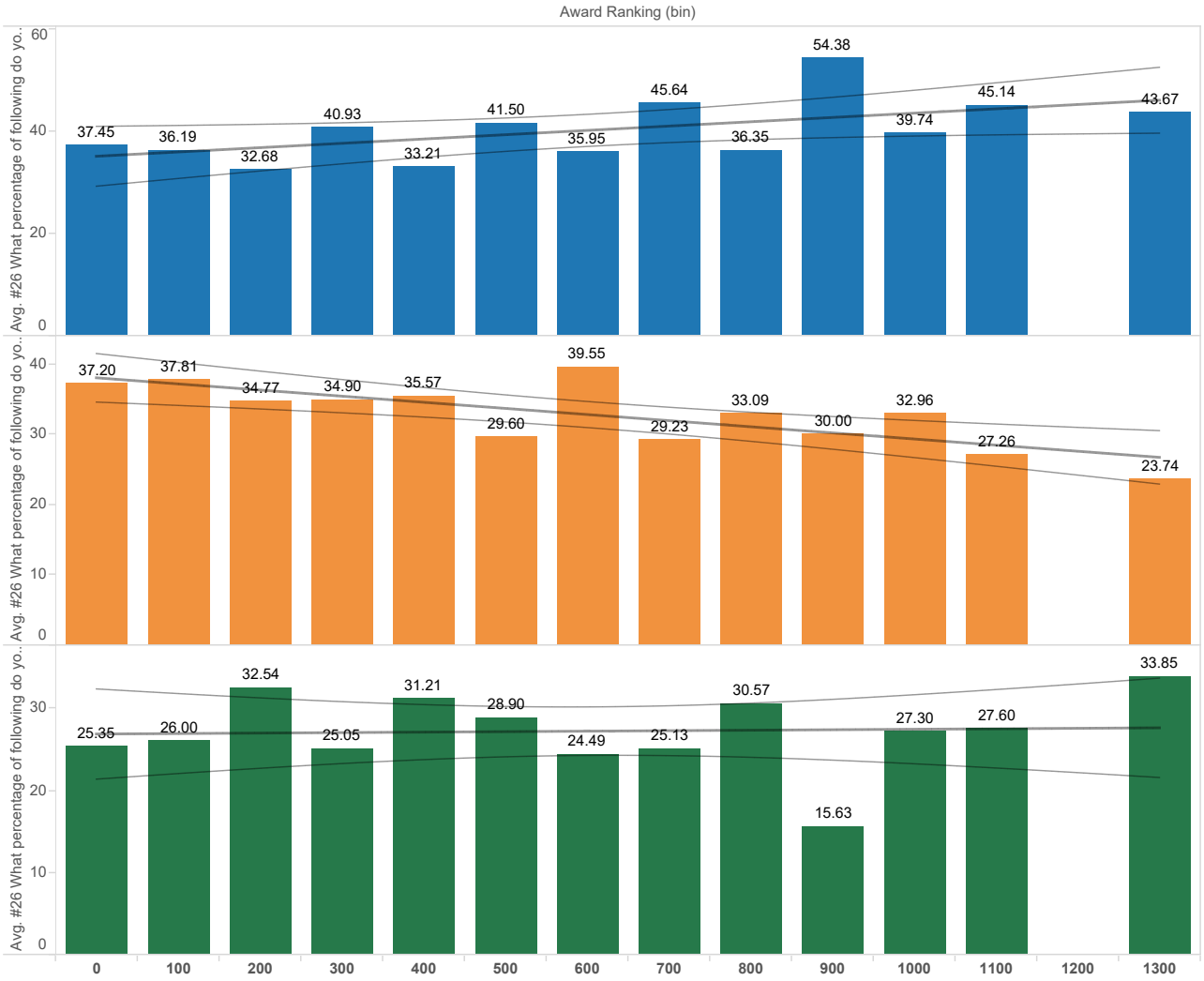
A linear trend model is computed for average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Iterative Design *(on your given Final Ranking (bin). The model may be significant at p <= 0.05.*

Model formula: (Final Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 304.014
MSE (mean squared error): 21.7153
R-Squared: 0.446763
Standard error: 4.65997
p-value (significance): 0.0046481

A linear trend model is computed for average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Research *(other team' given Final Ranking (bin).*

Model formula: (Final Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 84.897
MSE (mean squared error): 6.06407
R-Squared: 0.0411897
Standard error: 2.46253
p-value (significance): 0.450935

Robot Design vs Award Ranking Component (bin)



Trend Lines Model
A linear trend model is computed for average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Blank Slate Approach *(emp given Award Ranking (bin). The model may be significant at p <= 0.05.*

Model formula: (Award Ranking (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 292.448
MSE (mean squared error): 26.5862
R-Squared: 0.321881
Standard error: 5.15618
p-value (significance): 0.0431535

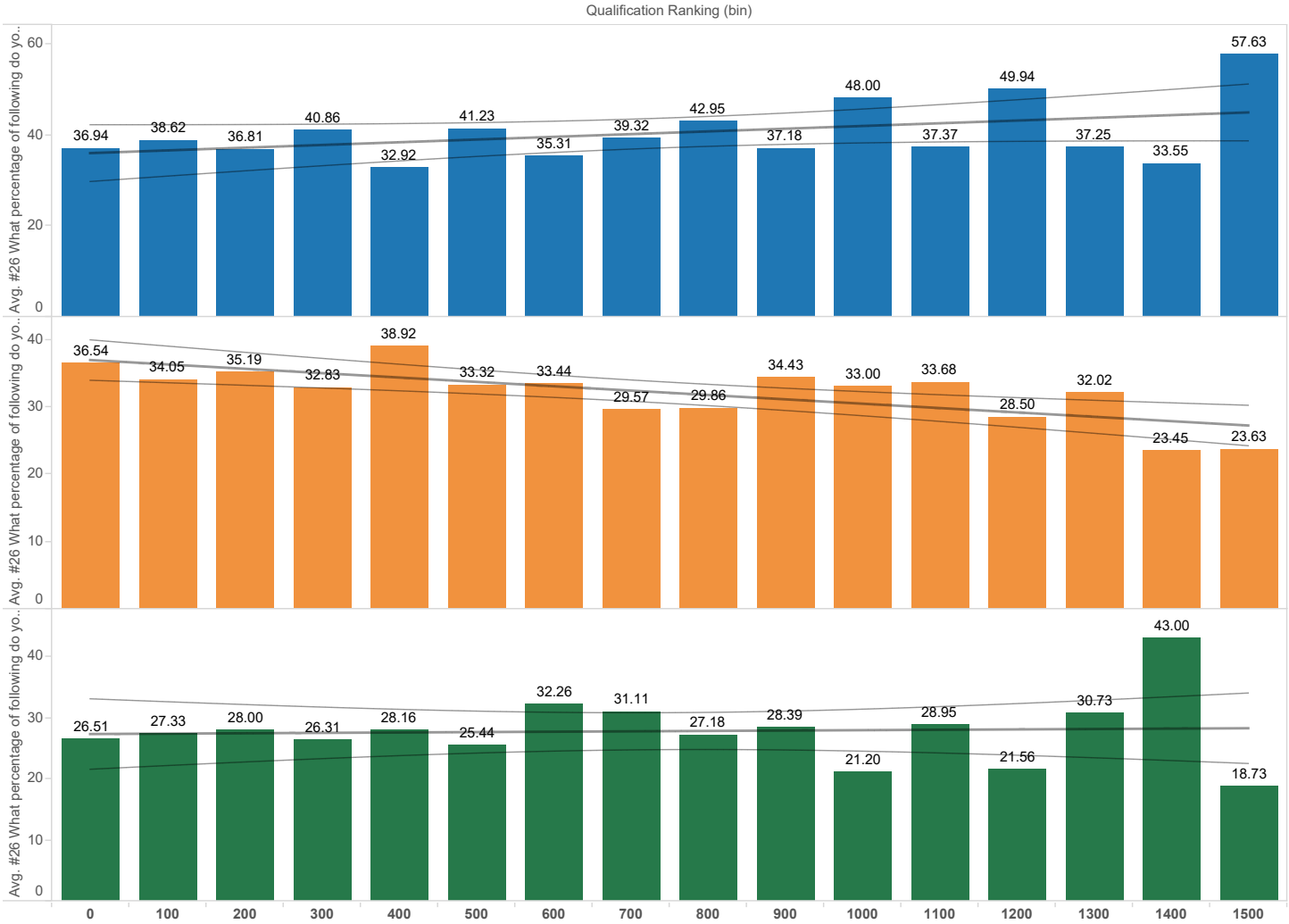
A linear trend model is computed for average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Iterative Design *(on your given Award Ranking (bin). The model may be significant at p <= 0.05.*

Model formula: (Award Ranking (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 101.748
MSE (mean squared error): 9.24985
R-Squared: 0.592524
Standard error: 3.04136
p-value (significance): 0.0020882

A linear trend model is computed for average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Research *(other team' given Award Ranking (bin).*

Model formula: (Award Ranking (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 257.631
MSE (mean squared error): 23.421
R-Squared: 0.0025572
Standard error: 4.83952
p-value (significance): 0.869684

Robot Design vs Qualification Ranking Component (bin)



Trend Lines Model
A linear trend model is computed for average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Blank Slate Approach *(emp given Qualification Ranking (bin)*.

Model formula: (Qualification Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 519.922
MSE (mean squared error): 37.1373
R-Squared: 0.188448
Standard error: 6.09403
p-value (significance): 0.092944

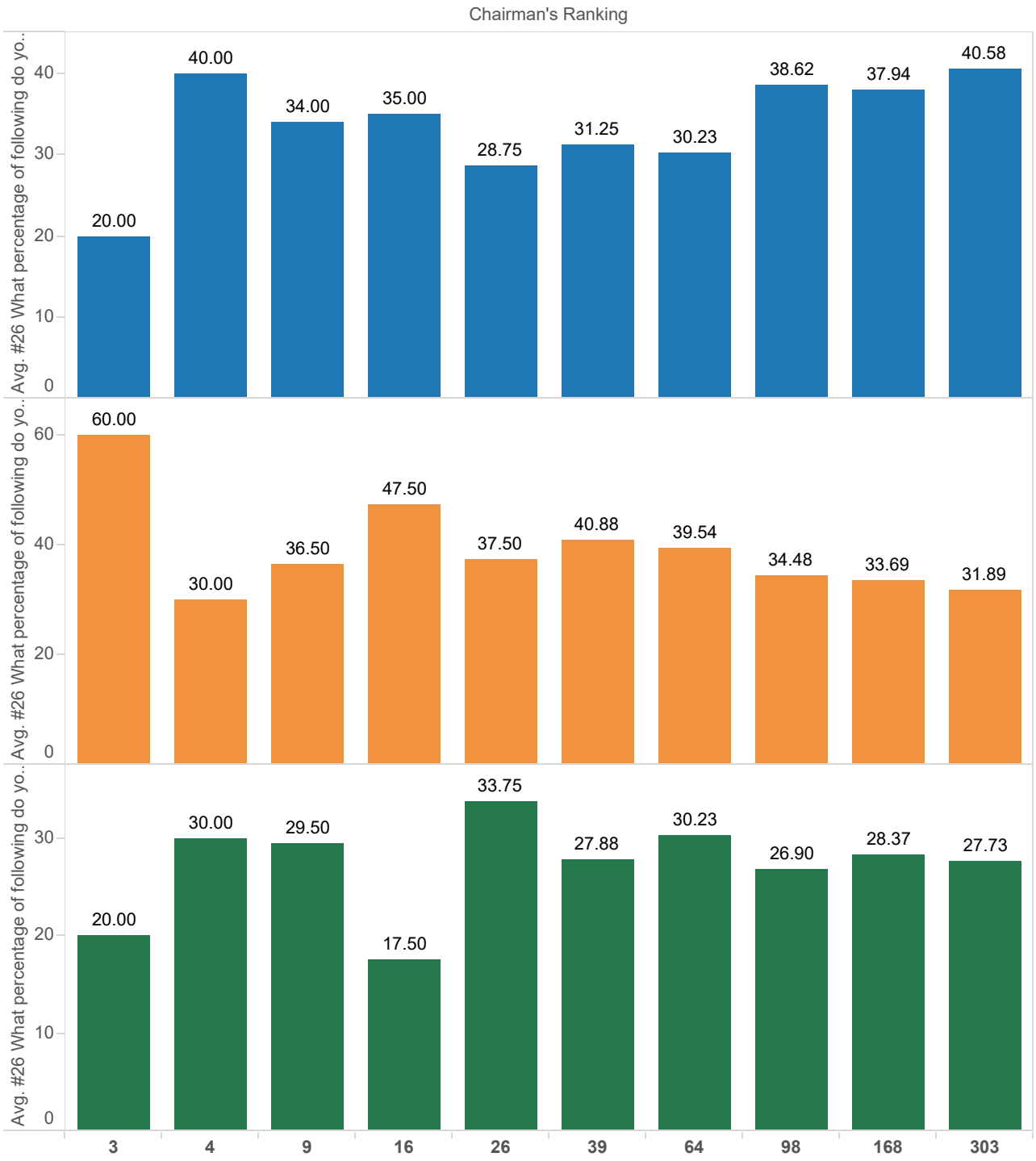
A linear trend model is computed for average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Iterative Design *(on your given Qualification Ranking (bin). The model may be significant at p <= 0.05.*

Model formula: (Qualification Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 120.401
MSE (mean squared error): 8.60006
R-Squared: 0.542105
Standard error: 2.93259
p-value (significance): 0.0011448

A linear trend model is computed for average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Research *(other team' given Qualification Ranking (bin)*.

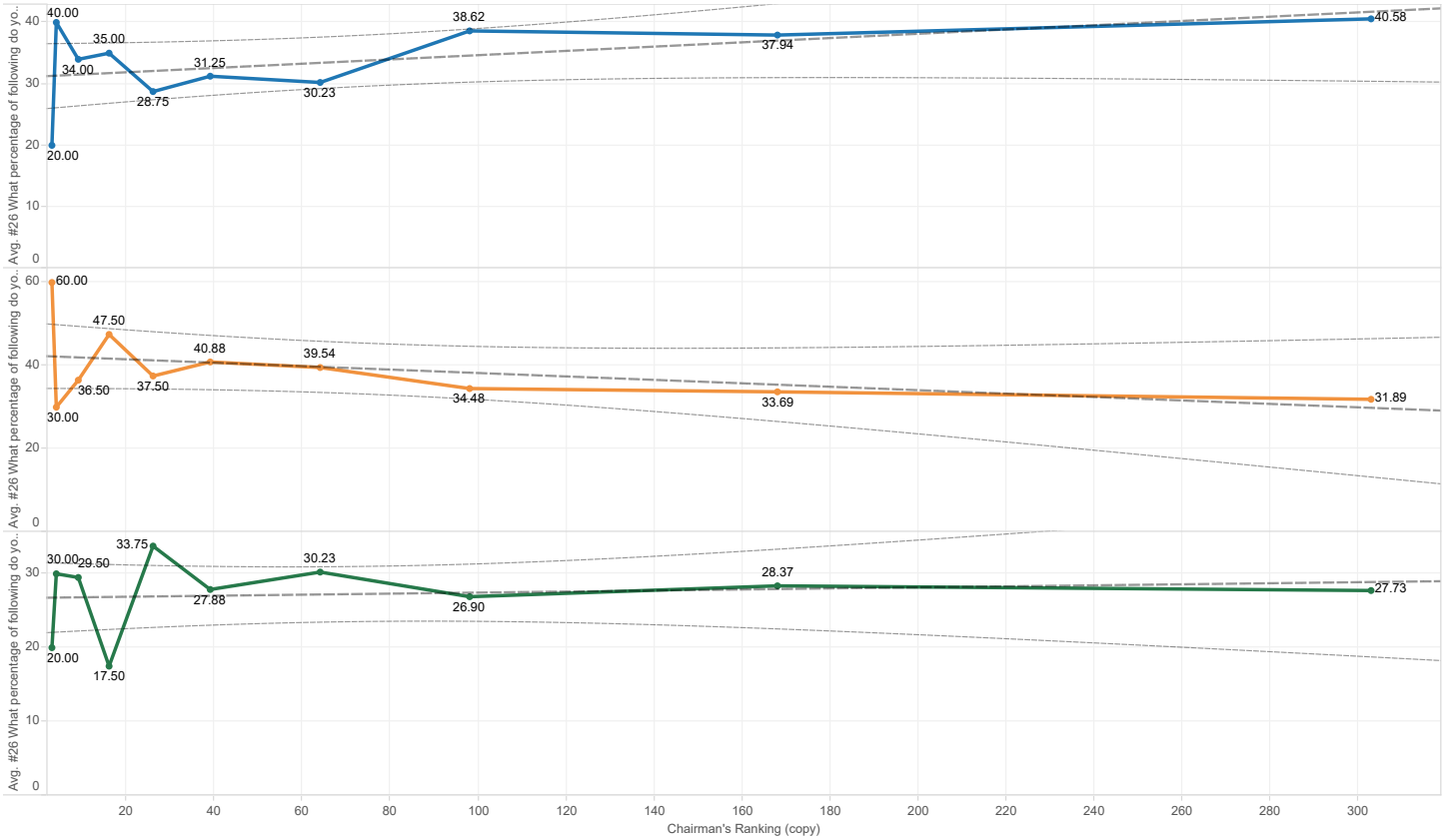
Model formula: (Qualification Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 445.77
MSE (mean squared error): 31.8407
R-Squared: 0.003031
Standard error: 5.64275
p-value (significance): 0.839521

Robot Design vs Chairman's Ranking Component



Average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Blank Slate Approach (emp, average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Iterative Design (on your and average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Research (other team' for each Chairman's Ranking. For pane Average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Iterative Design (on your: The marks are labeled by average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Iterative Design (on your. For pane Average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Research (other team': The marks are labeled by average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Research (other team'. For pane Average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Blank Slate Approach (emp: The marks are labeled by average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Blank Slate Approach (emp.

Robot Design vs Chairman's Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Blank Slate Approach *(emp given Chairman's Ranking (copy)*.

Model formula: (Chairman's Ranking (copy) + intercept)
Number of modeled observations: 10
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 8
SSE (sum squared error): 260.819
MSE (mean squared error): 32.6024
R-Squared: 0.277896
Standard error: 5.70985
p-value (significance): 0.117402

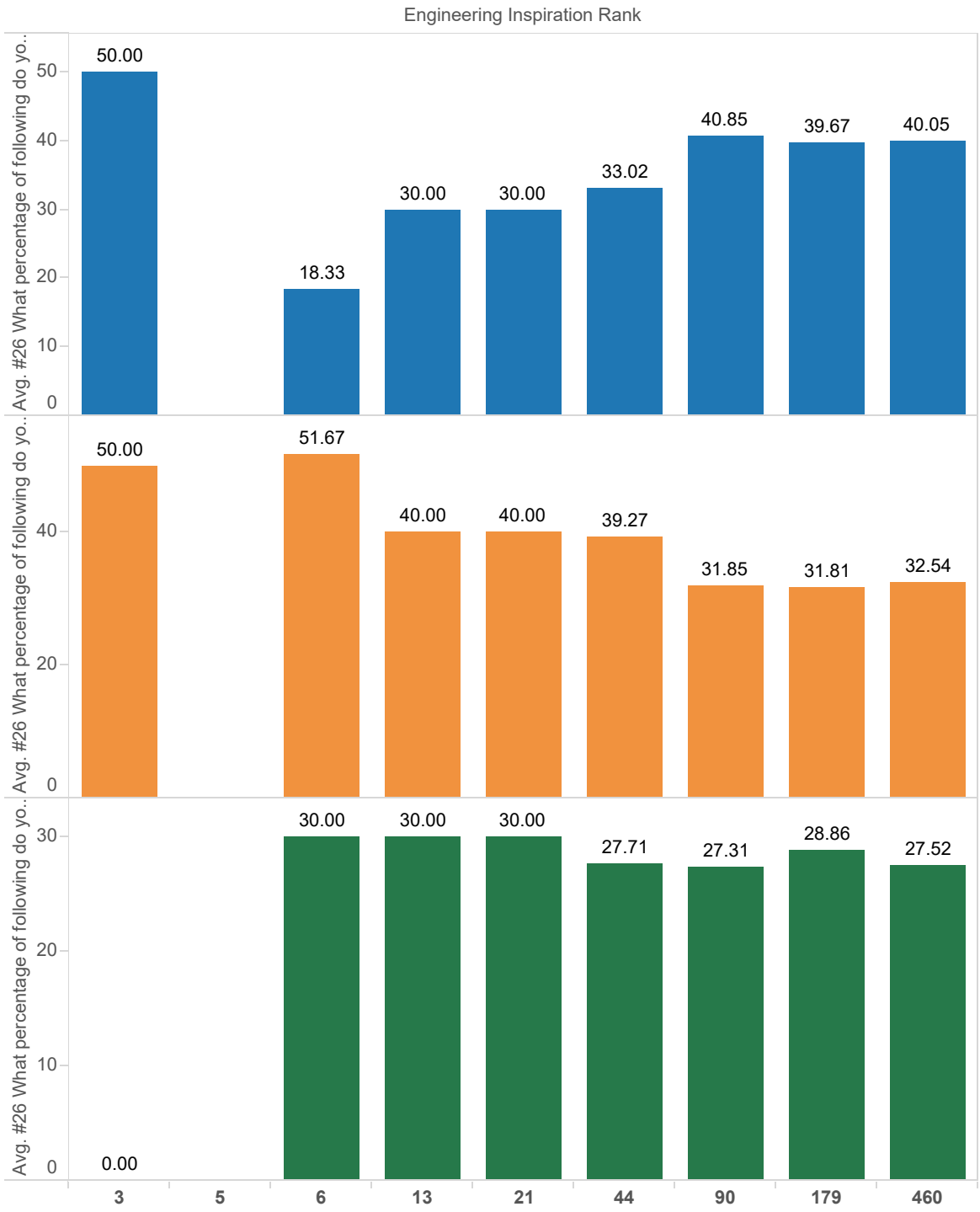
A linear trend model is computed for average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Iterative Design *(on your given Chairman's Ranking (copy)*.

Model formula: (Chairman's Ranking (copy) + intercept)
Number of modeled observations: 10
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 8
SSE (sum squared error): 564.068
MSE (mean squared error): 70.5085
R-Squared: 0.200258
Standard error: 8.39694
p-value (significance): 0.194692

A linear trend model is computed for average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Research *(other team' given Chairman's Ranking (copy)*.

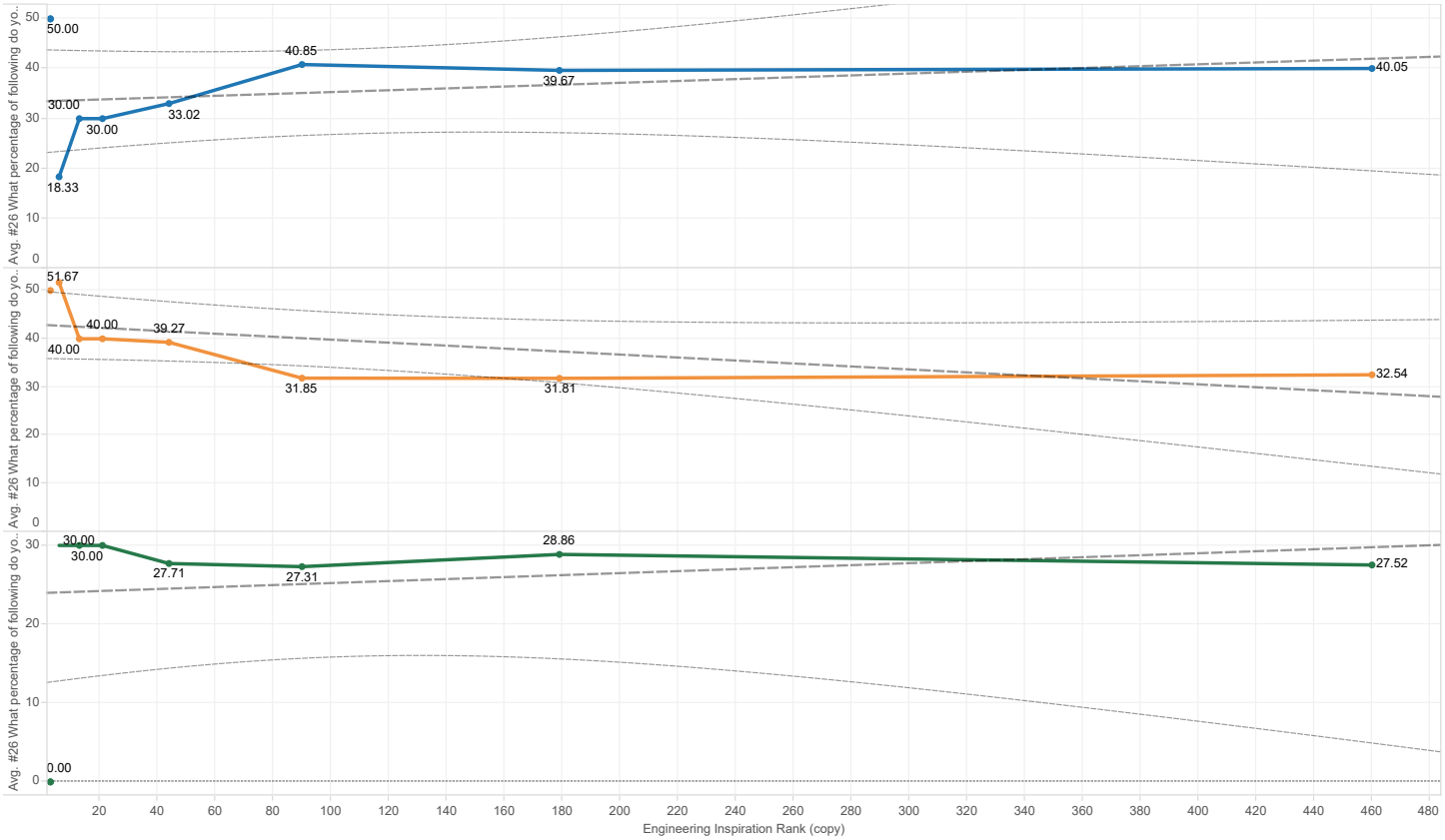
Model formula: (Chairman's Ranking (copy) + intercept)
Number of modeled observations: 10
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 8
SSE (sum squared error): 209.229
MSE (mean squared error): 26.1536
R-Squared: 0.0192779
Standard error: 5.11406
p-value (significance): 0.702064

Robot Design vs Engineering Inspiration Ranking Component



Average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Blank Slate Approach (emp, average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Iterative Design (on your and average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Research (other team' for each Engineering Inspiration Rank. For pane Average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Blank Slate Approach (emp: The marks are labeled by average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Blank Slate Approach (emp. For pane Average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Iterative Design (on your: The marks are labeled by average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Iterative Design (on your. For pane Average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Research (other team': The marks are labeled by average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Research (other team'.

Robot Design vs Engineering Inspiration Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Blank Slate Approach *(emp given Inspiration Rank (copy)*.

Model formula: (Inspiration Rank (copy) + intercept)
Number of modeled observations: 8
Number of filtered observations: 1
Model degrees of freedom: 2
Residual degrees of freedom (DF): 6
SSE (sum squared error): 578.718
MSE (mean squared error): 96.453
R-Squared: 0.0925966
Standard error: 9.82105
p-value (significance): 0.463686

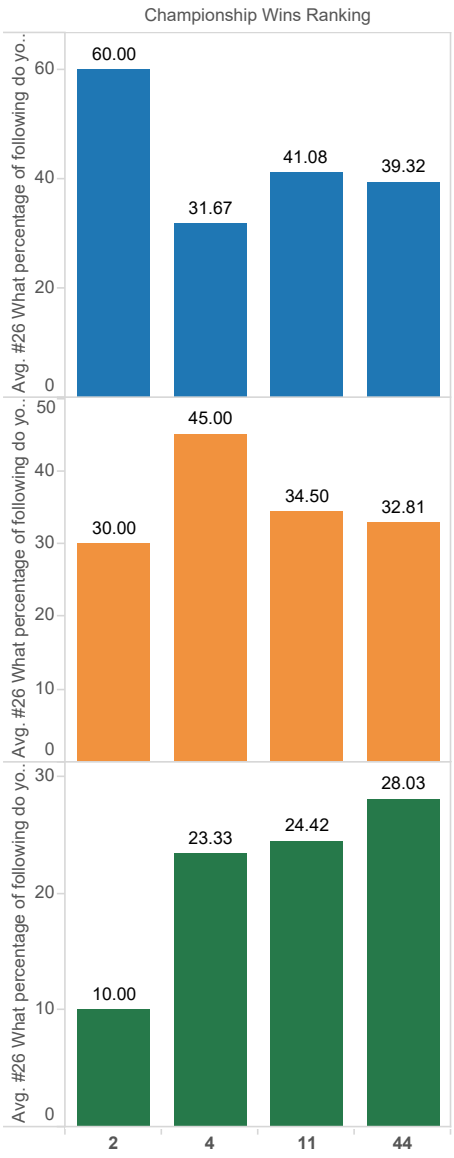
A linear trend model is computed for average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Iterative Design *(on your given Inspiration Rank (copy)*.

Model formula: (Inspiration Rank (copy) + intercept)
Number of modeled observations: 8
Number of filtered observations: 1
Model degrees of freedom: 2
Residual degrees of freedom (DF): 6
SSE (sum squared error): 262.464
MSE (mean squared error): 43.744
R-Squared: 0.382326
Standard error: 6.61393
p-value (significance): 0.102249

A linear trend model is computed for average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Research *(other team' given Inspiration Rank (copy)*.

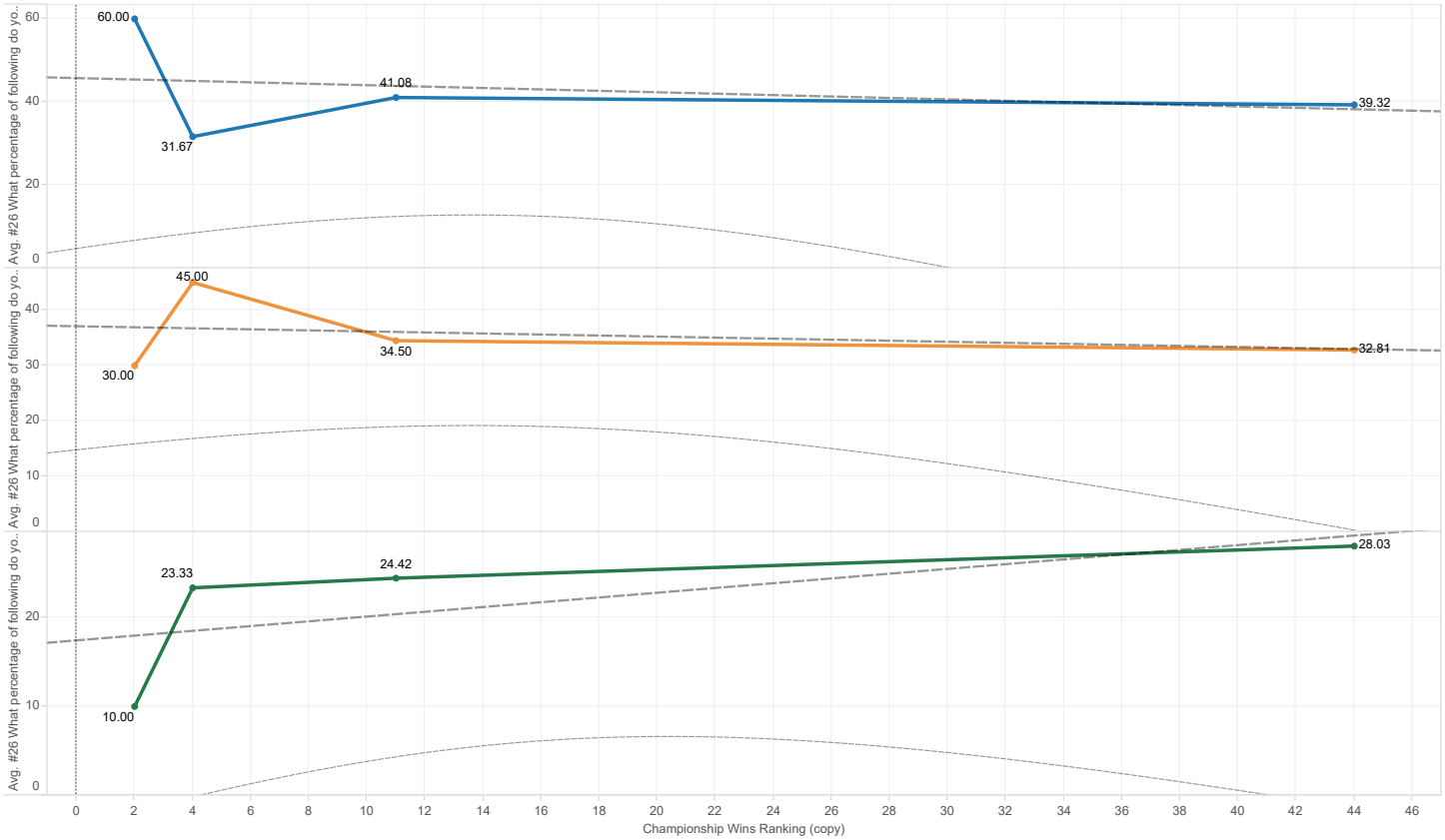
Model formula: (Inspiration Rank (copy) + intercept)
Number of modeled observations: 8
Number of filtered observations: 1
Model degrees of freedom: 2
Residual degrees of freedom (DF): 6
SSE (sum squared error): 706.414
MSE (mean squared error): 117.736
R-Squared: 0.0371353
Standard error: 10.8506
p-value (significance): 0.647523

Robot Design vs Championship Wins Ranking Component



Average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Blank Slate Approach (emp, average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Iterative Design (on your and average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Research (other team' for each Championship Wins Ranking. For pane Average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Blank Slate Approach (emp: The marks are labeled by average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Blank Slate Approach (emp. For pane Average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Iterative Design (on your: The marks are labeled by average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Iterative Design (on your. For pane Average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Research (other team': The marks are labeled by average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Research (other team'.

Robot Design vs Championship Wins Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Blank Slate Approach *(emp given Championship Wins Ranking (copy)*.

Model formula: (Championship Wins Ranking (copy) + intercept)
Number of modeled observations: 4
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 2
SSE (sum squared error): 401.36
MSE (mean squared error): 200.68
R-Squared: 0.0766293
Standard error: 14.1662
p-value (significance): 0.72318

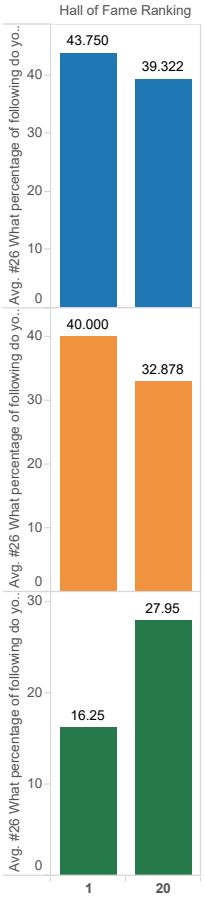
A linear trend model is computed for average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Iterative Design *(on your given Championship Wins Ranking (copy)*.

Model formula: (Championship Wins Ranking (copy) + intercept)
Number of modeled observations: 4
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 2
SSE (sum squared error): 118.711
MSE (mean squared error): 59.3556
R-Squared: 0.0775433
Standard error: 7.70426
p-value (significance): 0.721534

A linear trend model is computed for average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Research *(other team' given Championship Wins Ranking (copy)*.

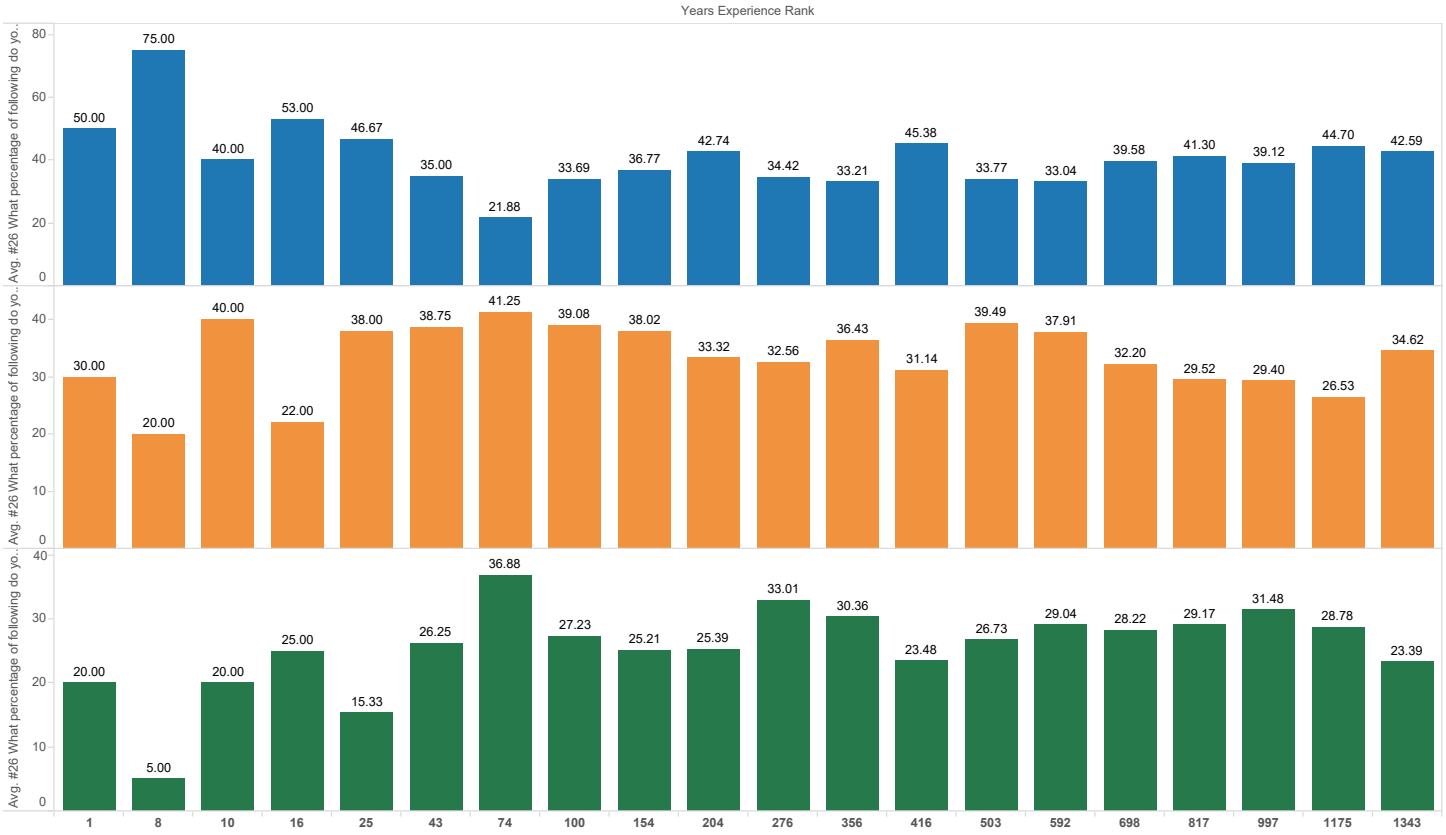
Model formula: (Championship Wins Ranking (copy) + intercept)
Number of modeled observations: 4
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 2
SSE (sum squared error): 104.52
MSE (mean squared error): 52.26
R-Squared: 0.440134
Standard error: 7.2291
p-value (significance): 0.336574

Robot Design vs Hall of Fame Ranking Component



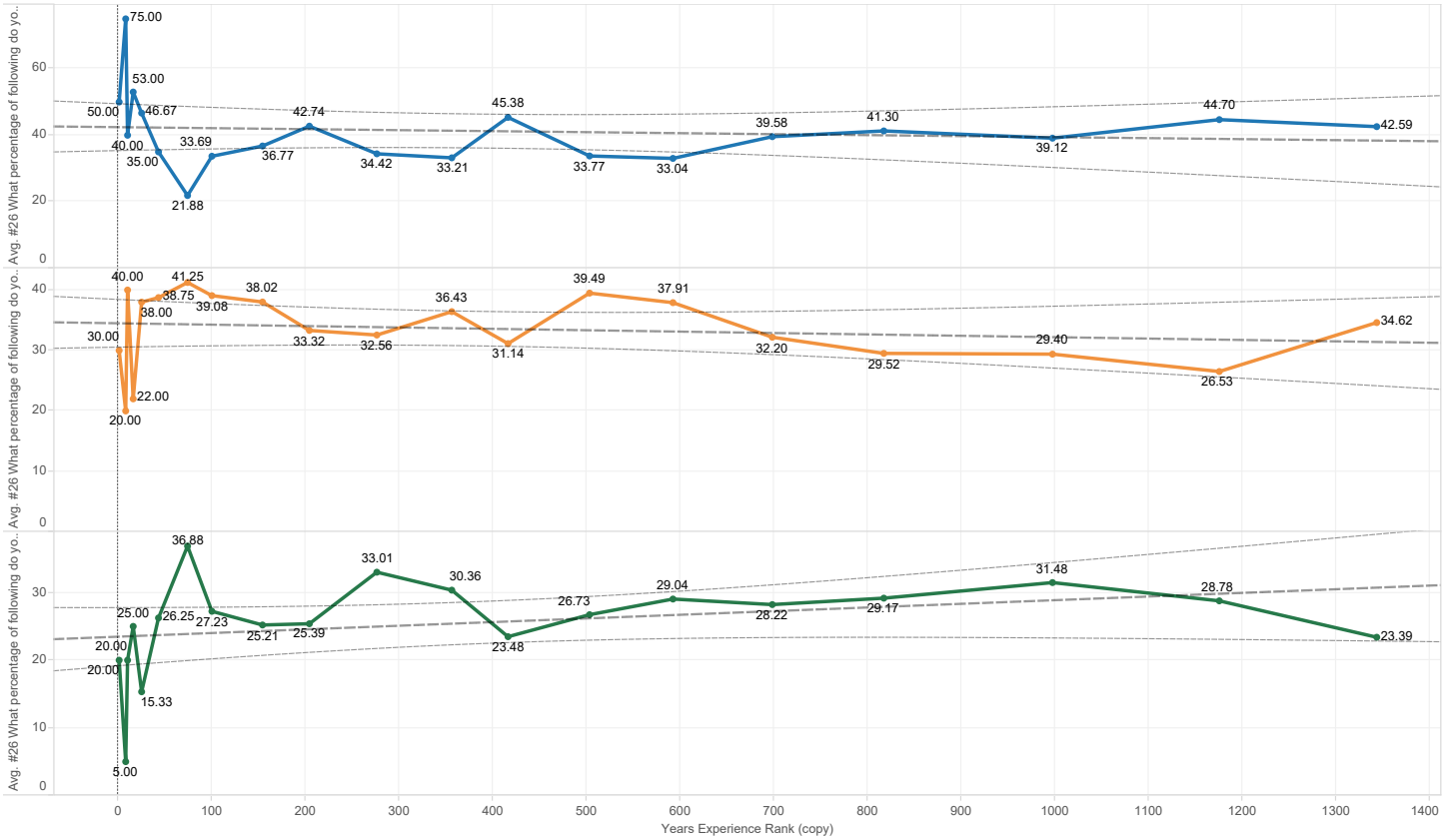
Average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Blank Slate Approach (emp, average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Iterative Design (on your and average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Research (other team' for each Hall of Fame Ranking. For pane Average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Blank Slate Approach (emp: The marks are labeled by average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Blank Slate Approach (emp. For pane Average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Iterative Design (on your: The marks are labeled by average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Iterative Design (on your. For pane Average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Research (other team': The marks are labeled by average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Research (other team'.

Robot Design vs Years Experience Ranking Component



Average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Blank Slate Approach (emp, average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Iterative Design (on your and average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Research (other team' for each Years Experience Rank. For pane Average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Blank Slate Approach (emp: The marks are labeled by average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Blank Slate Approach (emp. For pane Average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Iterative Design (on your: The marks are labeled by average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Iterative Design (on your. For pane Average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Research (other team': The marks are labeled by average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Research (other team'.

Robot Design vs Years Experience Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Blank Slate Approach *(emp given Years Experience Rank (copy)*.

Model formula: (Years Experience Rank (copy) + intercept)
Number of modeled observations: 20
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 18
SSE (sum squared error): 2120.22
MSE (mean squared error): 117.79
R-Squared: 0.014084
Standard error: 10.8531
p-value (significance): 0.618252

A linear trend model is computed for average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Iterative Design *(on your given Years Experience Rank (copy)*.

Model formula: (Years Experience Rank (copy) + intercept)
Number of modeled observations: 20
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 18
SSE (sum squared error): 665.354
MSE (mean squared error): 36.9641
R-Squared: 0.025934
Standard error: 6.07981
p-value (significance): 0.4976

A linear trend model is computed for average of #26 What percentage of following do you utilize to design your robot? (value must total 100)-Research *(other team' given Years Experience Rank (copy)*.

Model formula: (Years Experience Rank (copy) + intercept)
Number of modeled observations: 20
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 18
SSE (sum squared error): 789.874
MSE (mean squared error): 43.8819
R-Squared: 0.109939
Standard error: 6.62434
p-value (significance): 0.153257

Programming Design vs Final Ranking (bin)

Trend Lines Model
A linear trend model is computed for average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Blank Slate Approach *(e given Final Ranking (bin)*.

Model formula: (Final Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 1077.55
MSE (mean squared error): 76.9677
R-Squared: 0.105476
Standard error: 8.77312
p-value (significance): 0.219703

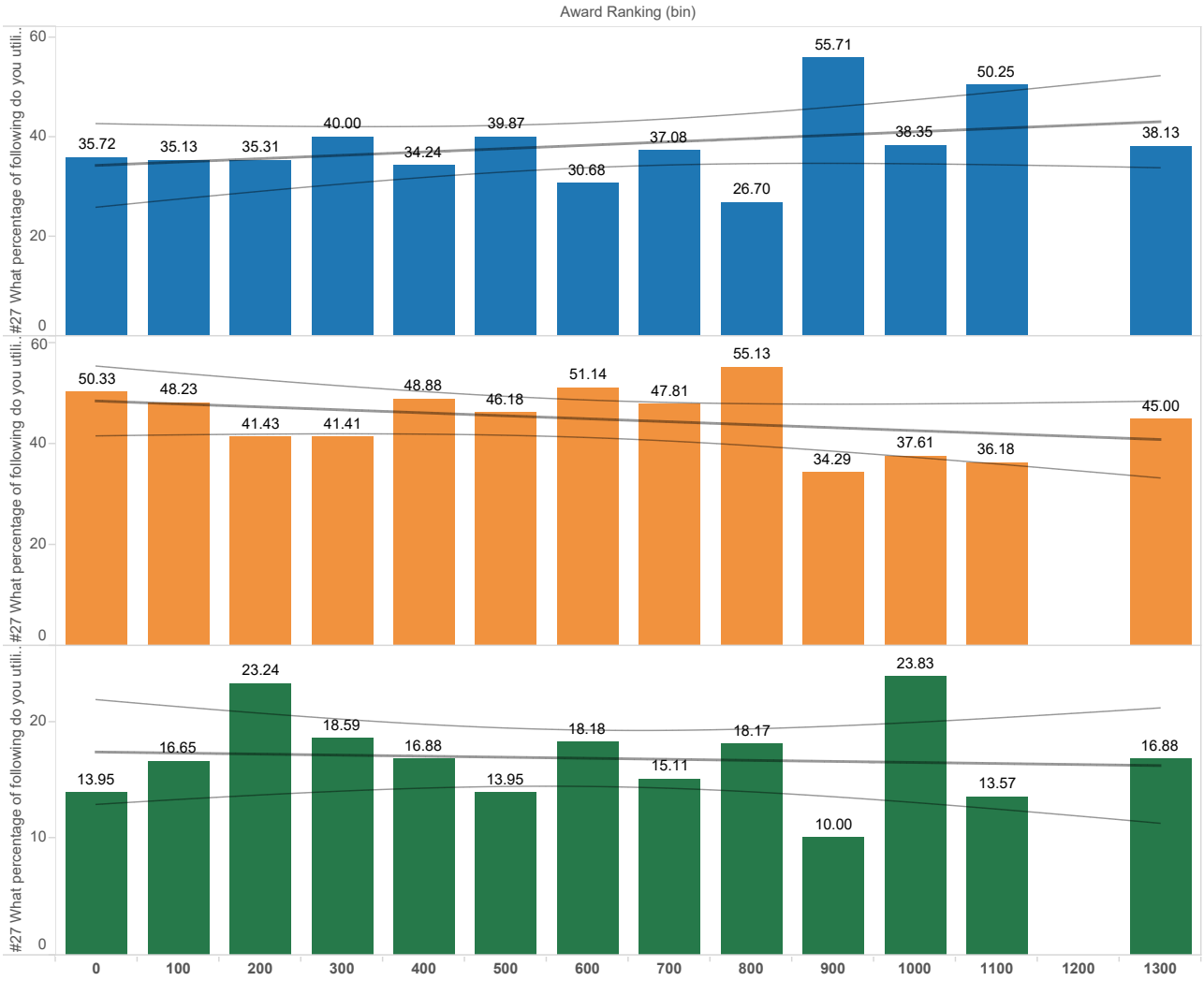
A linear trend model is computed for average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Iterative Design *(on yo given Final Ranking (bin)*.

Model formula: (Final Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 760.072
MSE (mean squared error): 54.2908
R-Squared: 0.176221
Standard error: 7.36823
p-value (significance): 0.1055

A linear trend model is computed for average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Research *(other team&#3 given Final Ranking (bin)*.

Model formula: (Final Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 332.965
MSE (mean squared error): 23.7832
R-Squared: 0.0112663
Standard error: 4.87681
p-value (significance): 0.69562

Programming Design vs Award Ranking Component (bin)



Trend Lines Model
A linear trend model is computed for average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Blank Slate Approach *(e given Award Ranking (bin)*.

Model formula: (Award Ranking (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 599.206
MSE (mean squared error): 54.4732
R-Squared: 0.128689
Standard error: 7.3806
p-value (significance): 0.228711

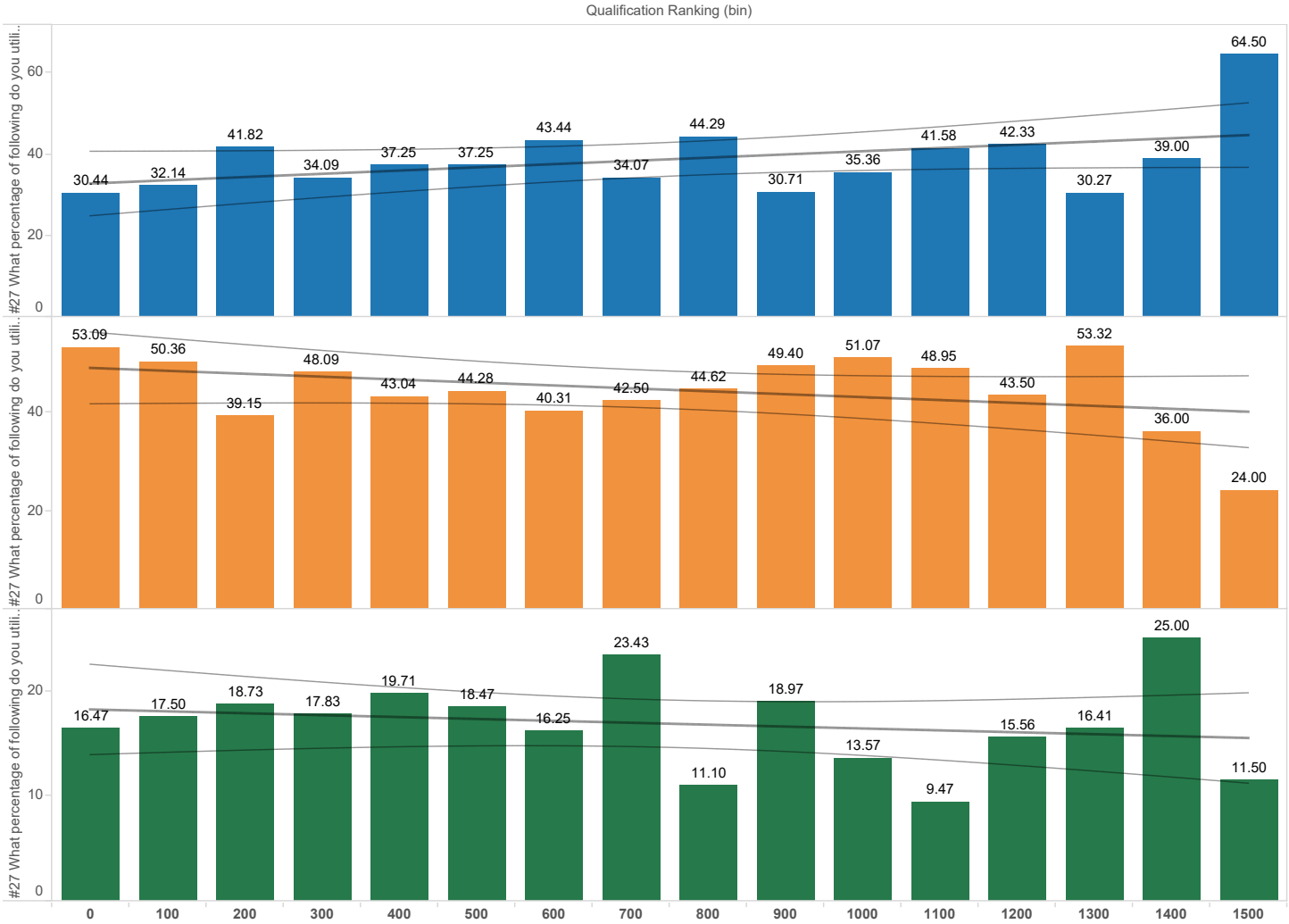
A linear trend model is computed for average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Iterative Design *(on yo given Award Ranking (bin)*.

Model formula: (Award Ranking (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 408.767
MSE (mean squared error): 37.1607
R-Squared: 0.141606
Standard error: 6.09595
p-value (significance): 0.205049

A linear trend model is computed for average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Research *(other team&#3 given Award Ranking (bin)*.

Model formula: (Award Ranking (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 172.057
MSE (mean squared error): 15.6416
R-Squared: 0.0089903
Standard error: 3.95494
p-value (significance): 0.757994

Programming Design vs Qualification Ranking Component (bin)



Trend Lines Model
A linear trend model is computed for average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Blank Slate Approach *(e given Qualification Ranking (bin).*

Model formula: (Qualification Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 840.231
MSE (mean squared error): 60.0165
R-Squared: 0.203375
Standard error: 7.74703
p-value (significance): 0.0795656

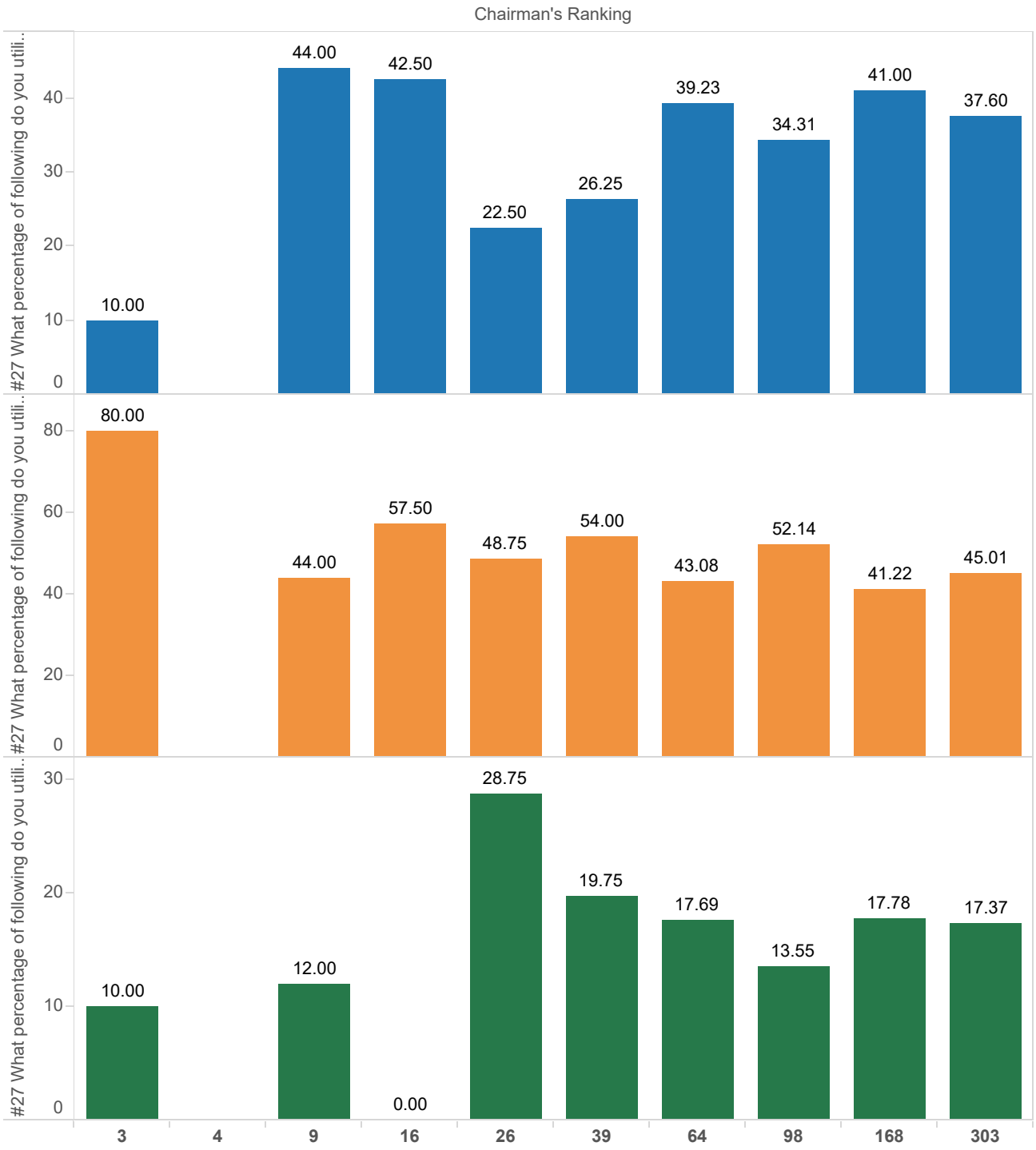
A linear trend model is computed for average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Iterative Design *(on yo given Qualification Ranking (bin).*

Model formula: (Qualification Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 711.676
MSE (mean squared error): 50.834
R-Squared: 0.144127
Standard error: 7.1298
p-value (significance): 0.146963

A linear trend model is computed for average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Research *(other team&#3 given Qualification Ranking (bin).*

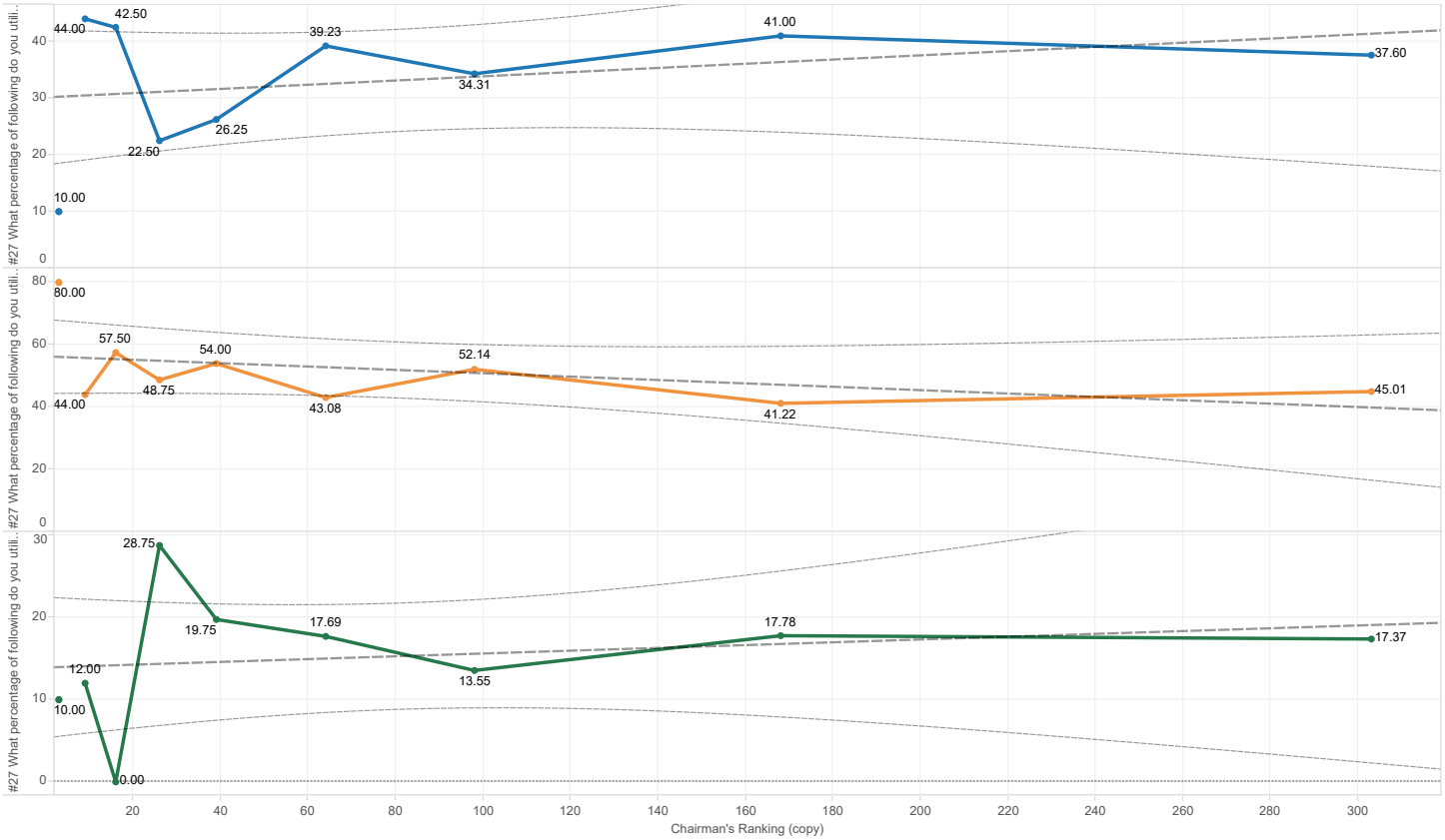
Model formula: (Qualification Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 247.97
MSE (mean squared error): 17.7121
R-Squared: 0.0431491
Standard error: 4.20858
p-value (significance): 0.440131

Programming Design vs Chairman's Ranking Component



Average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Blank Slate Approach (e, average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Iterative Design (on yo and average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Research (other team&#3 for each Chairman's Ranking. For pane Average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Blank Slate Approach (e: The marks are labeled by average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Blank Slate Approach (e. For pane Average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Iterative Design (on yo: The marks are labeled by average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Iterative Design (on yo. For pane Average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Research (other team&#3: The marks are labeled by average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Research (other team&#3.

Programming Design vs Chairman's Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Blank Slate Approach *(e given Chairman's Ranking (copy)*.

Model formula: (Chairman's Ranking (copy) + intercept)
Number of modeled observations: 9
Number of filtered observations: 1
Model degrees of freedom: 2
Residual degrees of freedom (DF): 7
SSE (sum squared error): 915.102
MSE (mean squared error): 130.729
R-Squared: 0.104342
Standard error: 11.4337
p-value (significance): 0.396515

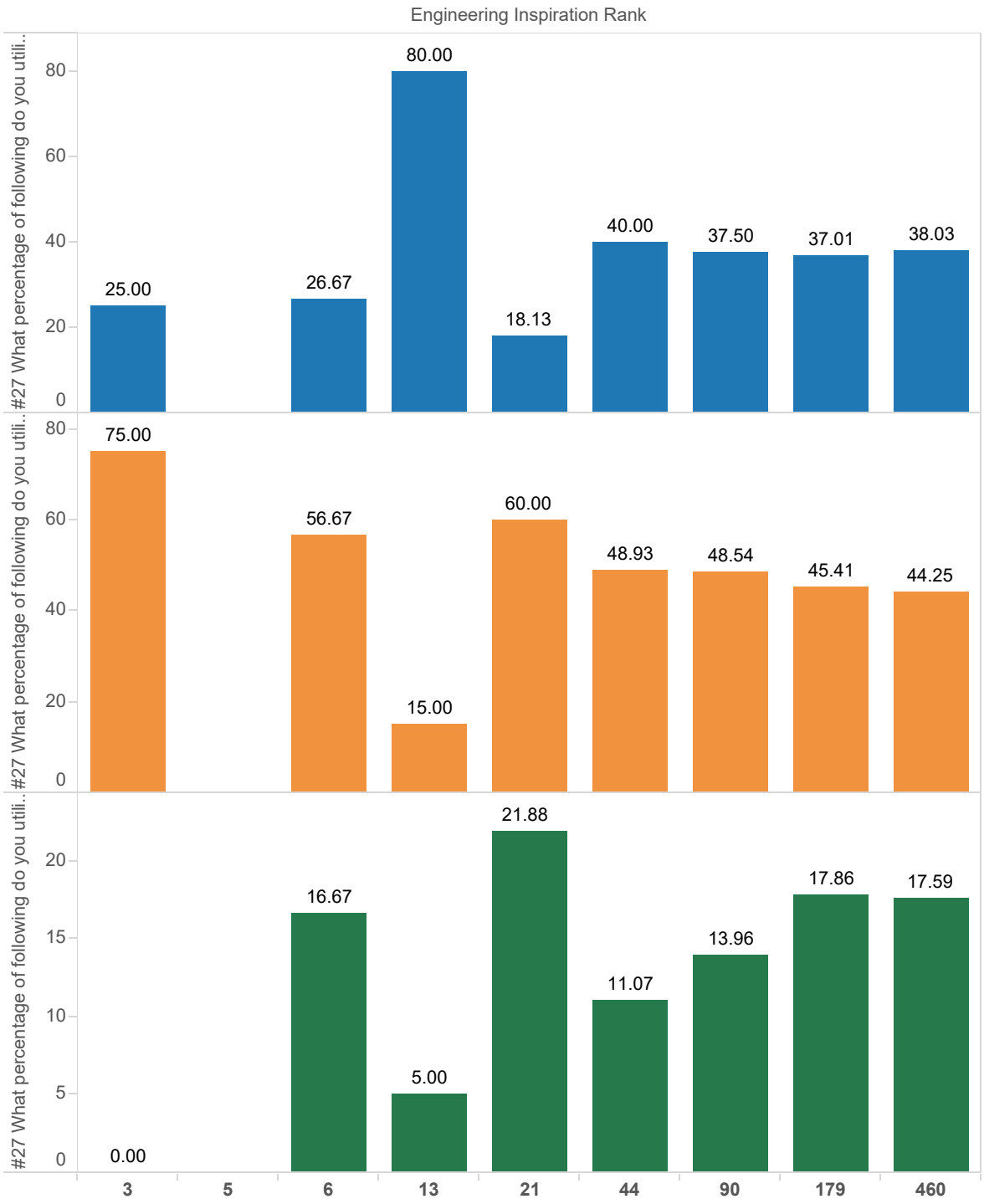
A linear trend model is computed for average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Iterative Design *(on yo given Chairman's Ranking (copy)*.

Model formula: (Chairman's Ranking (copy) + intercept)
Number of modeled observations: 9
Number of filtered observations: 1
Model degrees of freedom: 2
Residual degrees of freedom (DF): 7
SSE (sum squared error): 909.124
MSE (mean squared error): 129.875
R-Squared: 0.200354
Standard error: 11.3963
p-value (significance): 0.226992

A linear trend model is computed for average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Research *(other team&#3 given Chairman's Ranking (copy)*.

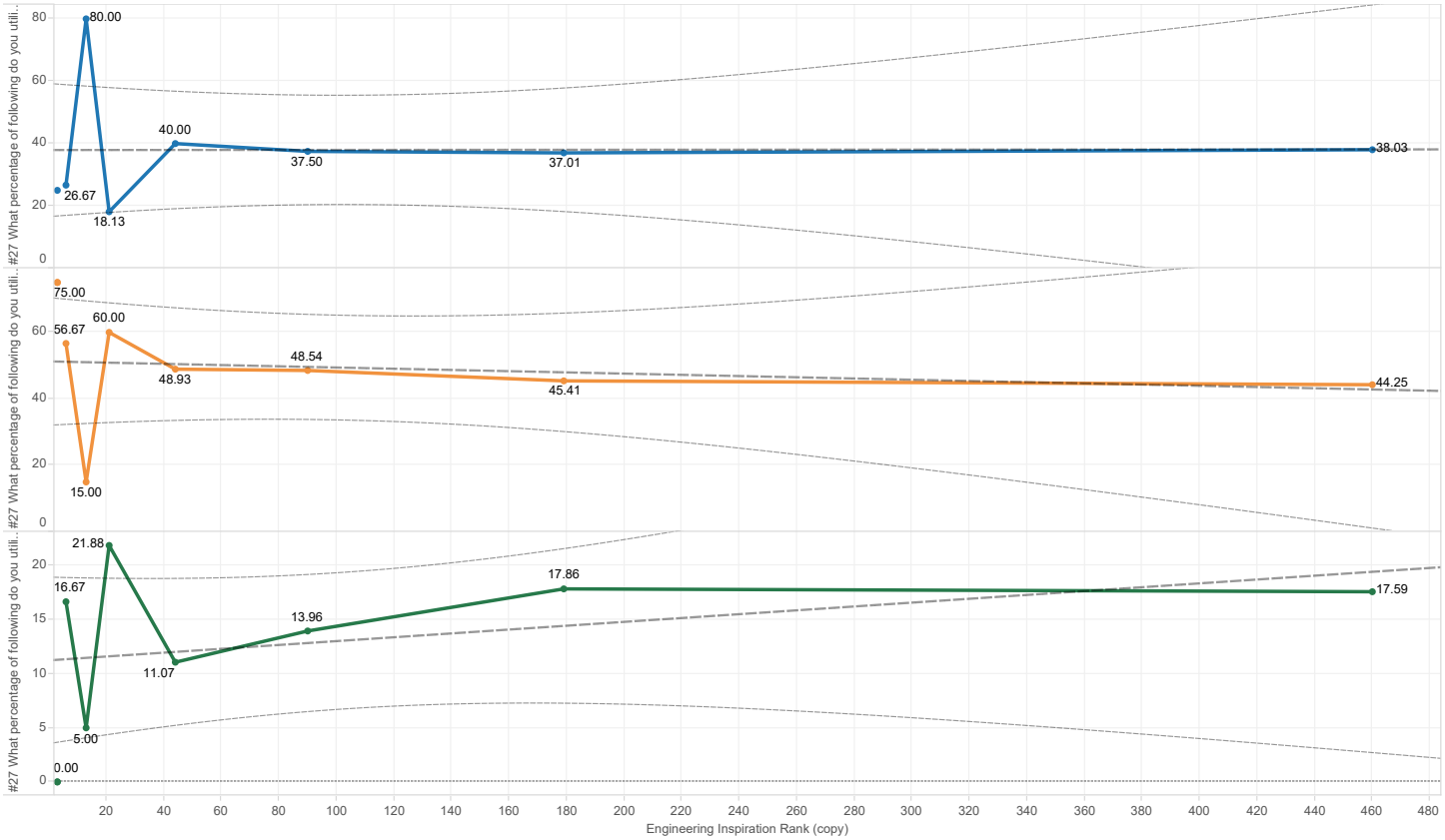
Model formula: (Chairman's Ranking (copy) + intercept)
Number of modeled observations: 9
Number of filtered observations: 1
Model degrees of freedom: 2
Residual degrees of freedom (DF): 7
SSE (sum squared error): 470.36
MSE (mean squared error): 67.1943
R-Squared: 0.0457728
Standard error: 8.19722
p-value (significance): 0.580438

Programming Design vs Engineering Inspiration Ranking Component



Average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Blank Slate Approach (e, average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Iterative Design (on yo and average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Research (other team&#3 for each Engineering Inspiration Rank. For pane Average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Blank Slate Approach (e: The marks are labeled by average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Blank Slate Approach (e. For pane Average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Iterative Design (on yo: The marks are labeled by average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Iterative Design (on yo. For pane Average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Research (other team&#3: The marks are labeled by average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Research (other team&#3.

Programming Design vs Engineering Inspiration Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Blank Slate Approach *(e given Inspiration Rank (copy)*.

Model formula: (Inspiration Rank (copy) + intercept)
Number of modeled observations: 8
Number of filtered observations: 1
Model degrees of freedom: 2
Residual degrees of freedom (DF): 6
SSE (sum squared error): 2461.31
MSE (mean squared error): 410.218
R-Squared: 1.168e-05
Standard error: 20.2539
p-value (significance): 0.993593

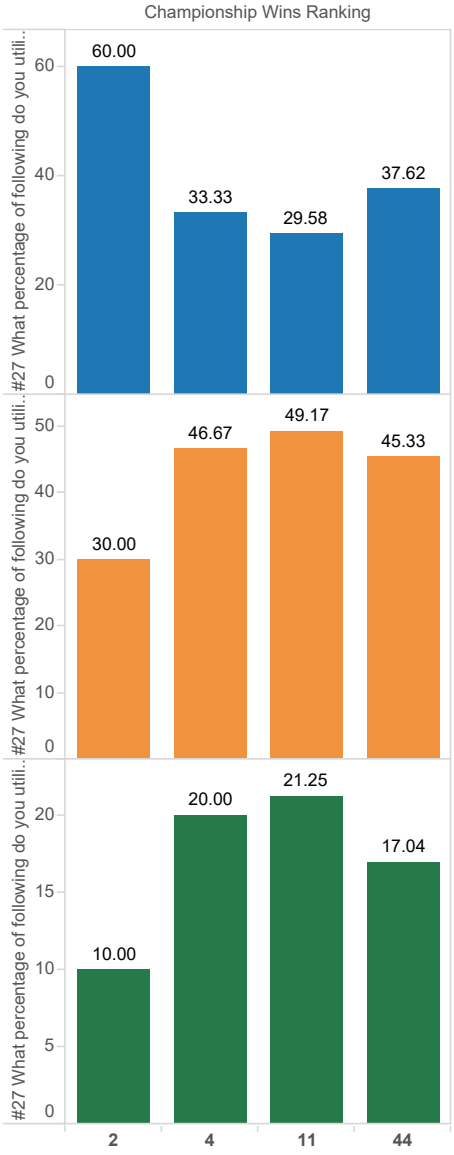
A linear trend model is computed for average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Iterative Design *(on yo given Inspiration Rank (copy)*.

Model formula: (Inspiration Rank (copy) + intercept)
Number of modeled observations: 8
Number of filtered observations: 1
Model degrees of freedom: 2
Residual degrees of freedom (DF): 6
SSE (sum squared error): 1989.34
MSE (mean squared error): 331.556
R-Squared: 0.0281813
Standard error: 18.2087
p-value (significance): 0.691102

A linear trend model is computed for average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Research *(other team&#3 given Inspiration Rank (copy)*.

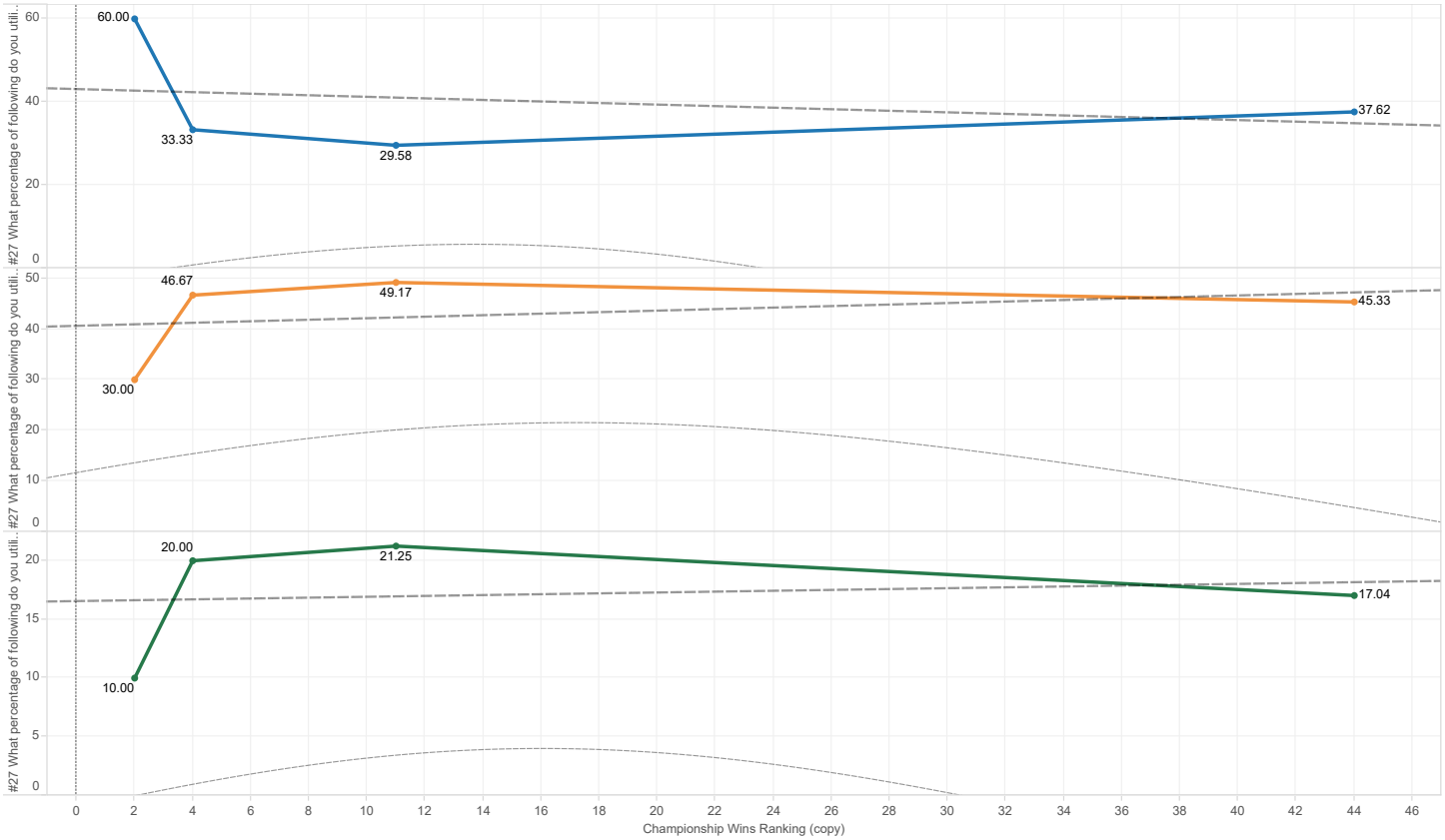
Model formula: (Inspiration Rank (copy) + intercept)
Number of modeled observations: 8
Number of filtered observations: 1
Model degrees of freedom: 2
Residual degrees of freedom (DF): 6
SSE (sum squared error): 320.278
MSE (mean squared error): 53.3797
R-Squared: 0.144842
Standard error: 7.30614
p-value (significance): 0.352321

Programming Design vs Championship Wins Ranking Component



Average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Blank Slate Approach (e, average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Iterative Design (on yo and average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Research (other team&#3 for each Championship Wins Ranking. For pane Average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Blank Slate Approach (e: The marks are labeled by average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Blank Slate Approach (e. For pane Average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Iterative Design (on yo: The marks are labeled by average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Iterative Design (on yo. For pane Average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Research (other team&#3: The marks are labeled by average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Research (other team&#3.

Programming Design vs Championship Wins Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Blank Slate Approach *(e given Championship Wins Ranking (copy)*.

Model formula: (Championship Wins Ranking (copy) + intercept)
Number of modeled observations: 4
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 2
SSE (sum squared error): 518.563
MSE (mean squared error): 259.281
R-Squared: 0.0715638
Standard error: 16.1022
p-value (significance): 0.732486

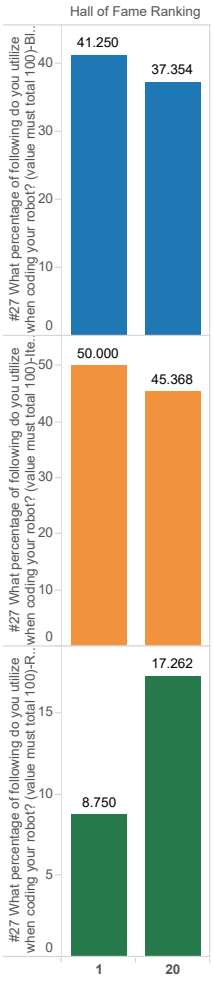
A linear trend model is computed for average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Iterative Design *(on yo given Championship Wins Ranking (copy)*.

Model formula: (Championship Wins Ranking (copy) + intercept)
Number of modeled observations: 4
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 2
SSE (sum squared error): 200.012
MSE (mean squared error): 100.006
R-Squared: 0.113821
Standard error: 10.0003
p-value (significance): 0.662627

A linear trend model is computed for average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Research *(other team&#3 given Championship Wins Ranking (copy)*.

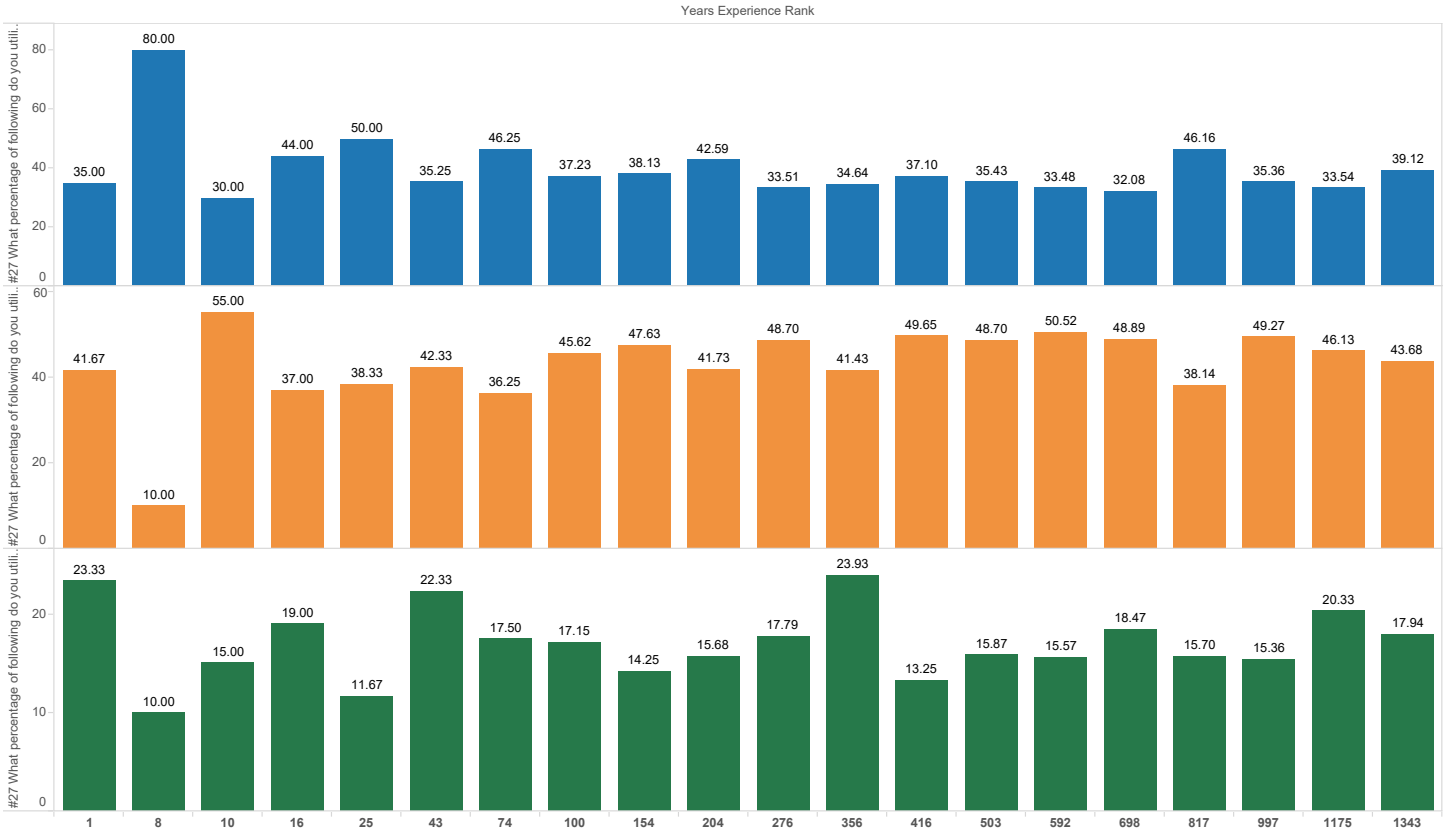
Model formula: (Championship Wins Ranking (copy) + intercept)
Number of modeled observations: 4
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 2
SSE (sum squared error): 74.5066
MSE (mean squared error): 37.2533
R-Squared: 0.0202089
Standard error: 6.10355
p-value (significance): 0.857842

Programming Design vs Hall of Fame Ranking Component



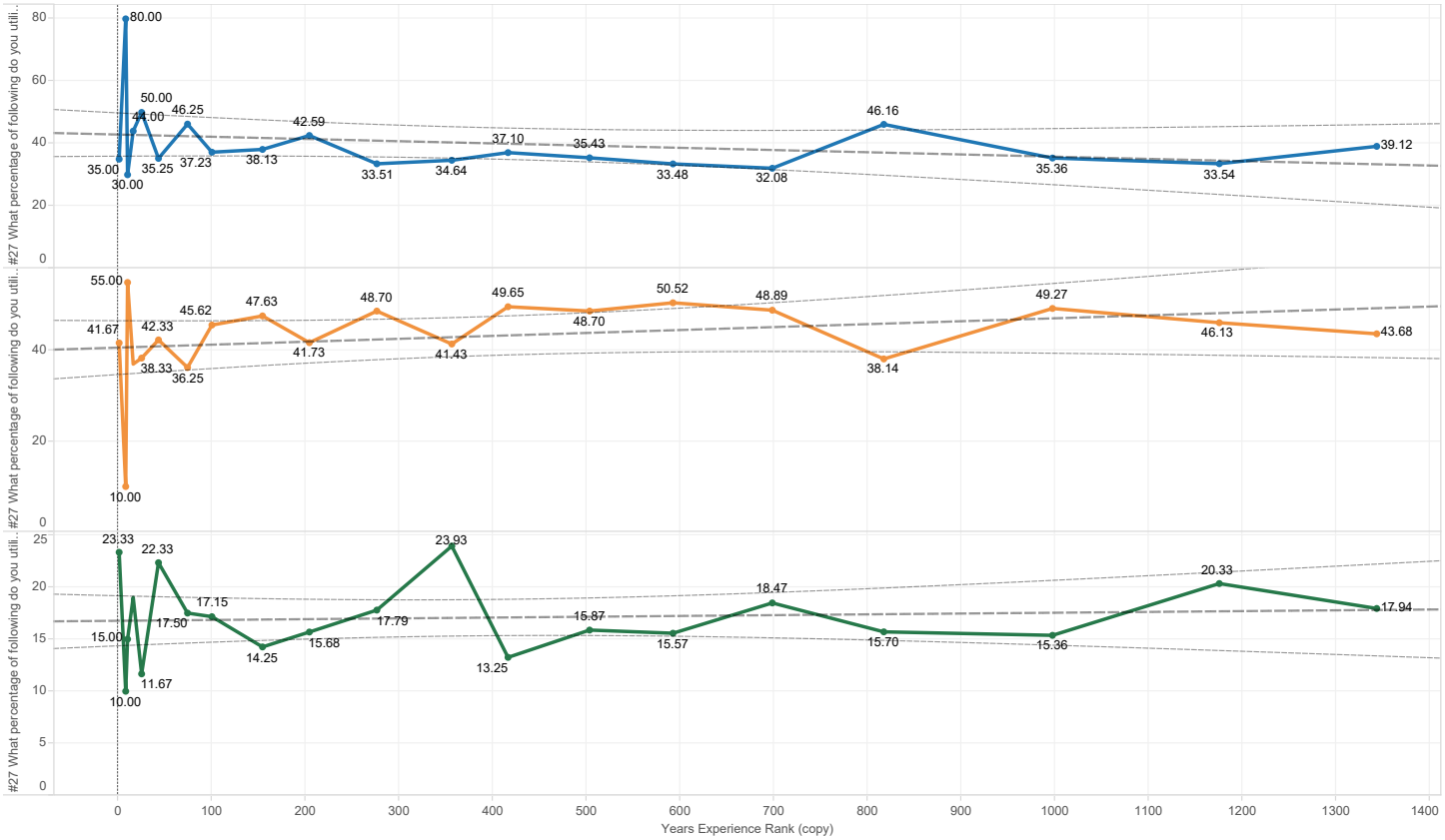
Average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Blank Slate Approach (e, average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Iterative Design (on yo and average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Research (other team&#3 for each Hall of Fame Ranking. For pane Average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Blank Slate Approach (e: The marks are labeled by average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Blank Slate Approach (e. For pane Average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Iterative Design (on yo: The marks are labeled by average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Iterative Design (on yo. For pane Average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Research (other team&#3: The marks are labeled by average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Research (other team&#3.

Programming Design vs Years Experience Ranking Component



Average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Blank Slate Approach (e, average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Iterative Design (on yo and average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Research (other team&#3 for each Years Experience Rank. For pane Average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Blank Slate Approach (e: The marks are labeled by average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Blank Slate Approach (e. For pane Average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Iterative Design (on yo: The marks are labeled by average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Iterative Design (on yo. For pane Average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Research (other team&#3: The marks are labeled by average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Research (other team&#3.

Programming Design vs Years Experience Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Blank Slate Approach *(e given Years Experience Rank (copy)*.

Model formula: (Years Experience Rank (copy) + intercept)
Number of modeled observations: 20
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 18
SSE (sum squared error): 2059
MSE (mean squared error): 114.389
R-Squared: 0.0757269
Standard error: 10.6953
p-value (significance): 0.240288

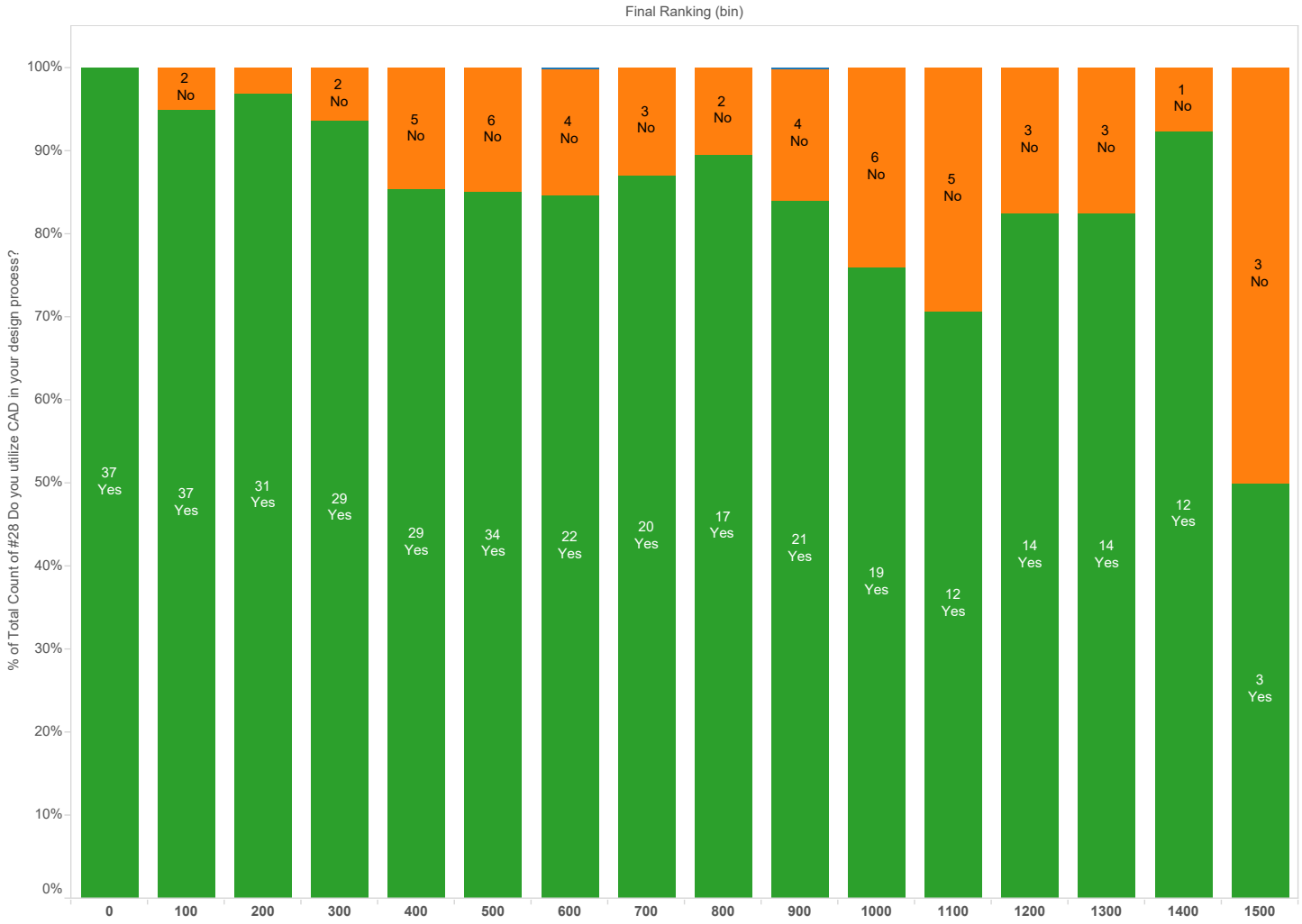
A linear trend model is computed for average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Iterative Design *(on yo given Years Experience Rank (copy)*.

Model formula: (Years Experience Rank (copy) + intercept)
Number of modeled observations: 20
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 18
SSE (sum squared error): 1504.44
MSE (mean squared error): 83.5799
R-Squared: 0.0851323
Standard error: 9.14221
p-value (significance): 0.211952

A linear trend model is computed for average of #27 What percentage of following do you utilize when coding your robot? (value must total 100)-Research *(other team&#3 given Years Experience Rank (copy)*.

Model formula: (Years Experience Rank (copy) + intercept)
Number of modeled observations: 20
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 18
SSE (sum squared error): 246.134
MSE (mean squared error): 13.6741
R-Squared: 0.0080579
Standard error: 3.69785
p-value (significance): 0.706651

CAD Utilization vs Final Ranking (bin)

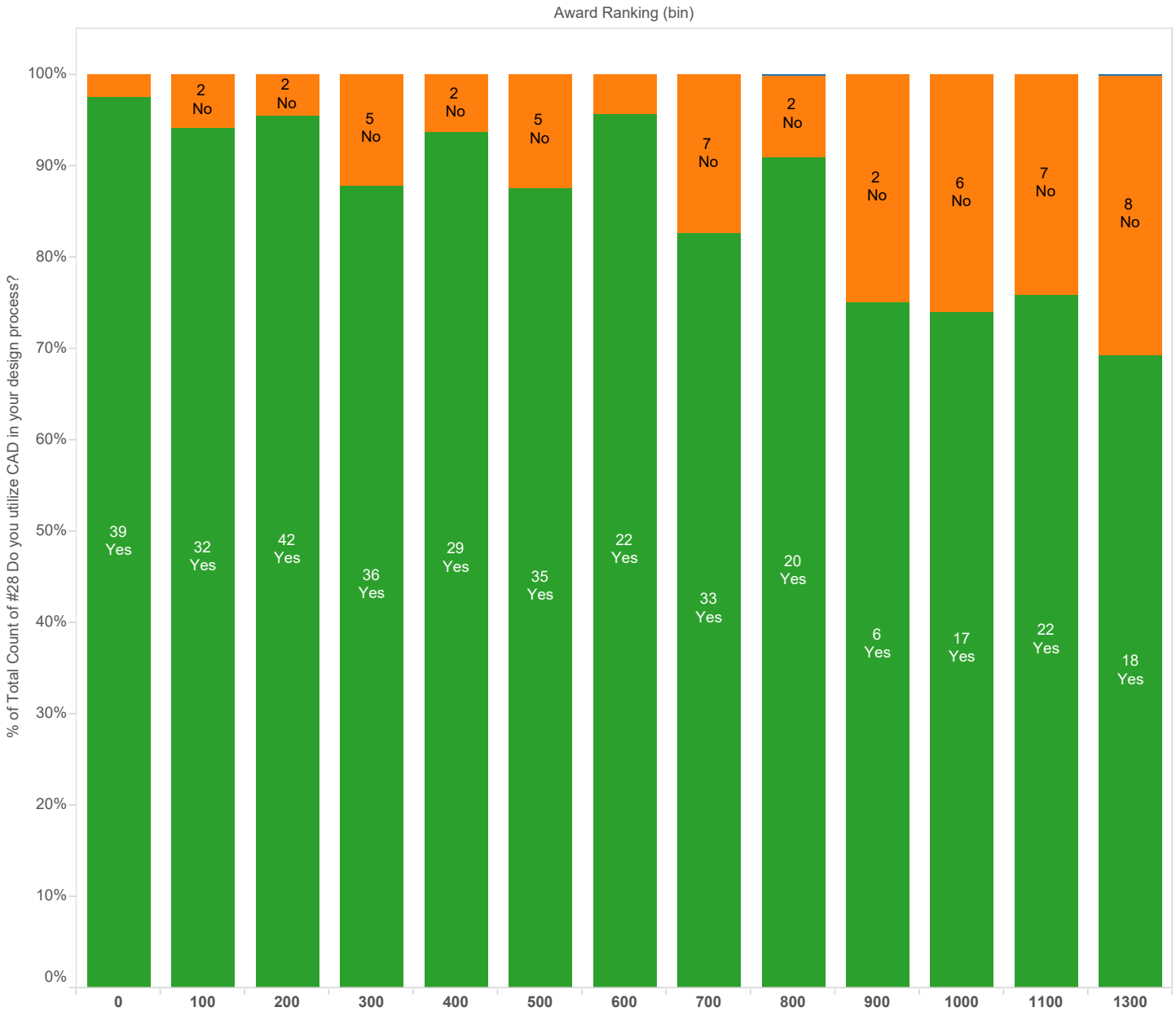


% of Total Count of #28 Do you utilize CAD in your design process? for each Final Ranking (bin). Color shows details about #28 Do you utilize CAD in your design process?. The marks are labeled by count of #28 Do you utilize CAD in your design process? and #28 Do you utilize CAD in your design process?.

#28 Do you utilize CAD in your design process?

- Null
- No
- Yes

CAD Utilization vs Award Ranking Component (bin)

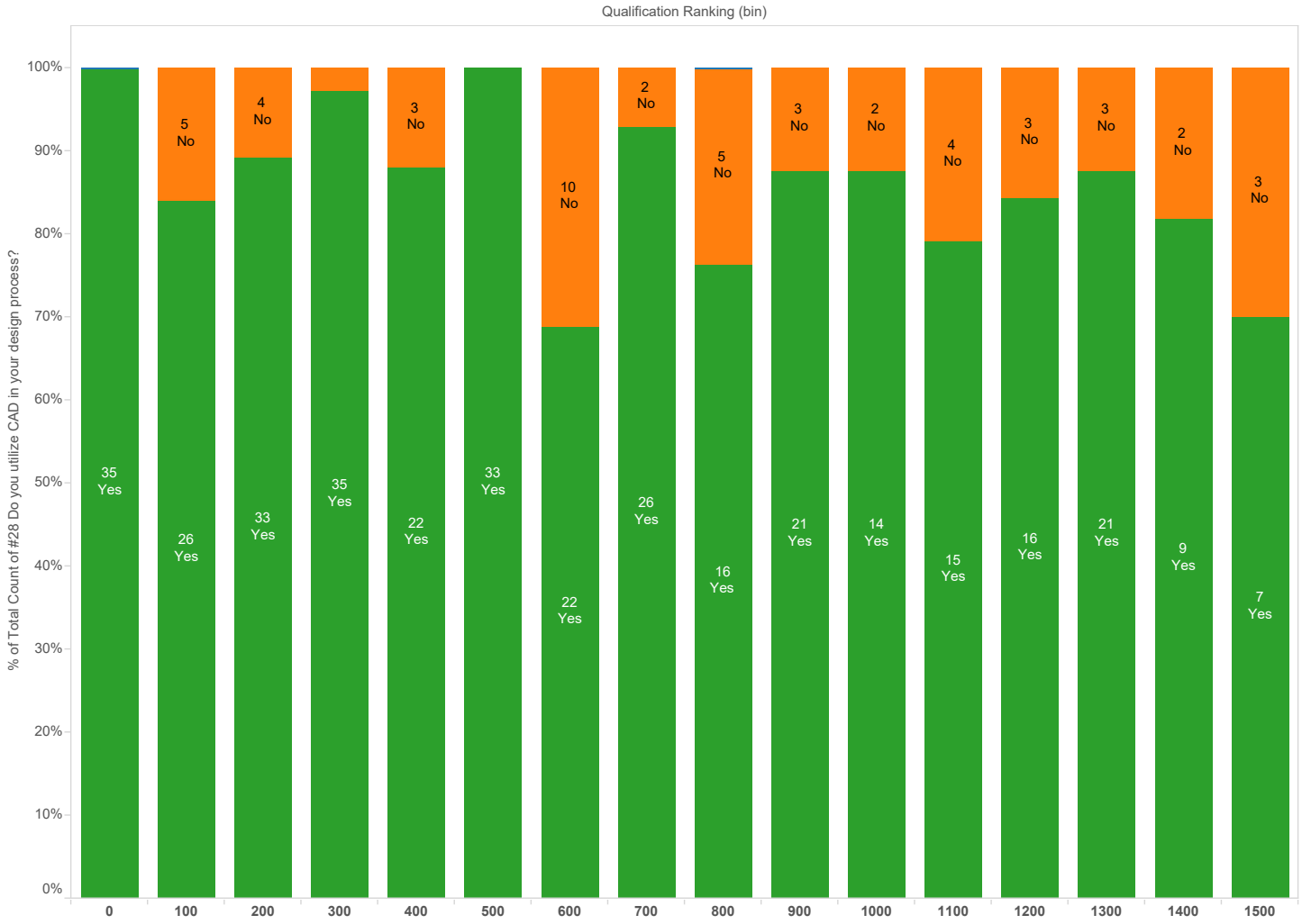


% of Total Count of #28 Do you utilize CAD in your design process? for each Award Ranking (bin). Color shows details about #28 Do you utilize CAD in your design process?. The marks are labeled by count of #28 Do you utilize CAD in your design process? and #28 Do you utilize CAD in your design process?.

#28 Do you utilize CAD in your design process?

- Null
- No
- Yes

CAD Utilization vs Qualification Ranking Component (bin)

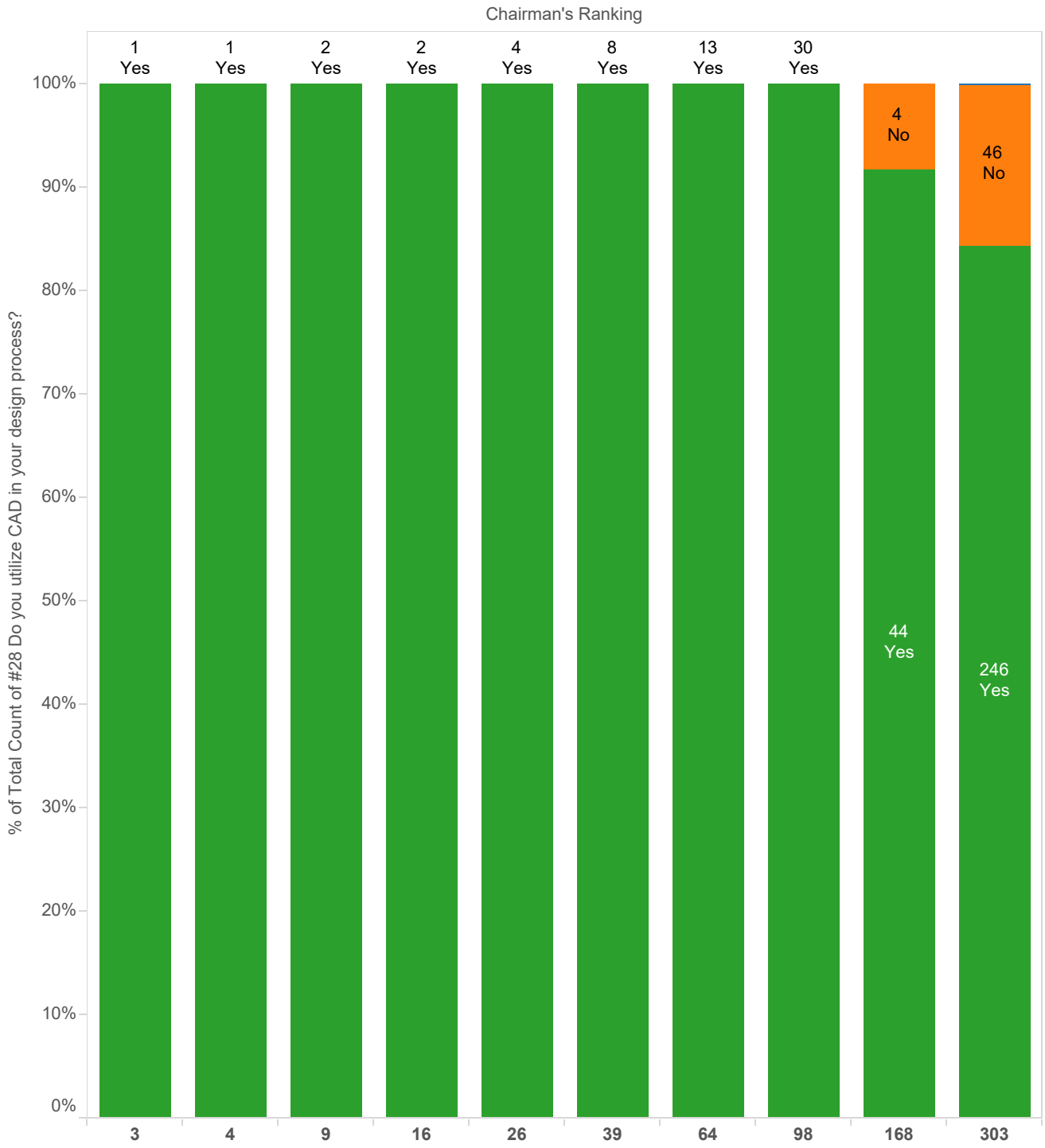


% of Total Count of #28 Do you utilize CAD in your design process? for each Qualification Ranking (bin). Color shows details about #28 Do you utilize CAD in your design process?. The marks are labeled by count of #28 Do you utilize CAD in your design process? and #28 Do you utilize CAD in your design process?.

#28 Do you utilize CAD in your design process?

- Null
- No
- Yes

CAD Utilization vs Chairman's Ranking Component

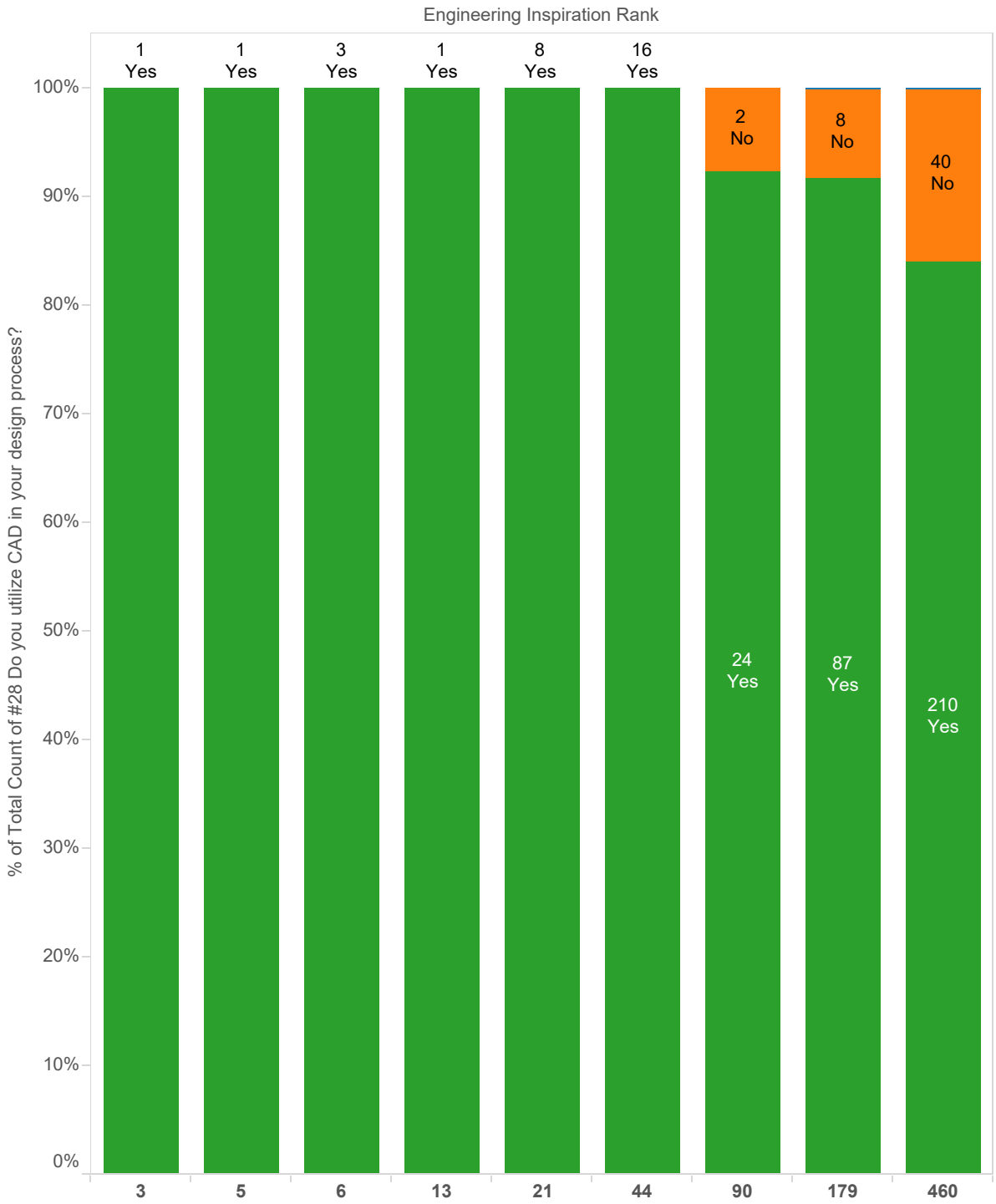


% of Total Count of #28 Do you utilize CAD in your design process? for each Chairman's Ranking. Color shows details about #28 Do you utilize CAD in your design process?. The marks are labeled by count of #28 Do you utilize CAD in your design process? and #28 Do you utilize CAD in your design process?.

#28 Do you utilize CAD in your design process?

- Null
- No
- Yes

CAD Utilization vs Engineering Inspiration Ranking Component

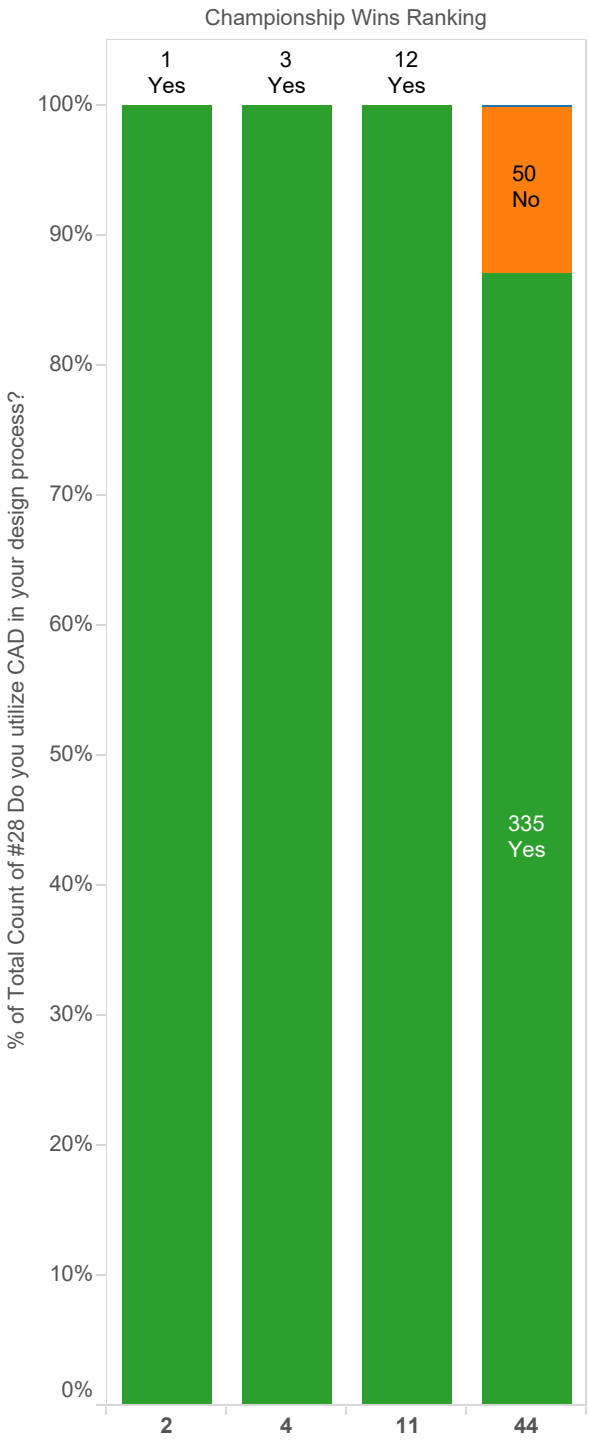


% of Total Count of #28 Do you utilize CAD in your design process? for each Engineering Inspiration Rank. Color shows details about #28 Do you utilize CAD in your design process?. The marks are labeled by count of #28 Do you utilize CAD in your design process? and #28 Do you utilize CAD in your design process?.

#28 Do you utilize CAD in your design process?

- Null
- No
- Yes

CAD Utilization vs Championship Wins Ranking Component

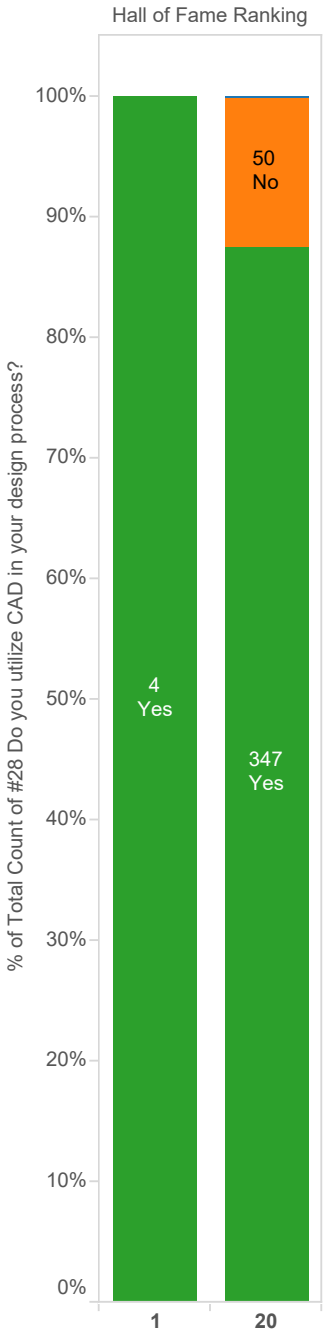


% of Total Count of #28 Do you utilize CAD in your design process? for each Championship Wins Ranking. Color shows details about #28 Do you utilize CAD in your design process?. The marks are labeled by count of #28 Do you utilize CAD in your design process? and #28 Do you utilize CAD in your design process?.

#28 Do you utilize CAD in your design process?

- Null
- No
- Yes

CAD Utilization vs Hall of Fame Ranking Component

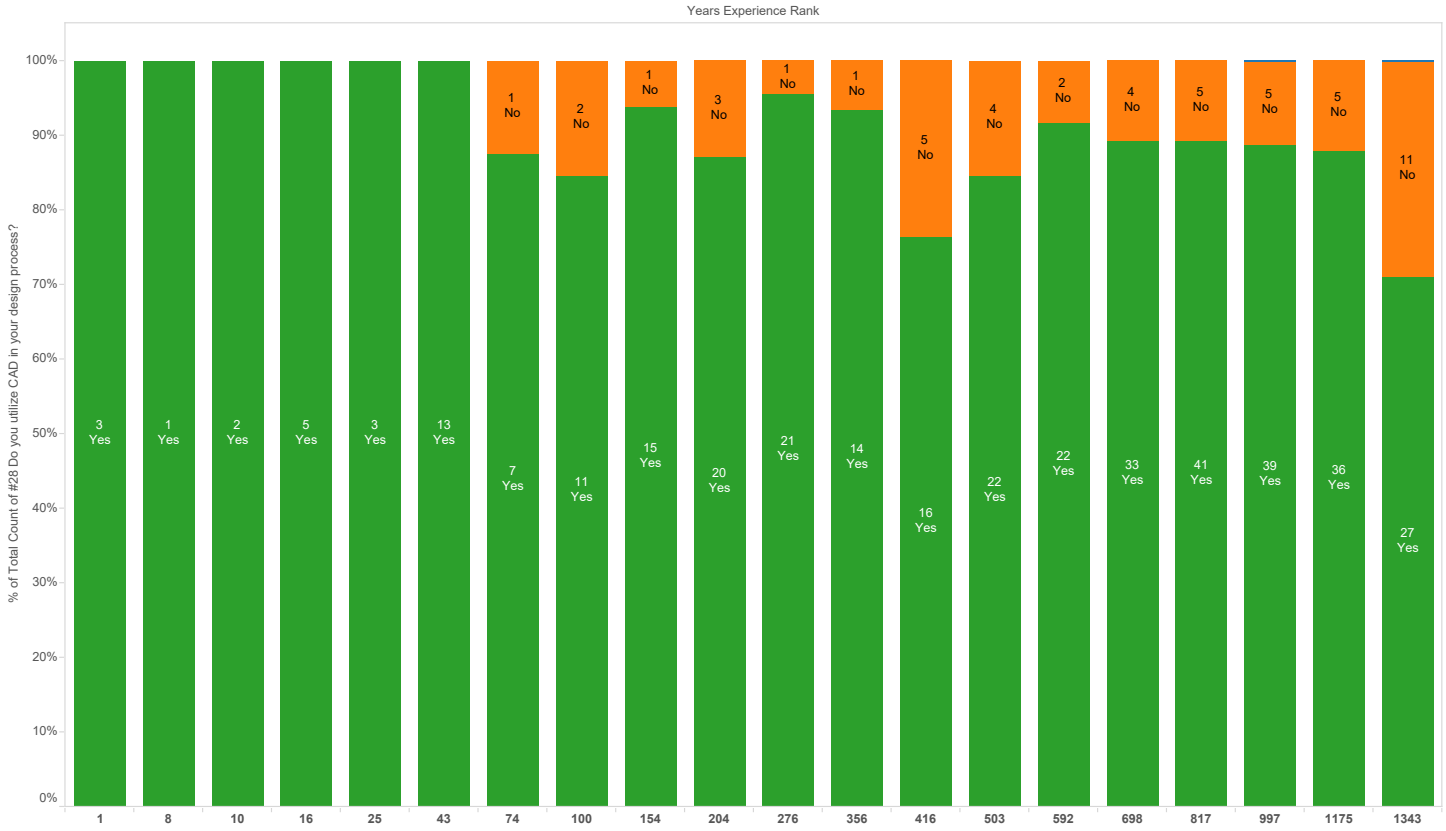


% of Total Count of #28 Do you utilize CAD in your design process? for each Hall of Fame Ranking. Color shows details about #28 Do you utilize CAD in your design process?. The marks are labeled by count of #28 Do you utilize CAD in your design process? and #28 Do you utilize CAD in your design process?.

#28 Do you utilize CAD in your design process?

- Null
- No
- Yes

CAD Utilization vs Years Experience Ranking Component

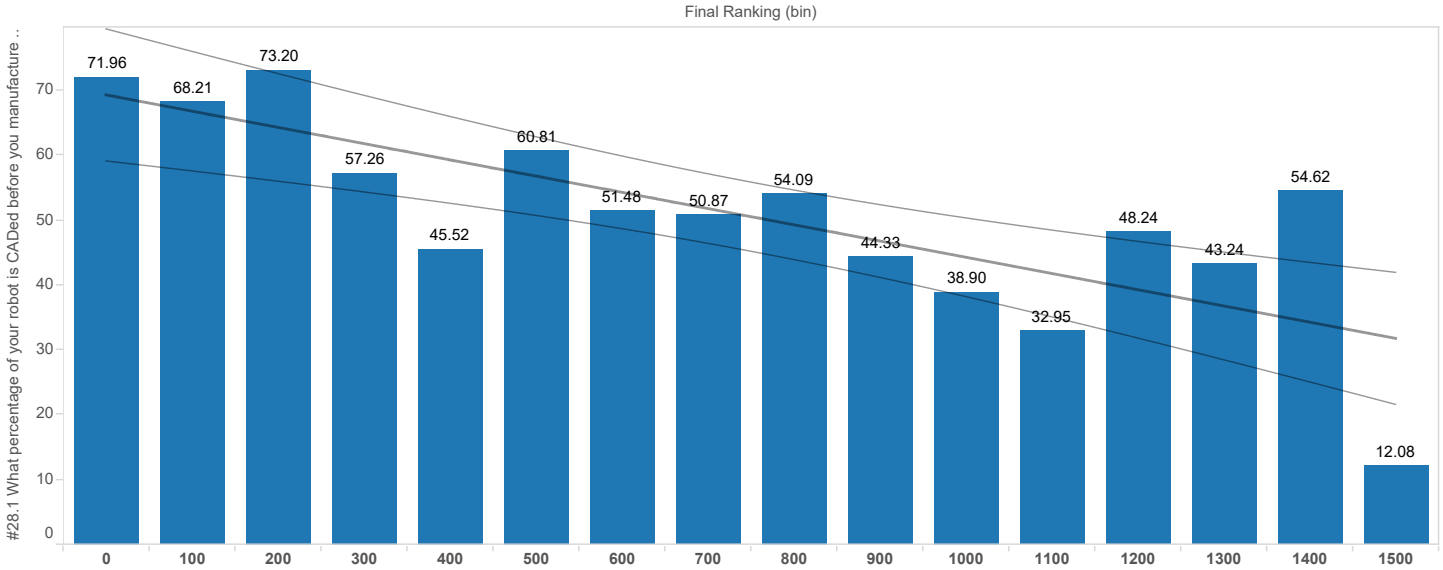


% of Total Count of #28 Do you utilize CAD in your design process? for each Years Experience Rank. Color shows details about #28 Do you utilize CAD in your design process?. The marks are labeled by count of #28 Do you utilize CAD in your design process? and #28 Do you utilize CAD in your design process?.

#28 Do you utilize CAD in your design process?

- Null
- No
- Yes

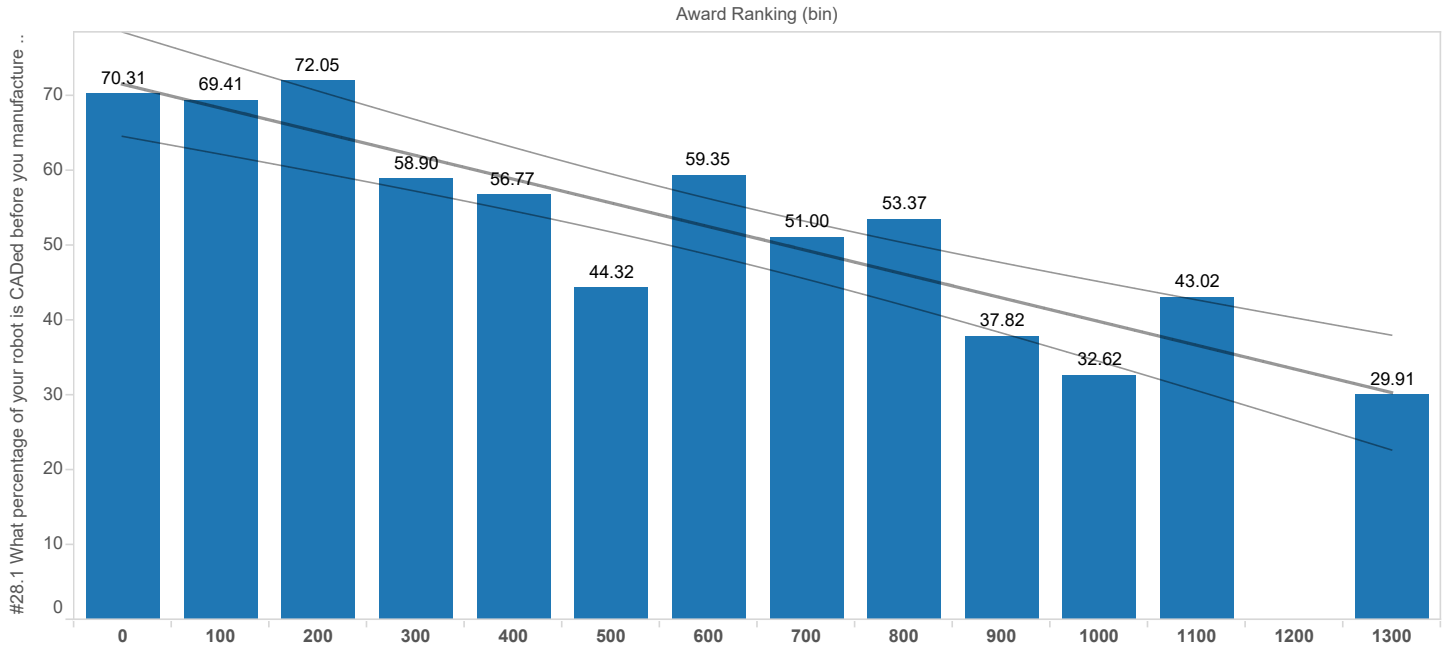
Percent of Robot CADed vs Final Ranking (bin)



Trend Lines Model
A linear trend model is computed for average of #28.1 What percentage of your robot is CADed before you manufacture and assemble your robot? given Final Ranking (bin). The model may be significant at p <= 0.05.

Model formula: (Final Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 1383.19
MSE (mean squared error): 98.7991
R-Squared: 0.606099
Standard error: 9.93977
p-value (significance): 0.0003813

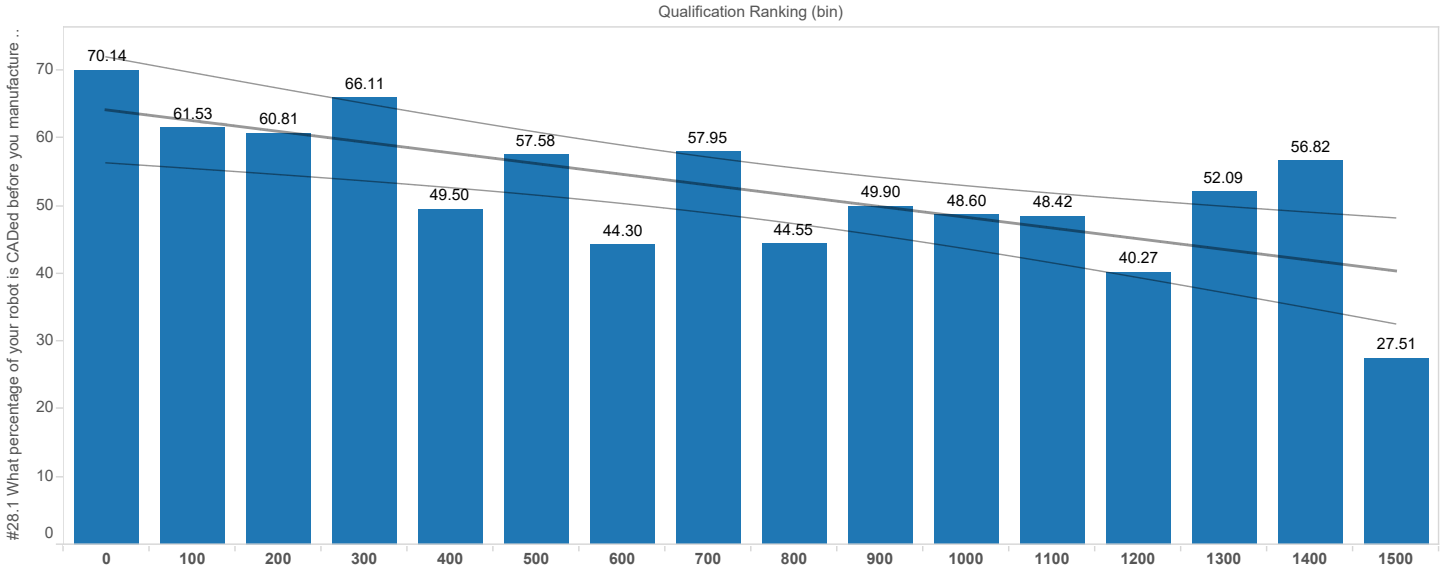
Percent of Robot CADed vs Award Ranking Component (bin)



Trend Lines Model
A linear trend model is computed for average of #28.1 What percentage of your robot is CADed before you manufacture and assemble your robot? given Award Ranking (bin). The model may be significant at p <= 0.05.

Model formula: (Award Ranking (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 413.648
MSE (mean squared error): 37.6044
R-Squared: 0.825567
Standard error: 6.13224
p-value (significance): < 0.0001

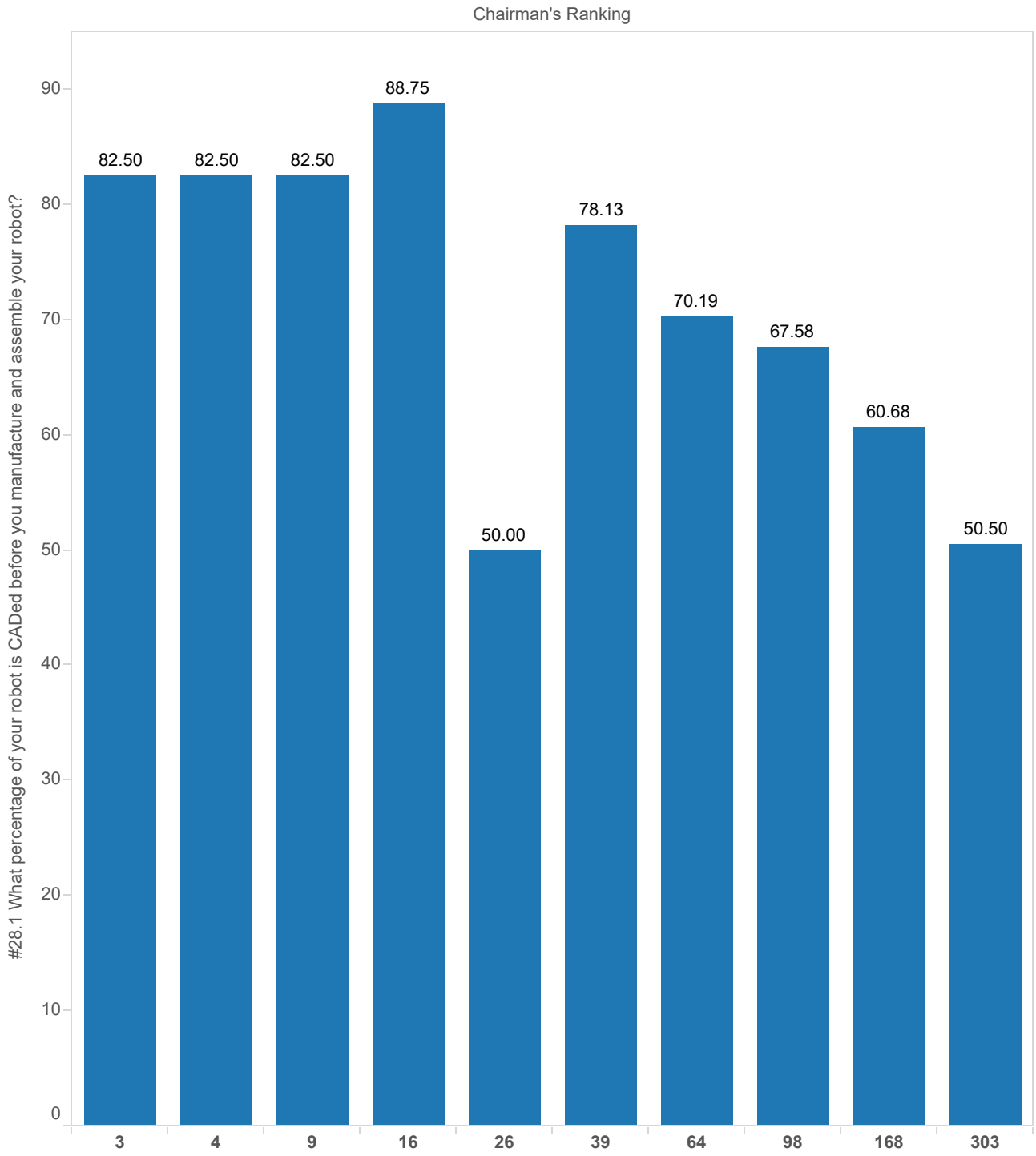
Percent of Robot CADed vs Qualification Ranking Component (bin)



Trend Lines Model
A linear trend model is computed for average of #28.1 What percentage of your robot is CADed before you manufacture and assemble your robot? given Qualification Ranking (bin). The model may be significant at p <= 0.05.

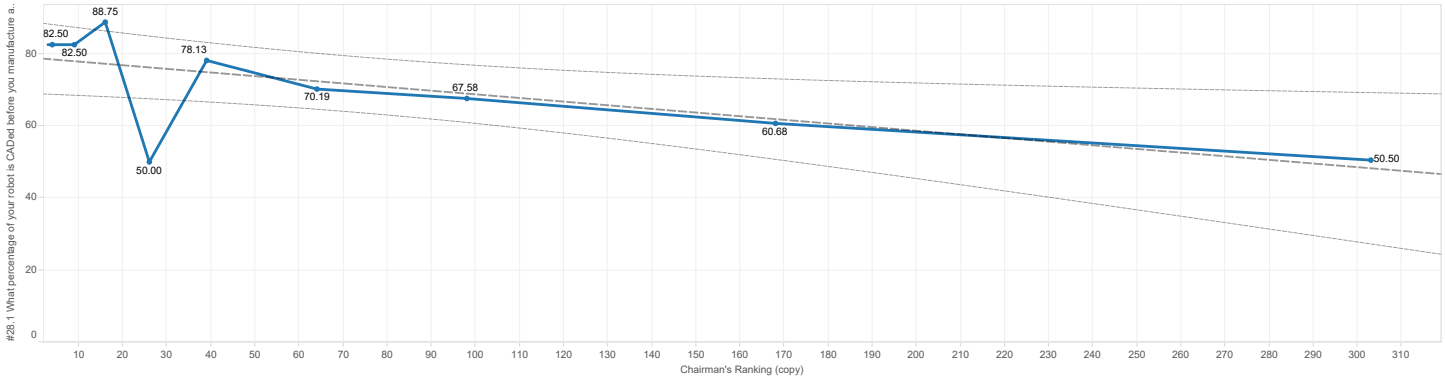
Model formula: (Qualification Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 817.904
MSE (mean squared error): 58.4217
R-Squared: 0.511124
Standard error: 7.64341
p-value (significance): 0.0018538

Percent of Robot CADed vs Chairman's Ranking Component



Average of #28.1 What percentage of your robot is CADed before you manufacture and assemble your robot? for each Chairman's Ranking. The marks are labeled by average of #28.1 What percentage of your robot is CADed before you manufacture and assemble your robot?.

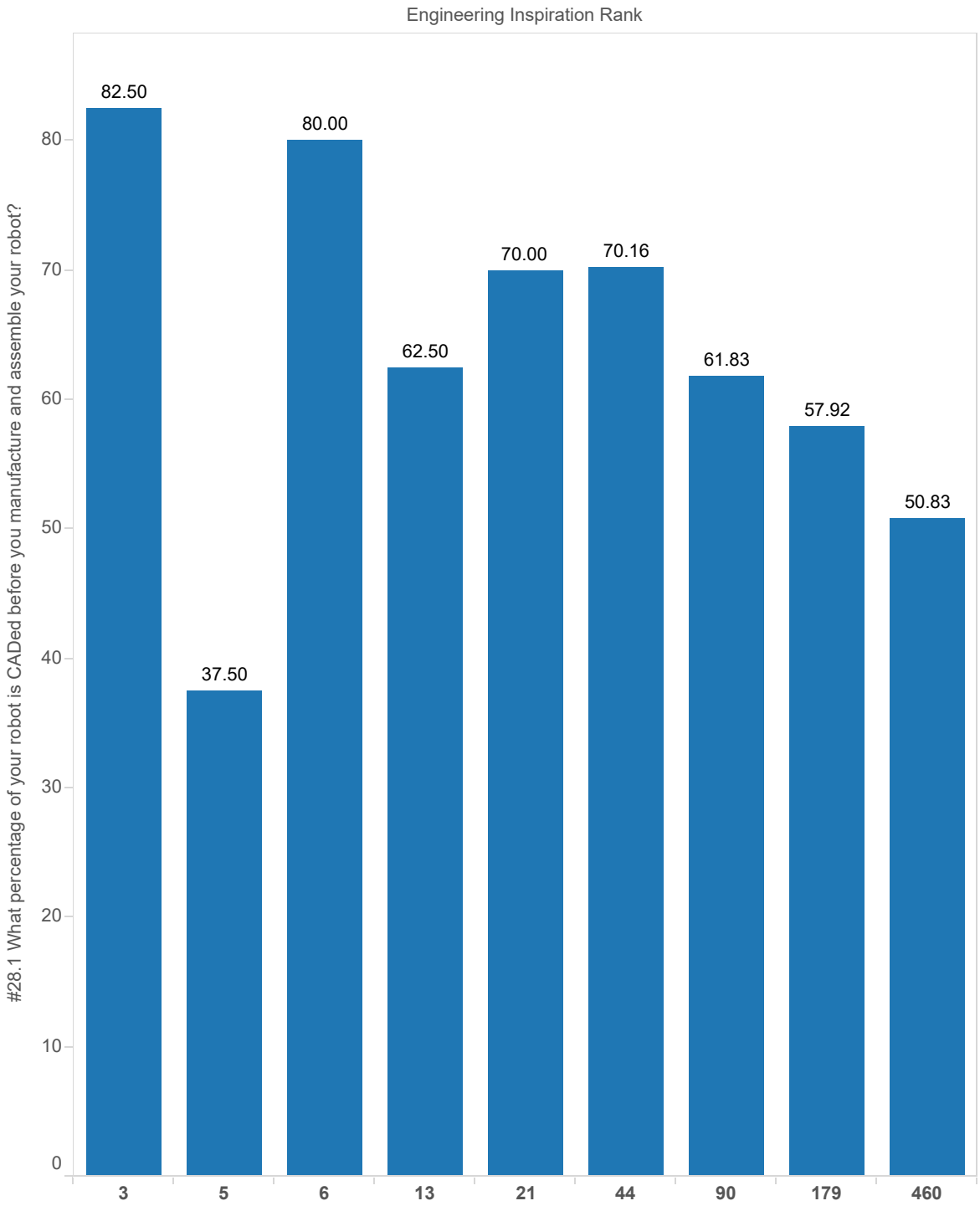
Percent of Robot CADed vs Chairman's Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #28.1 What percentage of your robot is CADed before you manufacture and assemble your robot? given Chairman's Ranking (copy). The model may be significant at p <= 0.05.

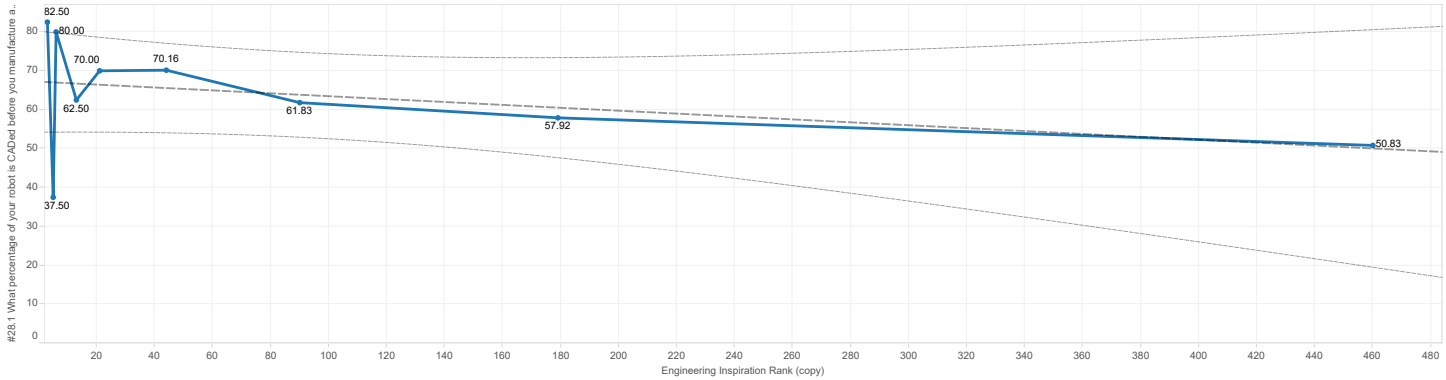
Model formula: (Chairman's Ranking (copy) + intercept)
Number of modeled observations: 10
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 8
SSE (sum squared error): 896.477
MSE (mean squared error): 112.06
R-Squared: 0.485297
Standard error: 10.5858
p-value (significance): 0.0251971

Percent of Robot CADed vs Engineering Inspiration Ranking Component



Average of #28.1 What percentage of your robot is CADed before you manufacture and assemble your robot? for each Engineering Inspiration Rank. The marks are labeled by average of #28.1 What percentage of your robot is CADed before you manufacture and assemble your robot?.

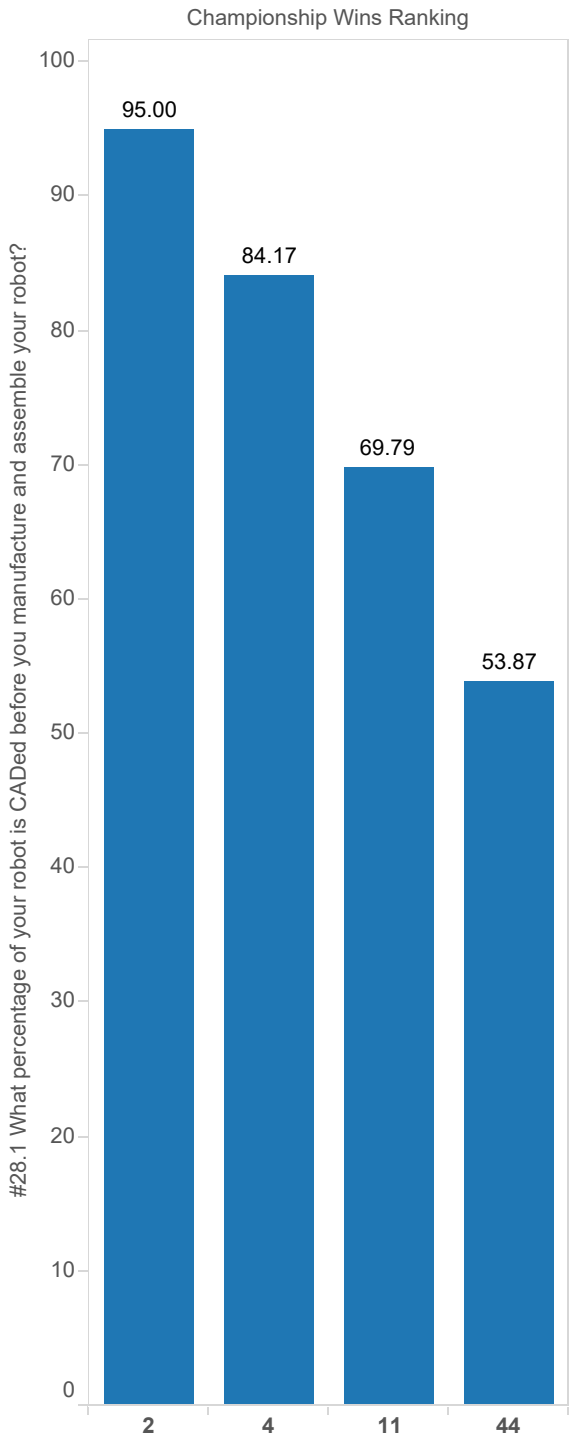
Percent of Robot CADed vs Engineering Inspiration Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #28.1 What percentage of your robot is CADed before you manufacture and assemble your robot? given Inspiration Rank (copy).

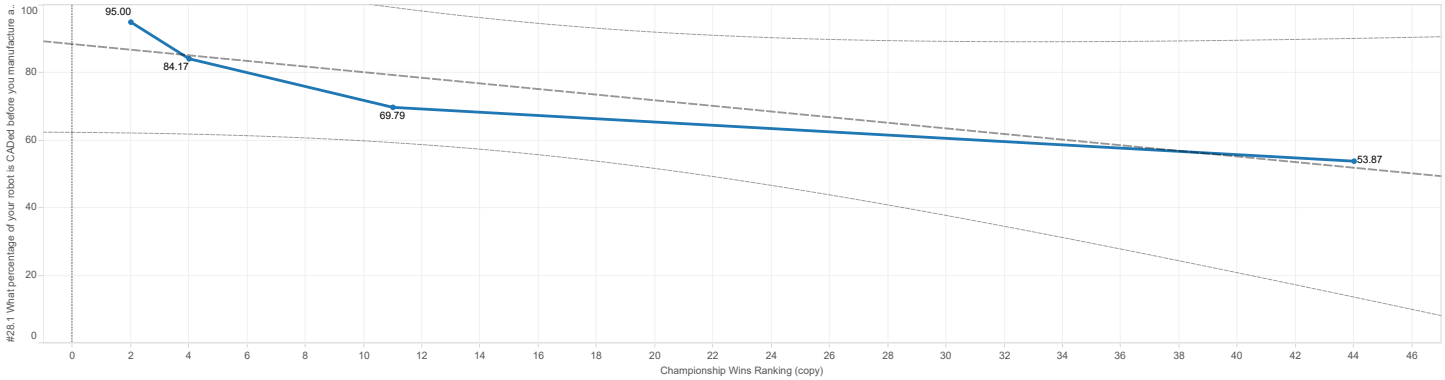
Model formula: (Inspiration Rank (copy) + intercept)
Number of modeled observations: 9
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 7
SSE (sum squared error): 1341.3
MSE (mean squared error): 191.615
R-Squared: 0.156918
Standard error: 13.8425
p-value (significance): 0.291228

Percent of Robot CADed vs Championship Wins Ranking Component



Average of #28.1 What percentage of your robot is CADed before you manufacture and assemble your robot? for each Championship Wins Ranking. The marks are labeled by average of #28.1 What percentage of your robot is CADed before you manufacture and assemble your robot?.

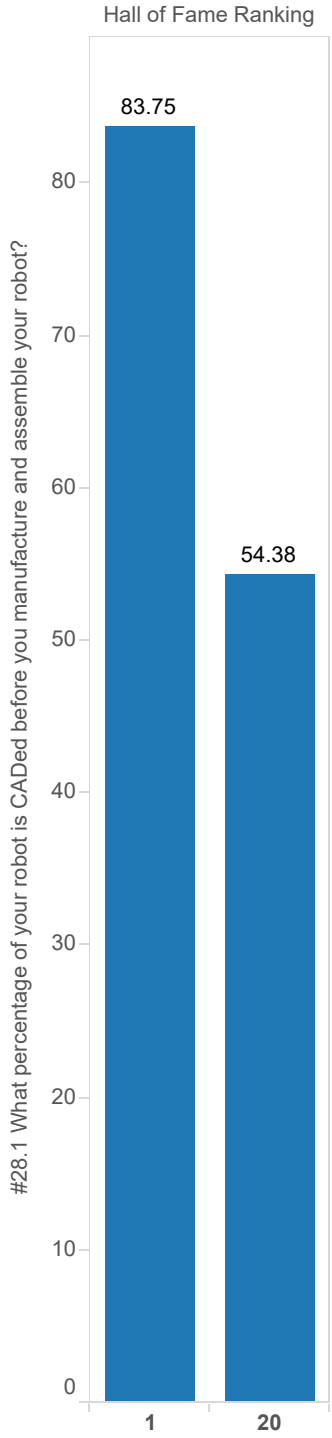
Percent of Robot CADed vs Championship Wins Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #28.1 What percentage of your robot is CADed before you manufacture and assemble your robot? given Championship Wins Ranking (copy).

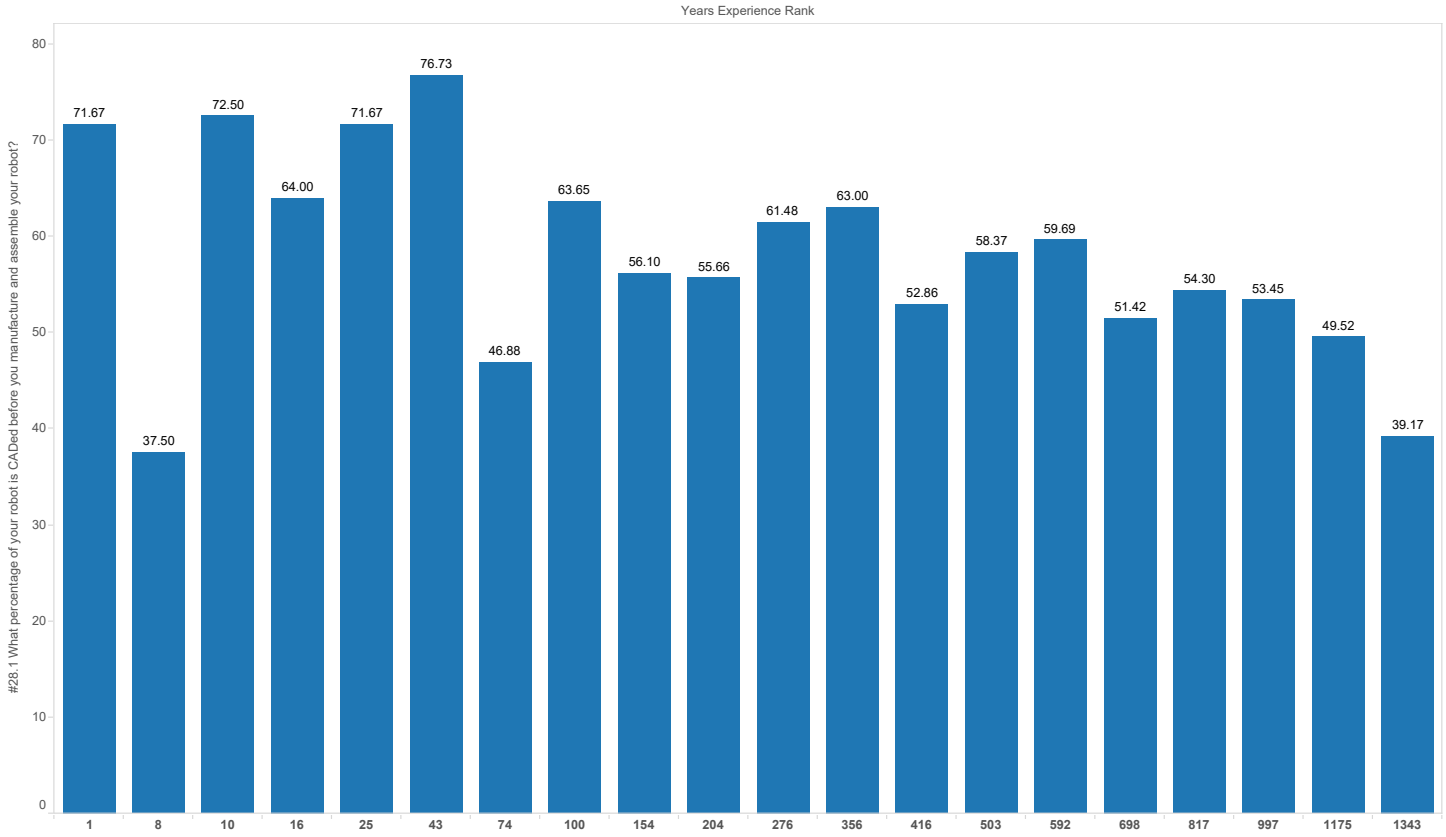
Model formula: (Championship Wins Ranking (copy) + intercept)
Number of modeled observations: 4
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 2
SSE (sum squared error): 162.835
MSE (mean squared error): 81.4176
R-Squared: 0.829639
Standard error: 9.02317
p-value (significance): 0.089155

Percent of Robot CADed vs Hall of Fame Ranking Component



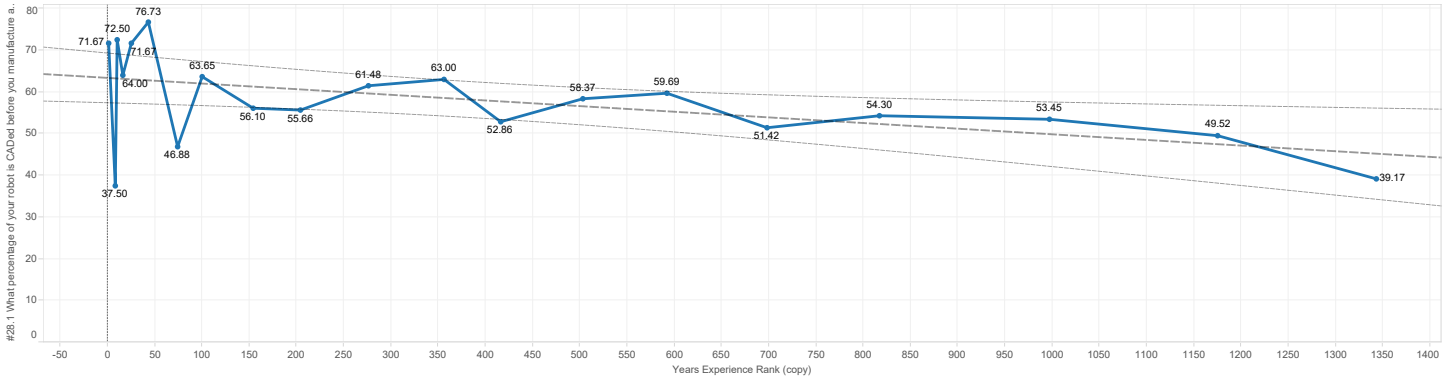
Average of #28.1 What percentage of your robot is CADed before you manufacture and assemble your robot? for each Hall of Fame Ranking. The marks are labeled by average of #28.1 What percentage of your robot is CADed before you manufacture and assemble your robot?.

Percent of Robot CADed vs Years Experience Ranking Component



Average of #28.1 What percentage of your robot is CADed before you manufacture and assemble your robot? for each Years Experience Rank. The marks are labeled by average of #28.1 What percentage of your robot is CADed before you manufacture and assemble your robot?.

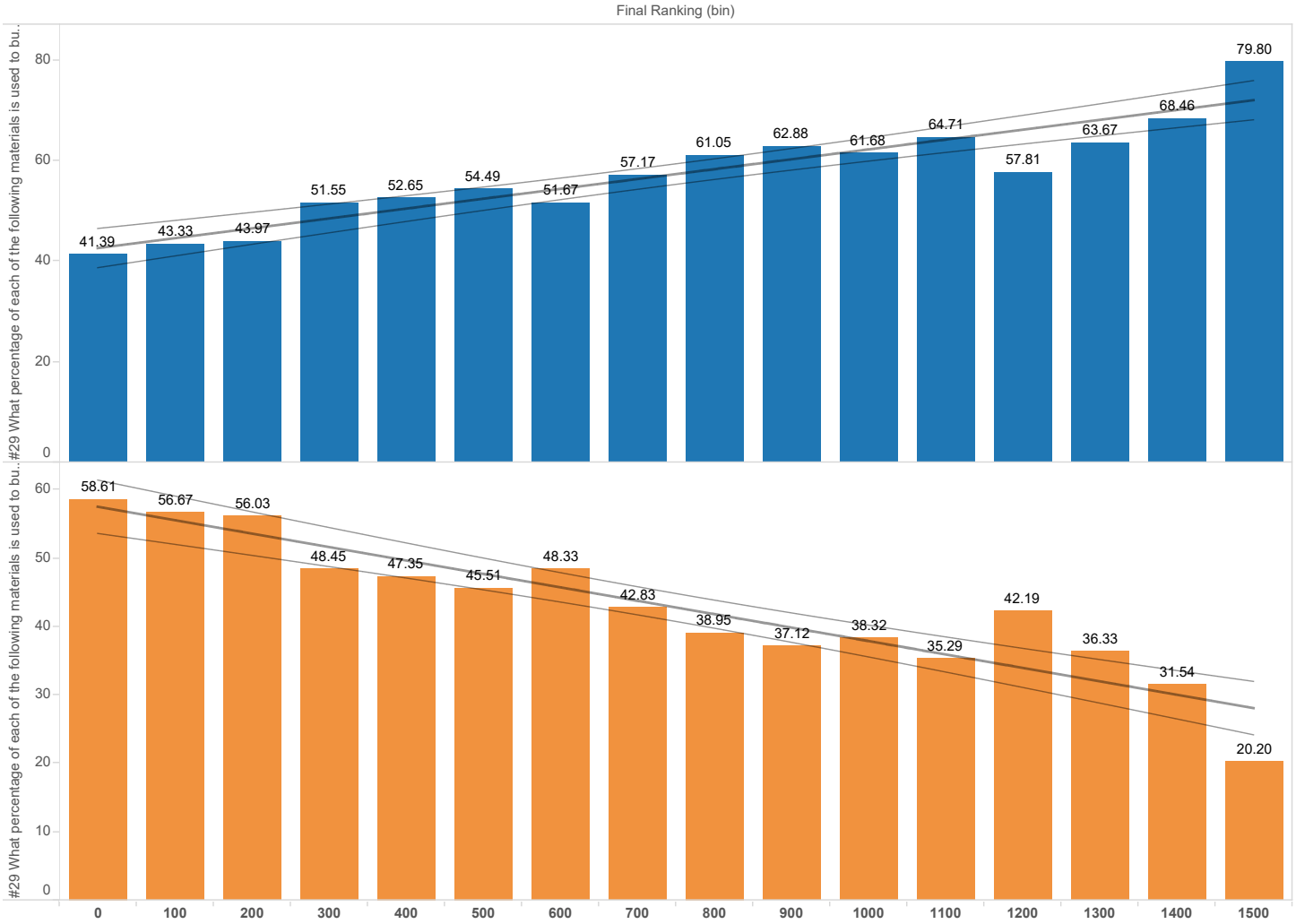
Percent of Robot CADed vs Years Experience Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #28.1 What percentage of your robot is CADed before you manufacture and assemble your robot? given Years Experience Rank (copy). The model may be significant at p <= 0.05.

Model formula: (Years Experience Rank (copy) + intercept)
Number of modeled observations: 20
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 18
SSE (sum squared error): 1514.7
MSE (mean squared error): 84.1499
R-Squared: 0.287726
Standard error: 9.17333
p-value (significance): 0.0147607

Robot Materials vs Final Ranking (bin)



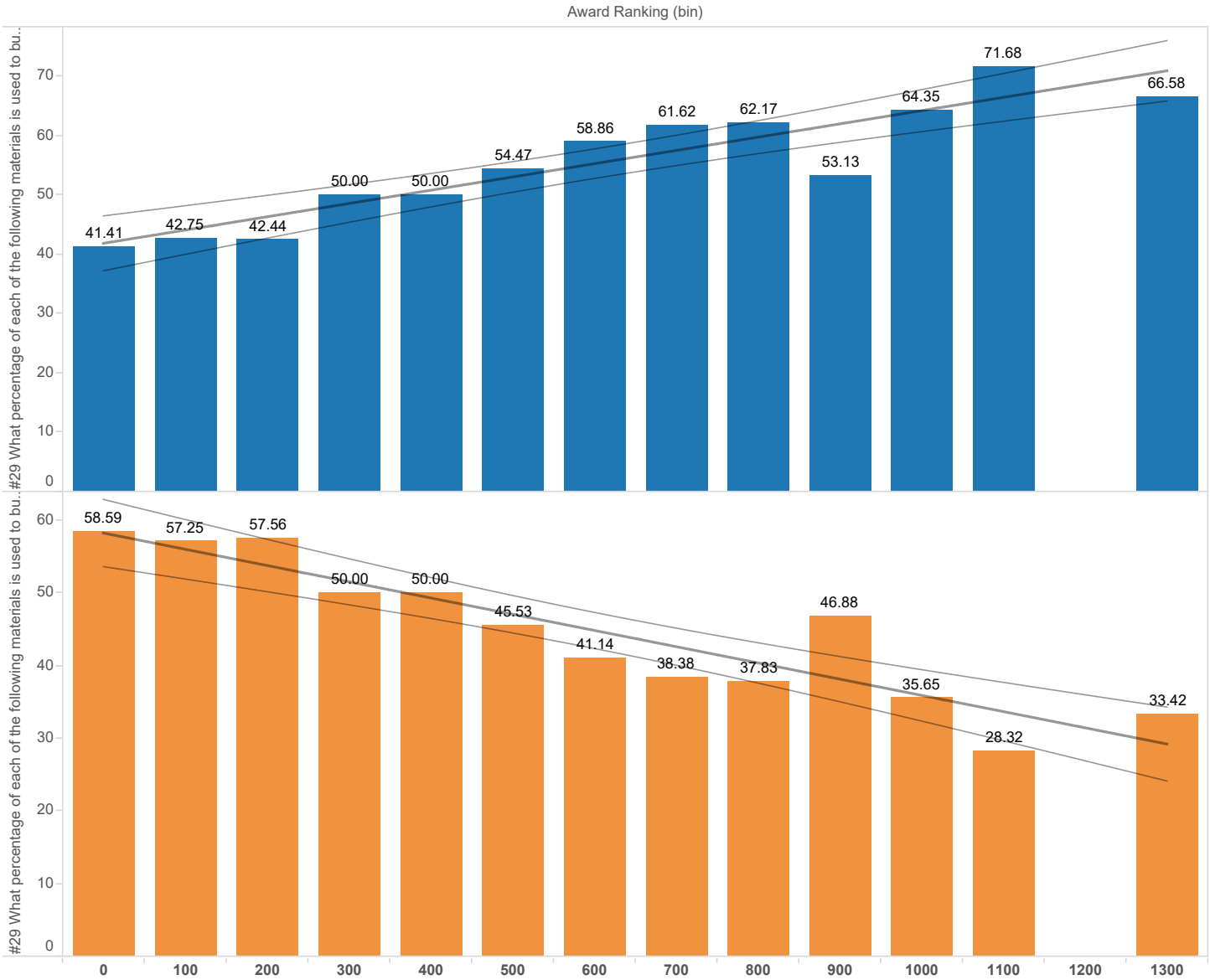
Trend Lines Model
A linear trend model is computed for average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Commercial Off-The-Shelf P given Final Ranking (bin). The model may be significant at p <= 0.05.

Model formula: (Final Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 203.163
MSE (mean squared error): 14.5116
R-Squared: 0.865561
Standard error: 3.80941
p-value (significance): < 0.0001

A linear trend model is computed for average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Custom Parts given Final Ranking (bin). The model may be significant at p <= 0.05.

Model formula: (Final Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 203.163
MSE (mean squared error): 14.5116
R-Squared: 0.865561
Standard error: 3.80941
p-value (significance): < 0.0001

Robot Materials vs Award Ranking Component (bin)



Trend Lines Model

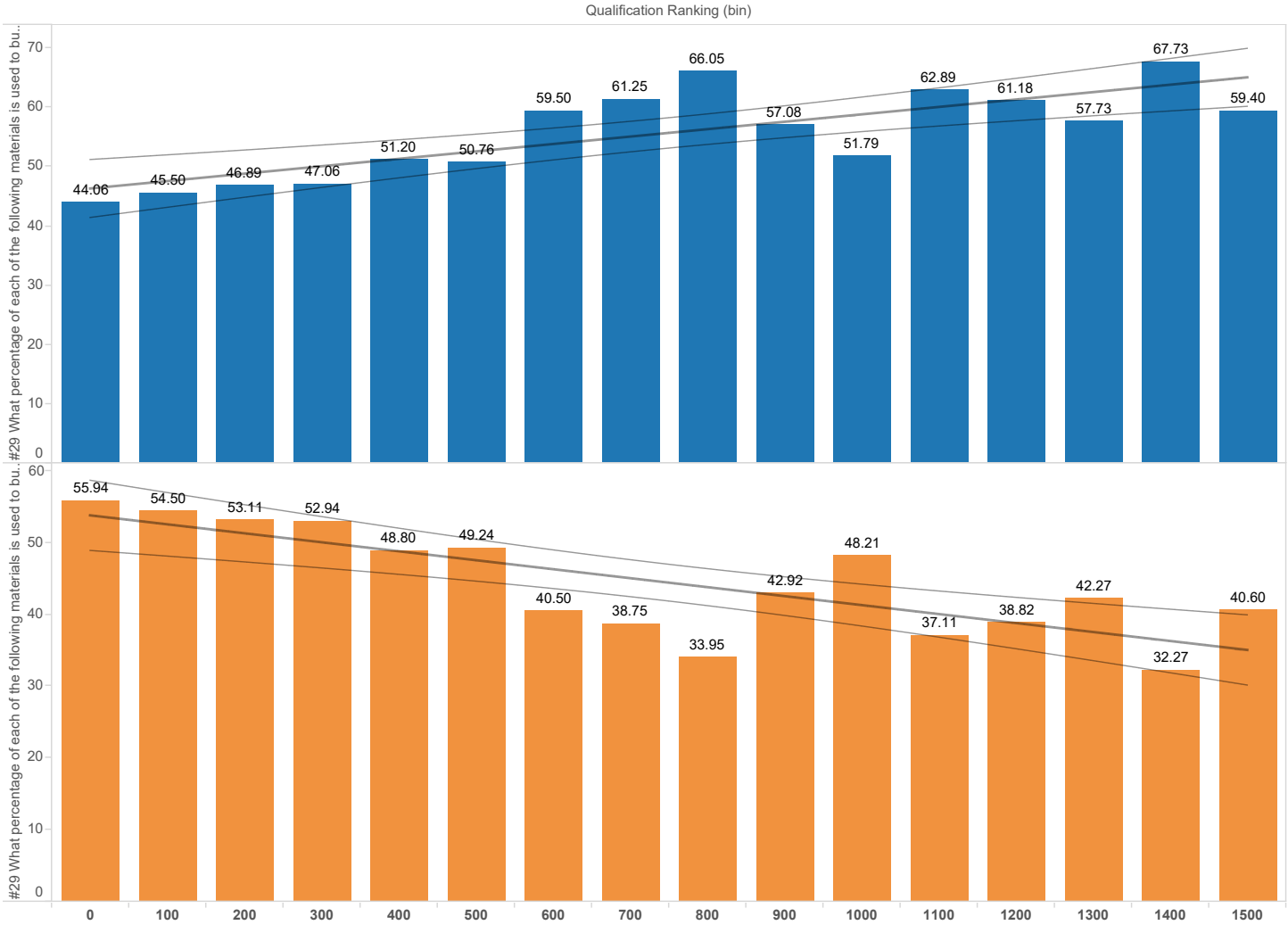
A linear trend model is computed for average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Commercial Off-The-Shelf P given Award Ranking (bin). The model may be significant at p <= 0.05.

Model formula: (Award Ranking (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 182.107
MSE (mean squared error): 16.5551
R-Squared: 0.842268
Standard error: 4.0688
p-value (significance): < 0.0001

A linear trend model is computed for average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Custom Parts given Award Ranking (bin). The model may be significant at p <= 0.05.

Model formula: (Award Ranking (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 182.107
MSE (mean squared error): 16.5551
R-Squared: 0.842268
Standard error: 4.0688
p-value (significance): < 0.0001

Robot Materials vs Qualification Ranking Component (bin)



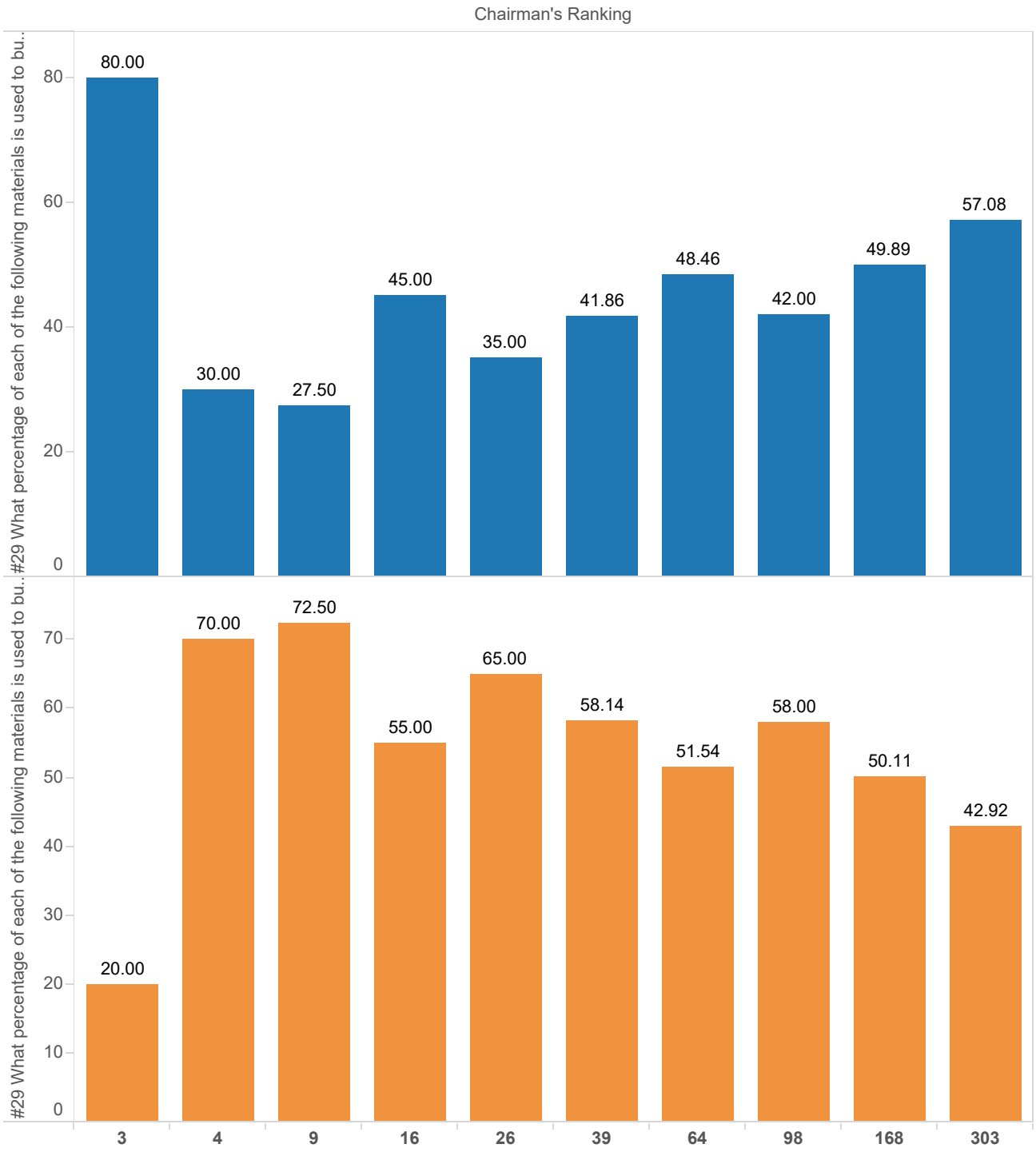
Trend Lines Model
A linear trend model is computed for average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Commercial Off-The-Shelf P given Qualification Ranking (bin). The model may be significant at p <= 0.05.

Model formula: (Qualification Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 319.02
MSE (mean squared error): 22.7871
R-Squared: 0.624699
Standard error: 4.77359
p-value (significance): 0.0002684

A linear trend model is computed for average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Custom Parts given Qualification Ranking (bin). The model may be significant at p <= 0.05.

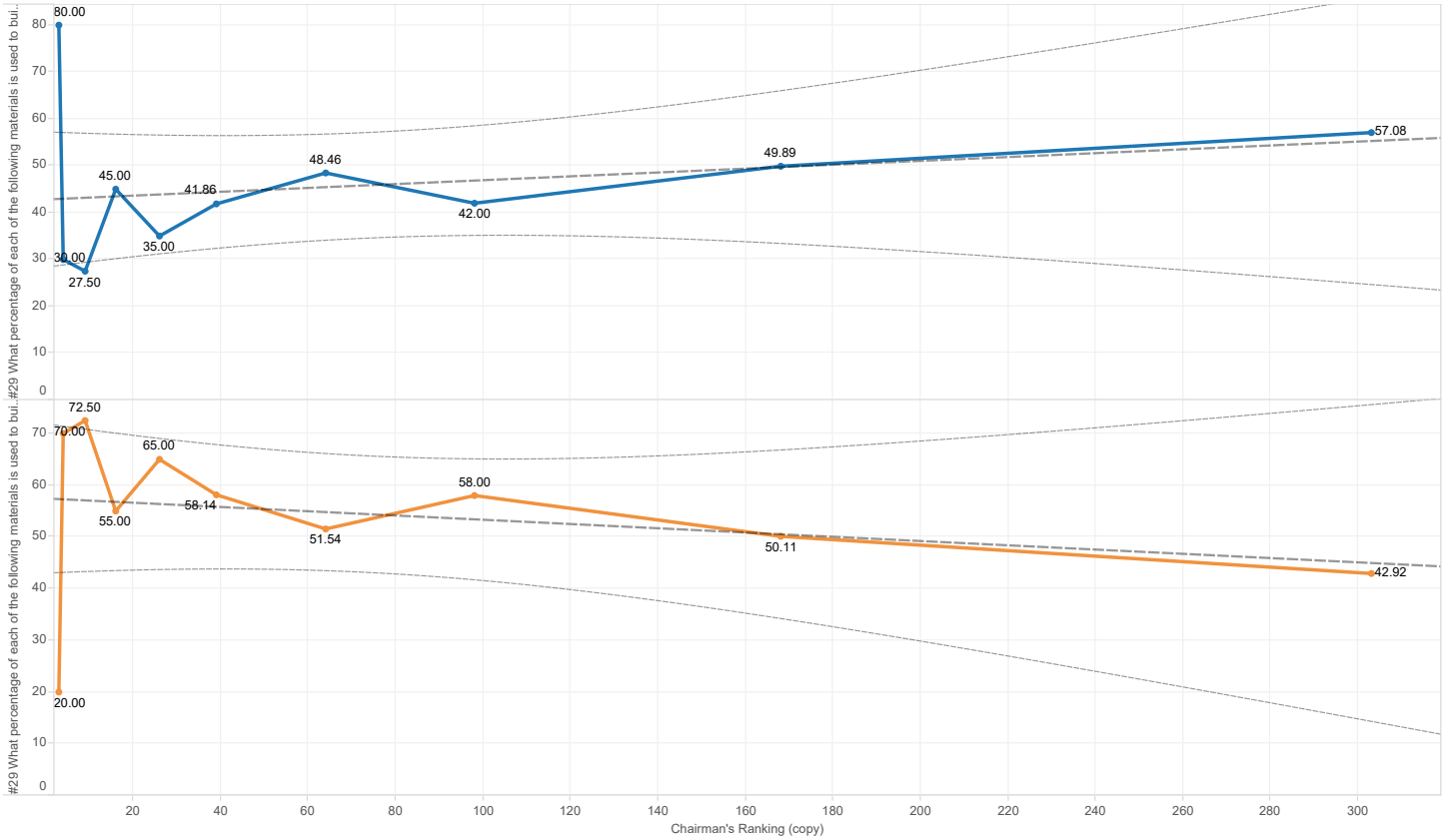
Model formula: (Qualification Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 319.02
MSE (mean squared error): 22.7871
R-Squared: 0.624699
Standard error: 4.77359
p-value (significance): 0.0002684

Robot Materials vs Chairman's Ranking Component



Average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Commercial Off-The-Shelf P and average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Custom Parts for each Chairman's Ranking. For pane Average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Commercial Off-The-Shelf P: The marks are labeled by average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Commercial Off-The-Shelf P. For pane Average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Custom Parts: The marks are labeled by average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Custom Parts.

Robot Materials vs Chairman's Ranking Component (2)



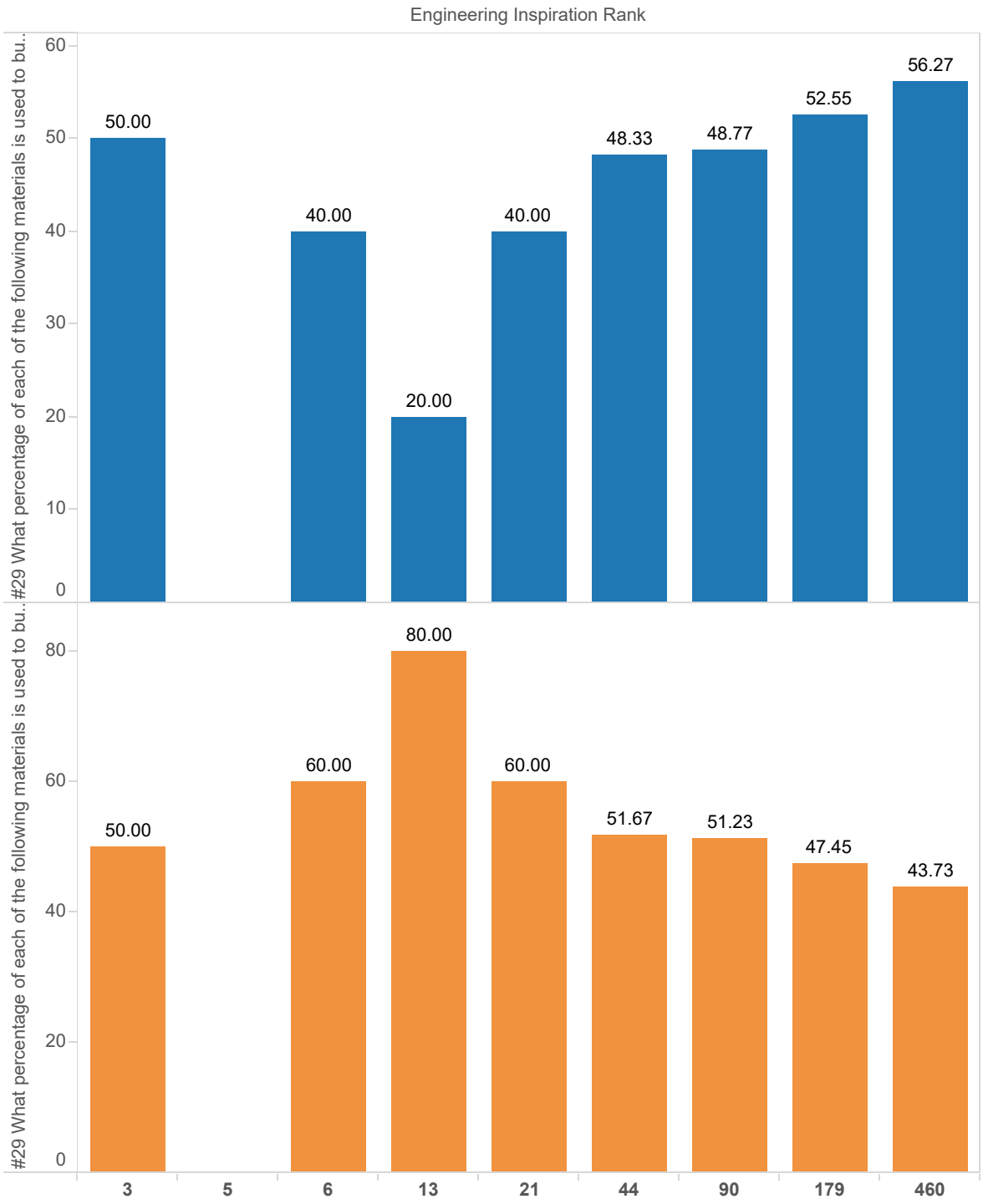
Trend Lines Model
A linear trend model is computed for average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Commercial Off-The-Shelf P given Chairman's Ranking (copy).

Model formula: (Chairman's Ranking (copy) + intercept)
Number of modeled observations: 10
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 8
SSE (sum squared error): 1911.53
MSE (mean squared error): 238.941
R-Squared: 0.0686012
Standard error: 15.4577
p-value (significance): 0.464767

A linear trend model is computed for average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Custom Parts given Chairman's Ranking (copy).

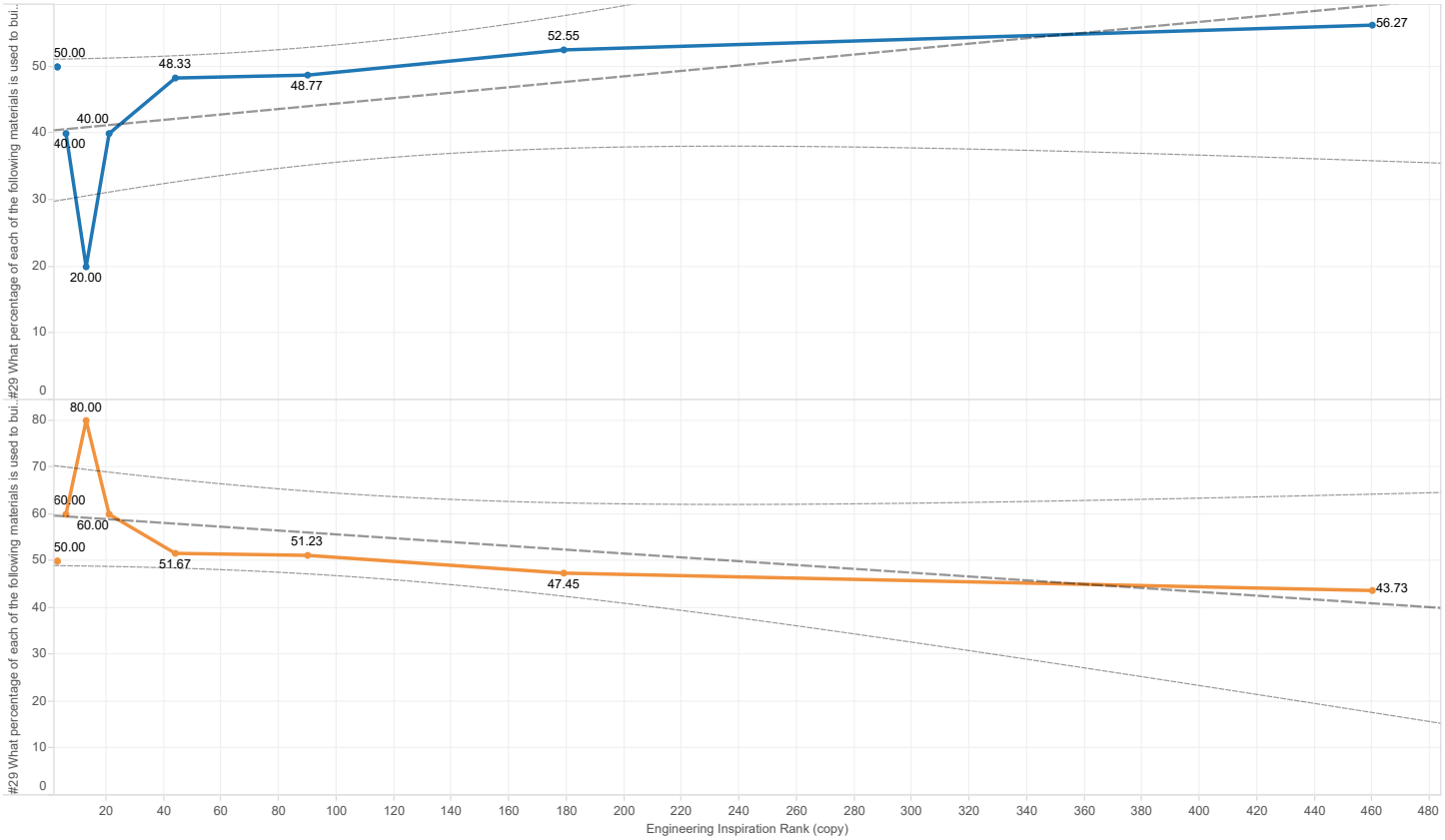
Model formula: (Chairman's Ranking (copy) + intercept)
Number of modeled observations: 10
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 8
SSE (sum squared error): 1911.53
MSE (mean squared error): 238.941
R-Squared: 0.0686012
Standard error: 15.4577
p-value (significance): 0.464767

Robot Materials vs Engineering Inspiration Ranking Component



Average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Commercial Off-The-Shelf P and average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Custom Parts for each Engineering Inspiration Rank. For pane Average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Commercial Off-The-Shelf P: The marks are labeled by average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Commercial Off-The-Shelf P. For pane Average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Custom Parts: The marks are labeled by average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Custom Parts.

Robot Materials vs Engineering Inspiration Ranking Component (2)



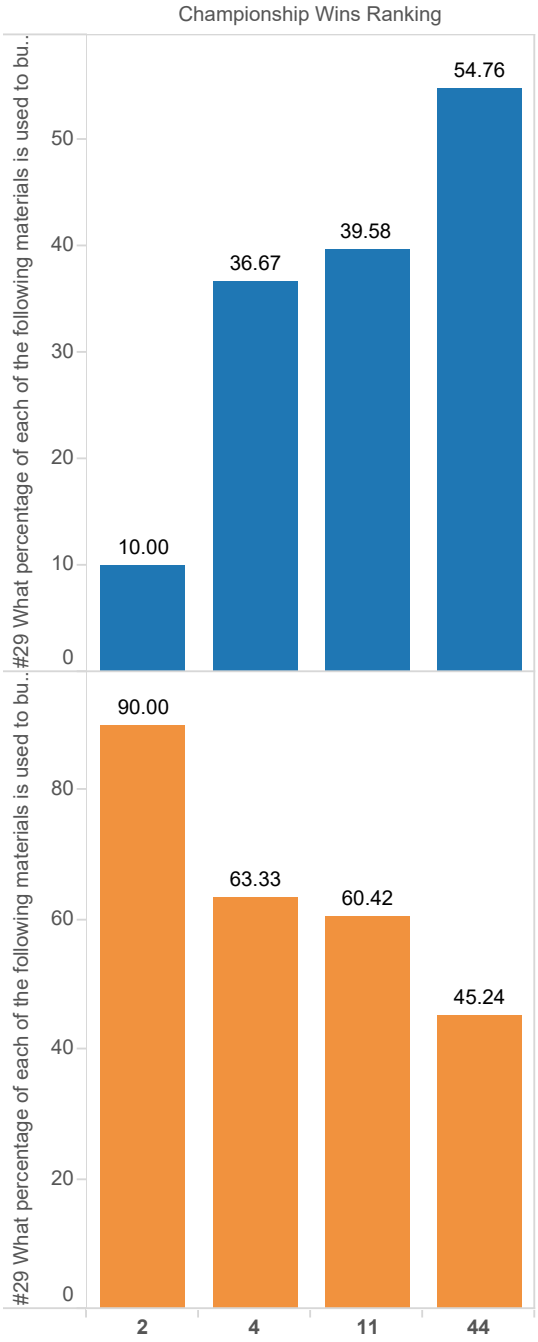
Trend Lines Model
A linear trend model is computed for average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Commercial Off-The-Shelf P given Inspiration Rank (copy).

Model formula: (Inspiration Rank (copy) + intercept)
Number of modeled observations: 8
Number of filtered observations: 1
Model degrees of freedom: 2
Residual degrees of freedom (DF): 6
SSE (sum squared error): 621.537
MSE (mean squared error): 103.589
R-Squared: 0.314921
Standard error: 10.1779
p-value (significance): 0.147829

A linear trend model is computed for average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Custom Parts given Inspiration Rank (copy).

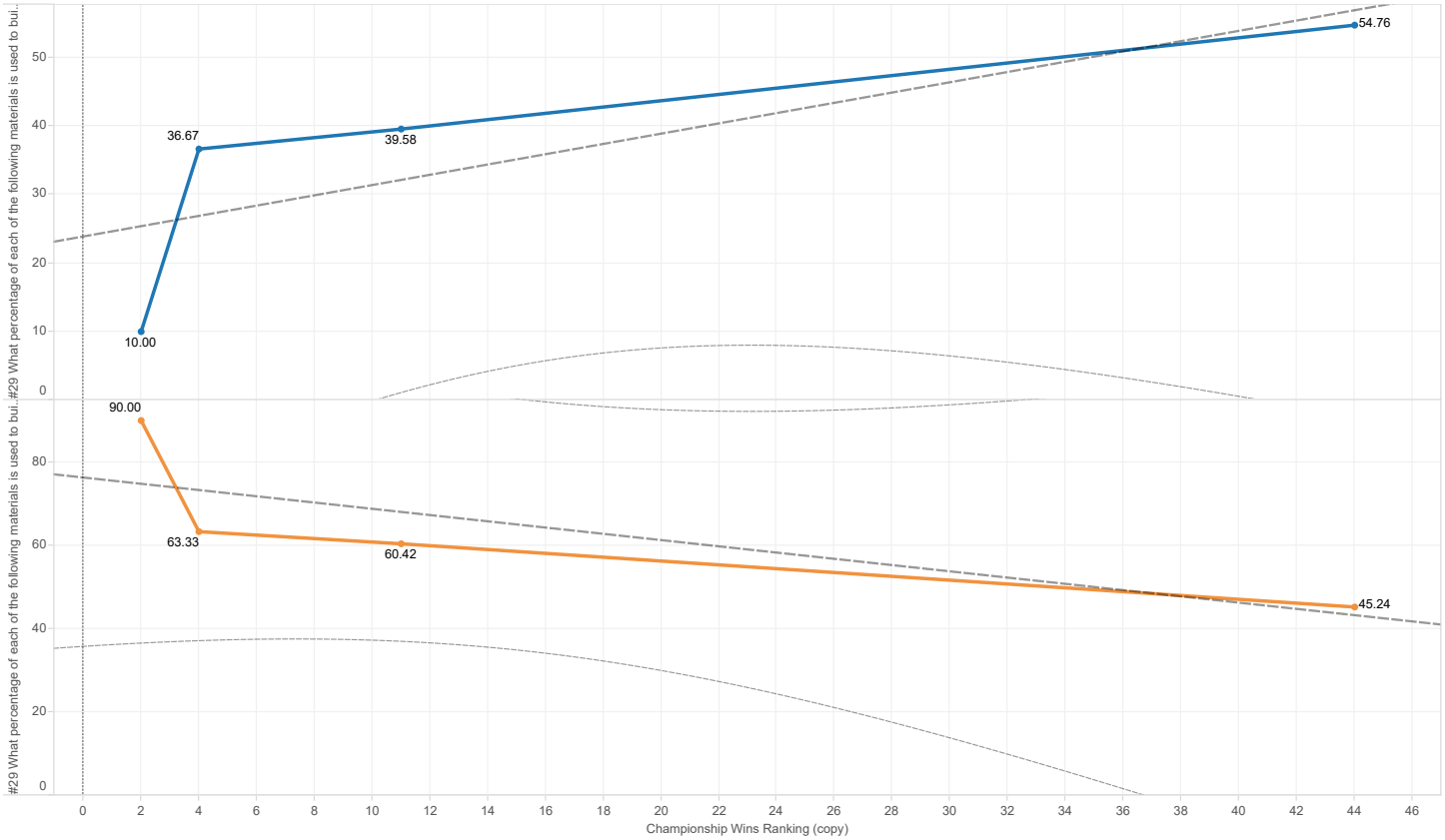
Model formula: (Inspiration Rank (copy) + intercept)
Number of modeled observations: 8
Number of filtered observations: 1
Model degrees of freedom: 2
Residual degrees of freedom (DF): 6
SSE (sum squared error): 621.537
MSE (mean squared error): 103.589
R-Squared: 0.314921
Standard error: 10.1779
p-value (significance): 0.147829

Robot Materials vs Championship Wins Ranking Component



Average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Commercial Off-The-Shelf P and average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Custom Parts for each Championship Wins Ranking. For pane Average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Commercial Off-The-Shelf P: The marks are labeled by average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Commercial Off-The-Shelf P. For pane Average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Custom Parts: The marks are labeled by average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Custom Parts.

Robot Materials vs Championship Wins Ranking Component (2)



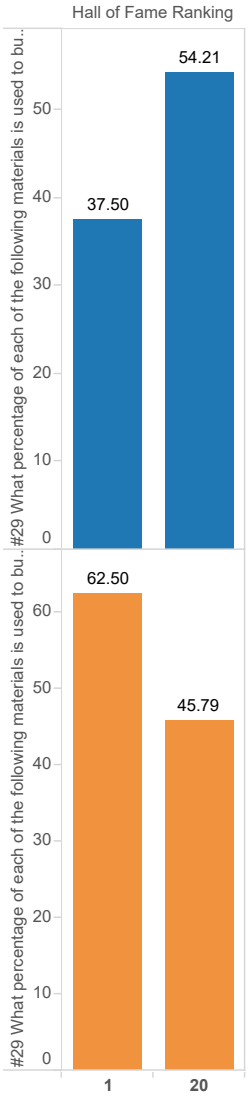
Trend Lines Model
A linear trend model is computed for average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Commercial Off-The-Shelf P given Championship Wins Ranking (copy).

Model formula: (Championship Wins Ranking (copy) + intercept)
Number of modeled observations: 4
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 2
SSE (sum squared error): 392.343
MSE (mean squared error): 196.172
R-Squared: 0.622408
Standard error: 14.0061
p-value (significance): 0.211072

A linear trend model is computed for average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Custom Parts given Championship Wins Ranking (copy).

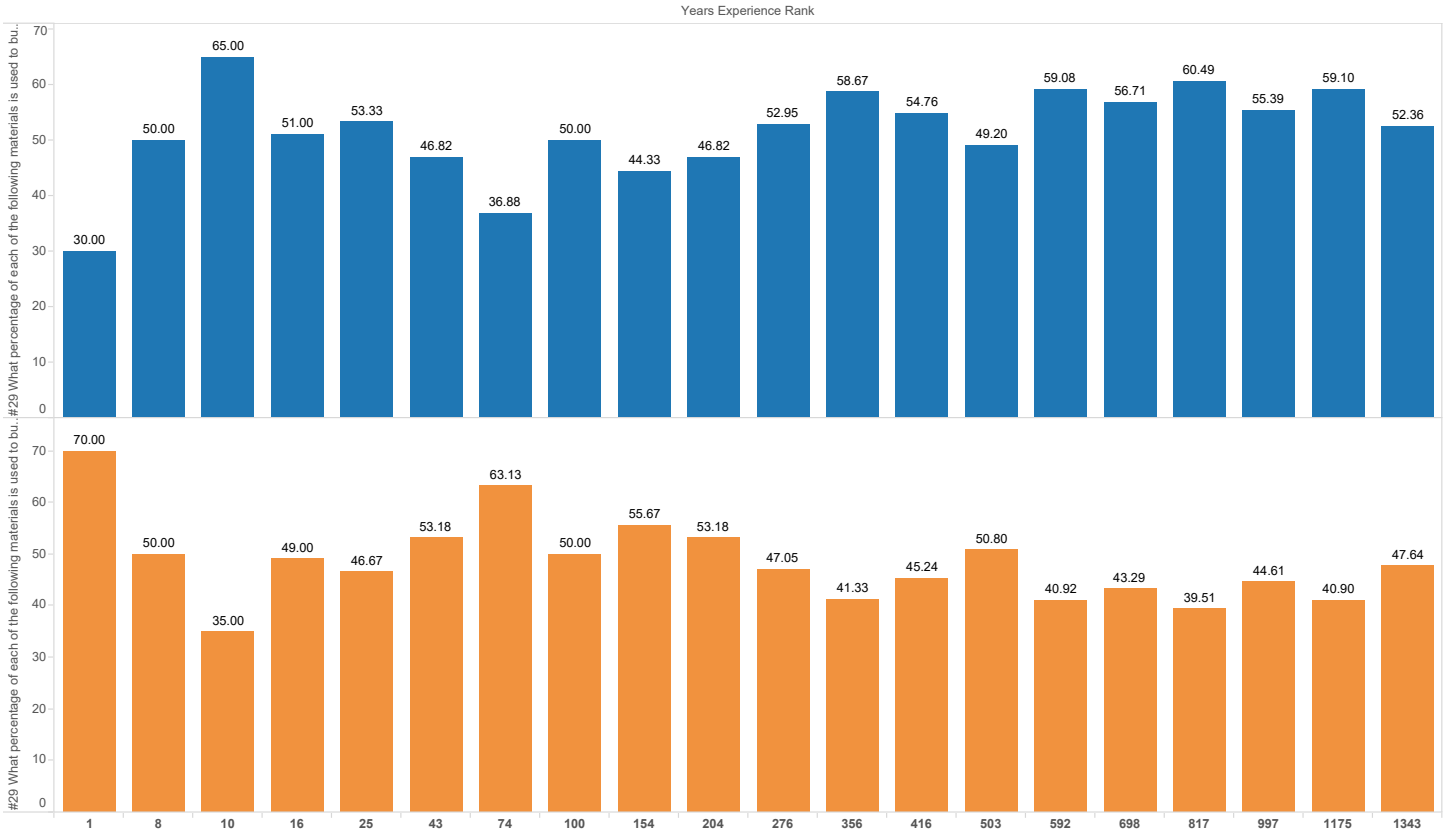
Model formula: (Championship Wins Ranking (copy) + intercept)
Number of modeled observations: 4
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 2
SSE (sum squared error): 392.343
MSE (mean squared error): 196.172
R-Squared: 0.622408
Standard error: 14.0061
p-value (significance): 0.211072

Robot Materials vs Hall of Fame Ranking Component



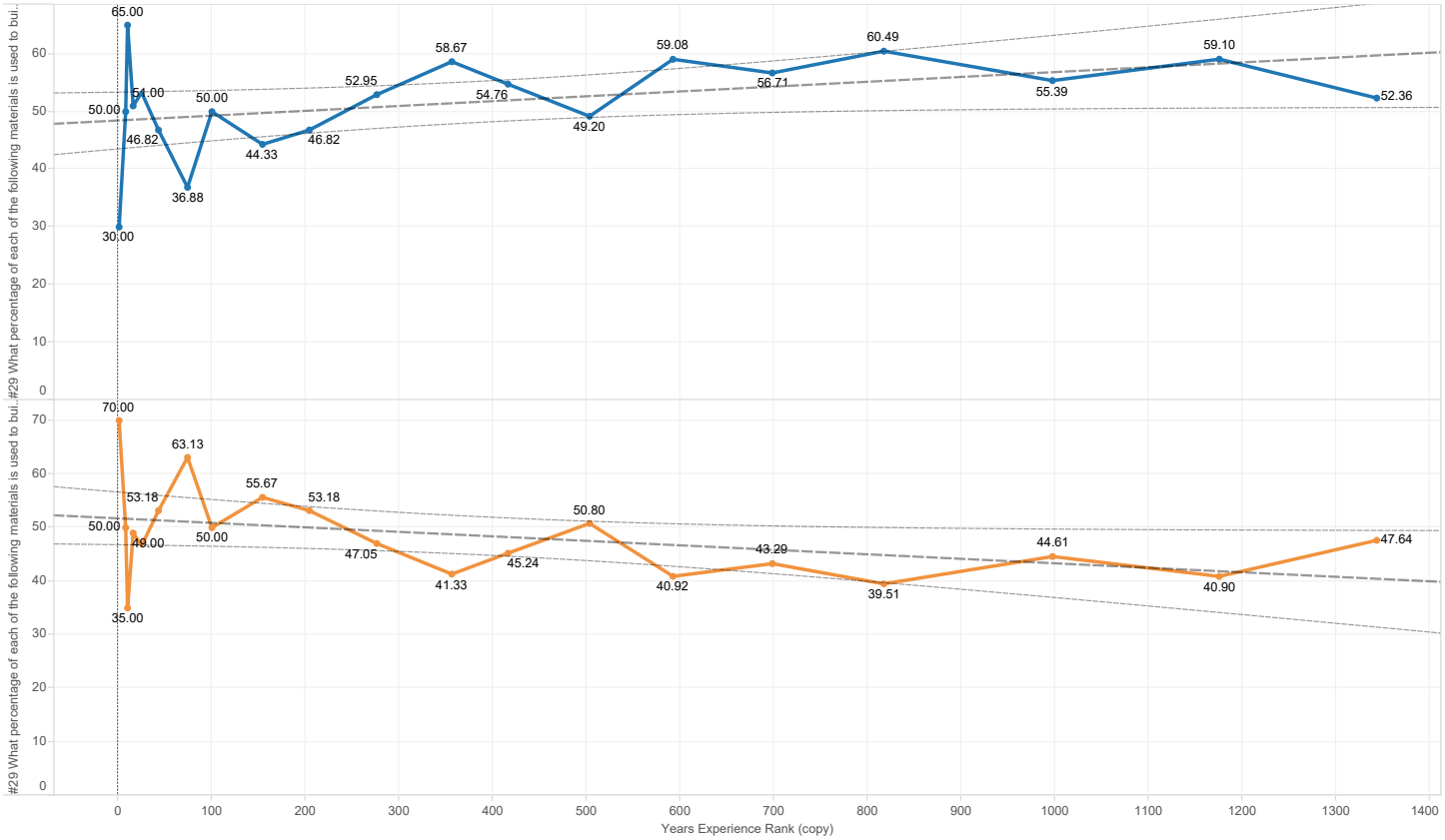
Average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Commercial Off-The-Shelf P and average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Custom Parts for each Hall of Fame Ranking. For pane Average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Commercial Off-The-Shelf P: The marks are labeled by average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Commercial Off-The-Shelf P. For pane Average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Custom Parts: The marks are labeled by average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Custom Parts.

Robot Materials vs Years Experience Ranking Component



Average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Commercial Off-The-Shelf P and average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Custom Parts for each Years Experience Rank. For pane Average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Commercial Off-The-Shelf P: The marks are labeled by average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Commercial Off-The-Shelf P. For pane Average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Custom Parts: The marks are labeled by average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Custom Parts.

Robot Materials vs Years Experience Ranking Component (2)



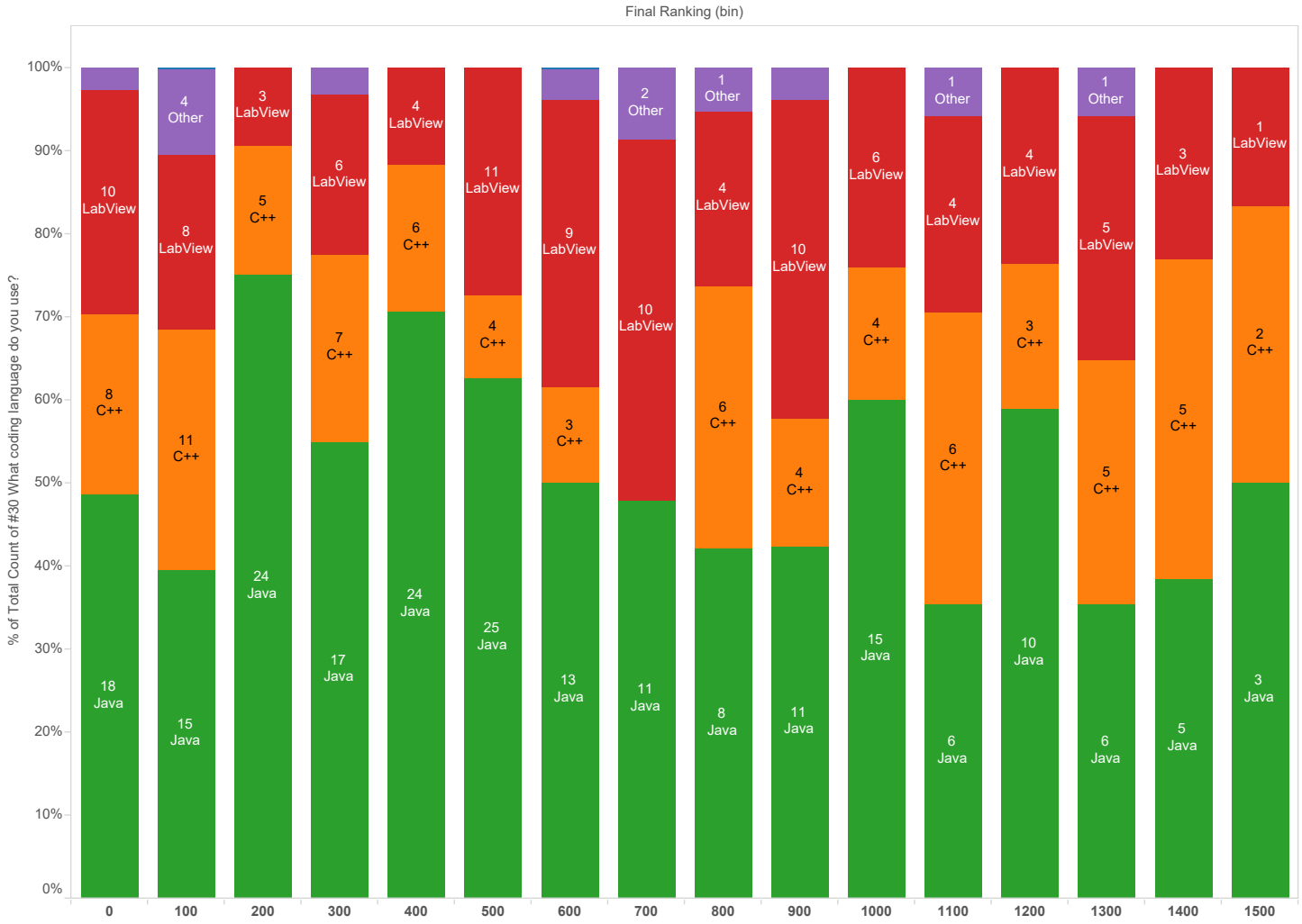
Trend Lines Model
A linear trend model is computed for average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Commercial Off-The-Shelf P given Years Experience Rank (copy).

Model formula: (Years Experience Rank (copy) + intercept)
Number of modeled observations: 20
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 18
SSE (sum squared error): 1033.88
MSE (mean squared error): 57.4376
R-Squared: 0.18579
Standard error: 7.57876
p-value (significance): 0.0577755

A linear trend model is computed for average of #29 What percentage of each of the following materials is used to build your robot? (excluding ac...-Custom Parts given Years Experience Rank (copy).

Model formula: (Years Experience Rank (copy) + intercept)
Number of modeled observations: 20
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 18
SSE (sum squared error): 1033.88
MSE (mean squared error): 57.4376
R-Squared: 0.18579
Standard error: 7.57876
p-value (significance): 0.0577755

Coding Language vs Final Ranking (bin)

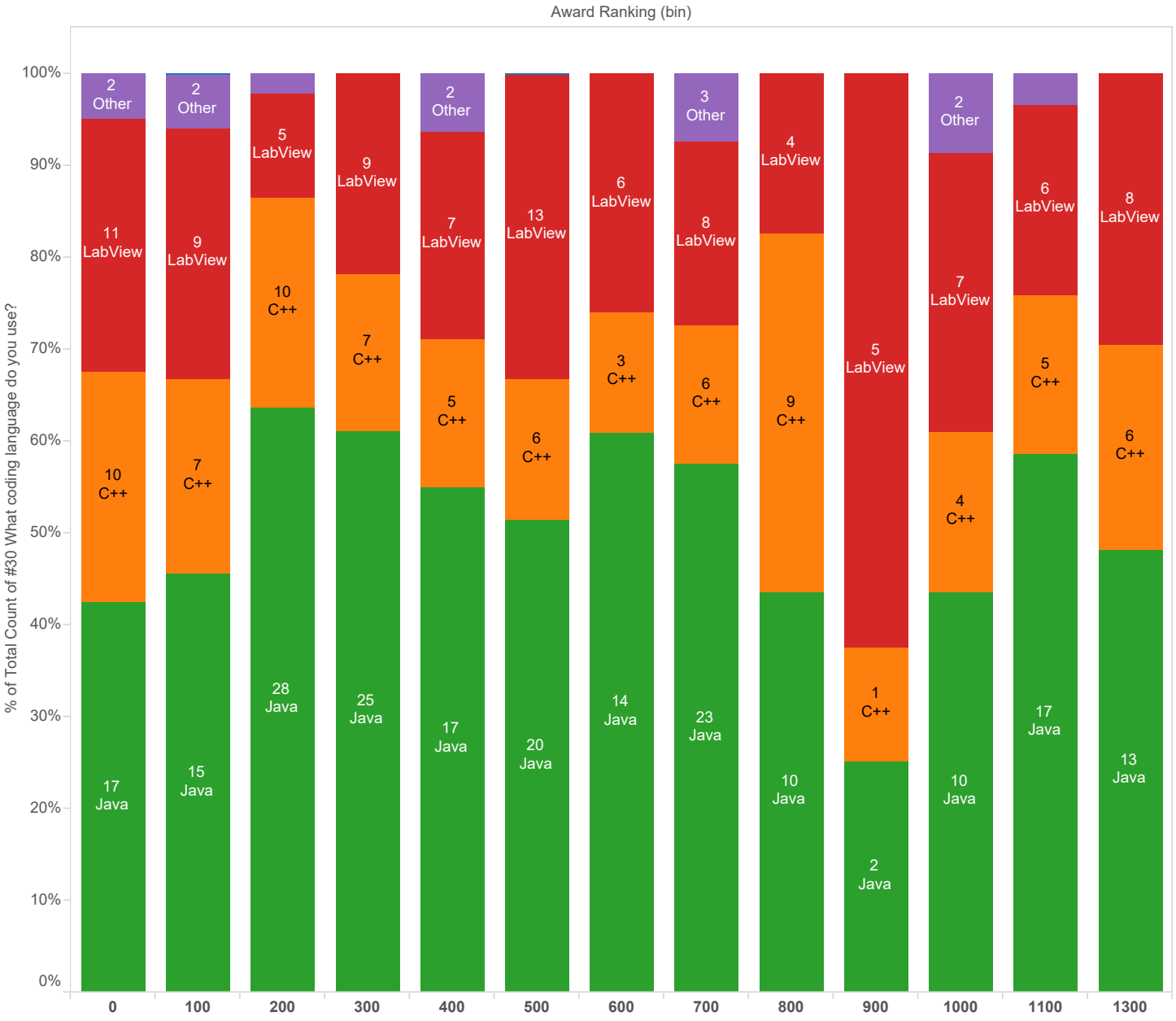


% of Total Count of #30 What coding language do you use? for each Final Ranking (bin). Color shows details about #30 What coding language do you use?. The marks are labeled by count of #30 What coding language do you use? and #30 What coding language do you use?.

#30 What coding language do you use?

- Null
- Other
- LabView
- C++
- Java

Coding Language vs Award Ranking Component (bin)

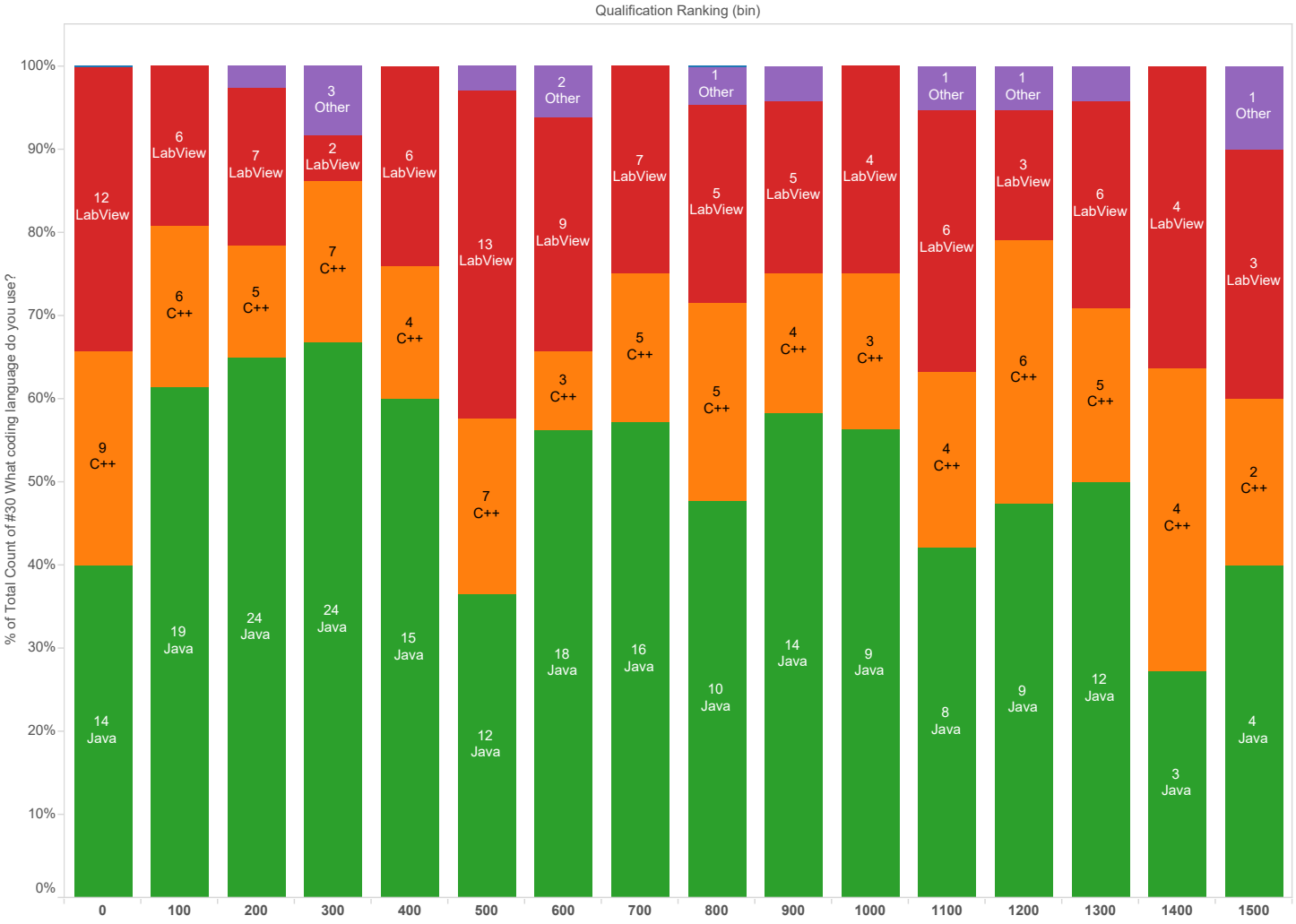


% of Total Count of #30 What coding language do you use? for each Award Ranking (bin). Color shows details about #30 What coding language do you use?. The marks are labeled by count of #30 What coding language do you use? and #30 What coding language do you use?.

#30 What coding language do you use?

- Null
- Other
- LabView
- C++
- Java

Coding Language vs Qualification Ranking Component (bin)

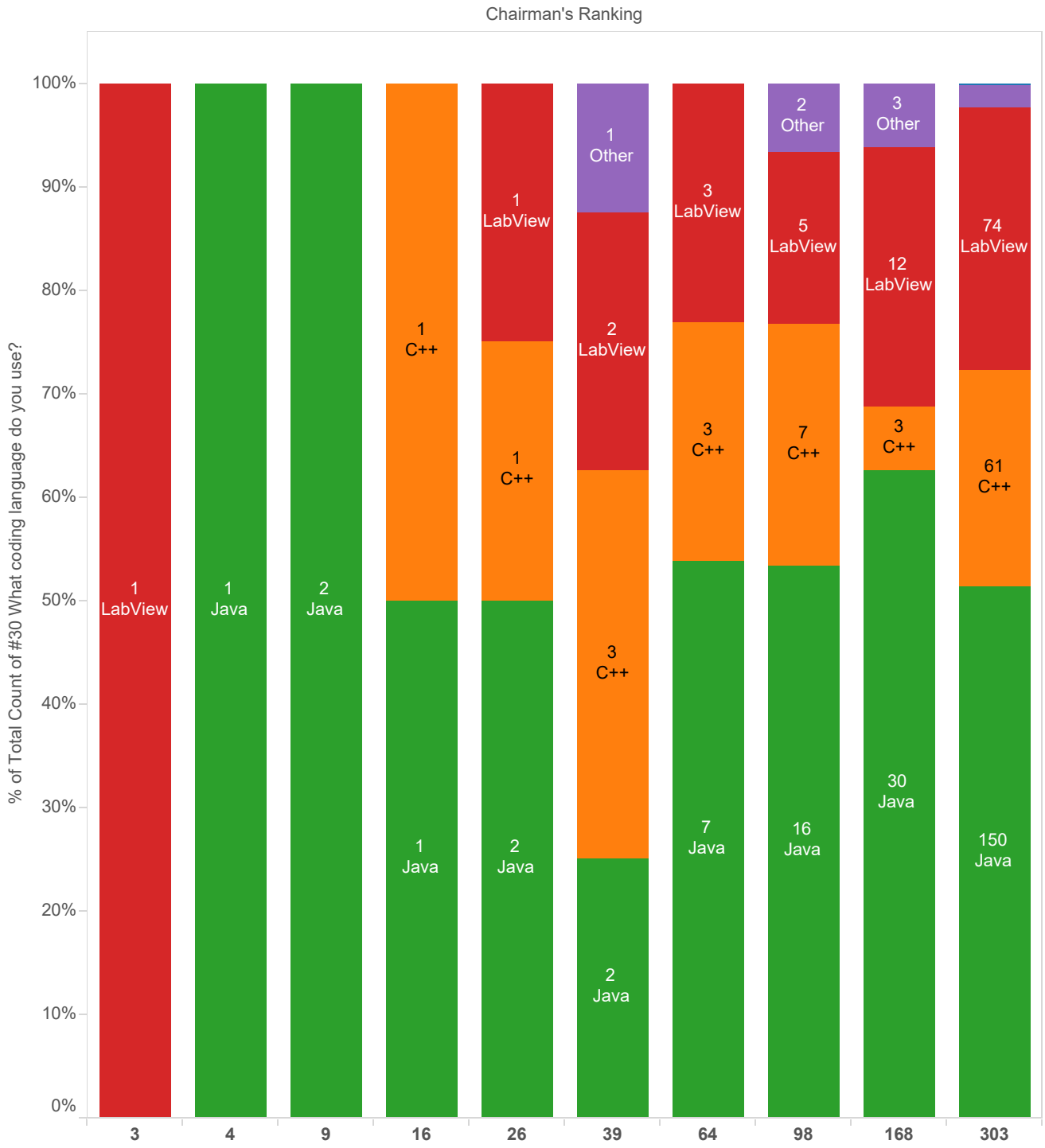


% of Total Count of #30 What coding language do you use? for each Qualification Ranking (bin). Color shows details about #30 What coding language do you use?. The marks are labeled by count of #30 What coding language do you use? and #30 What coding language do you use?.

#30 What coding language do you use?

- Null
- Other
- LabView
- C++
- Java

Coding Language vs Chairman's Ranking Component

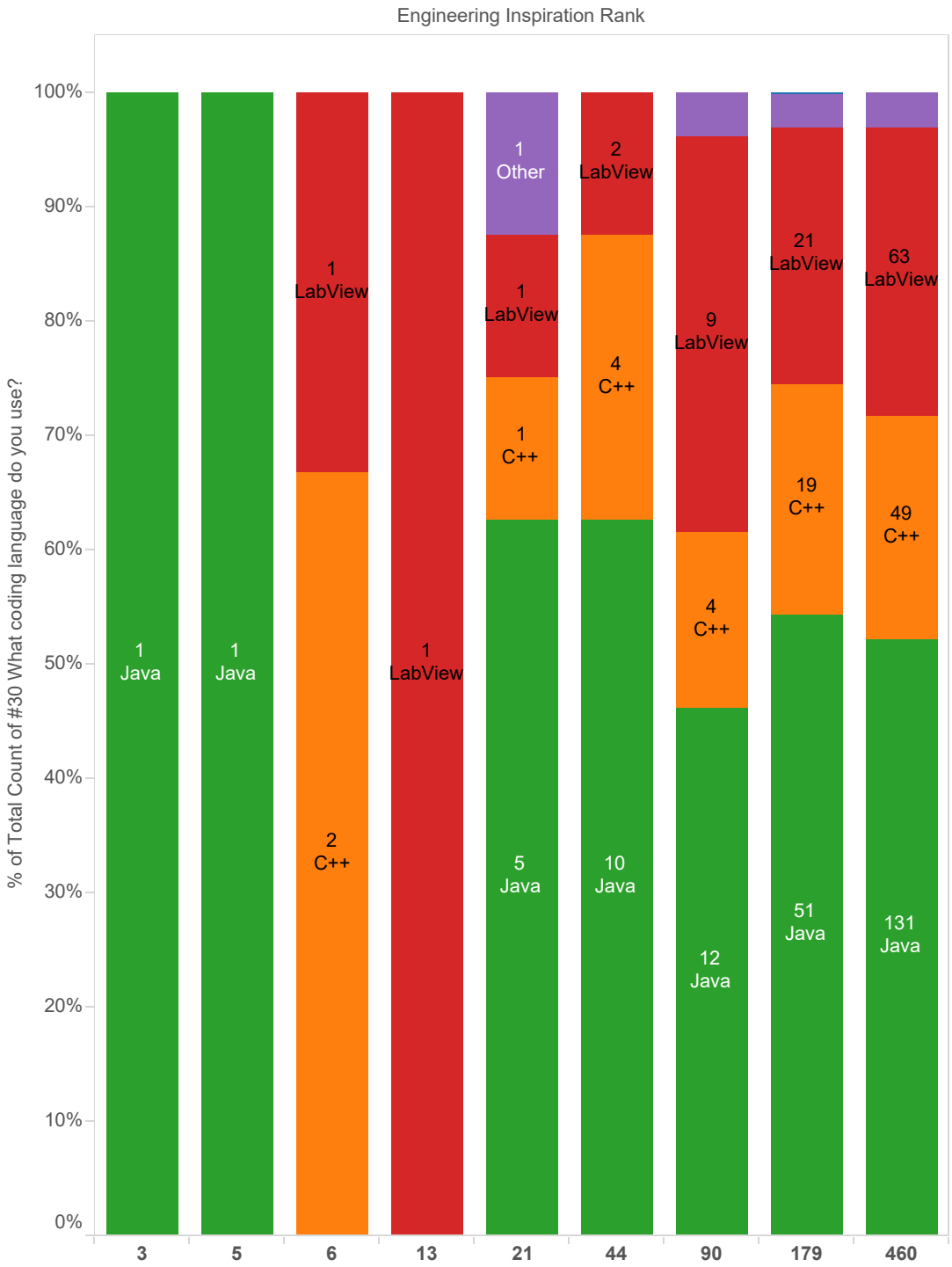


% of Total Count of #30 What coding language do you use? for each Chairman's Ranking. Color shows details about #30 What coding language do you use?. The marks are labeled by count of #30 What coding language do you use? and #30 What coding language do you use?.

#30 What coding language do you use?

- Null
- Other
- LabView
- C++
- Java

Coding Language vs Engineering Inspiration Ranking Component

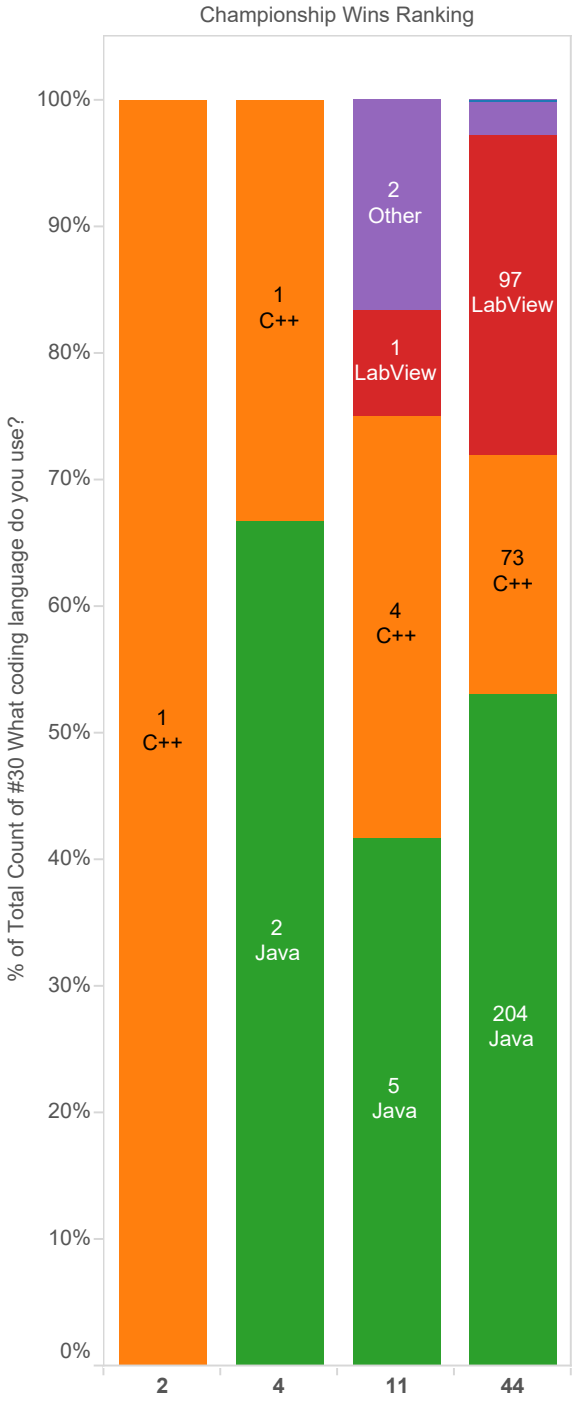


% of Total Count of #30 What coding language do you use? for each Engineering Inspiration Rank. Color shows details about #30 What coding language do you use?. The marks are labeled by count of #30 What coding language do you use? and #30 What coding language do you use?.

#30 What coding language do you use?

- Null
- Other
- LabView
- C++
- Java

Coding Language vs Championship Wins Ranking Component

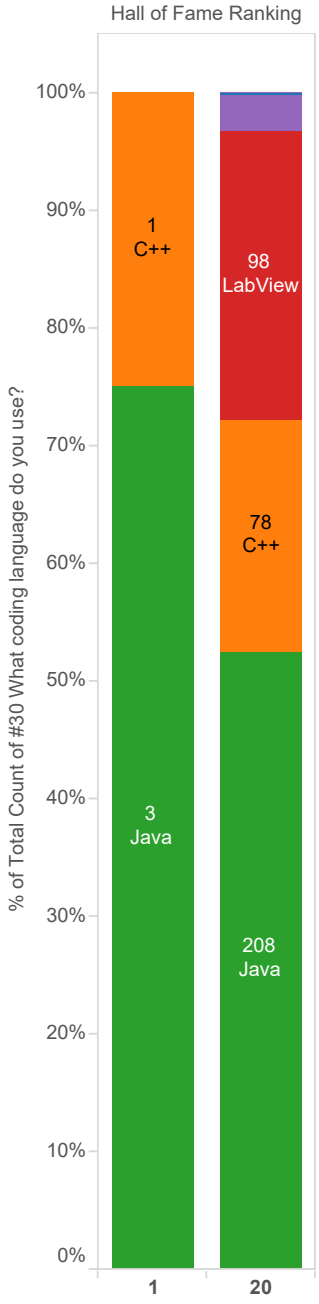


% of Total Count of #30 What coding language do you use? for each Championship Wins Ranking. Color shows details about #30 What coding language do you use?. The marks are labeled by count of #30 What coding language do you use? and #30 What coding language do you use?.

#30 What coding language do you use?

- Null
- Other
- LabView
- C++
- Java

Coding Language vs Hall of Fame Ranking Component

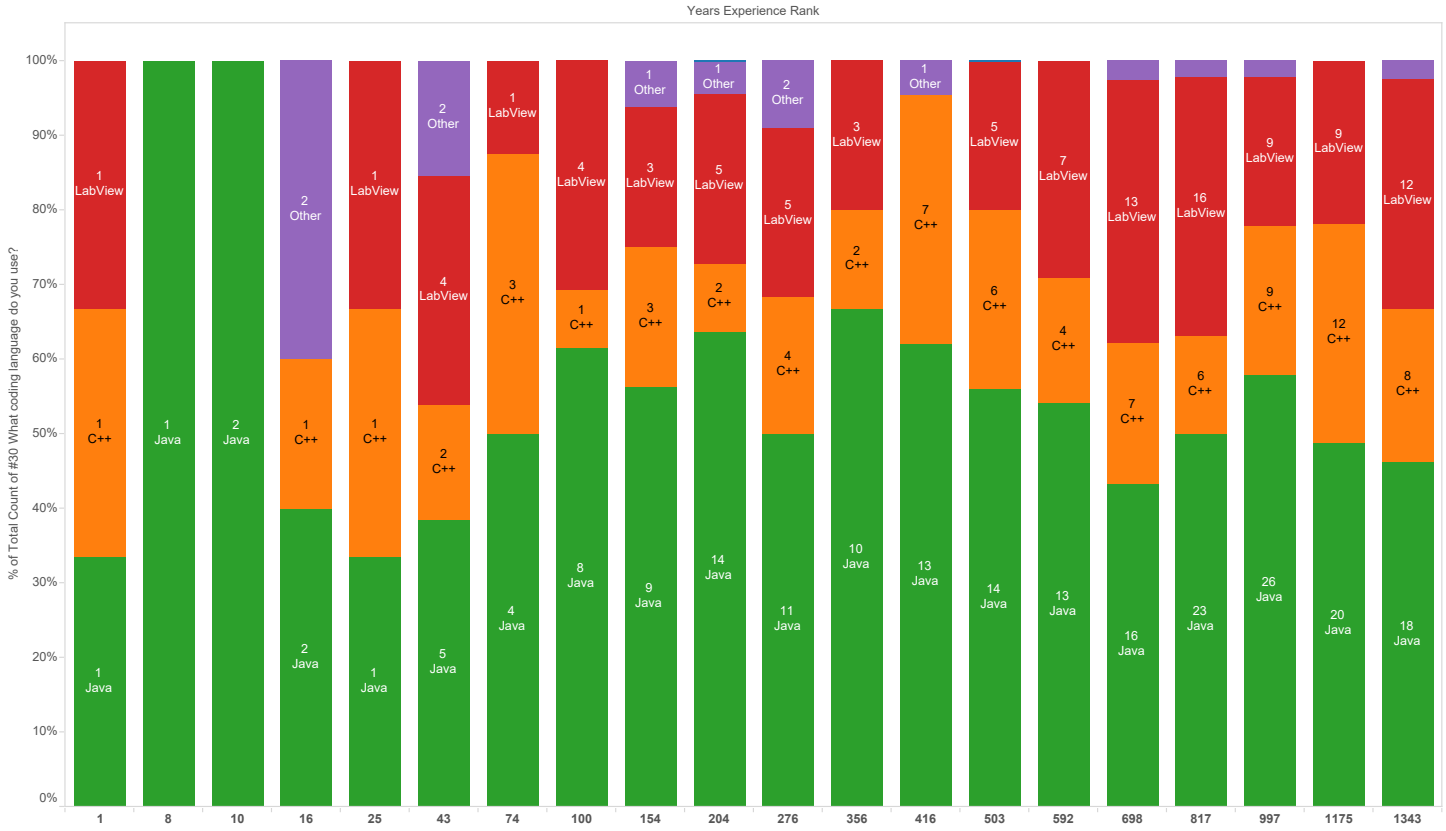


% of Total Count of #30 What coding language do you use? for each Hall of Fame Ranking. Color shows details about #30 What coding language do you use?. The marks are labeled by count of #30 What coding language do you use? and #30 What coding language do you use?.

#30 What coding language do you use?

- Null
- Other
- LabView
- C++
- Java

Coding Language vs Years Experience Ranking Component



% of Total Count of #30 What coding language do you use? for each Years Experience Rank. Color shows details about #30 What coding language do you use?. The marks are labeled by count of #30 What coding language do you use? and #30 What coding language do you use?.

#30 What coding language do you use?

- Null
- Other
- LabView
- C++
- Java

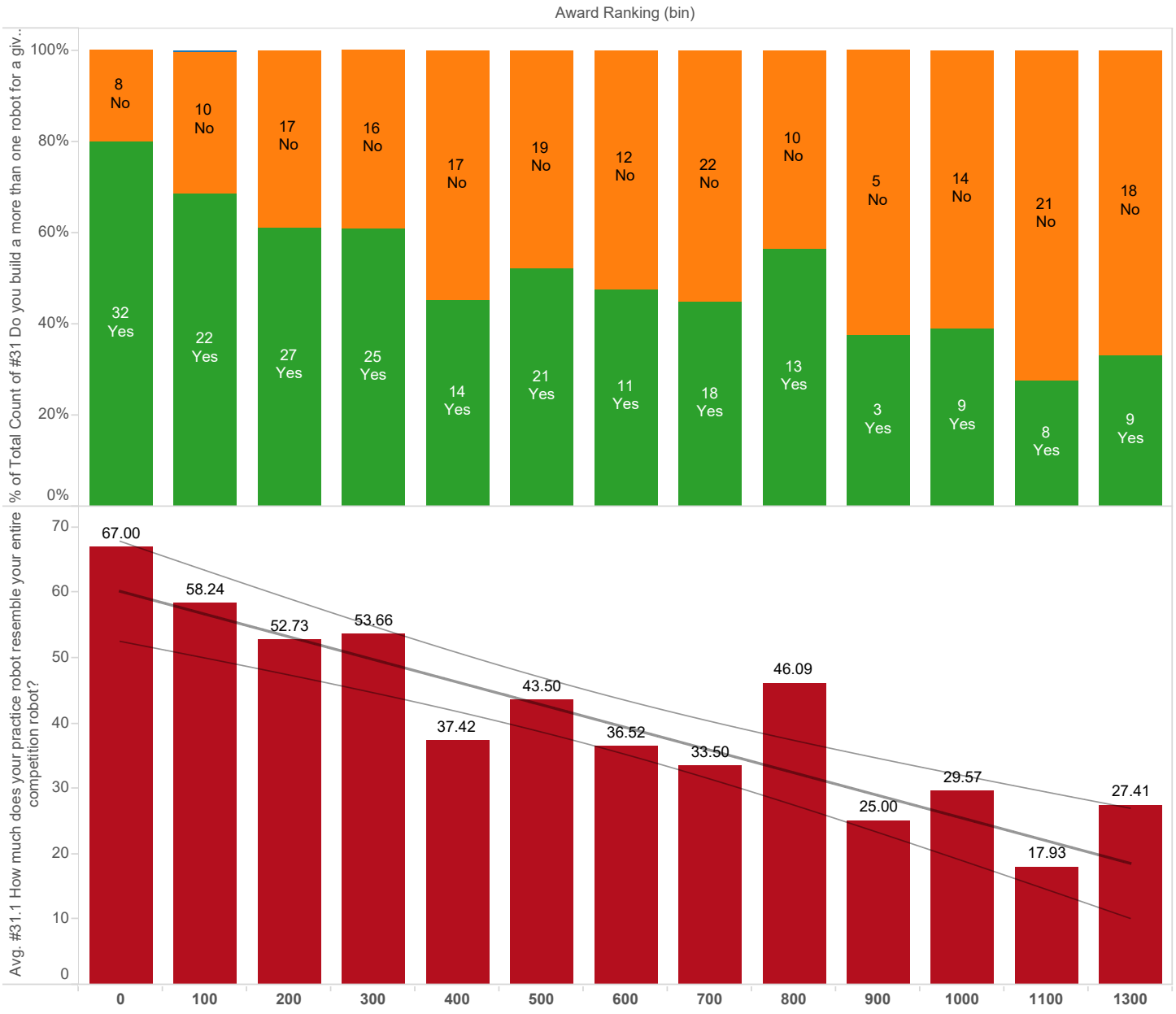
Practice Robot vs Final Ranking (bin)

Trend Lines Model
A linear trend model is computed for average of #31.1 How much does your practice robot resemble your entire competition robot? given Final Ranking (bin). The model may be significant at p <= 0.05.

Model formula: (Final Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 931.136
MSE (mean squared error): 66.5097
R-Squared: 0.670251
Standard error: 8.15535
p-value (significance): 0.0001054

#31 Do you build a more than one robot for a given year's game?
Null
No
Yes

Practice Robot vs Award Ranking Component (bin)



Trend Lines Model

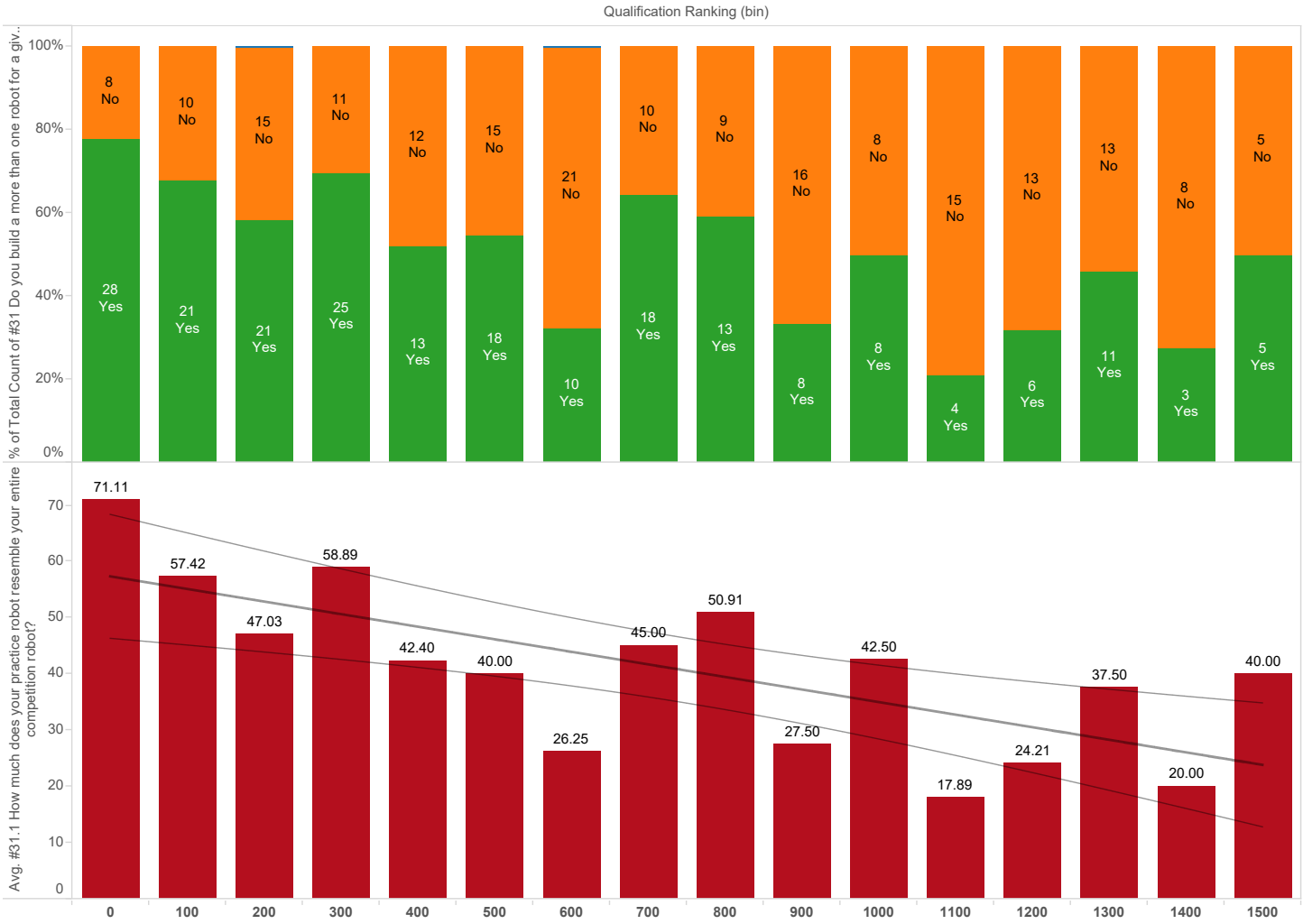
A linear trend model is computed for average of #31.1 How much does your practice robot resemble your entire competition robot? given Award Ranking (bin). The model may be significant at p <= 0.05.

Model formula: (Award Ranking (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 499.114
MSE (mean squared error): 45.374
R-Squared: 0.799894
Standard error: 6.73603
p-value (significance): < 0.0001

#31 Do you build a more than one robot for a given year's game?

- Null
- No
- Yes

Practice Robot vs Qualification Ranking Component (bin)



Trend Lines Model

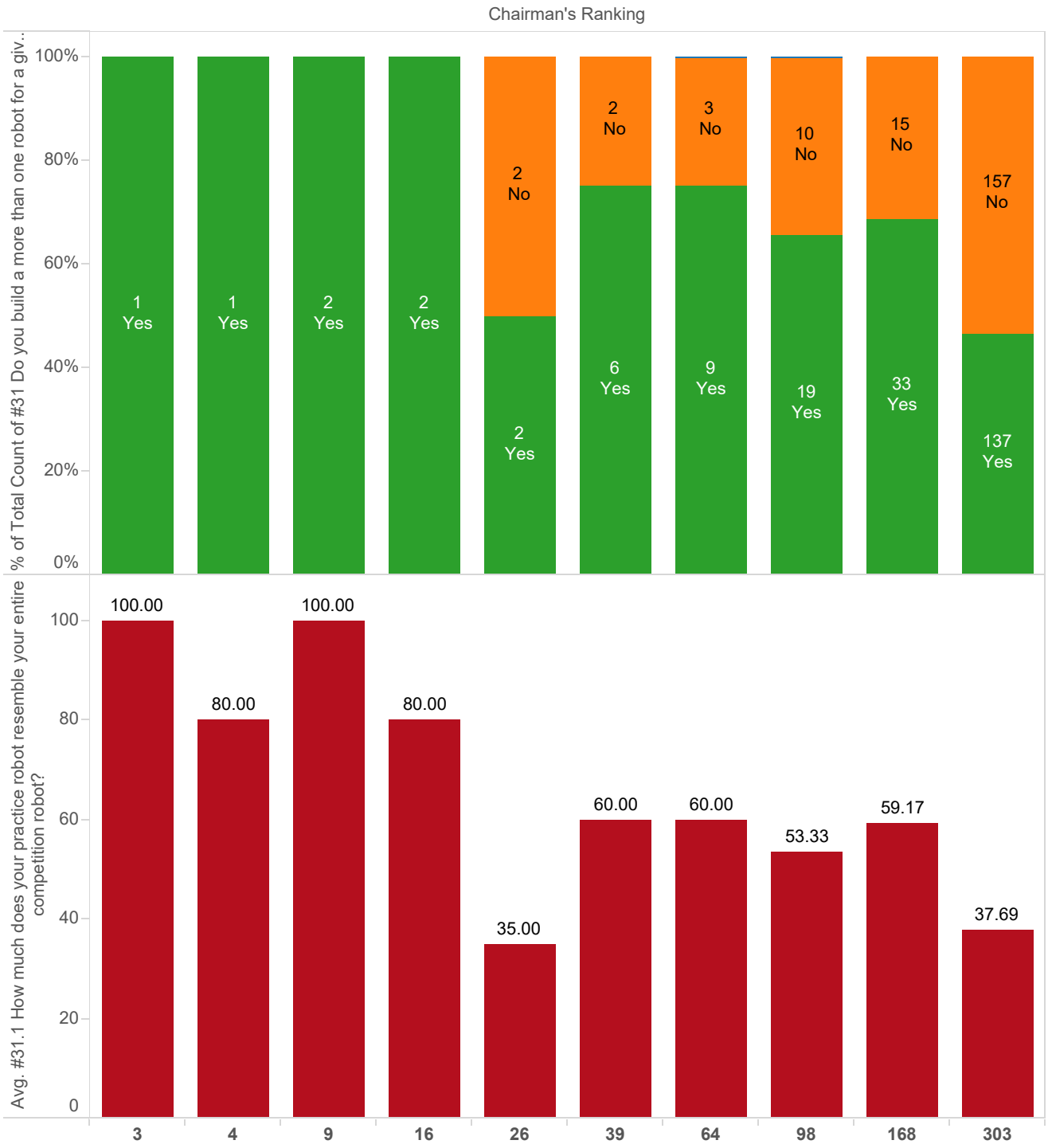
A linear trend model is computed for average of #31.1 How much does your practice robot resemble your entire competition robot? given Qualification Ranking (bin). The model may be significant at p <= 0.05.

Model formula: (Qualification Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 1620.92
MSE (mean squared error): 115.78
R-Squared: 0.511535
Standard error: 10.7601
p-value (significance): 0.0018423

#31 Do you build a more than one robot for a given year's game?

- Null
- No
- Yes

Practice Robot vs Chairman's Ranking Component

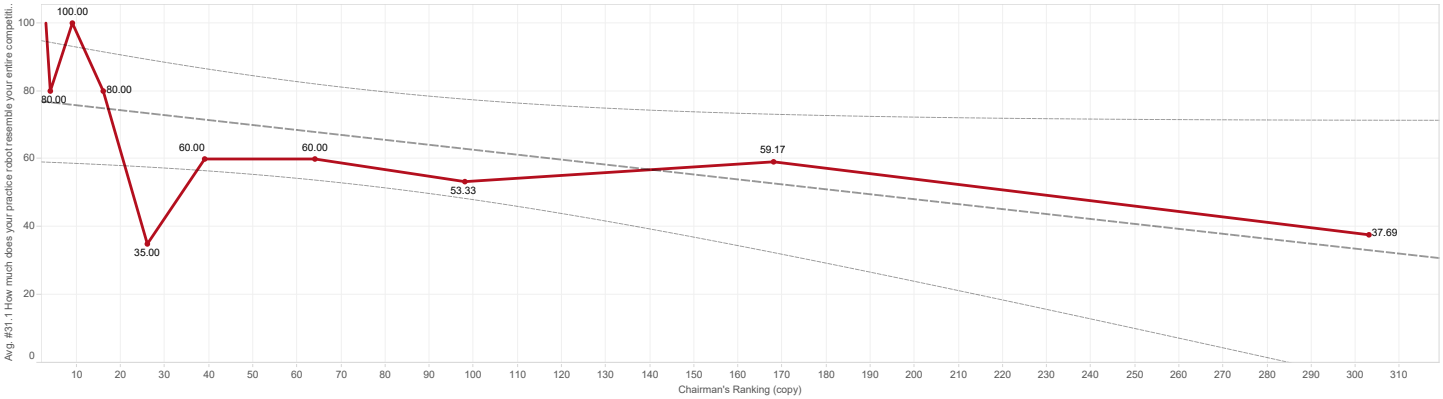


% of Total Count of #31 Do you build a more than one robot for a given year's game? and average of #31.1 How much does your practice robot resemble your entire competition robot? for each Chairman's Ranking. For pane Average of #31.1 How much does your practice robot resemble your entire competition robot?: The marks are labeled by average of #31.1 How much does your practice robot resemble your entire competition robot?. For pane % of Total Count of #31 Do you build a more than one robot for a given year's game?: Color shows details about #31 Do you build a more than one robot for a given year's game?. The marks are labeled by count of #31 Do you build a more than one robot for a given year's game? and #31 Do you build a more than one robot for a given year's game?.

#31 Do you build a more than one robot for a given year's game?

- Null
- No
- Yes

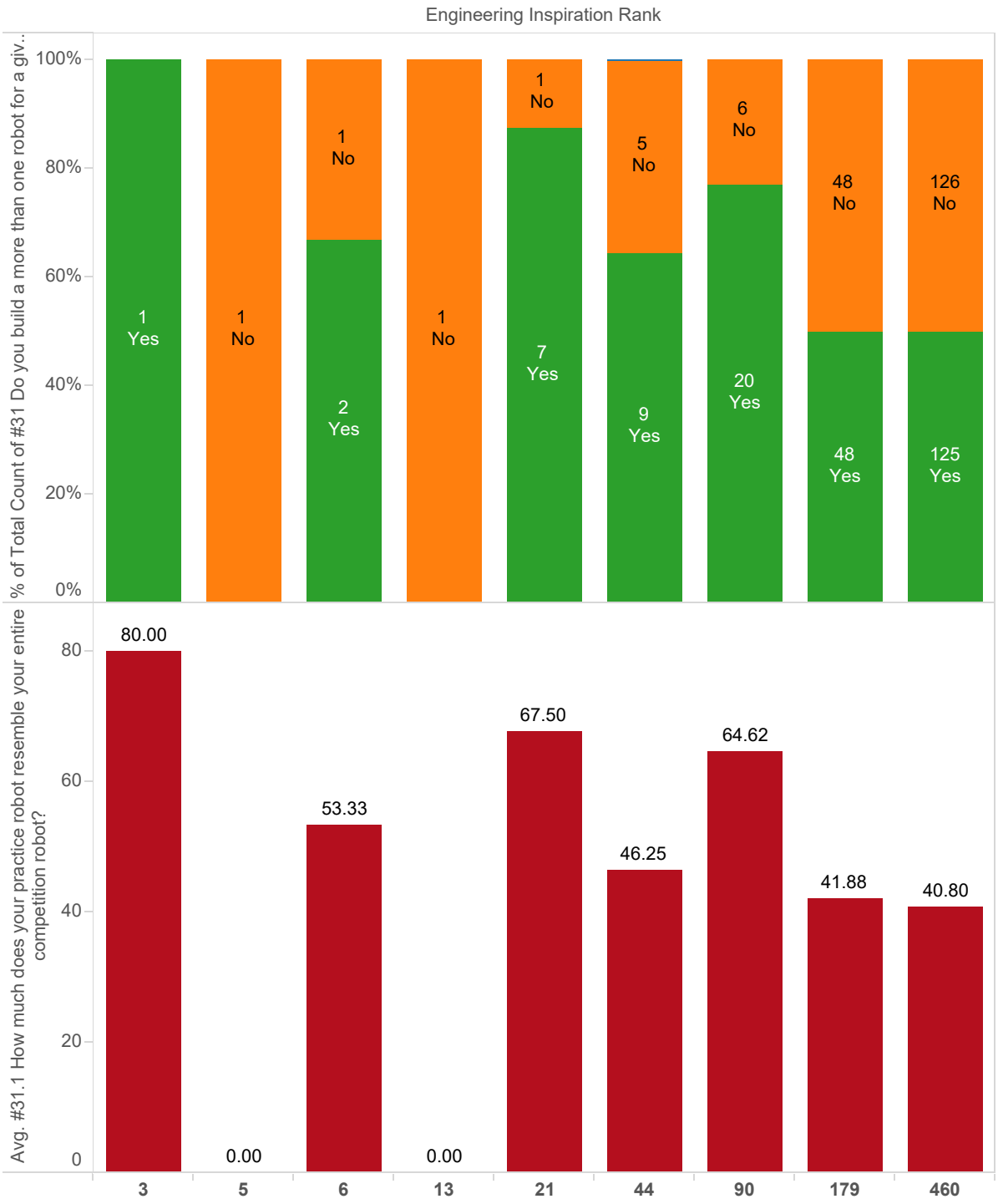
Practice Robot vs Chairman's Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #31.1 How much does your practice robot resemble your entire competition robot? given Chairman's Ranking (copy).

Model formula: (Chairman's Ranking (copy) + intercept)
Number of modeled observations: 10
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 8
SSE (sum squared error): 2984.15
MSE (mean squared error): 373.018
R-Squared: 0.370841
Standard error: 19.3137
p-value (significance): 0.0616748

Practice Robot vs Engineering Inspiration Ranking Component

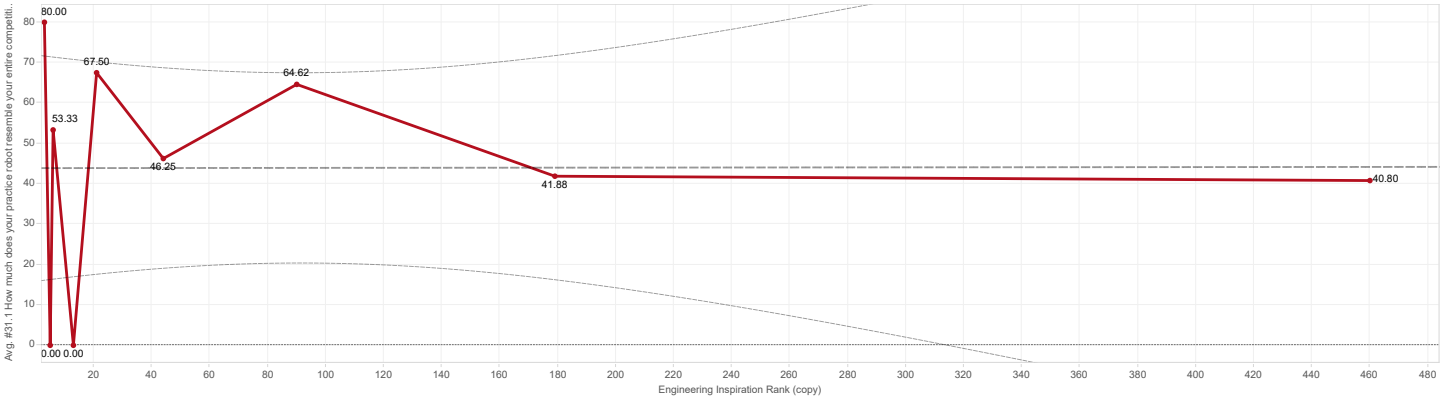


% of Total Count of #31 Do you build a more than one robot for a given year's game? and average of #31.1 How much does your practice robot resemble your entire competition robot? for each Engineering Inspiration Rank. For pane Average of #31.1 How much does your practice robot resemble your entire competition robot?: The marks are labeled by average of #31.1 How much does your practice robot resemble your entire competition robot?. For pane % of Total Count of #31 Do you build a more than one robot for a given year's game?: Color shows details about #31 Do you build a more than one robot for a given year's game?. The marks are labeled by count of #31 Do you build a more than one robot for a given year's game? and #31 Do you build a more than one robot for a given year's game?.

#31 Do you build a more than one robot for a given year's game?

- Null
- No
- Yes

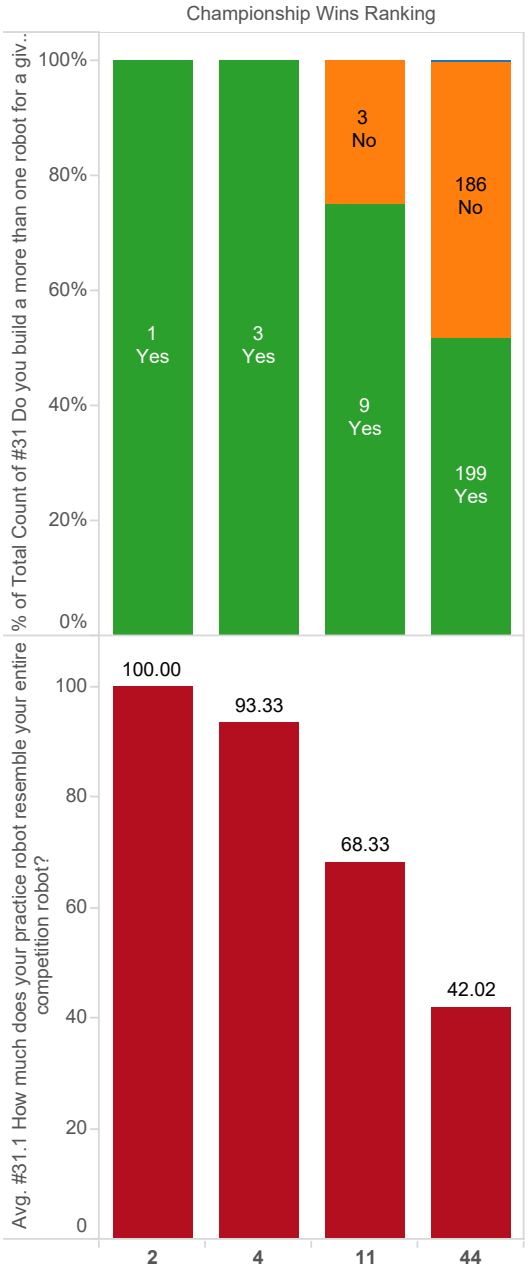
Practice Robot vs Engineering Inspiration Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #31.1 How much does your practice robot resemble your entire competition robot? given Inspiration Rank (copy).

Model formula: (Inspiration Rank (copy) + intercept)
Number of modeled observations: 9
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 7
SSE (sum squared error): 6251.83
MSE (mean squared error): 893.118
R-Squared: 1.172e-05
Standard error: 29.8851
p-value (significance): 0.993025

Practice Robot vs Championship Wins Ranking Component

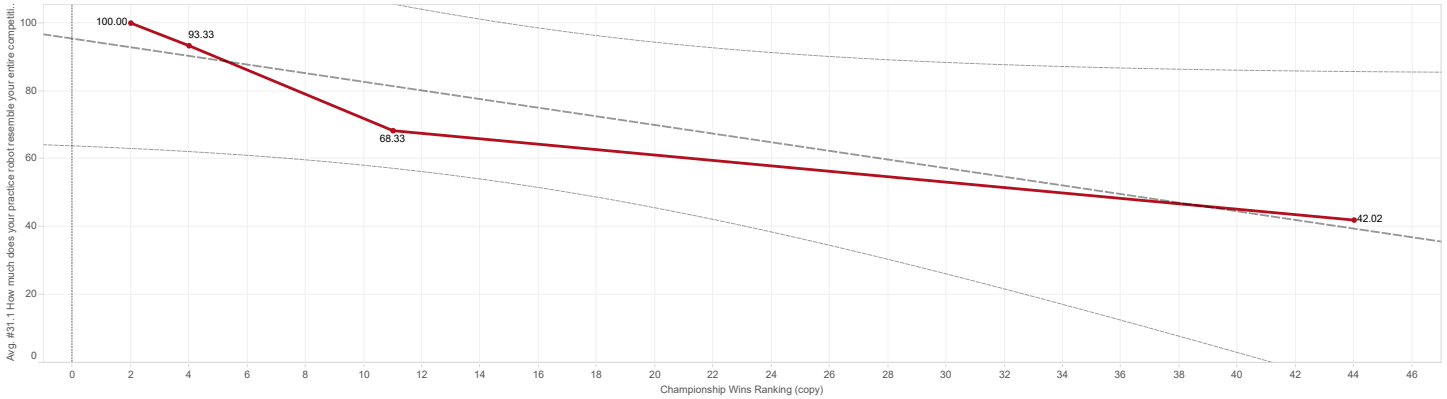


% of Total Count of #31 Do you build a more than one robot for a given year's game? and average of #31.1 How much does your practice robot resemble your entire competition robot? for each Championship Wins Ranking. For pane Average of #31.1 How much does your practice robot resemble your entire competition robot?: The marks are labeled by average of #31.1 How much does your practice robot resemble your entire competition robot?. For pane % of Total Count of #31 Do you build a more than one robot for a given year's game?: Color shows details about #31 Do you build a more than one robot for a given year's game?. The marks are labeled by count of #31 Do you build a more than one robot for a given year's game? and #31 Do you build a more than one robot for a given year's game?.

#31 Do you build a more than one robot for a given year's game?

- Null
- No
- Yes

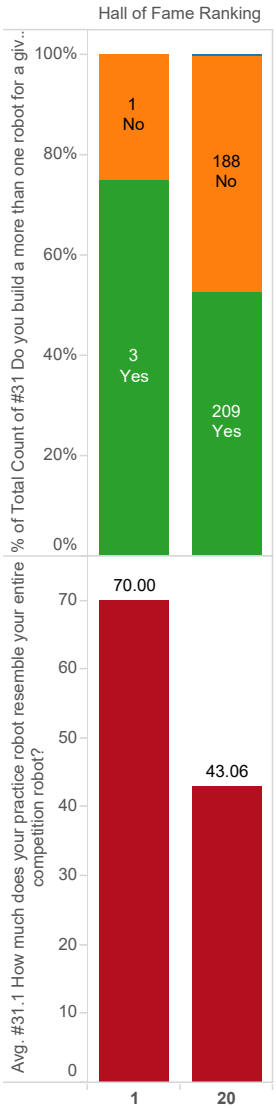
Practice Robot vs Championship Wins Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #31.1 How much does your practice robot resemble your entire competition robot? given Championship Wins Ranking (copy).

Model formula: (Championship Wins Ranking (copy) + intercept)
Number of modeled observations: 4
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 2
SSE (sum squared error): 237.759
MSE (mean squared error): 118.879
R-Squared: 0.886248
Standard error: 10.9032
p-value (significance): 0.0585928

Practice Robot vs Hall of Fame Ranking Component



% of Total Count of #31 Do you build a more than one robot for a given year's game? and average of #31.1 How much does your practice robot resemble your entire competition robot? for each Hall of Fame Ranking. For pane Average of #31.1 How much does your practice robot resemble your entire competition robot?: The marks are labeled by average of #31.1 How much does your practice robot resemble your entire competition robot?. For pane % of Total Count of #31 Do you build a more than one robot for a given year's game?: Color shows details about #31 Do you build a more than one robot for a given year's game?. The marks are labeled by count of #31 Do you build a more than one robot for a given year's game? and #31 Do you build a more than one robot for a given year's game?.

#31 Do you build a more than one robot for a given year's game?

- Null
- No
- Yes

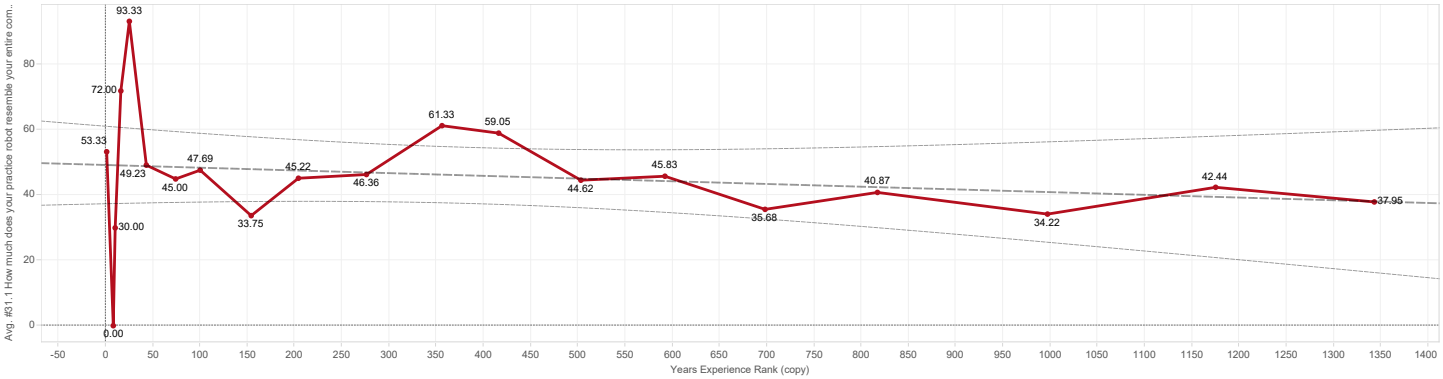
Practice Robot vs Years Experience Ranking Component

% of Total Count of #31 Do you build a more than one robot for a given year's game? and average of #31.1 How much does your practice robot resemble your entire competition robot? for each Years Experience Rank. For pane Average of #31.1 How much does your practice robot resemble your entire competition robot?: The marks are labeled by average of #31.1 How much does your practice robot resemble your entire competition robot?. For pane % of Total Count of #31 Do you build a more than one robot for a given year's game?: Color shows details about #31 Do you build a more than one robot for a given year's game?. The marks are labeled by count of #31 Do you build a more than one robot for a given year's game? and #31 Do you build a more than one robot for a given year's game?.

#31 Do you build a more than one robot for a given year's game?

- Null
- No
- Yes

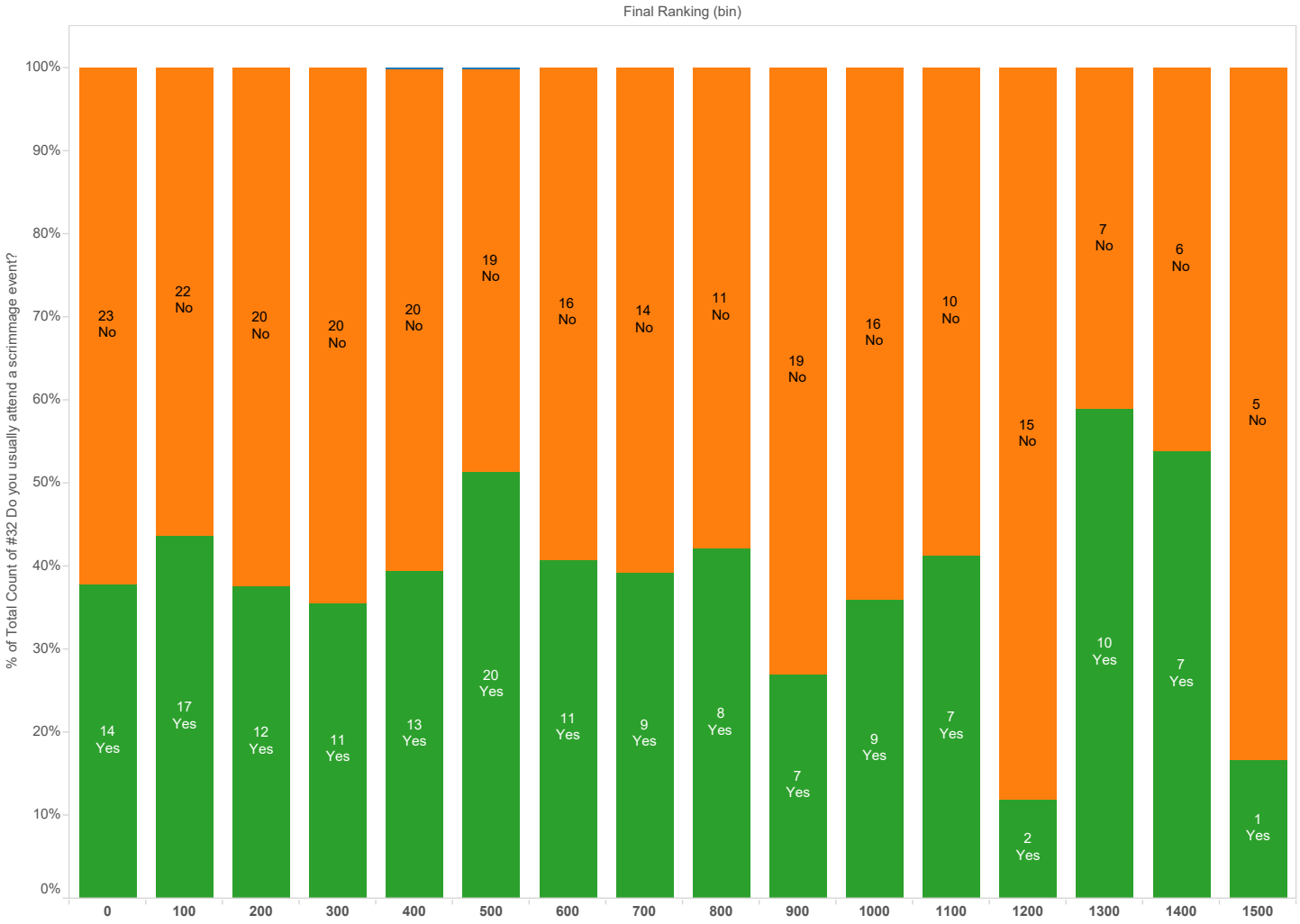
Practice Robot vs Years Experience Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #31.1 How much does your practice robot resemble your entire competition robot? given Years Experience Rank (copy).

Model formula: (Years Experience Rank (copy) + intercept)
Number of modeled observations: 20
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 18
SSE (sum squared error): 6031.68
MSE (mean squared error): 335.093
R-Squared: 0.0370183
Standard error: 18.3055
p-value (significance): 0.416404

Scrimmage Attendance vs Final Ranking (bin)

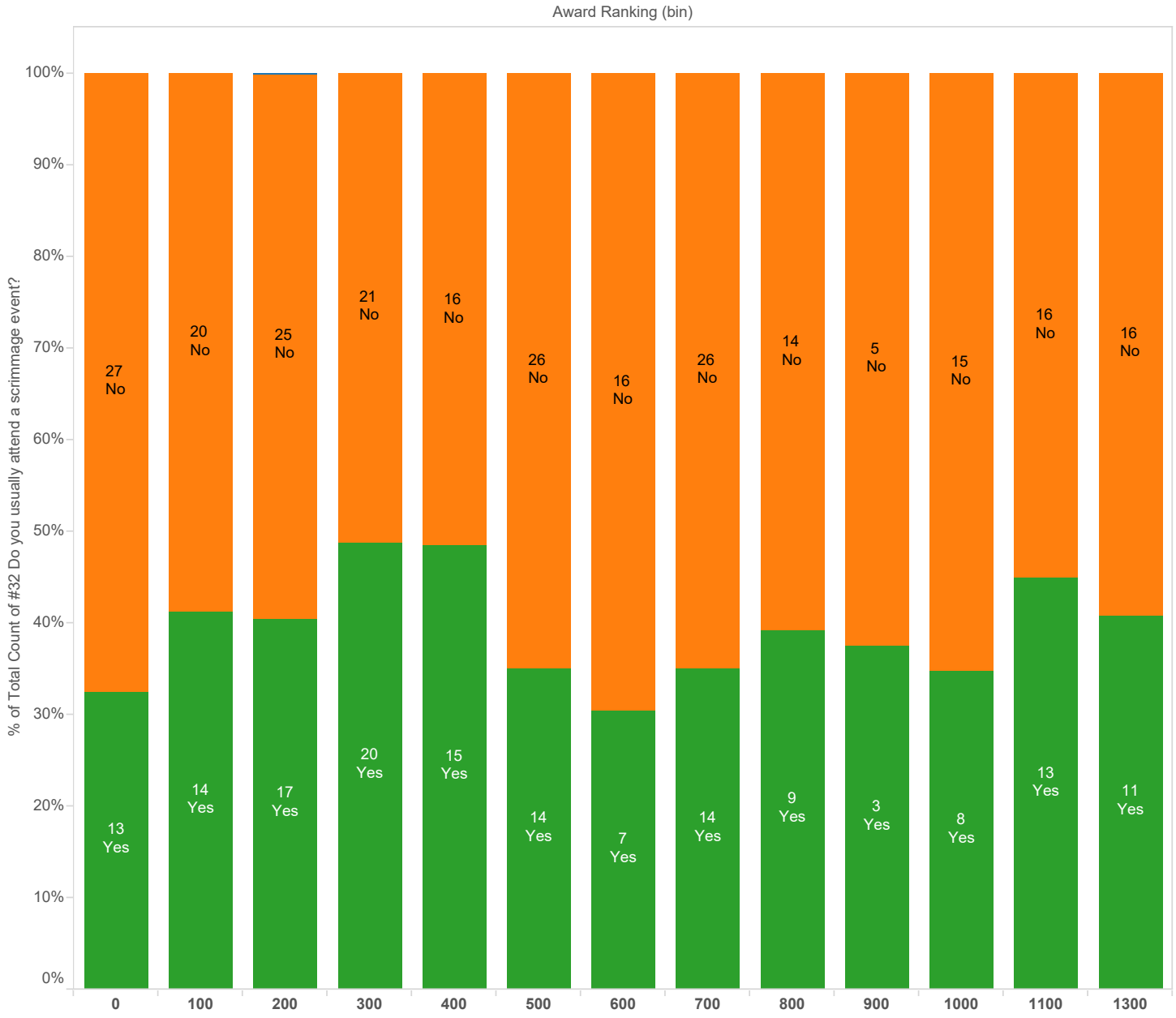


% of Total Count of #32 Do you usually attend a scrimmage event? for each Final Ranking (bin). Color shows details about #32 Do you usually attend a scrimmage event?. The marks are labeled by count of #32 Do you usually attend a scrimmage event? and #32 Do you usually attend a scrimmage event?.

#32 Do you usually attend a scrimmage event?

- Null
- No
- Yes

Scrimmage Attendance vs Award Ranking Component (bin)

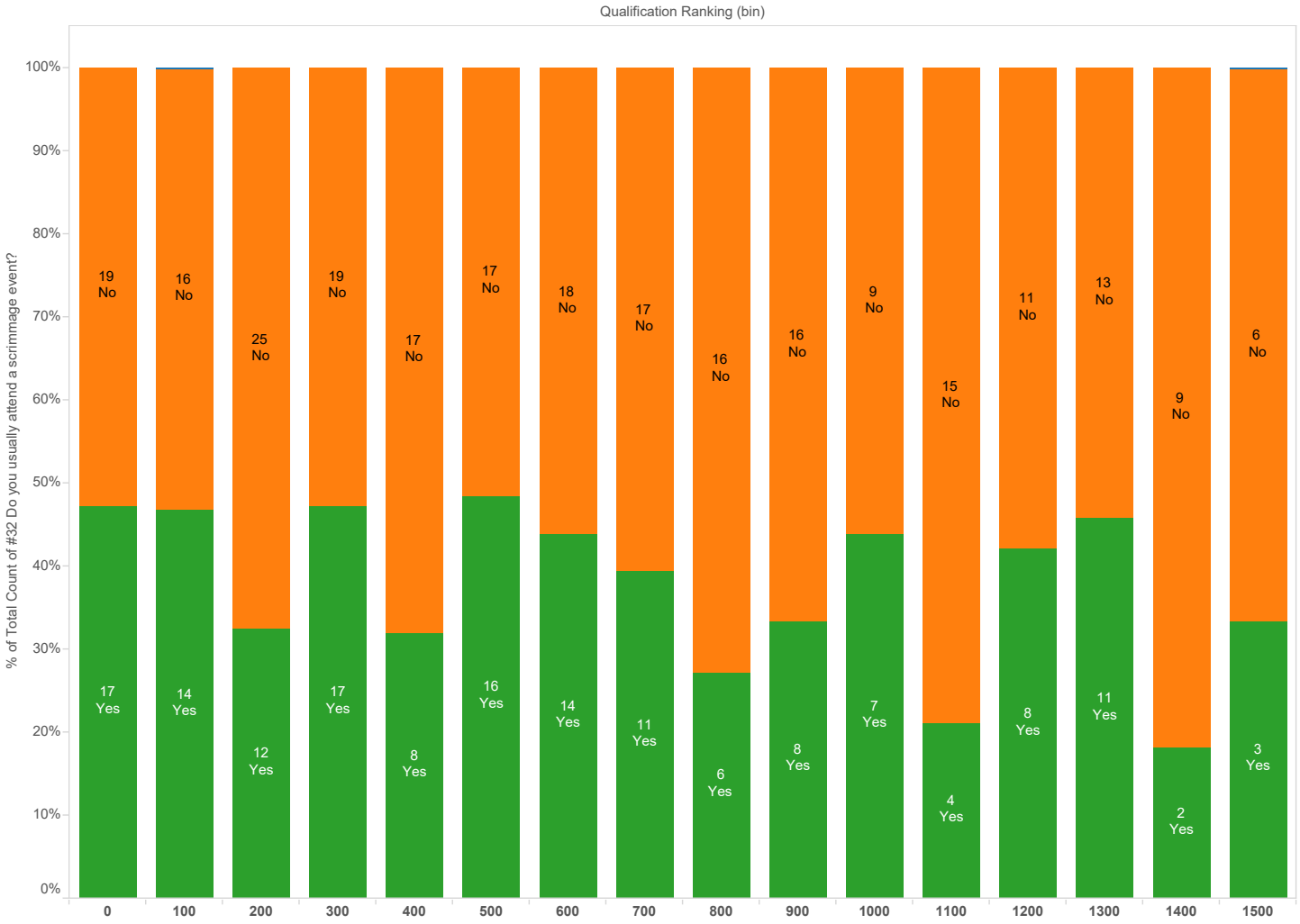


% of Total Count of #32 Do you usually attend a scrimmage event? for each Award Ranking (bin). Color shows details about #32 Do you usually attend a scrimmage event?. The marks are labeled by count of #32 Do you usually attend a scrimmage event? and #32 Do you usually attend a scrimmage event?.

#32 Do you usually attend a scrimmage event?

- Null
- No
- Yes

Scrimmage Attendance vs Qualification Ranking Component (bin)

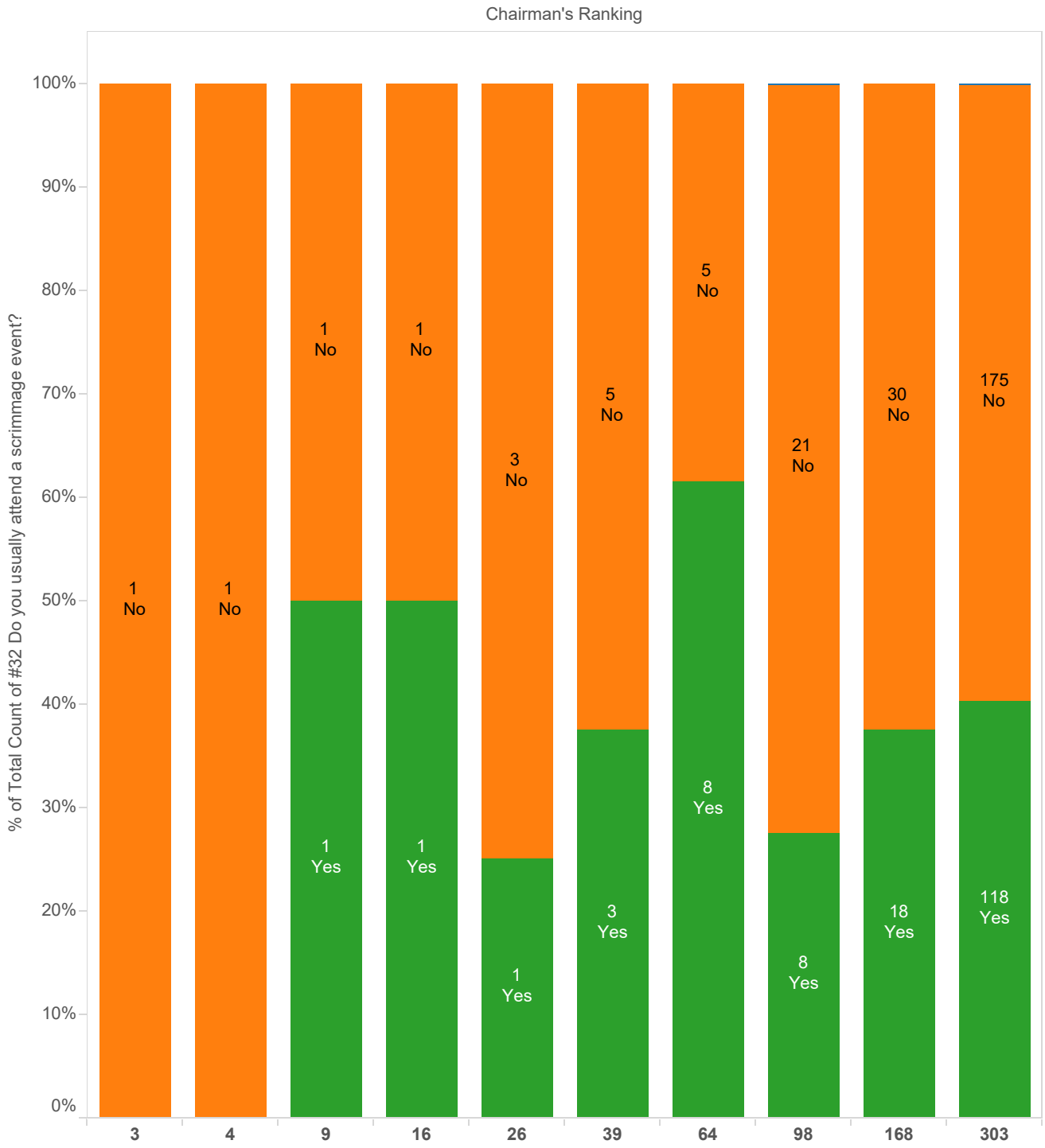


% of Total Count of #32 Do you usually attend a scrimmage event? for each Qualification Ranking (bin). Color shows details about #32 Do you usually attend a scrimmage event?. The marks are labeled by count of #32 Do you usually attend a scrimmage event? and #32 Do you usually attend a scrimmage event?.

#32 Do you usually attend a scrimmage event?

- Null
- No
- Yes

Scrimmage Attendance vs Chairman's Ranking Component

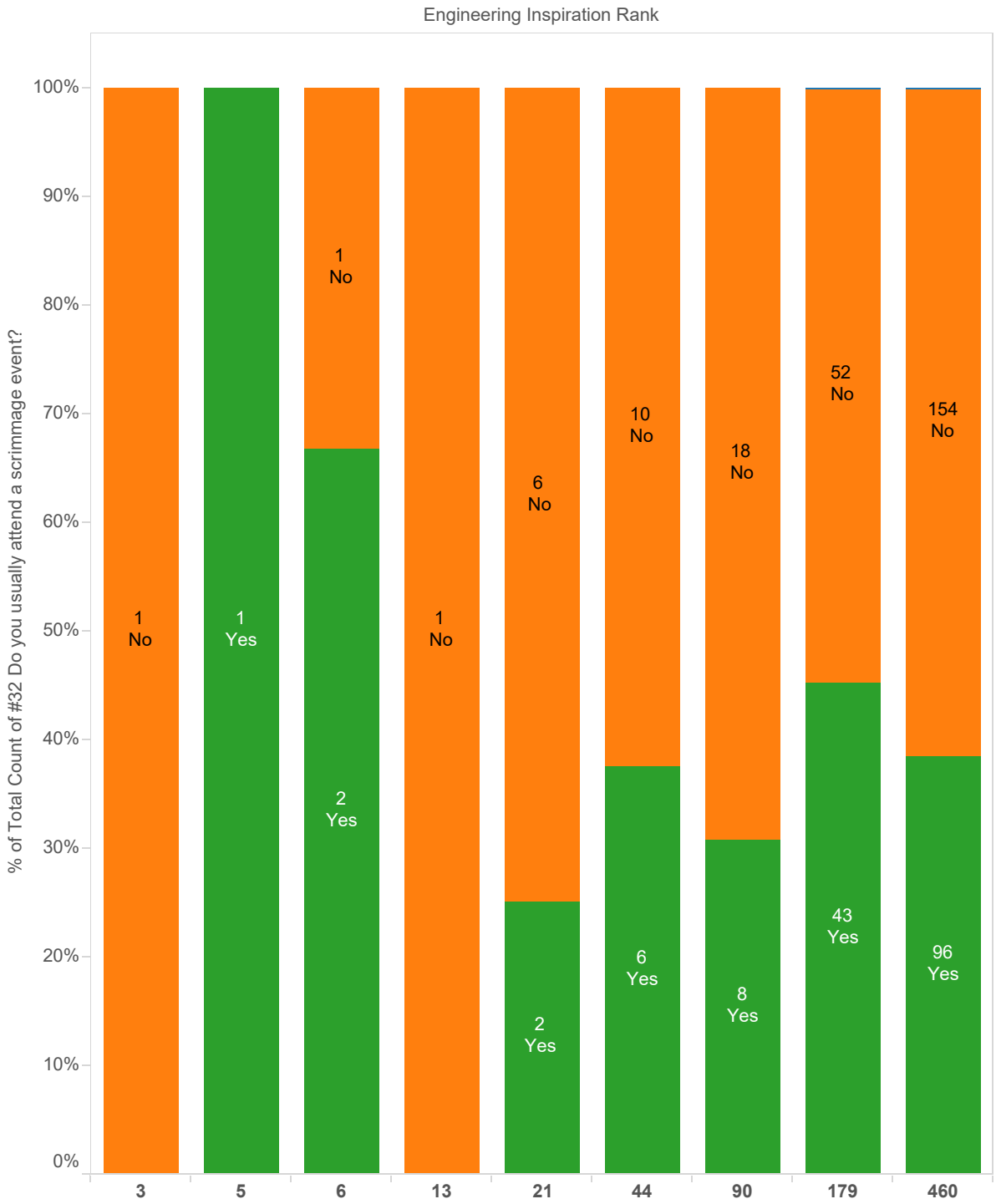


% of Total Count of #32 Do you usually attend a scrimmage event? for each Chairman's Ranking. Color shows details about #32 Do you usually attend a scrimmage event?. The marks are labeled by count of #32 Do you usually attend a scrimmage event? and #32 Do you usually attend a scrimmage event?.

#32 Do you usually attend a scrimmage event?

- Null
- No
- Yes

Scrimmage Attendance vs Engineering Inspiration Ranking Component

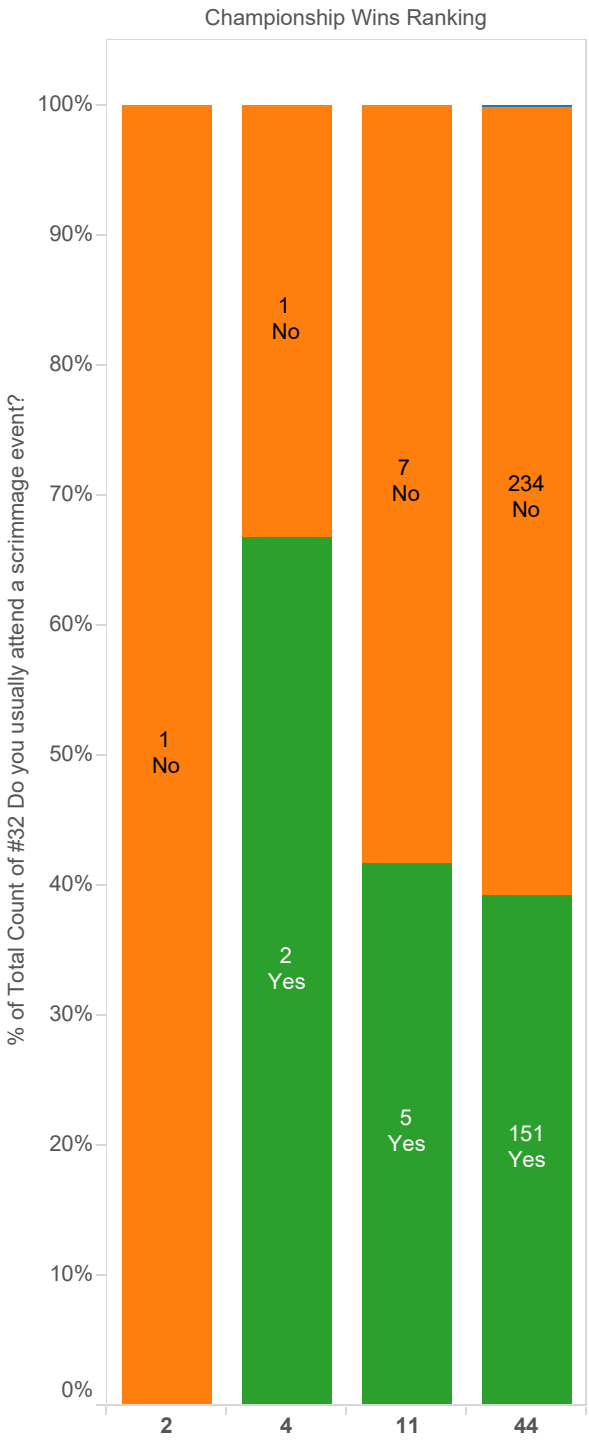


% of Total Count of #32 Do you usually attend a scrimmage event? for each Engineering Inspiration Rank. Color shows details about #32 Do you usually attend a scrimmage event?. The marks are labeled by count of #32 Do you usually attend a scrimmage event? and #32 Do you usually attend a scrimmage event?.

#32 Do you usually attend a scrimmage event?

- Null
- No
- Yes

Scrimmage Attendance vs Championship Wins Ranking Component

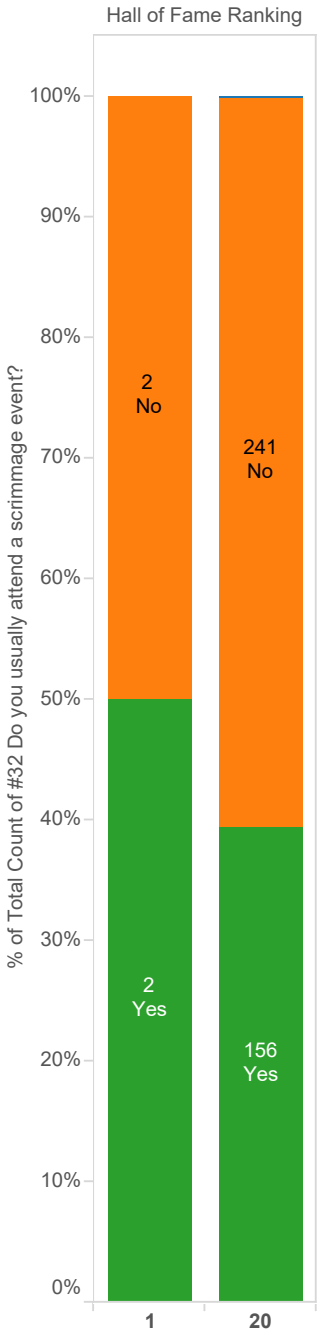


% of Total Count of #32 Do you usually attend a scrimmage event? for each Championship Wins Ranking. Color shows details about #32 Do you usually attend a scrimmage event?. The marks are labeled by count of #32 Do you usually attend a scrimmage event? and #32 Do you usually attend a scrimmage event?.

#32 Do you usually attend a scrimmage event?

- Null
- No
- Yes

Scrimmage Attendance vs Hall of Fame Ranking Component

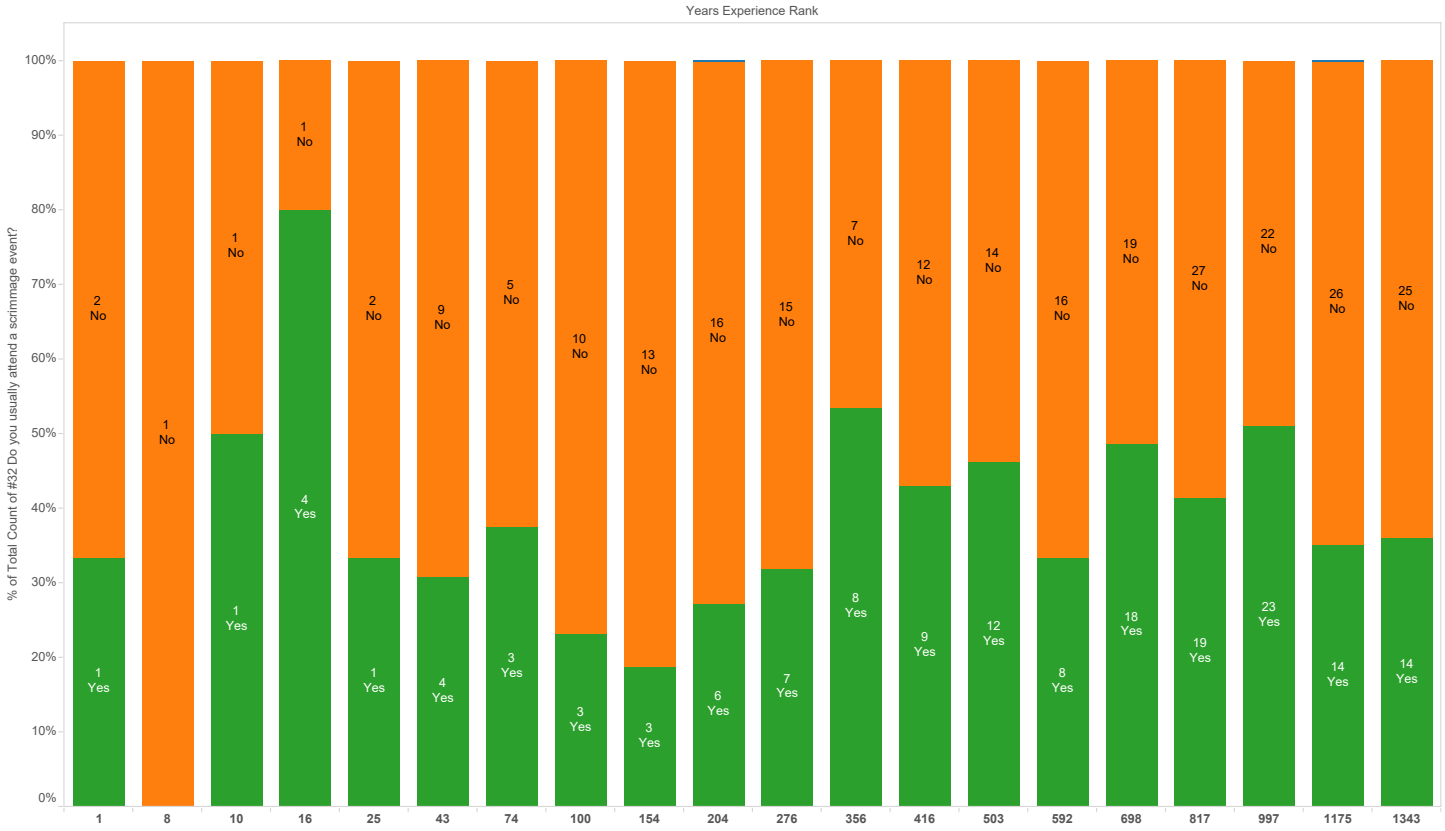


% of Total Count of #32 Do you usually attend a scrimmage event? for each Hall of Fame Ranking. Color shows details about #32 Do you usually attend a scrimmage event?. The marks are labeled by count of #32 Do you usually attend a scrimmage event? and #32 Do you usually attend a scrimmage event?.

#32 Do you usually attend a scrimmage event?

- Null
- No
- Yes

Scrimmage Attendance vs Years Experience Ranking Component

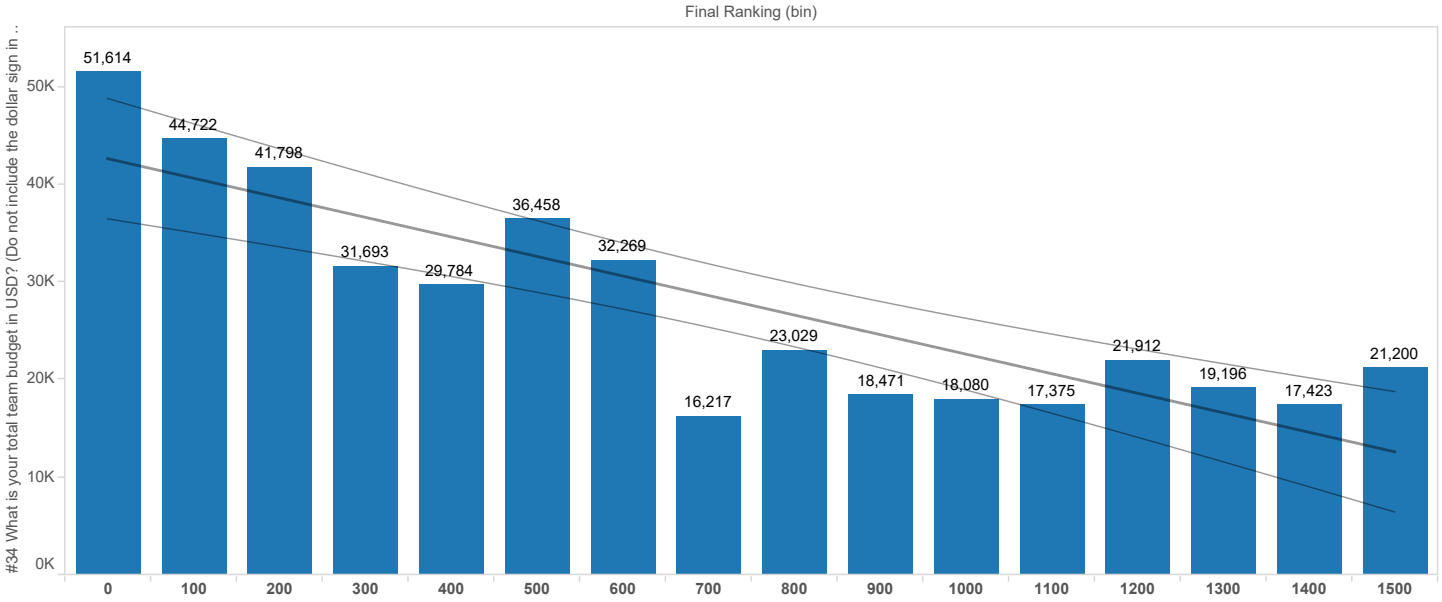


% of Total Count of #32 Do you usually attend a scrimmage event? for each Years Experience Rank. Color shows details about #32 Do you usually attend a scrimmage event?. The marks are labeled by count of #32 Do you usually attend a scrimmage event? and #32 Do you usually attend a scrimmage event?.

#32 Do you usually attend a scrimmage event?

- Null
- No
- Yes

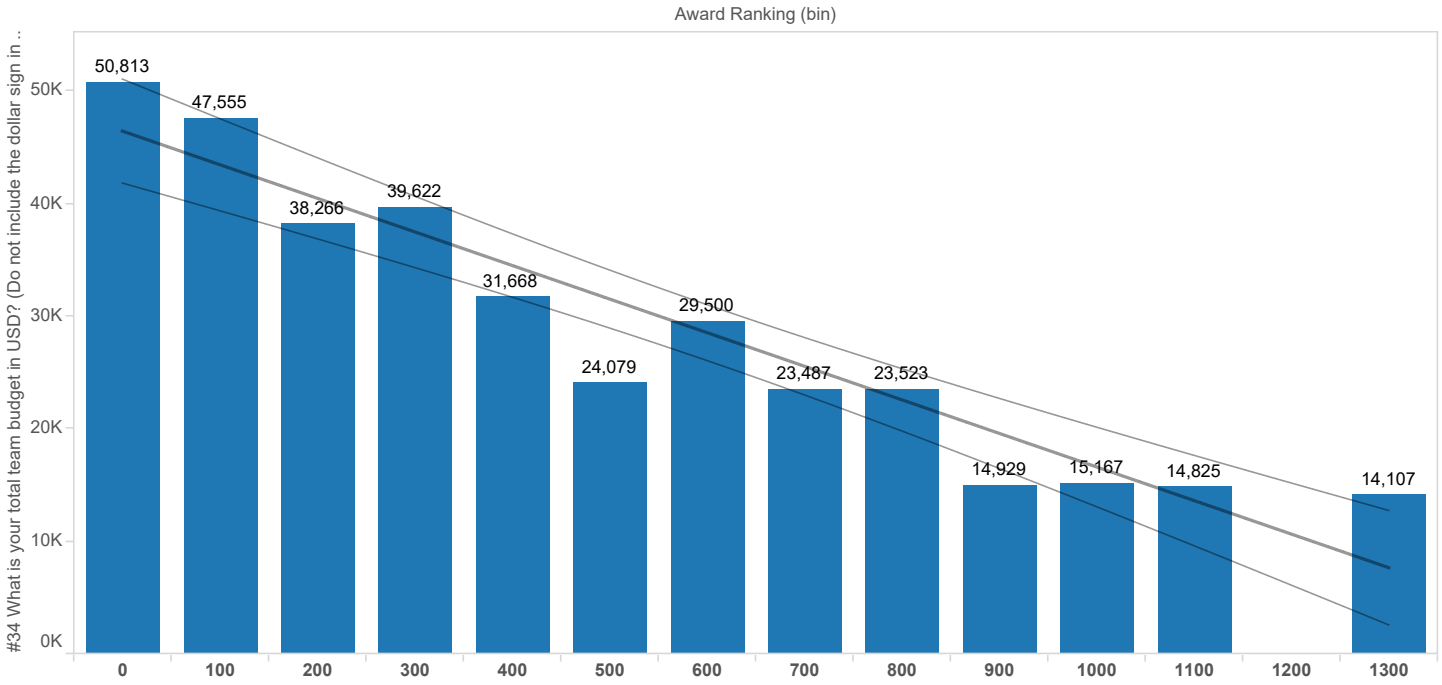
Total Team Budget vs Final Ranking (bin)



Trend Lines Model
A linear trend model is computed for average of #34 What is your total team budget in USD? (Do not include the dollar sign in your response) given Final Ranking (bin). The model may be significant at p <= 0.05.

Model formula: (Final Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 5.07529e+08
MSE (mean squared error): 3.6252e+07
R-Squared: 0.728555
Standard error: 6020.97
p-value (significance): < 0.0001

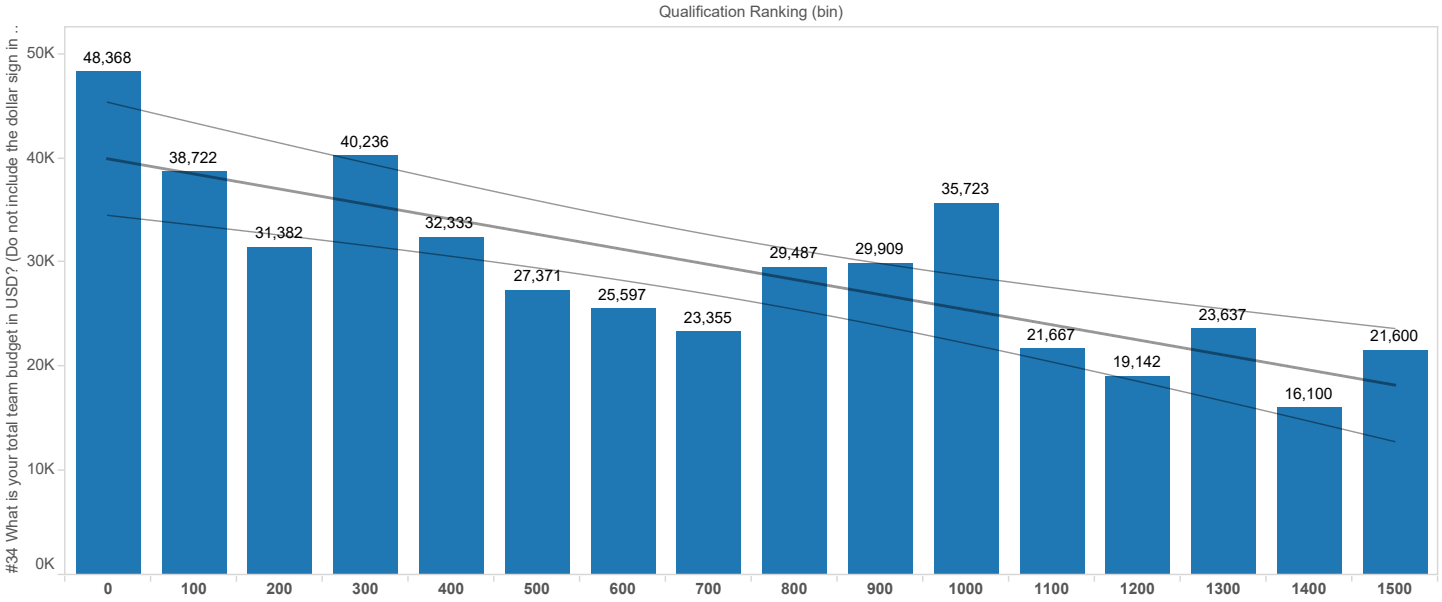
Total Team Budget vs Award Ranking Component (bin)



Trend Lines Model
A linear trend model is computed for average of #34 What is your total team budget in USD? (Do not include the dollar sign in your response) given Award Ranking (bin). The model may be significant at p <= 0.05.

Model formula: (Award Ranking (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 1
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 1.81755e+08
MSE (mean squared error): 1.65232e+07
R-Squared: 0.905135
Standard error: 4064.88
p-value (significance): < 0.0001

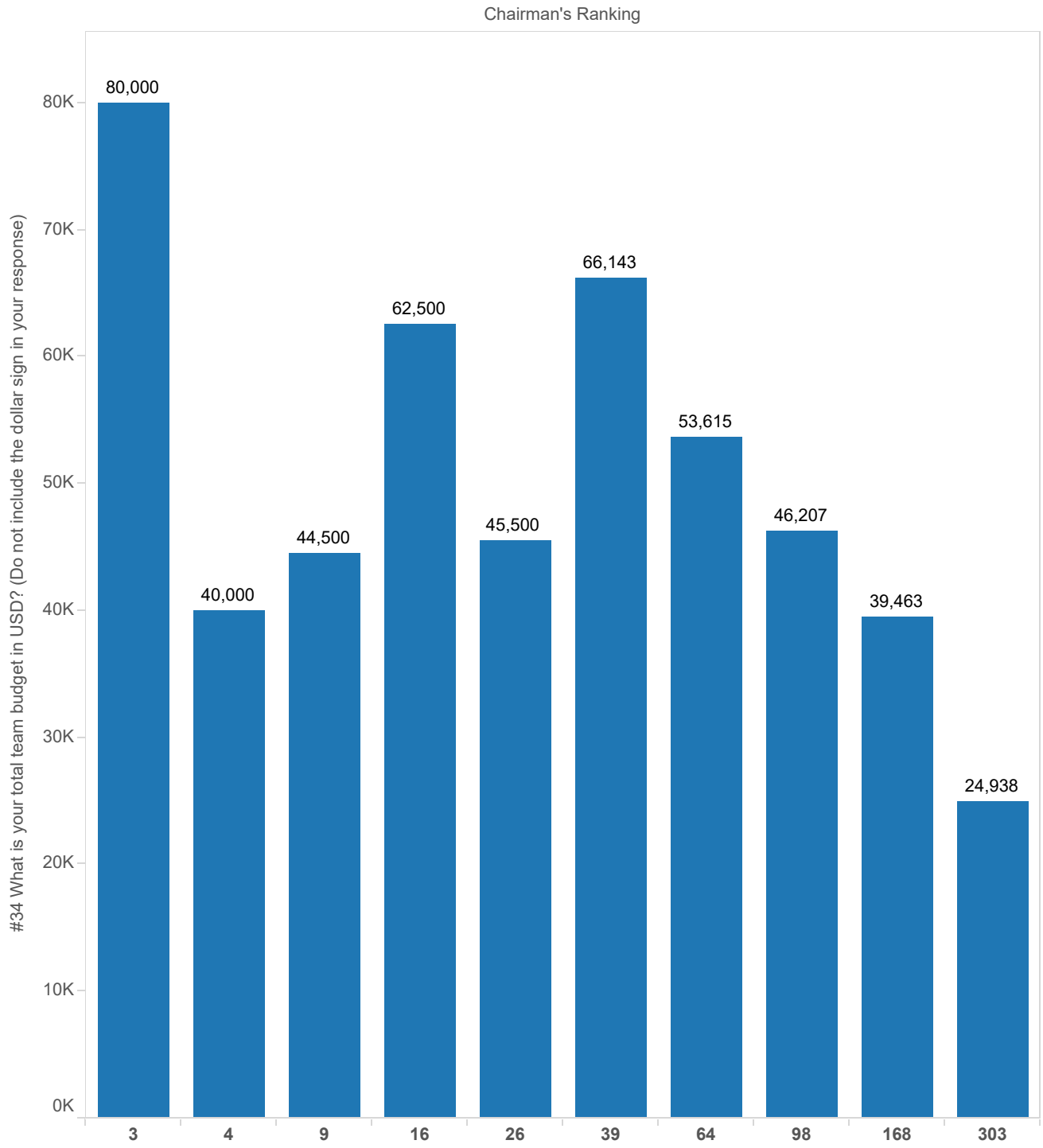
Total Team Budget vs Qualification Ranking Component (bin)



Trend Lines Model
A linear trend model is computed for average of #34 What is your total team budget in USD? (Do not include the dollar sign in your response) given Qualification Ranking (bin). The model may be significant at p <= 0.05.

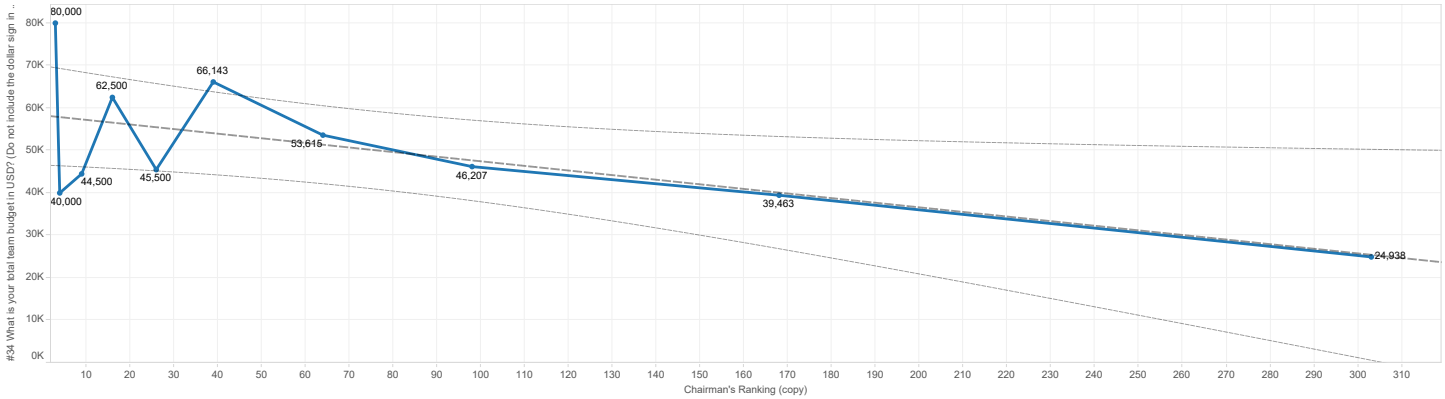
Model formula: (Qualification Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 3.93224e+08
MSE (mean squared error): 2.80875e+07
R-Squared: 0.644426
Standard error: 5299.76
p-value (significance): 0.0001816

Total Team Budget vs Chairman's Ranking Component



Average of #34 What is your total team budget in USD? (Do not include the dollar sign in your response) for each Chairman's Ranking. The marks are labeled by average of #34 What is your total team budget in USD? (Do not include the dollar sign in your response).

Total Team Budget vs Chairman's Ranking Component (2)

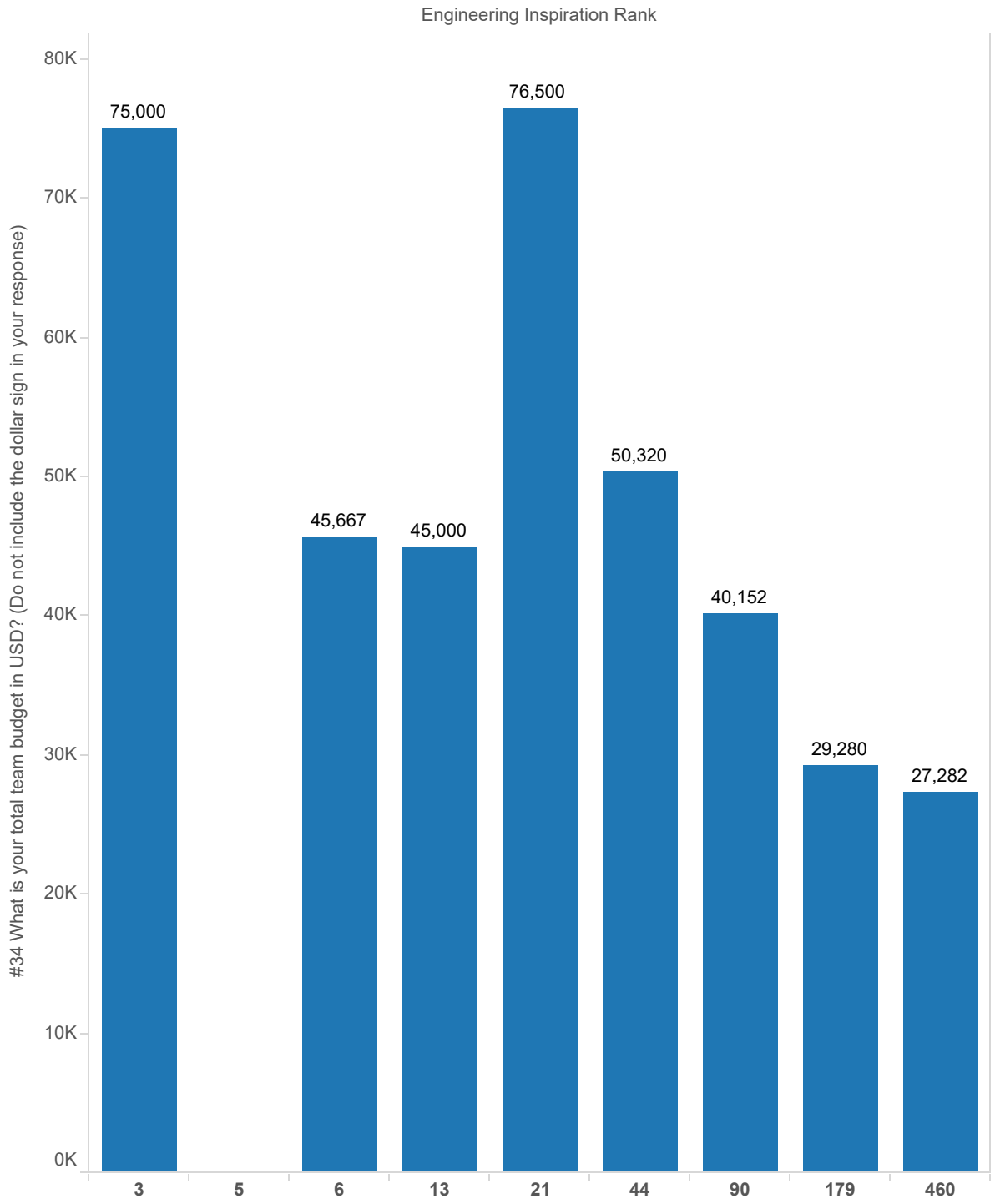


Trend Lines Model

A linear trend model is computed for average of #34 What is your total team budget in USD? (Do not include the dollar sign in your response) given Chairman's Ranking (copy). The model may be significant at p <= 0.05.

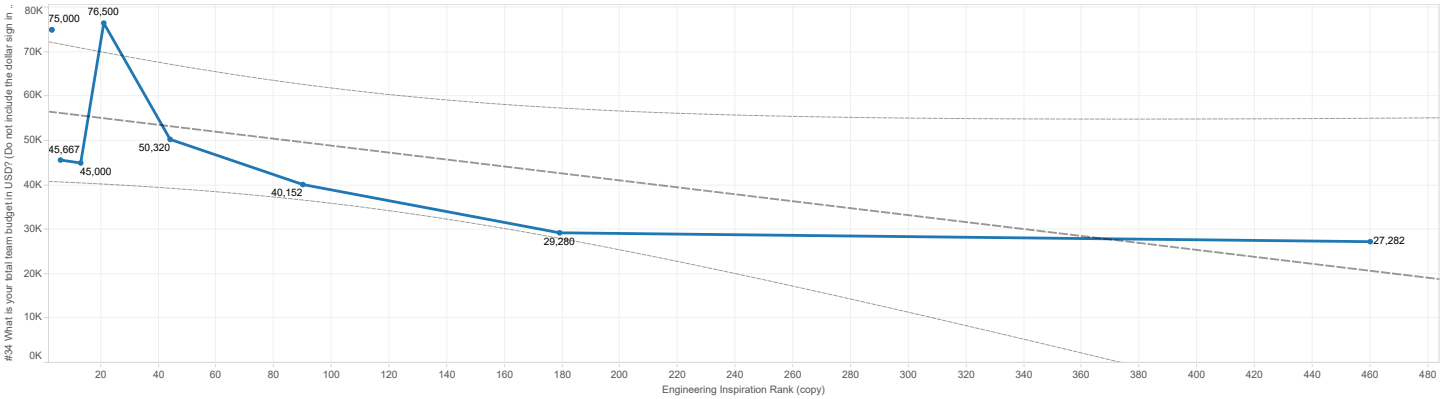
Model formula: (Chairman's Ranking (copy) + intercept)
Number of modeled observations: 10
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 8
SSE (sum squared error): 1.25712e+09
MSE (mean squared error): 1.5714e+08
R-Squared: 0.437056
Standard error: 12535.6
p-value (significance): 0.0373945

Total Team Budget vs Engineering Inspiration Ranking Component



Average of #34 What is your total team budget in USD? (Do not include the dollar sign in your response) for each Engineering Inspiration Rank. The marks are labeled by average of #34 What is your total team budget in USD? (Do not include the dollar sign in your response).

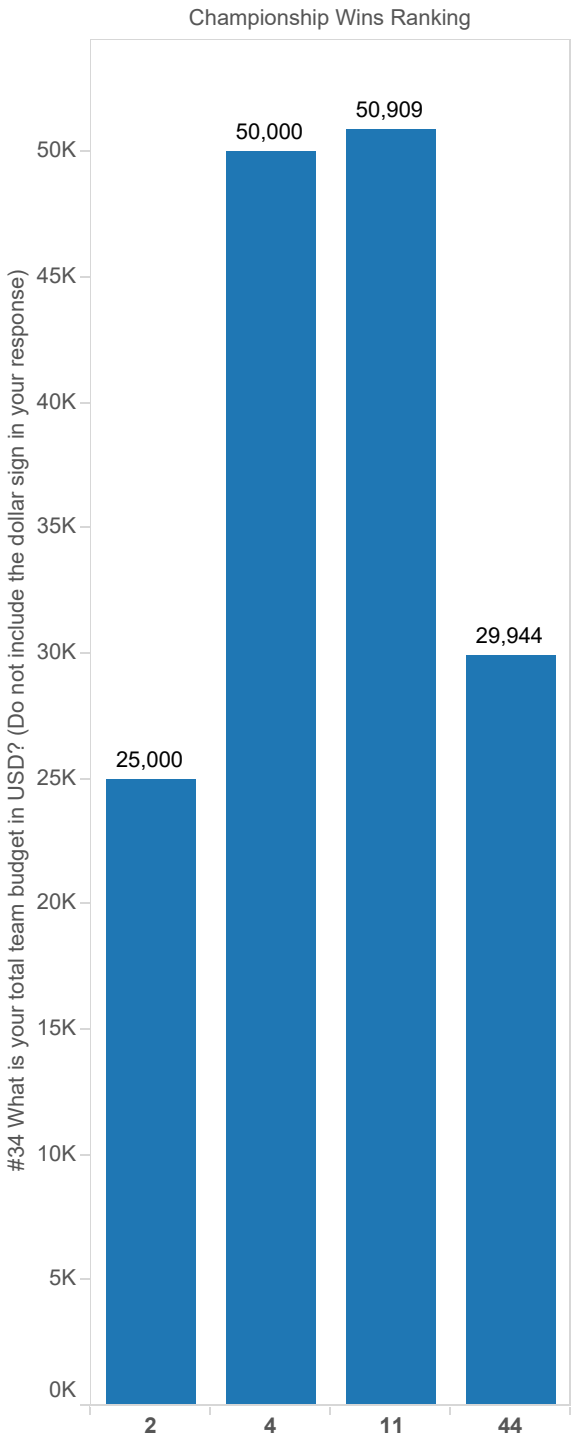
Total Team Budget vs Engineering Inspiration Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #34 What is your total team budget in USD? (Do not include the dollar sign in your response) given Inspiration Rank (copy).

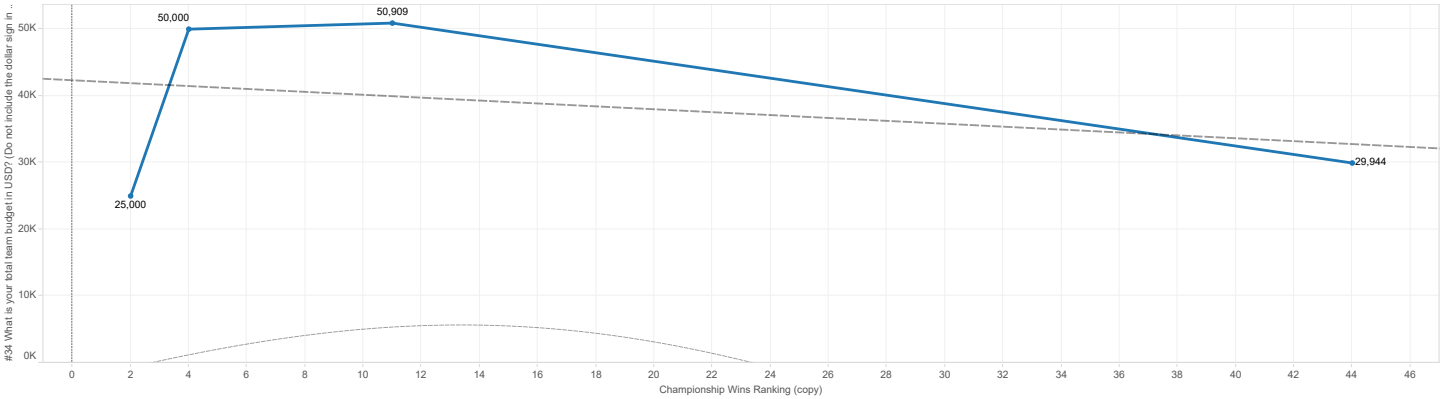
Model formula: (Inspiration Rank (copy) + intercept)
Number of modeled observations: 8
Number of filtered observations: 1
Model degrees of freedom: 2
Residual degrees of freedom (DF): 6
SSE (sum squared error): 1.35118e+09
MSE (mean squared error): 2.25197e+08
R-Squared: 0.43677
Standard error: 15006.5
p-value (significance): 0.0743794

Total Team Budget vs Championship Wins Ranking Component



Average of #34 What is your total team budget in USD? (Do not include the dollar sign in your response) for each Championship Wins Ranking. The marks are labeled by average of #34 What is your total team budget in USD? (Do not include the dollar sign in your response).

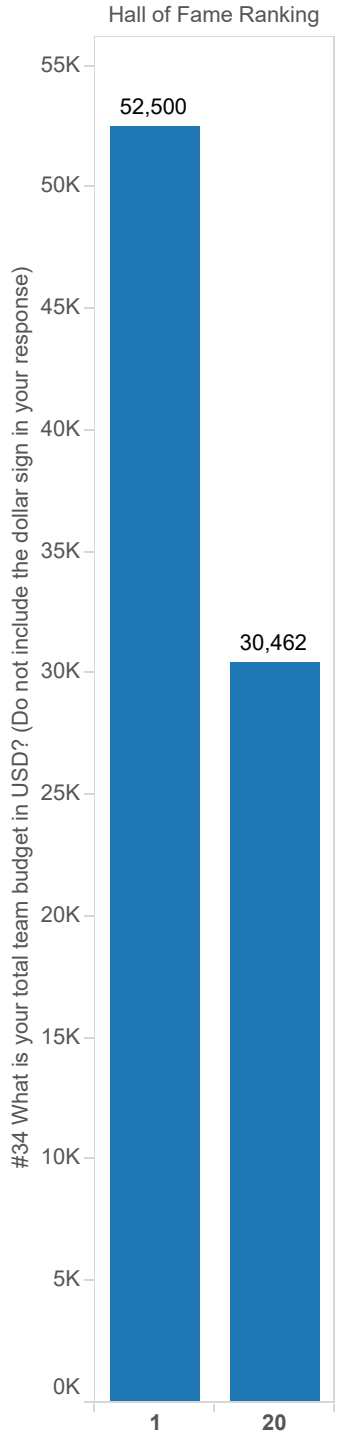
Total Team Budget vs Championship Wins Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #34 What is your total team budget in USD? (Do not include the dollar sign in your response) given Championship Wins Ranking (copy).

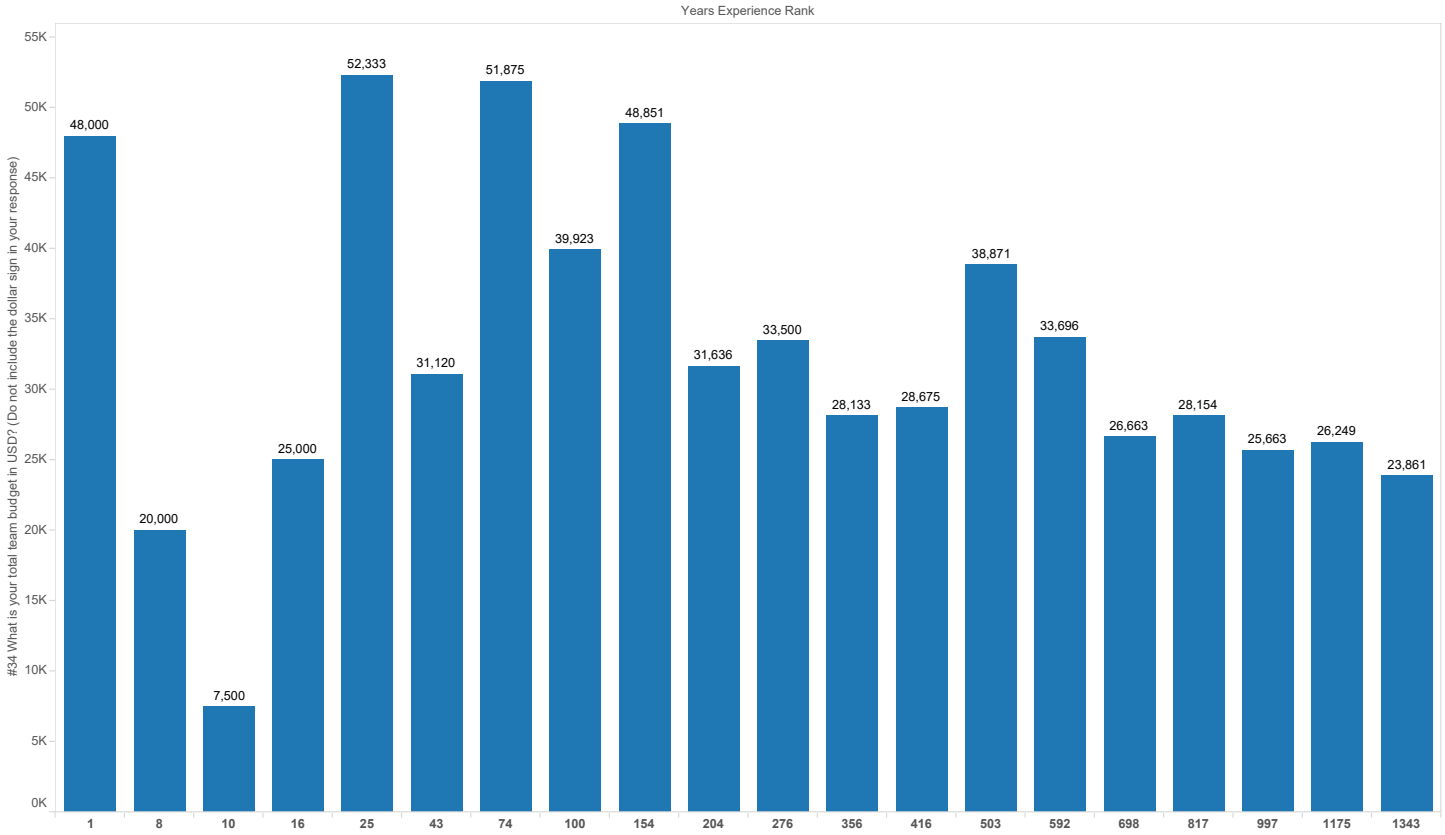
Model formula: (Championship Wins Ranking (copy) + intercept)
Number of modeled observations: 4
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 2
SSE (sum squared error): 4.86667e+08
MSE (mean squared error): 2.43333e+08
R-Squared: 0.100143
Standard error: 15599.1
p-value (significance): 0.683546

Total Team Budget vs Hall of Fame Ranking Component



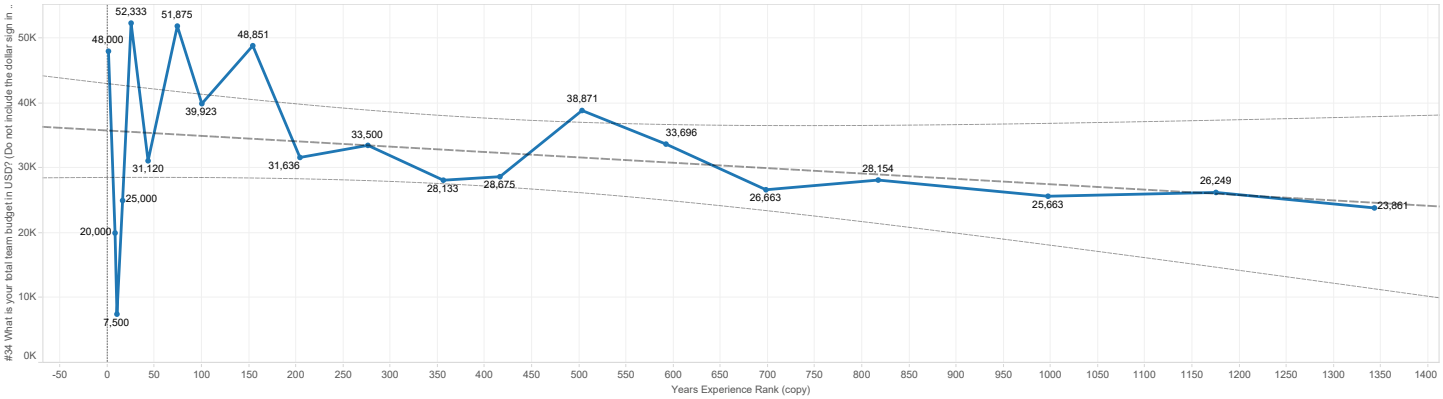
Average of #34 What is your total team budget in USD? (Do not include the dollar sign in your response) for each Hall of Fame Ranking. The marks are labeled by average of #34 What is your total team budget in USD? (Do not include the dollar sign in your response).

Total Team Budget vs Years Experience Ranking Component



Average of #34 What is your total team budget in USD? (Do not include the dollar sign in your response) for each Years Experience Rank. The marks are labeled by average of #34 What is your total team budget in USD? (Do not include the dollar sign in your response).

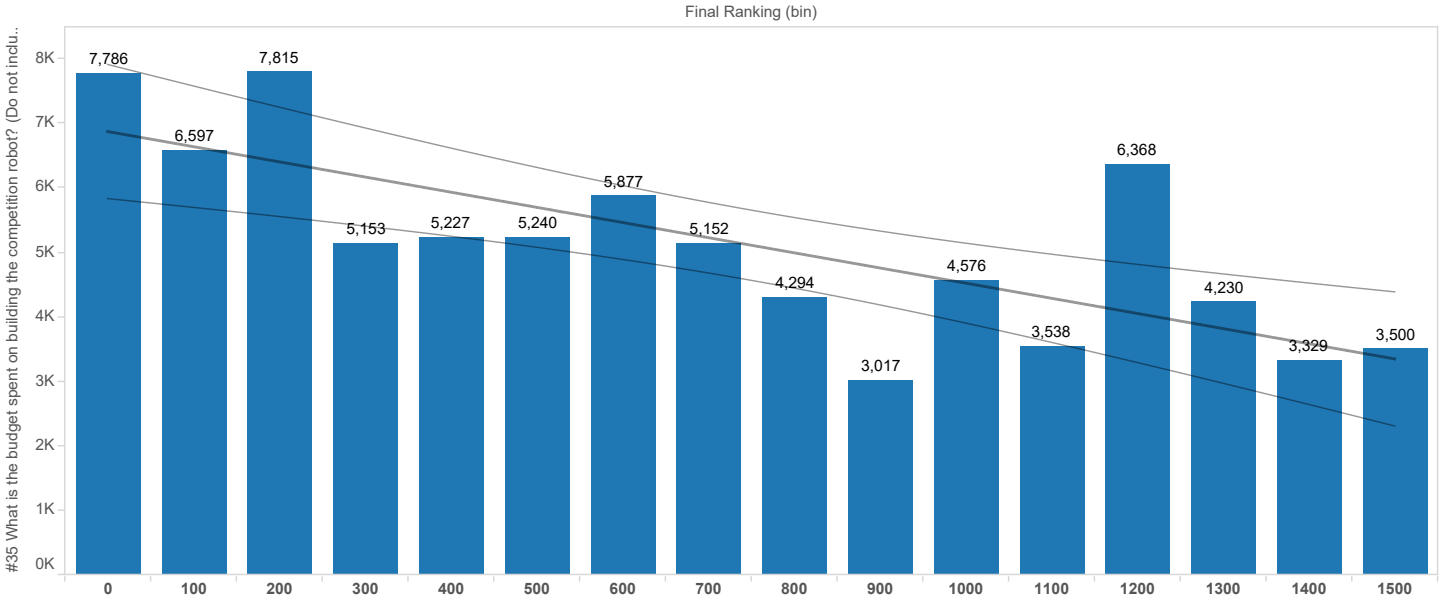
Total Team Budget vs Years Experience Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #34 What is your total team budget in USD? (Do not include the dollar sign in your response) given Years Experience Rank (copy).

Model formula: (Years Experience Rank (copy) + intercept)
Number of modeled observations: 20
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 18
SSE (sum squared error): 2.23204e+09
MSE (mean squared error): 1.24002e+08
R-Squared: 0.0933042
Standard error: 11135.6
p-value (significance): 0.190313

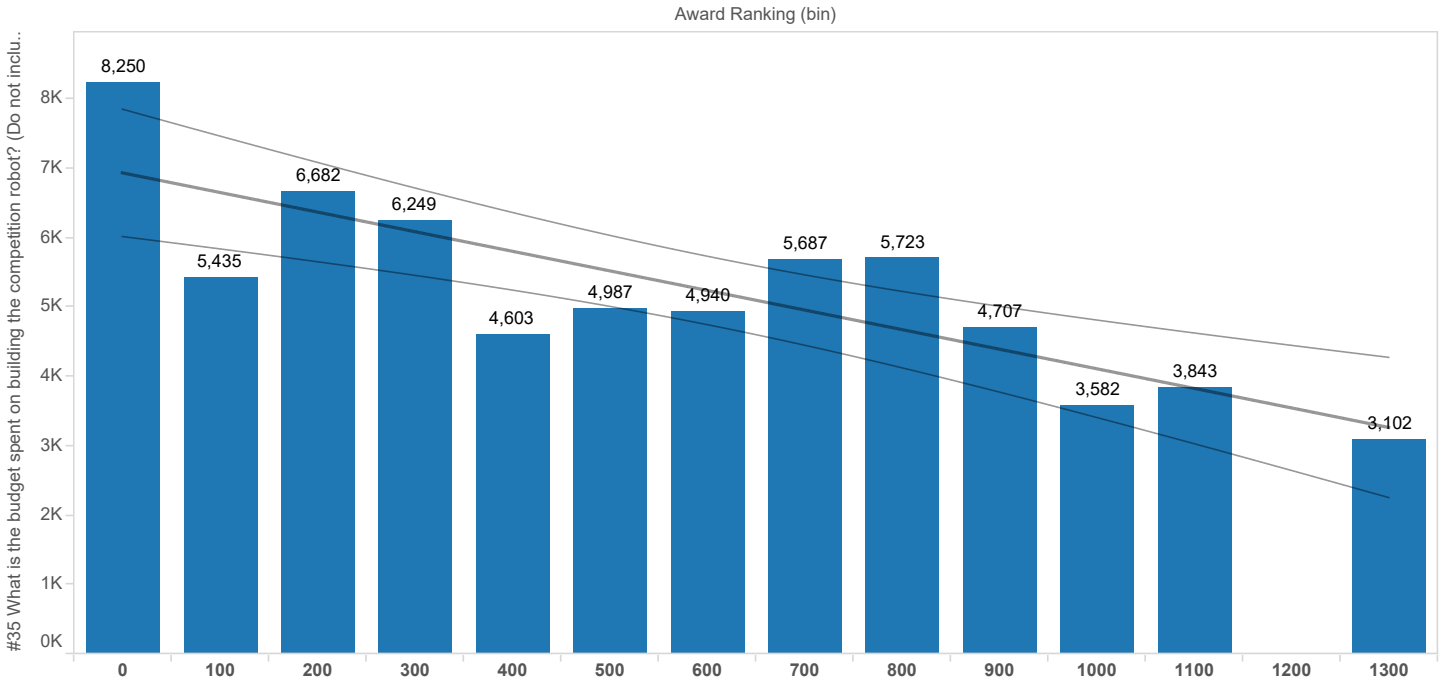
Robot Budget vs Final Ranking (bin)



Trend Lines Model
A linear trend model is computed for average of #35 What is the budget spent on building the competition robot? (Do not include the dollar sign i... given Final Ranking (bin). The model may be significant at p <= 0.05.

Model formula: (Final Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 1.44444e+07
MSE (mean squared error): 1.03175e+06
R-Squared: 0.565423
Standard error: 1015.75
p-value (significance): 0.0007805

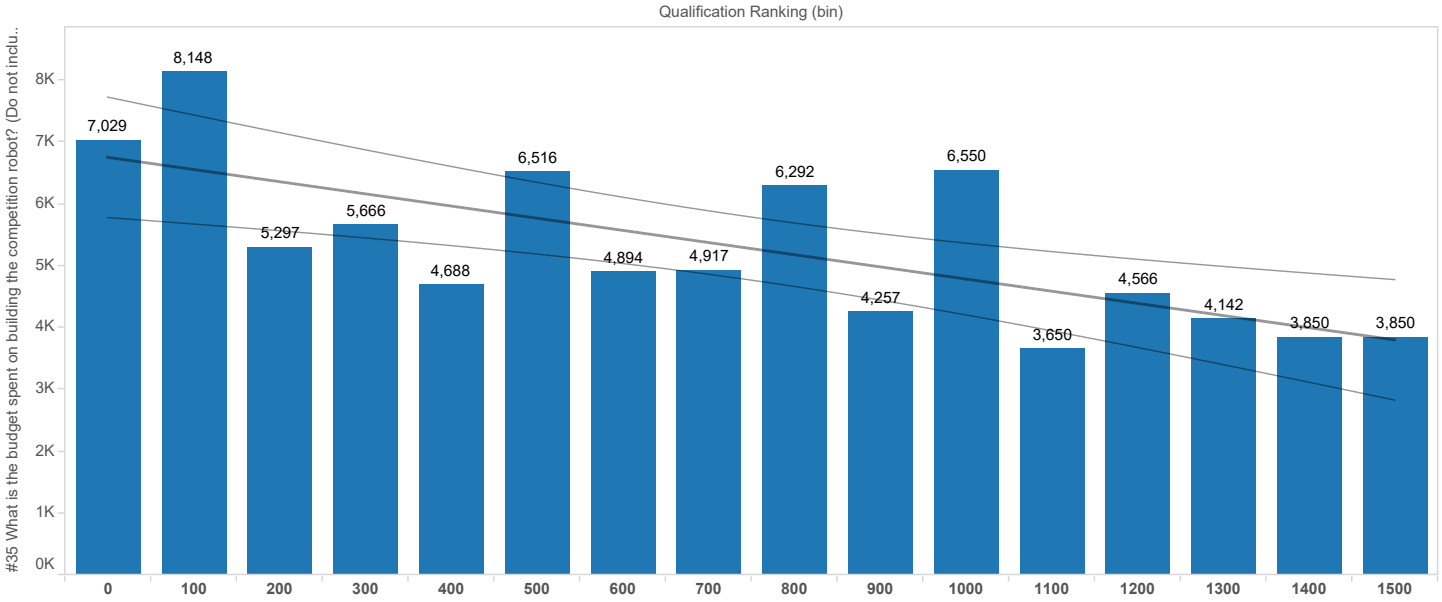
Robot Budget vs Award Ranking Component (bin)



Trend Lines Model
A linear trend model is computed for average of #35 What is the budget spent on building the competition robot? (Do not include the dollar sign i... given Award Ranking (bin). The model may be significant at p <= 0.05.

Model formula: (Award Ranking (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 7.18777e+06
MSE (mean squared error): 653434
R-Squared: 0.683852
Standard error: 808.352
p-value (significance): 0.0004885

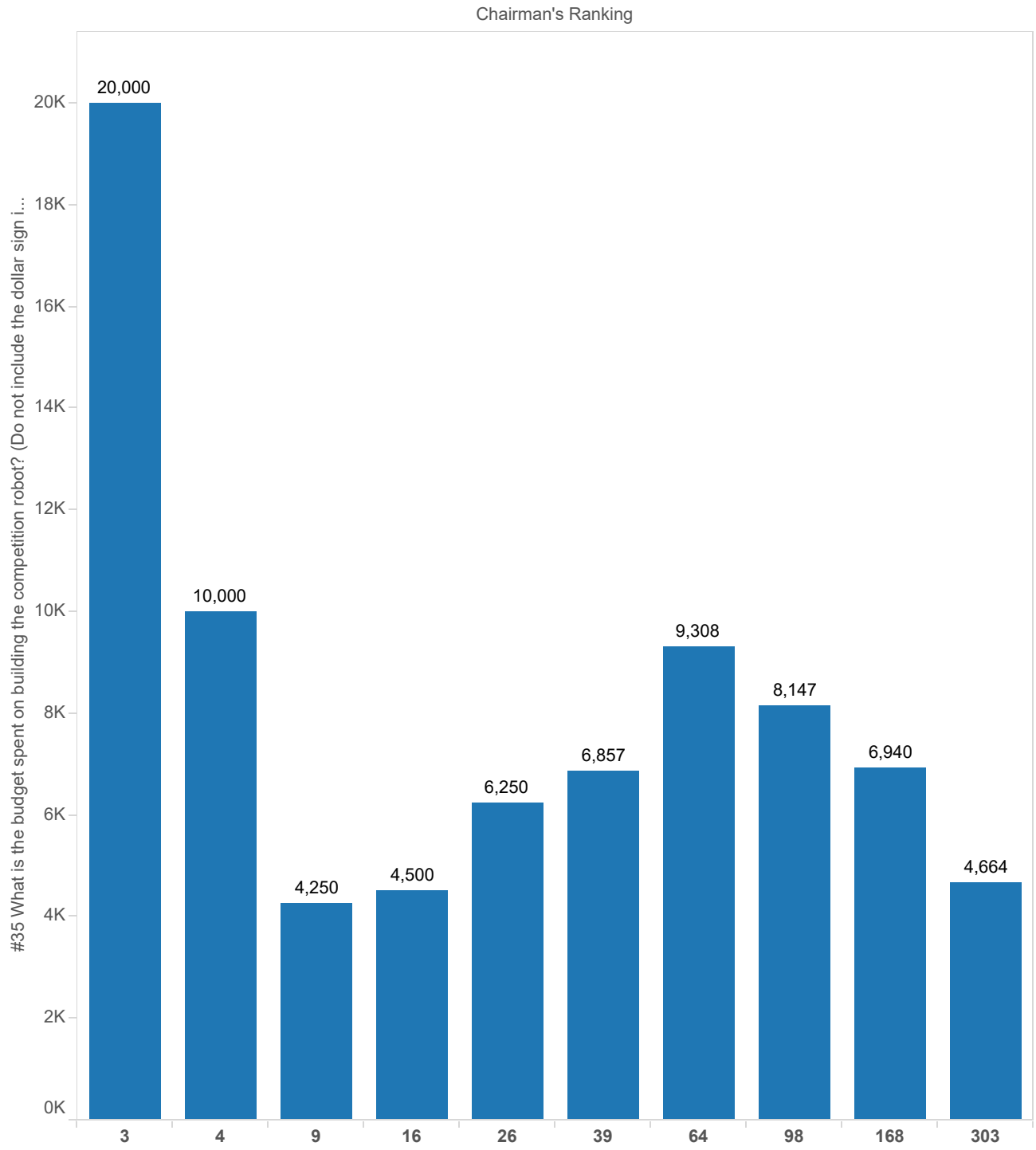
Robot Budget vs Qualification Ranking Component (bin)



Trend Lines Model
A linear trend model is computed for average of #35 What is the budget spent on building the competition robot? (Do not include the dollar sign i... given Qualification Ranking (bin). The model may be significant at p <= 0.05.

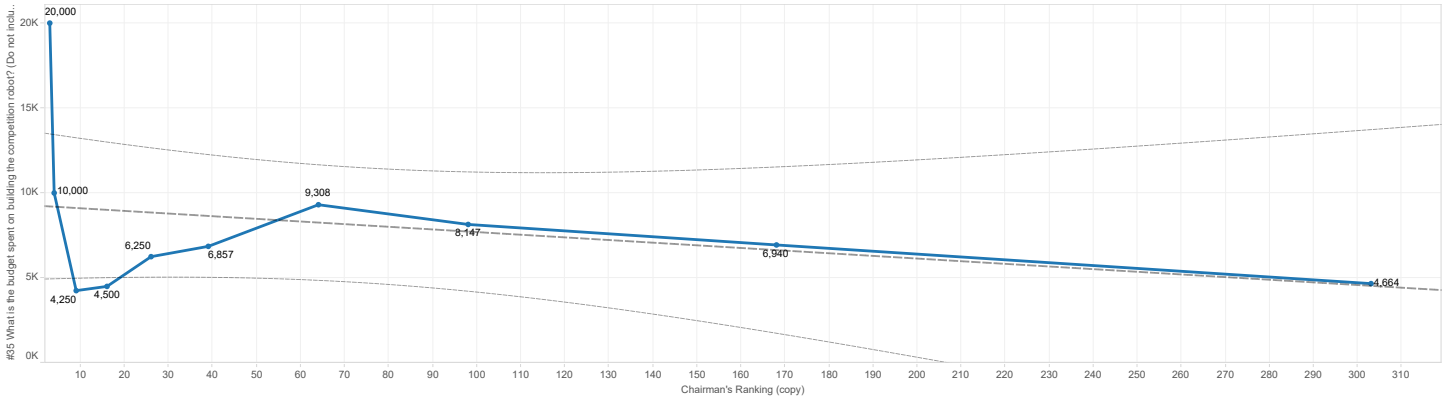
Model formula: (Qualification Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 1.2666e+07
MSE (mean squared error): 904714
R-Squared: 0.509647
Standard error: 951.164
p-value (significance): 0.0018955

Robot Budget vs Chairman's Ranking Component



Average of #35 What is the budget spent on building the competition robot? (Do not include the dollar sign i... for each Chairman's Ranking. The marks are labeled by average of #35 What is the budget spent on building the competition robot? (Do not include the dollar sign i....

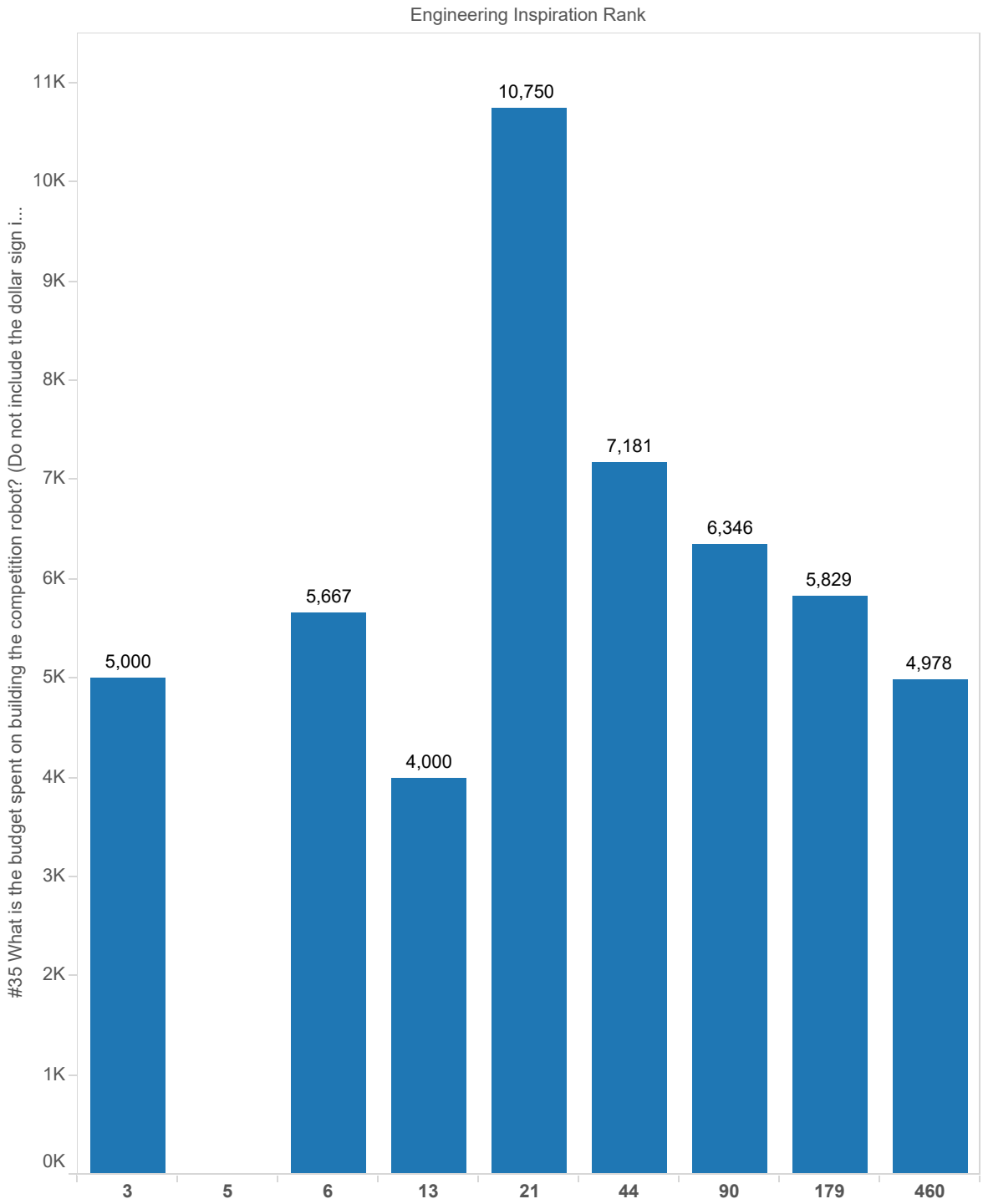
Robot Budget vs Chairman's Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #35 What is the budget spent on building the competition robot? (Do not include the dollar sign i... given Chairman's Ranking (copy).

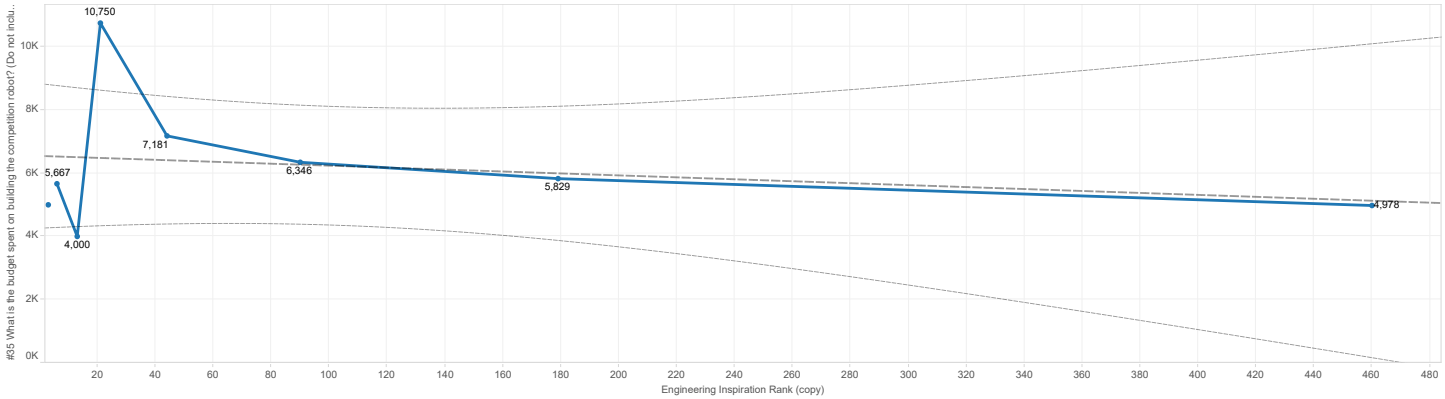
Model formula: (Chairman's Ranking (copy) + intercept)
Number of modeled observations: 10
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 8
SSE (sum squared error): 1.72424e+08
MSE (mean squared error): 2.1553e+07
R-Squared: 0.104684
Standard error: 4642.52
p-value (significance): 0.36179

Robot Budget vs Engineering Inspiration Ranking Component



Average of #35 What is the budget spent on building the competition robot? (Do not include the dollar sign i... for each Engineering Inspiration Rank. The marks are labeled by average of #35 What is the budget spent on building the competition robot? (Do not include the dollar sign i....

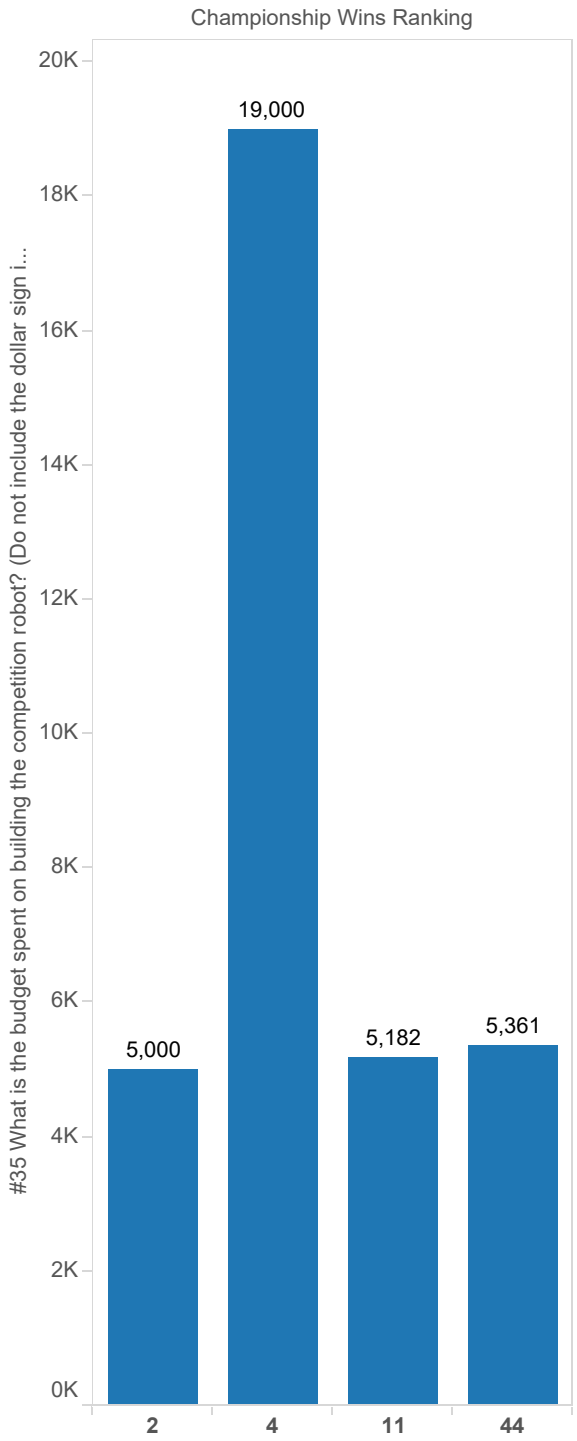
Robot Budget vs Engineering Inspiration Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #35 What is the budget spent on building the competition robot? (Do not include the dollar sign i... given Inspiration Rank (copy).

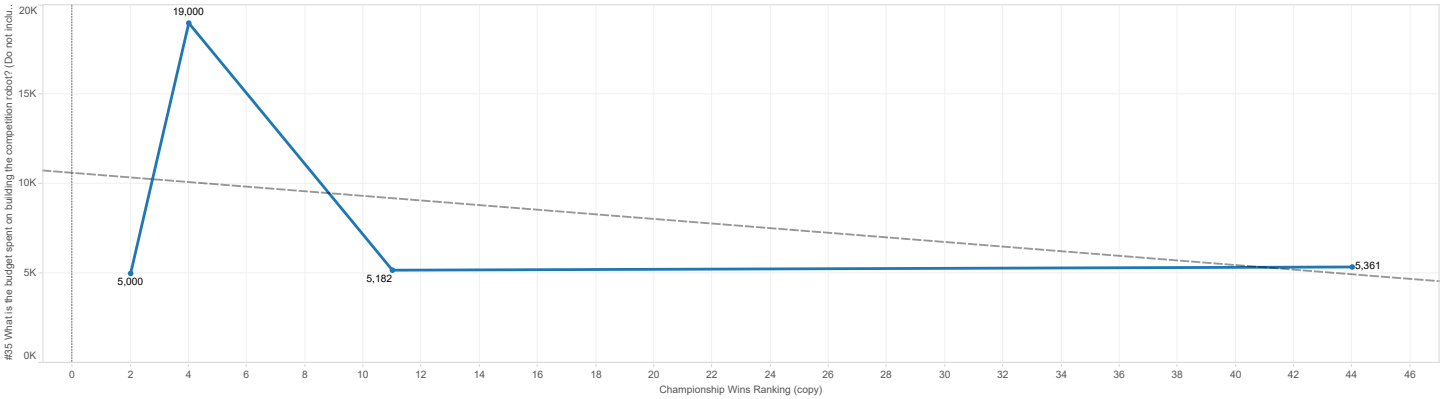
Model formula: (Inspiration Rank (copy) + intercept)
Number of modeled observations: 8
Number of filtered observations: 1
Model degrees of freedom: 2
Residual degrees of freedom (DF): 6
SSE (sum squared error): 2.82532e+07
MSE (mean squared error): 4.70886e+06
R-Squared: 0.0544006
Standard error: 2169.99
p-value (significance): 0.578278

Robot Budget vs Championship Wins Ranking Component



Average of #35 What is the budget spent on building the competition robot? (Do not include the dollar sign i... for each Championship Wins Ranking. The marks are labeled by average of #35 What is the budget spent on building the competition robot? (Do not include the dollar sign i....

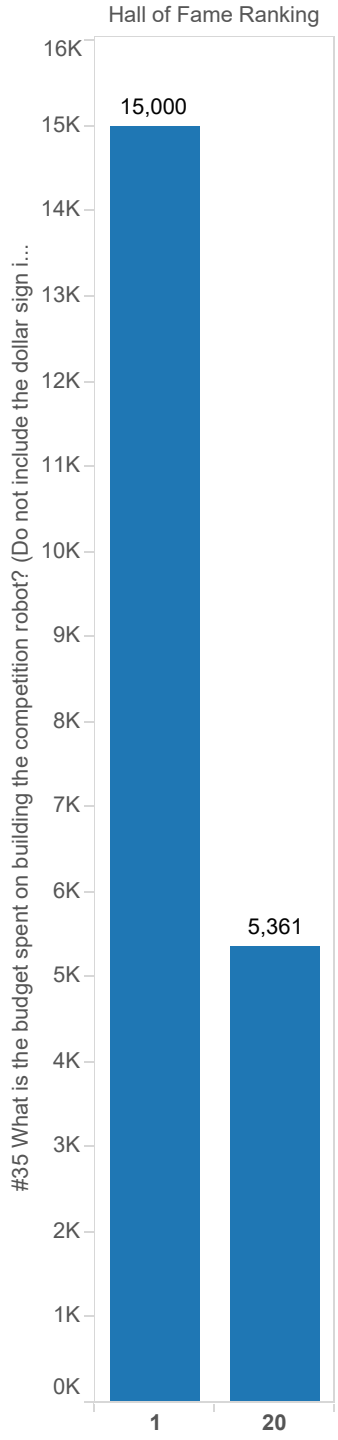
Robot Budget vs Championship Wins Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #35 What is the budget spent on building the competition robot? (Do not include the dollar sign i... given Championship Wins Ranking (copy).

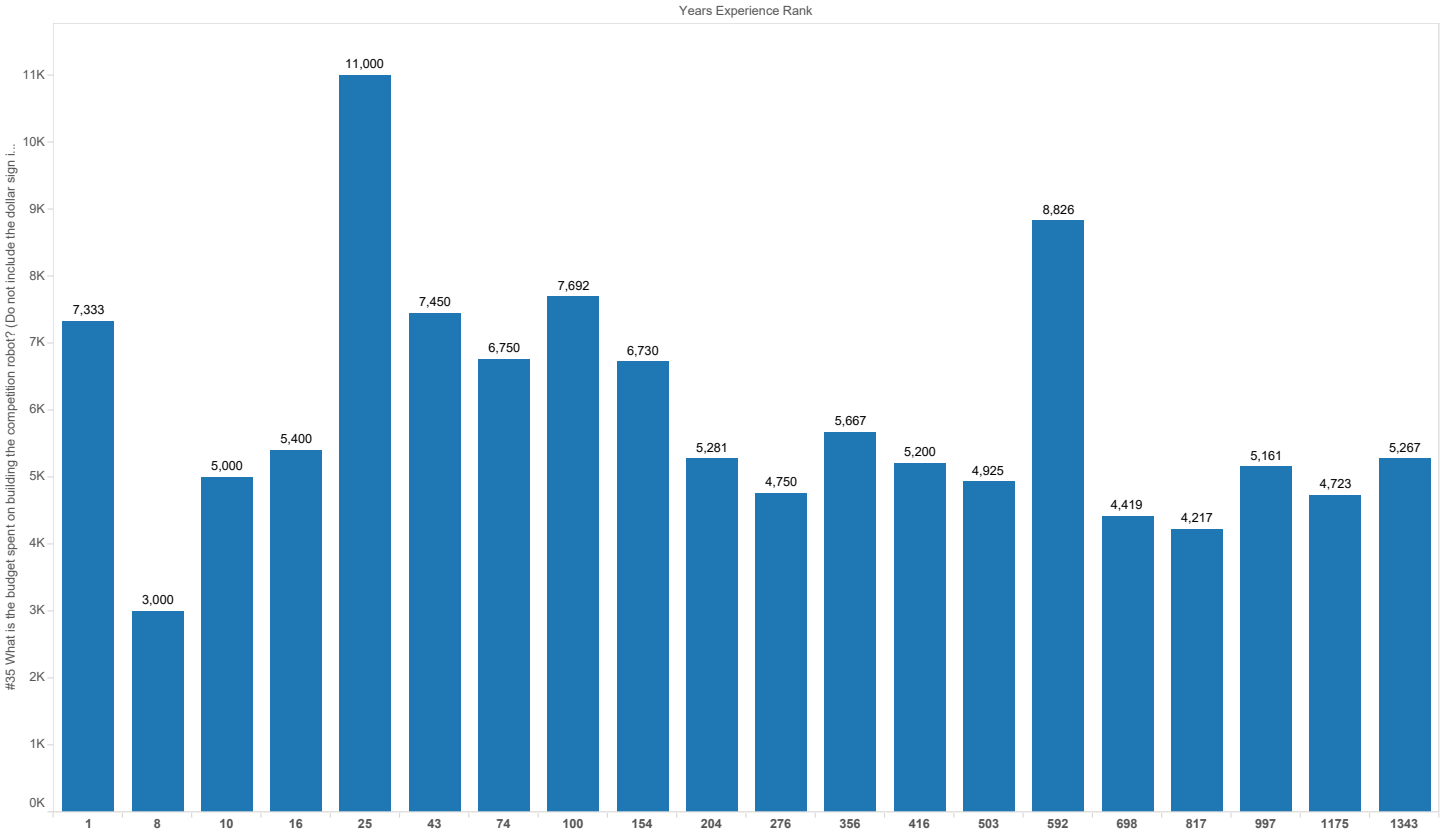
Model formula: (Championship Wins Ranking (copy) + intercept)
Number of modeled observations: 4
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 2
SSE (sum squared error): 1.24216e+08
MSE (mean squared error): 6.21082e+07
R-Squared: 0.133109
Standard error: 7880.88
p-value (significance): 0.635159

Robot Budget vs Hall of Fame Ranking Component



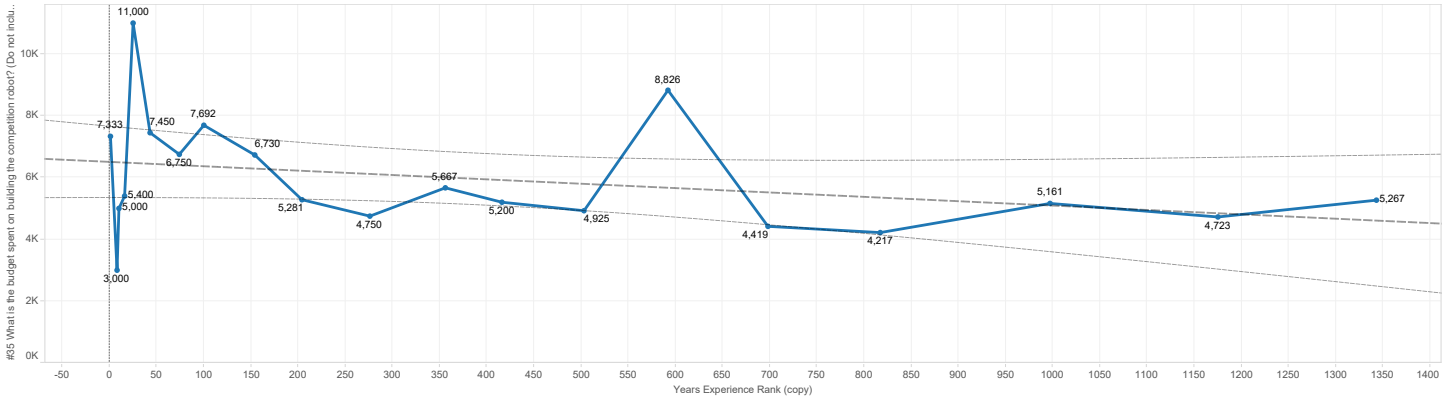
Average of #35 What is the budget spent on building the competition robot? (Do not include the dollar sign i... for each Hall of Fame Ranking. The marks are labeled by average of #35 What is the budget spent on building the competition robot? (Do not include the dollar sign i....

Robot Budget vs Years Experience Ranking Component



Average of #35 What is the budget spent on building the competition robot? (Do not include the dollar sign i... for each Years Experience Rank. The marks are labeled by average of #35 What is the budget spent on building the competition robot? (Do not include the dollar sign i....

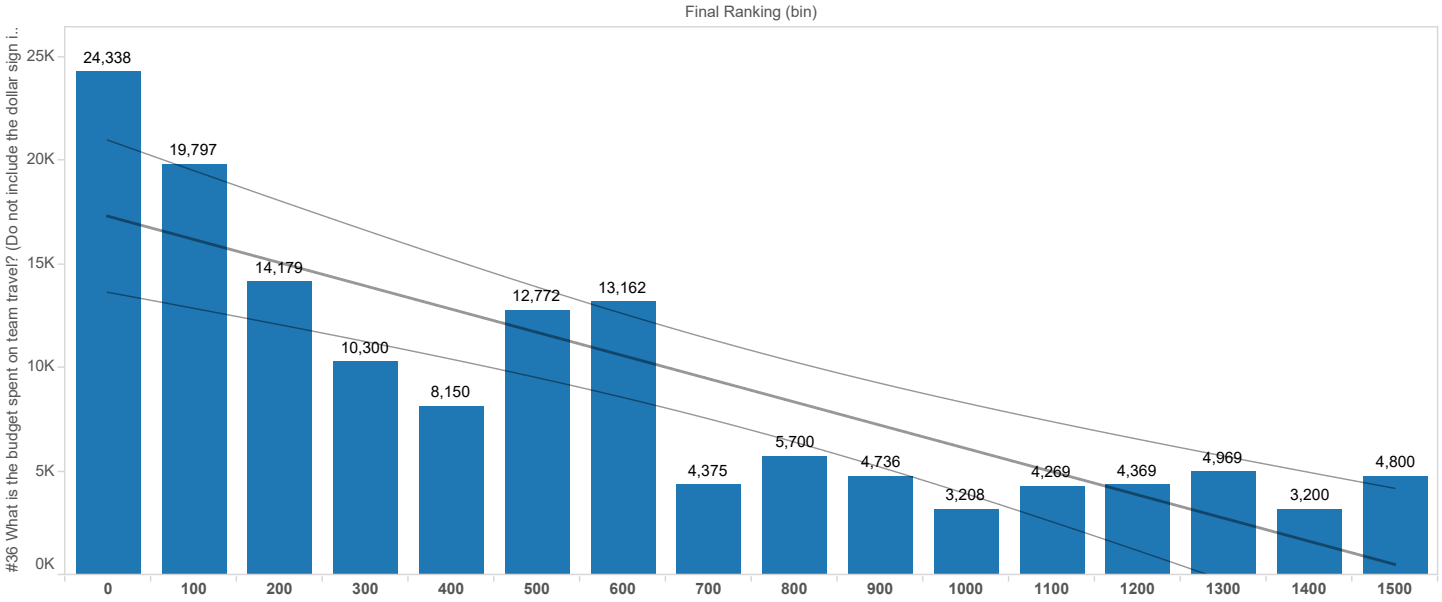
Robot Budget vs Years Experience Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #35 What is the budget spent on building the competition robot? (Do not include the dollar sign i... given Years Experience Rank (copy).

Model formula: (Years Experience Rank (copy) + intercept)
Number of modeled observations: 20
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 18
SSE (sum squared error): 5.69408e+07
MSE (mean squared error): 3.16338e+06
R-Squared: 0.105367
Standard error: 1778.59
p-value (significance): 0.162609

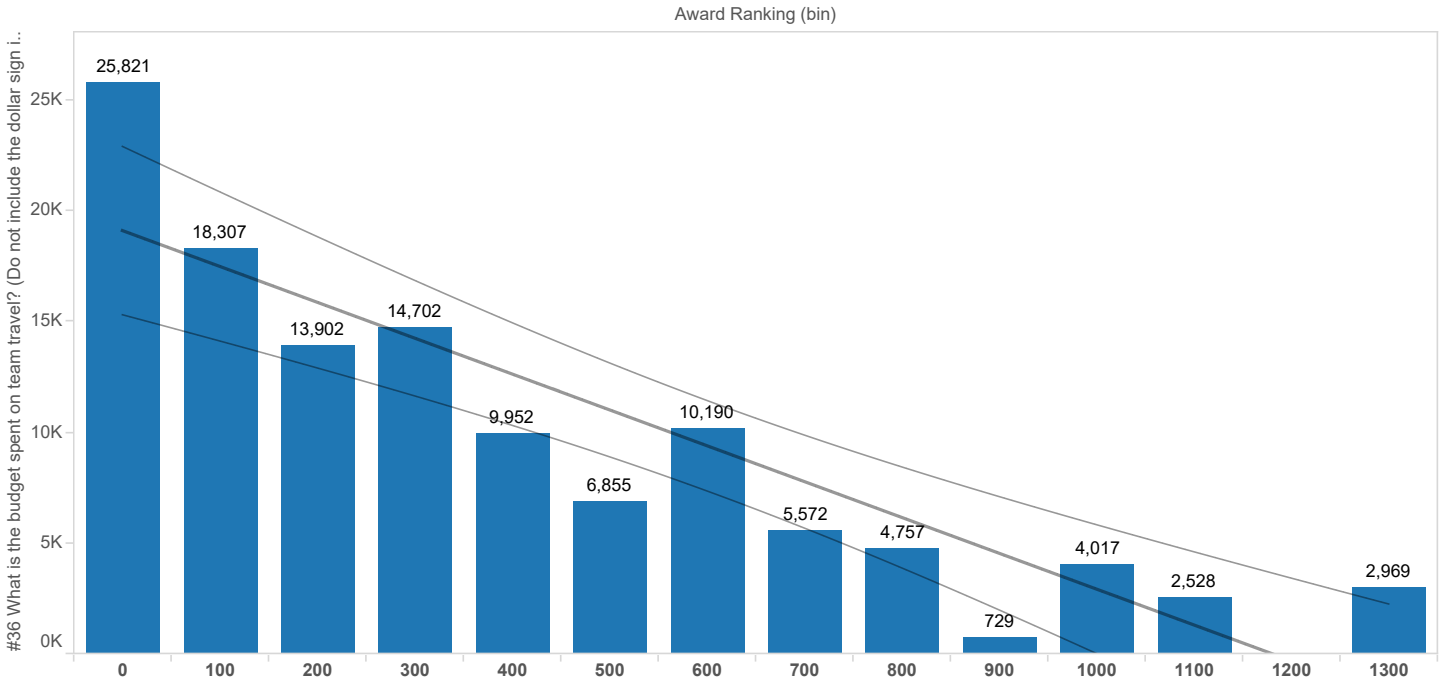
Team Travel Budget vs Final Ranking (bin)



Trend Lines Model
A linear trend model is computed for average of #36 What is the budget spent on team travel? (Do not include the dollar sign in your response) given Final Ranking (bin). The model may be significant at p <= 0.05.

Model formula: (Final Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 1.80343e+08
MSE (mean squared error): 1.28816e+07
R-Squared: 0.703297
Standard error: 3589.1
p-value (significance): < 0.0001

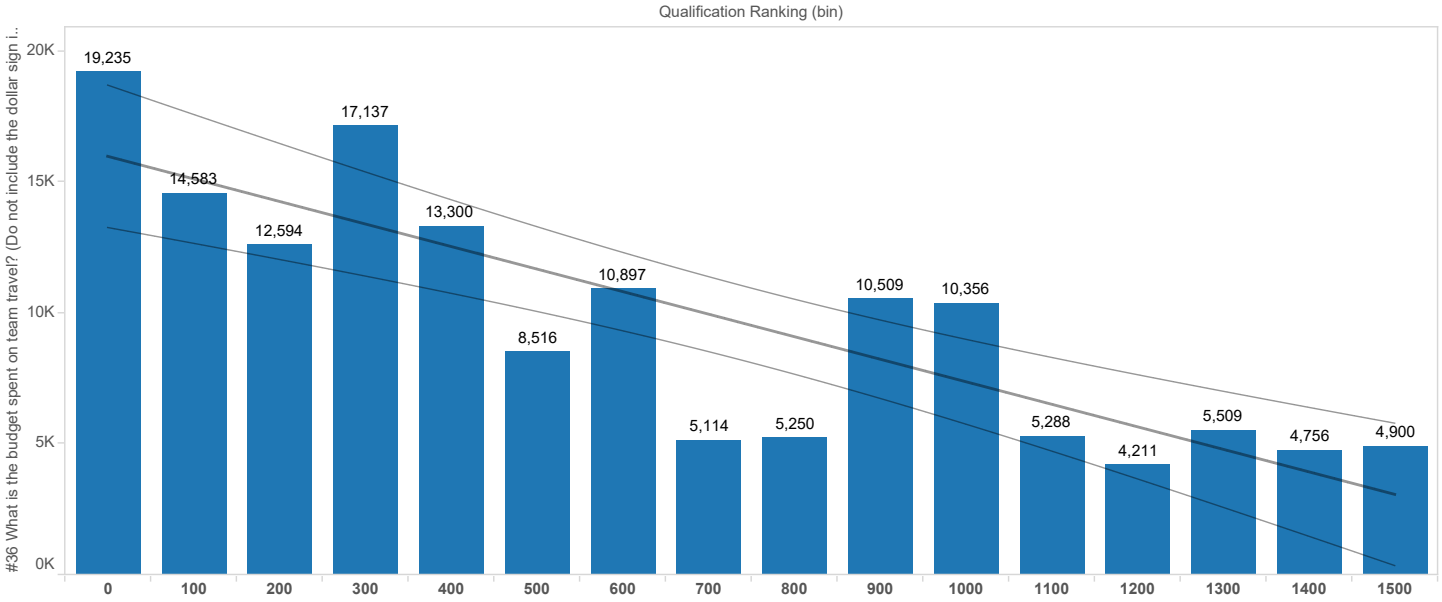
Team Travel Budget vs Award Ranking Component (bin)



Trend Lines Model
A linear trend model is computed for average of #36 What is the budget spent on team travel? (Do not include the dollar sign in your response) given Award Ranking (bin). The model may be significant at p <= 0.05.

Model formula: (Award Ranking (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 1.23026e+08
MSE (mean squared error): 1.11842e+07
R-Squared: 0.805775
Standard error: 3344.27
p-value (significance): < 0.0001

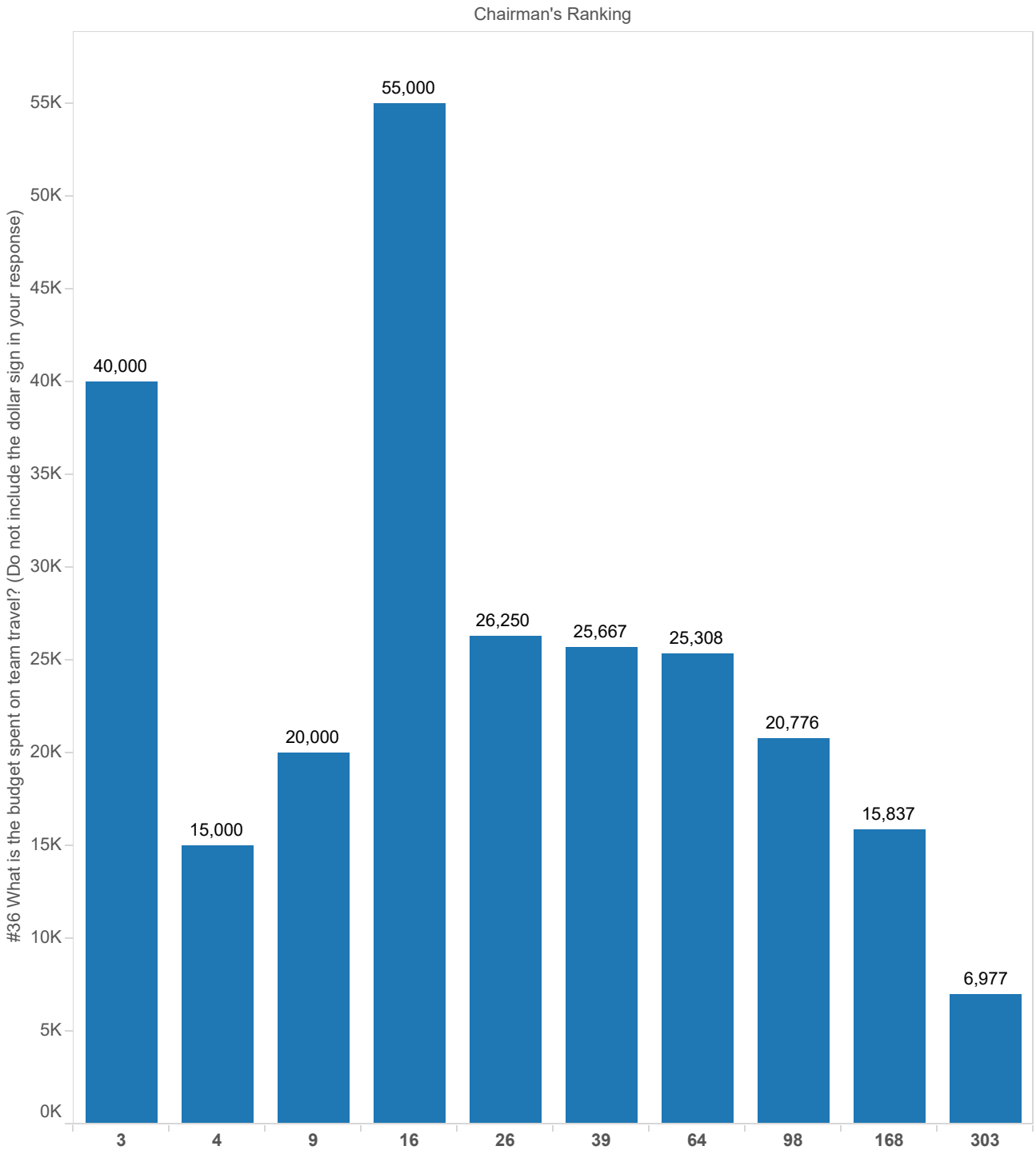
Team Travel Budget vs Qualification Ranking Component (bin)



Trend Lines Model
A linear trend model is computed for average of #36 What is the budget spent on team travel? (Do not include the dollar sign in your response) given Qualification Ranking (bin). The model may be significant at p <= 0.05.

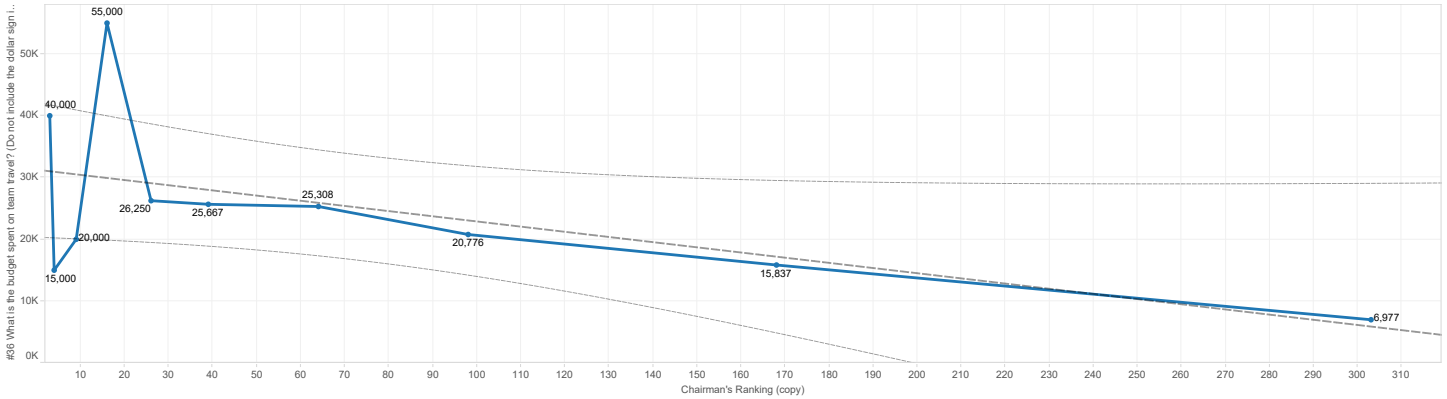
Model formula: (Qualification Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 9.86134e+07
MSE (mean squared error): 7.04382e+06
R-Squared: 0.718434
Standard error: 2654.02
p-value (significance): < 0.0001

Team Travel Budget vs Chairman's Ranking Component



Average of #36 What is the budget spent on team travel? (Do not include the dollar sign in your response) for each Chairman's Ranking. The marks are labeled by average of #36 What is the budget spent on team travel? (Do not include the dollar sign in your response).

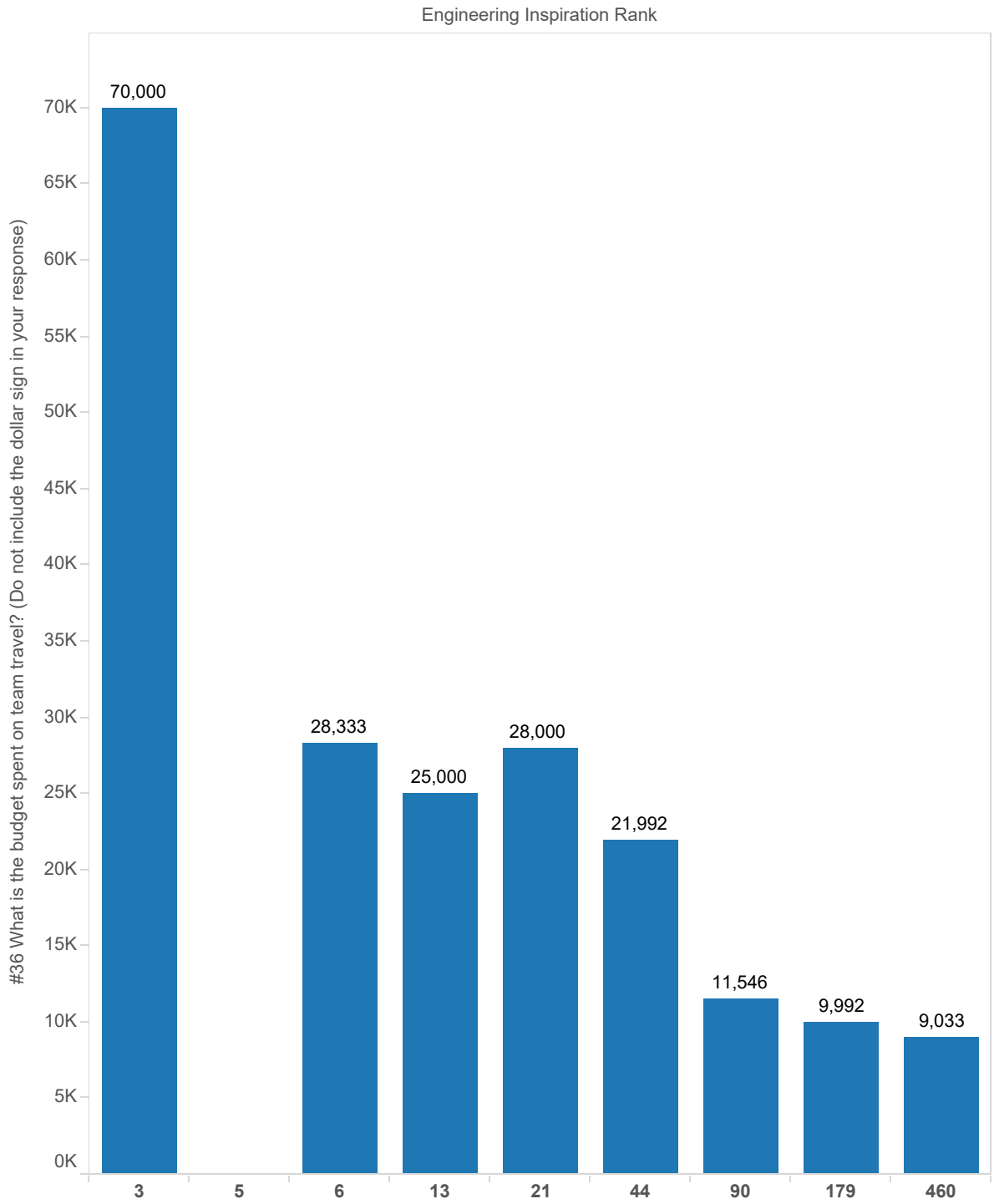
Team Travel Budget vs Chairman's Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #36 What is the budget spent on team travel? (Do not include the dollar sign in your response) given Chairman's Ranking (copy).

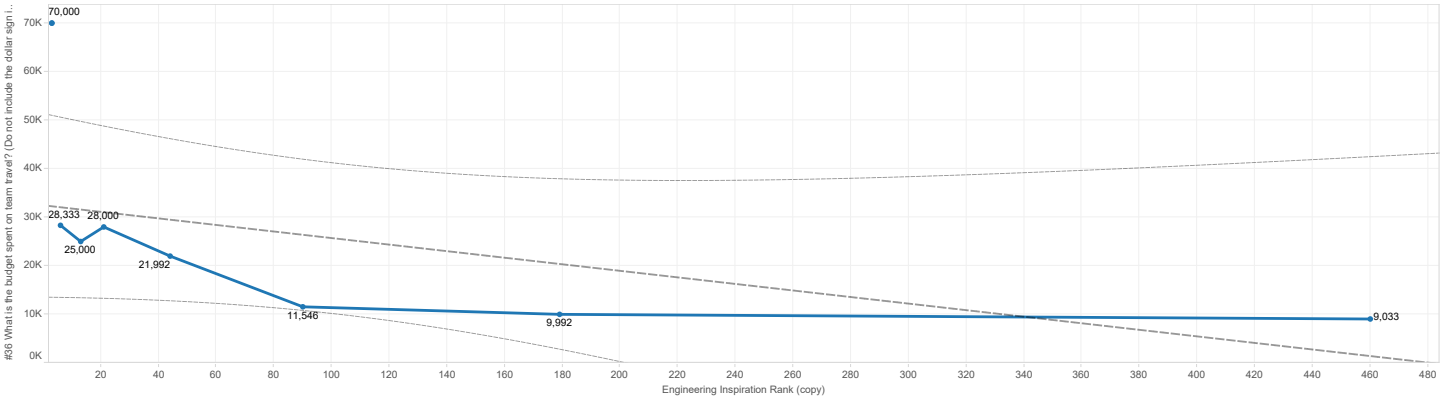
Model formula: (Chairman's Ranking (copy) + intercept)
Number of modeled observations: 10
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 8
SSE (sum squared error): 1.09579e+09
MSE (mean squared error): 1.36974e+08
R-Squared: 0.347223
Standard error: 11703.6
p-value (significance): 0.0730363

Team Travel Budget vs Engineering Inspiration Ranking Component



Average of #36 What is the budget spent on team travel? (Do not include the dollar sign in your response) for each Engineering Inspiration Rank. The marks are labeled by average of #36 What is the budget spent on team travel? (Do not include the dollar sign in your response).

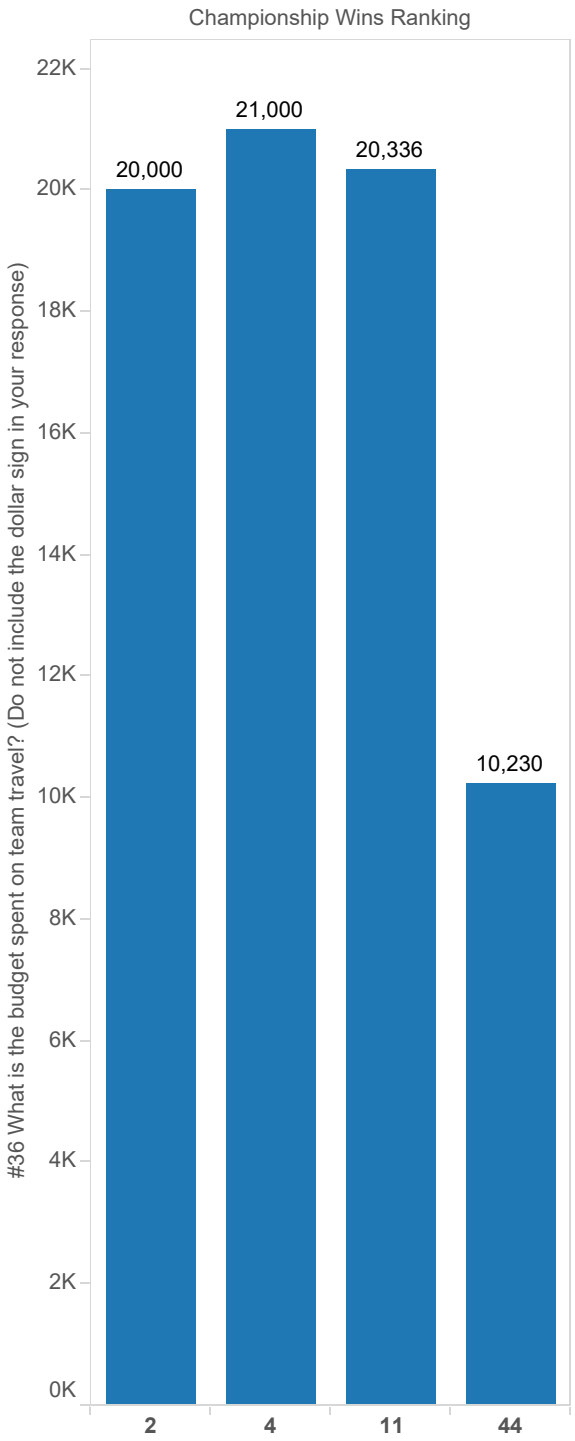
Team Travel Budget vs Engineering Inspiration Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #36 What is the budget spent on team travel? (Do not include the dollar sign in your response) given Inspiration Rank (copy).

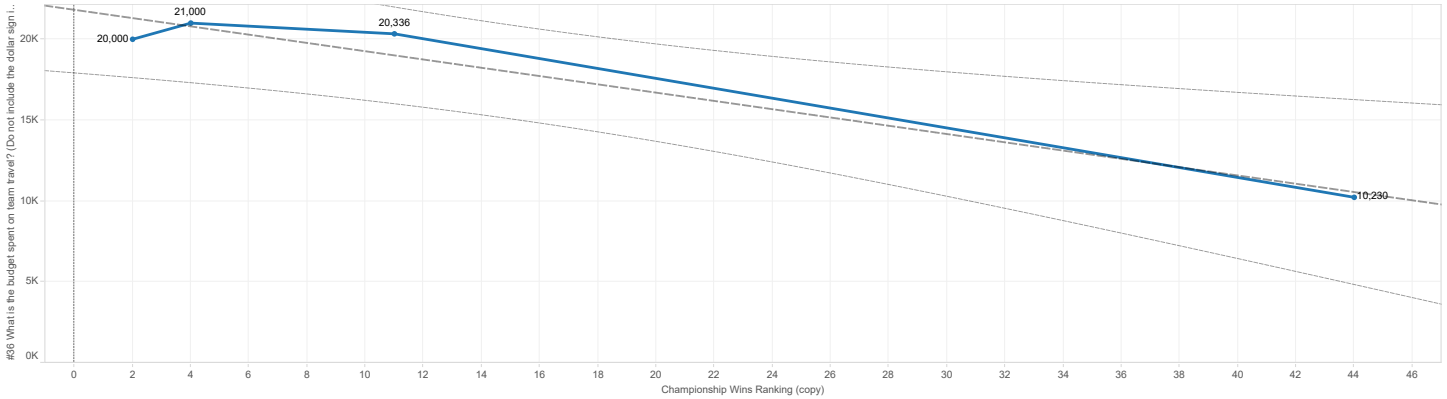
Model formula: (Inspiration Rank (copy) + intercept)
Number of modeled observations: 8
Number of filtered observations: 1
Model degrees of freedom: 2
Residual degrees of freedom (DF): 6
SSE (sum squared error): 1.93326e+09
MSE (mean squared error): 3.22209e+08
R-Squared: 0.287535
Standard error: 17950.2
p-value (significance): 0.170686

Team Travel Budget vs Championship Wins Ranking Component



Average of #36 What is the budget spent on team travel? (Do not include the dollar sign in your response) for each Championship Wins Ranking. The marks are labeled by average of #36 What is the budget spent on team travel? (Do not include the dollar sign in your response).

Team Travel Budget vs Championship Wins Ranking Component (2)

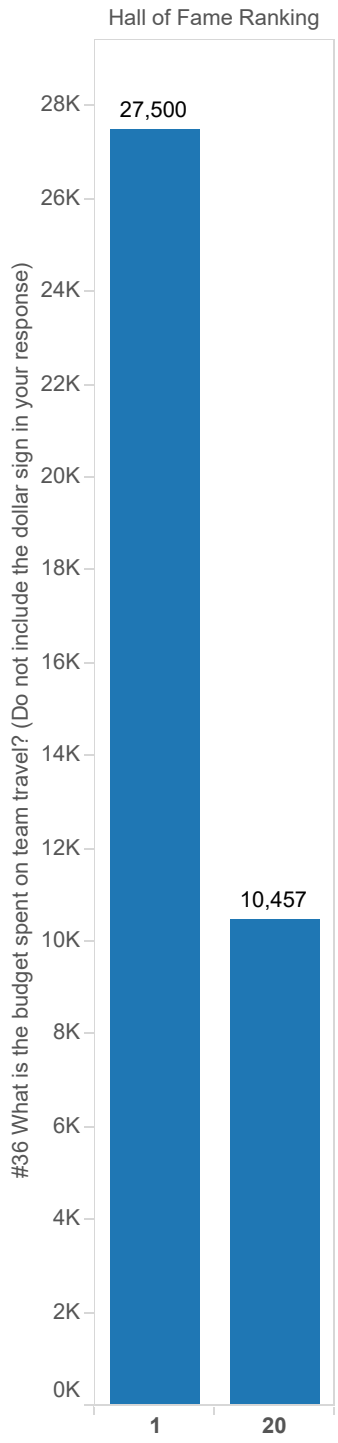


Trend Lines Model

A linear trend model is computed for average of #36 What is the budget spent on team travel? (Do not include the dollar sign in your response) given Championship Wins Ranking (copy). The model may be significant at p <= 0.05.

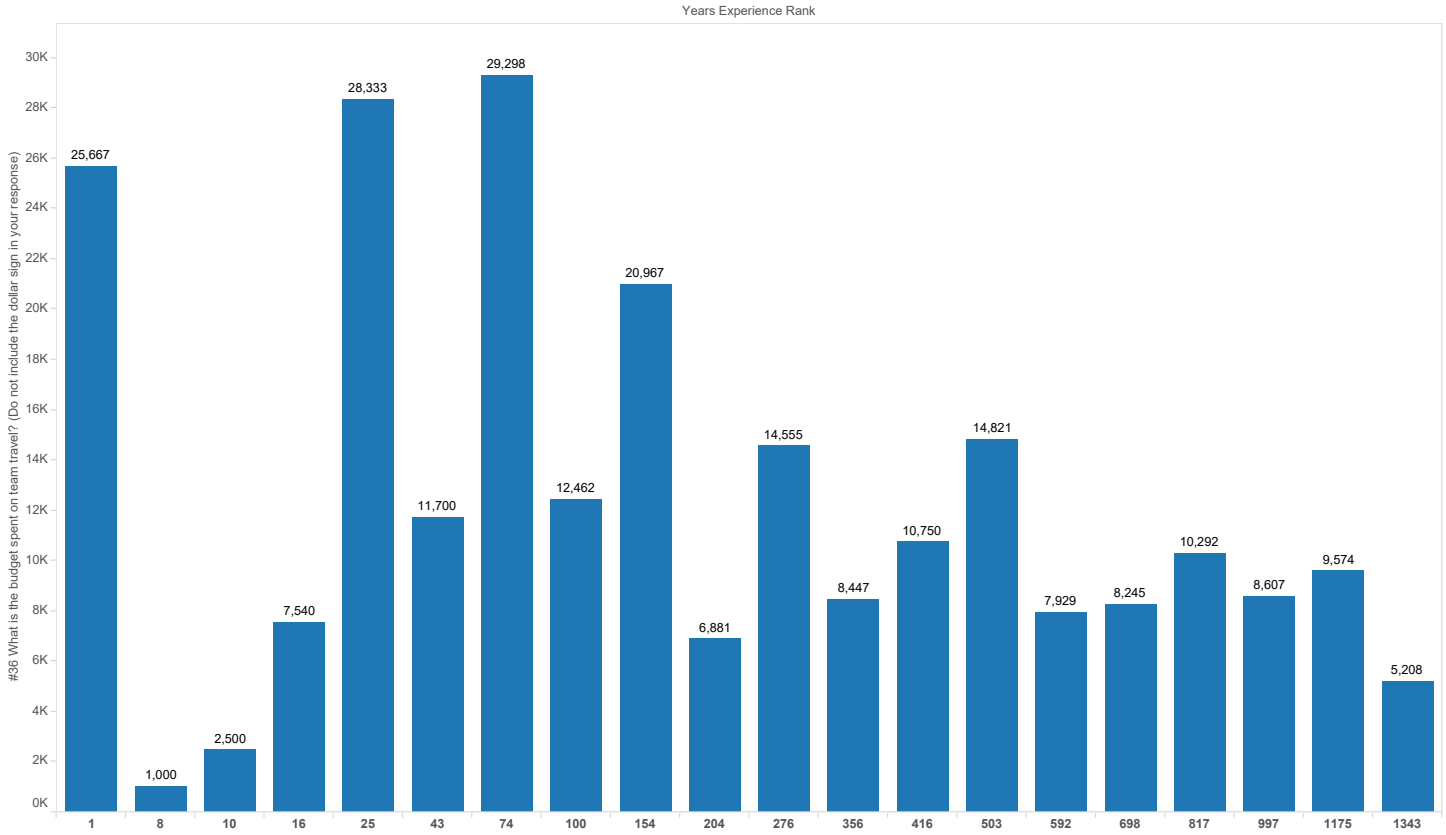
Model formula: (Championship Wins Ranking (copy) + intercept)
Number of modeled observations: 4
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 2
SSE (sum squared error): 3.6313e+06
MSE (mean squared error): 1.81565e+06
R-Squared: 0.953904
Standard error: 1347.46
p-value (significance): 0.0233197

Team Travel Budget vs Hall of Fame Ranking Component



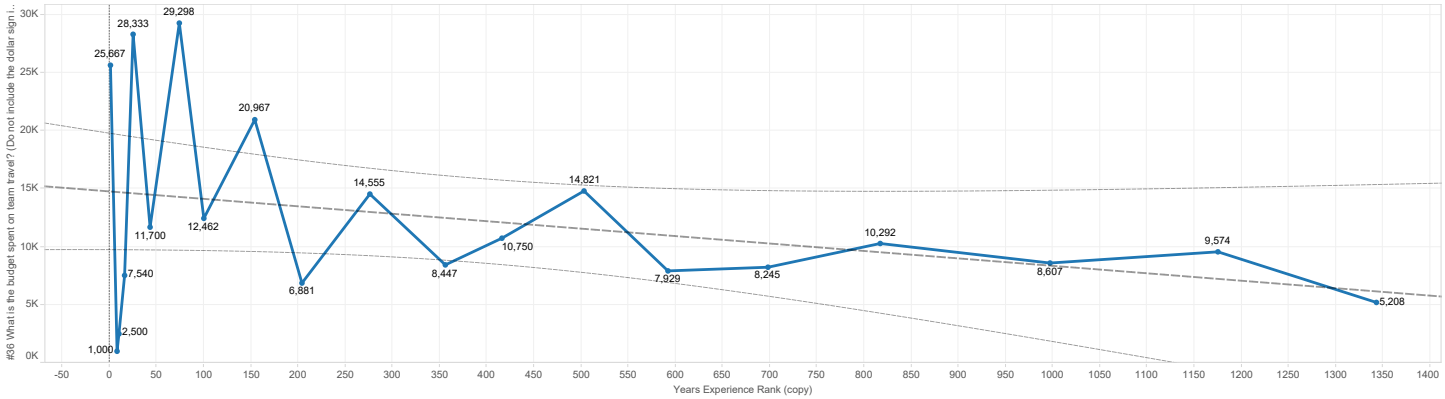
Average of #36 What is the budget spent on team travel? (Do not include the dollar sign in your response) for each Hall of Fame Ranking. The marks are labeled by average of #36 What is the budget spent on team travel? (Do not include the dollar sign in your response).

Team Travel Budget vs Years Experience Ranking Component



Average of #36 What is the budget spent on team travel? (Do not include the dollar sign in your response) for each Years Experience Rank. The marks are labeled by average of #36 What is the budget spent on team travel? (Do not include the dollar sign in your response).

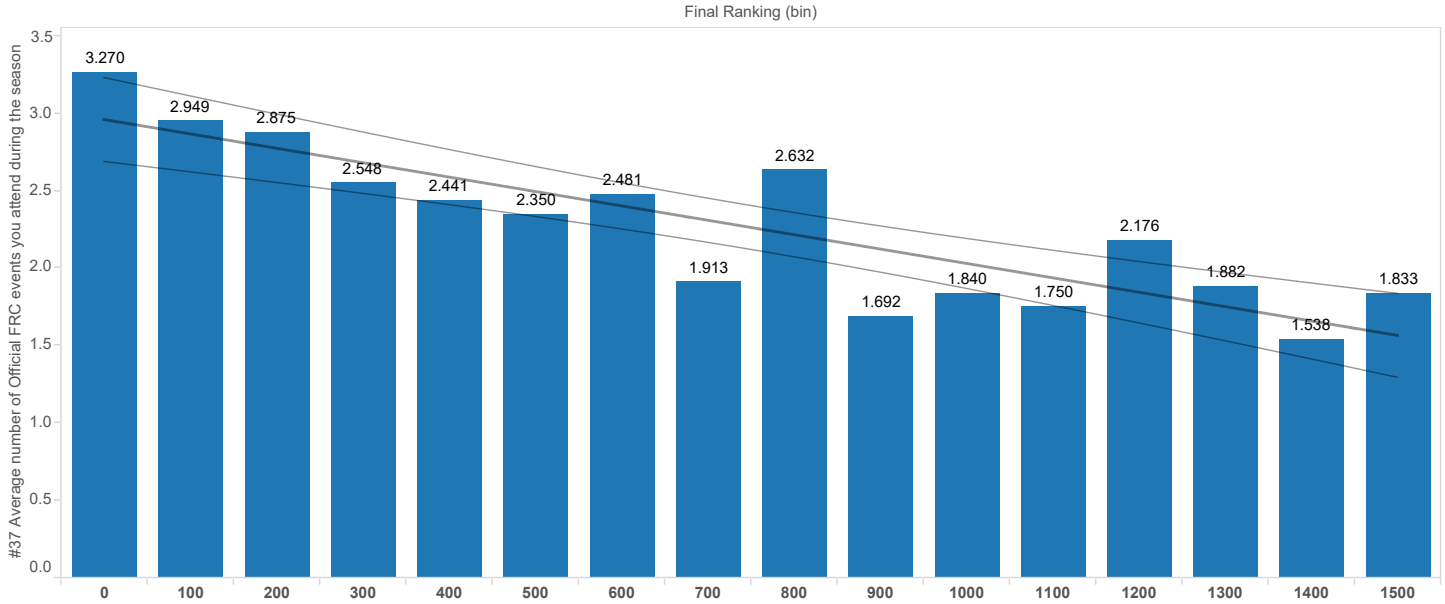
Team Travel Budget vs Years Experience Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #36 What is the budget spent on team travel? (Do not include the dollar sign in your response) given Years Experience Rank (copy).

Model formula: (Years Experience Rank (copy) + intercept)
Number of modeled observations: 20
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 18
SSE (sum squared error): 1.07755e+09
MSE (mean squared error): 5.9864e+07
R-Squared: 0.113477
Standard error: 7737.18
p-value (significance): 0.146406

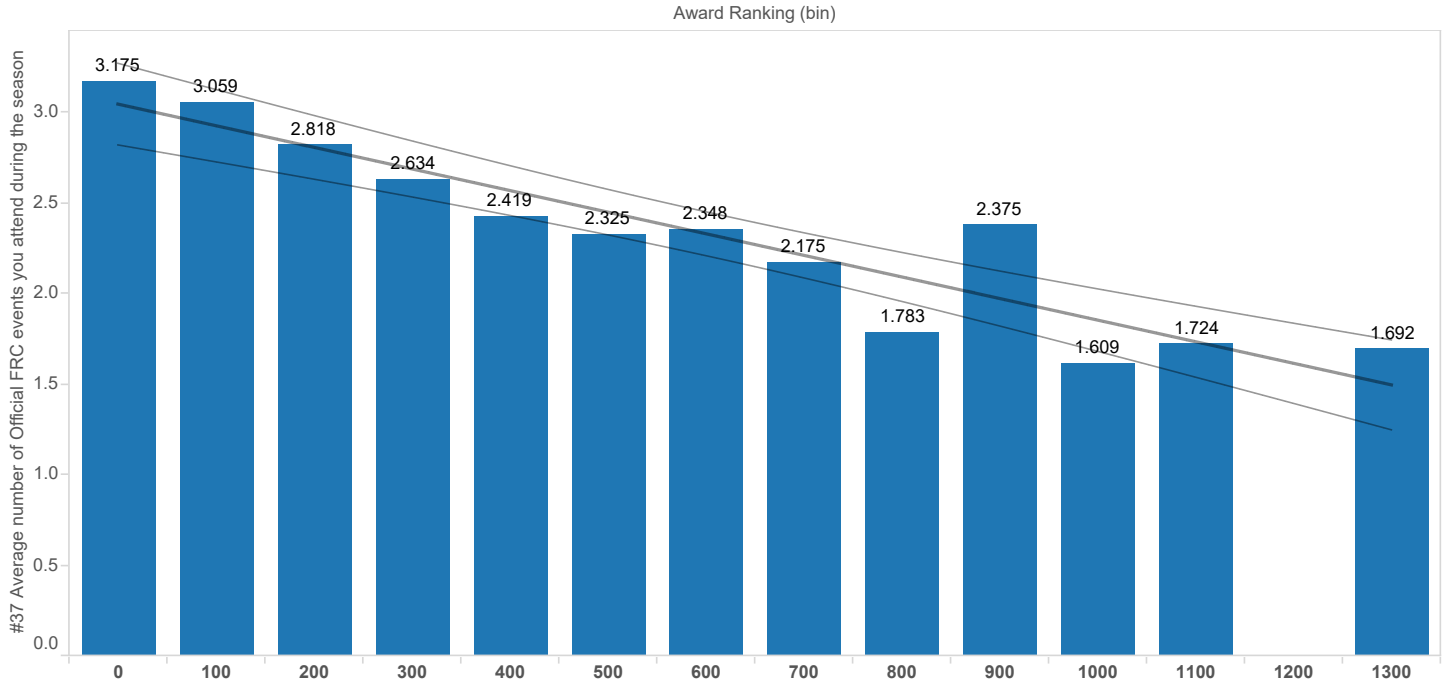
Official Event Attendance vs Final Ranking (bin)



Trend Lines Model
A linear trend model is computed for average of #37 Average number of Official FRC events you attend during the season given Final Ranking (bin). The model may be significant at p <= 0.05.

Model formula: (Final Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 0.979718
MSE (mean squared error): 0.0699799
R-Squared: 0.749805
Standard error: 0.264537
p-value (significance): < 0.0001

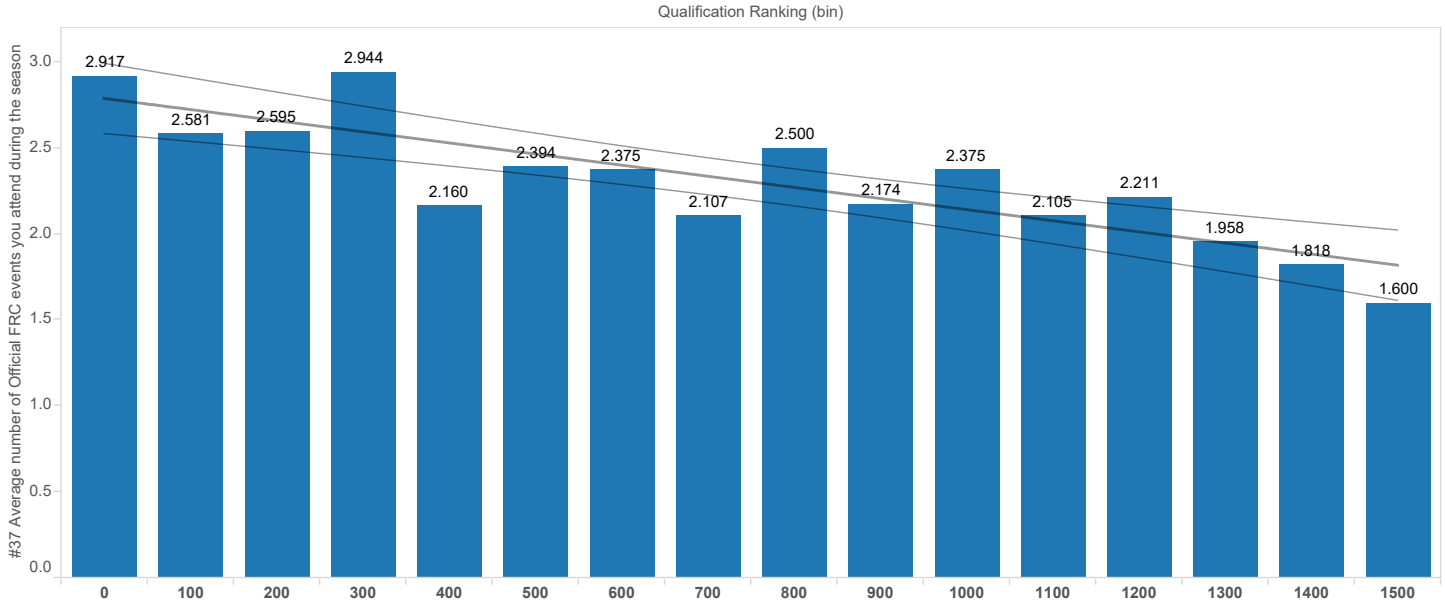
Official Event Attendance vs Award Ranking Component (bin)



Trend Lines Model
A linear trend model is computed for average of #37 Average number of Official FRC events you attend during the season given Award Ranking (bin). The model may be significant at p <= 0.05.

Model formula: (Award Ranking (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 0.43276
MSE (mean squared error): 0.0393418
R-Squared: 0.864857
Standard error: 0.198348
p-value (significance): < 0.0001

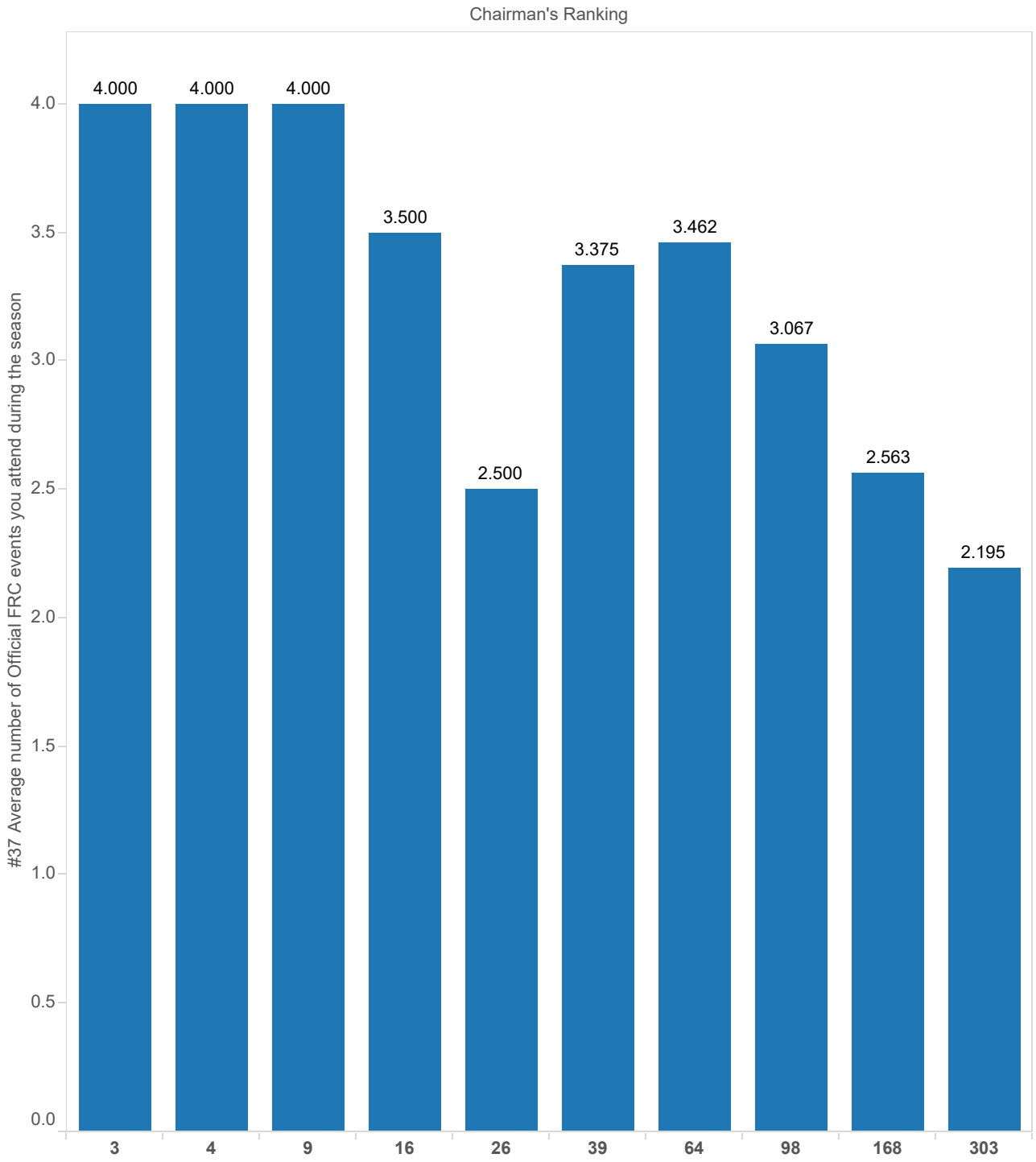
Official Event Attendance vs Qualification Ranking Component (bin)



Trend Lines Model
A linear trend model is computed for average of #37 Average number of Official FRC events you attend during the season given Qualification Ranking (bin). The model may be significant at p <= 0.05.

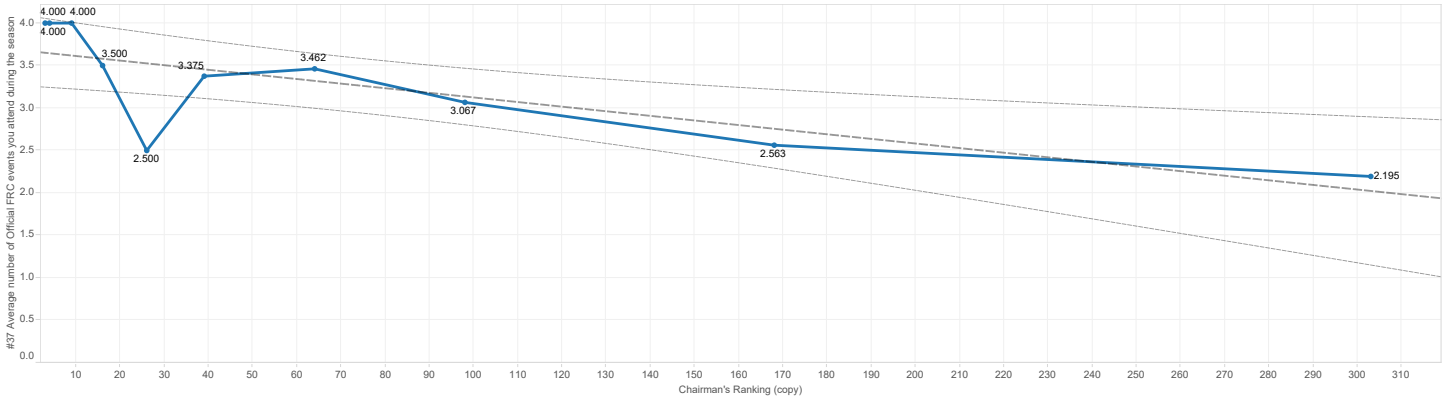
Model formula: (Qualification Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 0.55812
MSE (mean squared error): 0.0398657
R-Squared: 0.717936
Standard error: 0.199664
p-value (significance): < 0.0001

Official Event Attendance vs Chairman's Ranking Component



Average of #37 Average number of Official FRC events you attend during the season for each Chairman's Ranking. The marks are labeled by average of #37 Average number of Official FRC events you attend during the season.

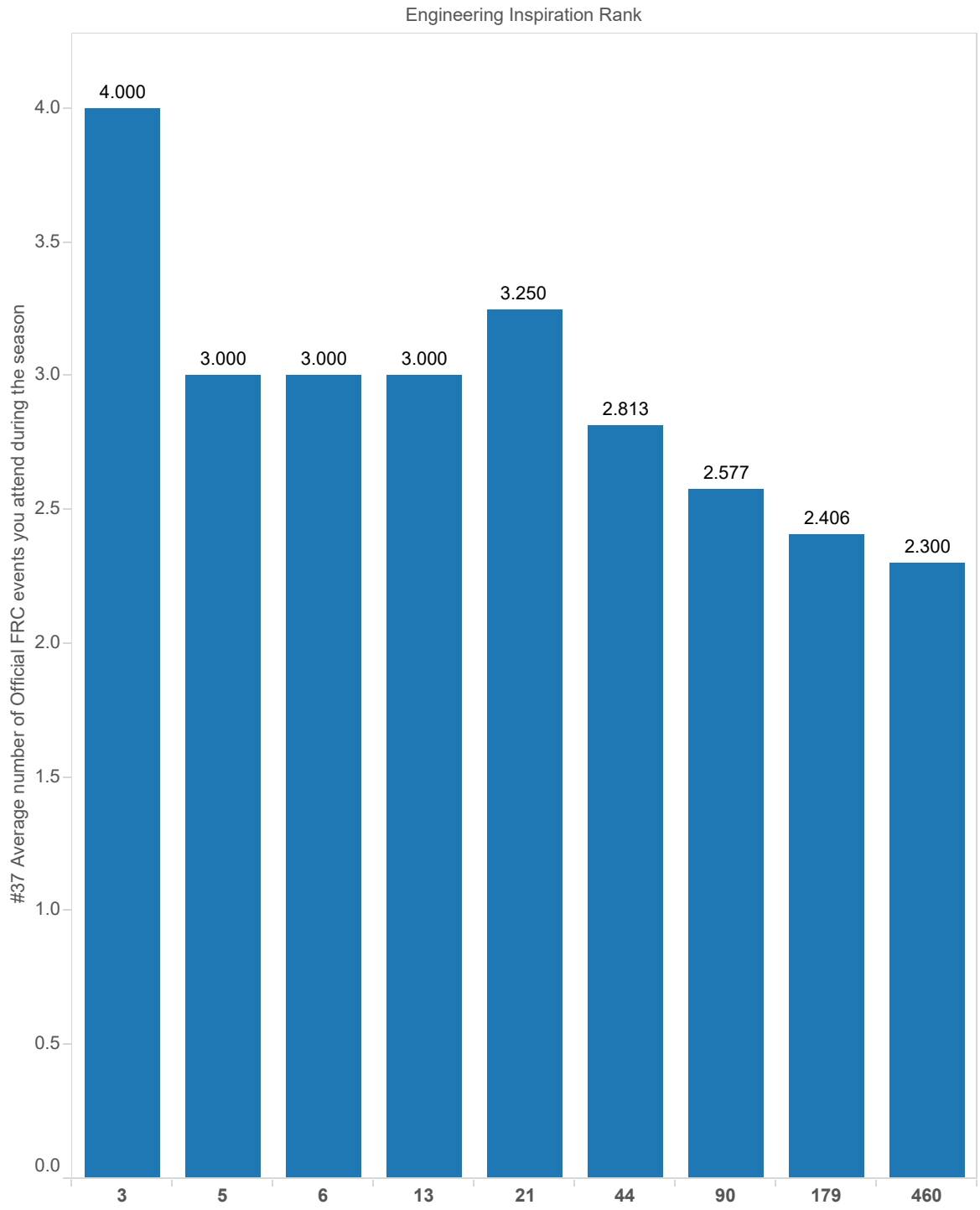
Official Event Attendance vs Chairman's Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #37 Average number of Official FRC events you attend during the season given Chairman's Ranking (copy). The model may be significant at p <= 0.05.

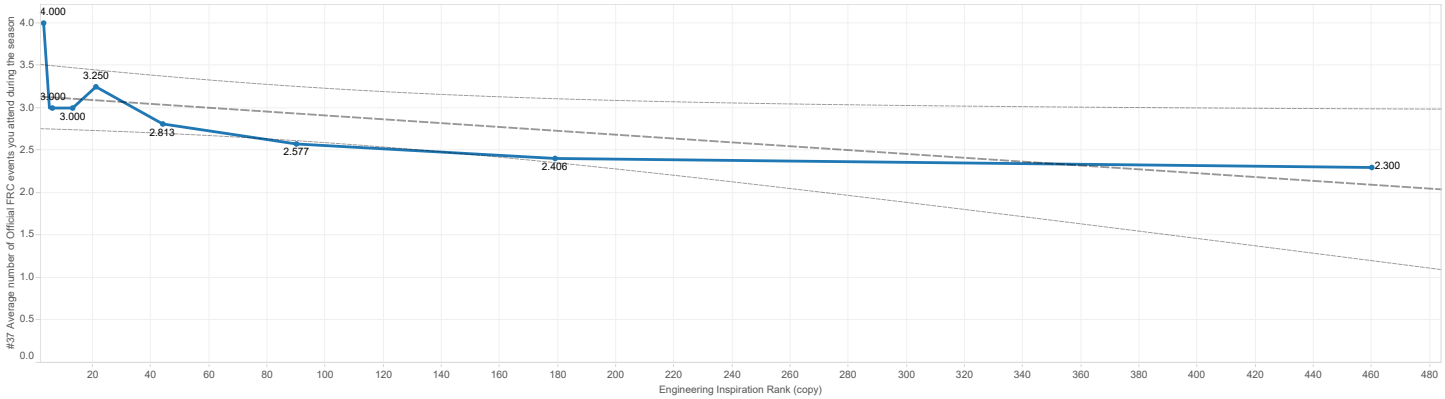
Model formula: (Chairman's Ranking (copy) + intercept)
Number of modeled observations: 10
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 8
SSE (sum squared error): 1.55027
MSE (mean squared error): 0.193783
R-Squared: 0.611518
Standard error: 0.440208
p-value (significance): 0.0075242

Official Event Attendance vs Engineering Inspiration Ranking Component



Average of #37 Average number of Official FRC events you attend during the season for each Engineering Inspiration Rank. The marks are labeled by average of #37 Average number of Official FRC events you attend during the season.

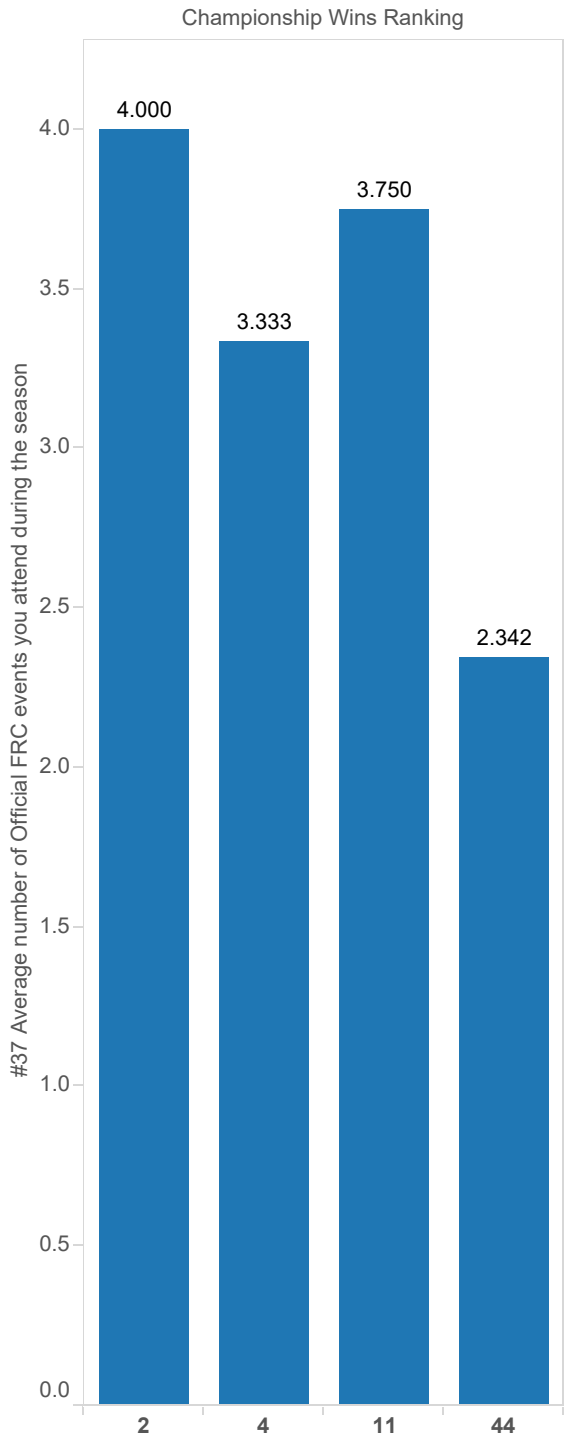
Official Event Attendance vs Engineering Inspiration Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #37 Average number of Official FRC events you attend during the season given Engineering Inspiration Rank (copy). The model may be significant at p <= 0.05.

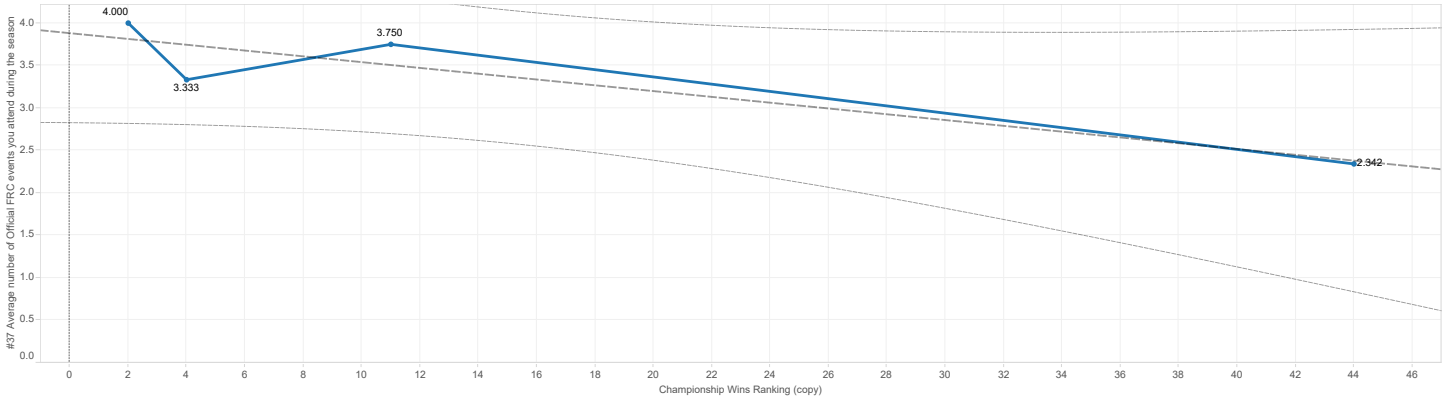
Model formula: (Engineering Inspiration Rank (copy) + intercept)
Number of modeled observations: 9
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 7
SSE (sum squared error): 1.1501
MSE (mean squared error): 0.164299
R-Squared: 0.444832
Standard error: 0.405339
p-value (significance): 0.0497311

Official Event Attendance vs Championship Wins Ranking Component



Average of #37 Average number of Official FRC events you attend during the season for each Championship Wins Ranking. The marks are labeled by average of #37 Average number of Official FRC events you attend during the season.

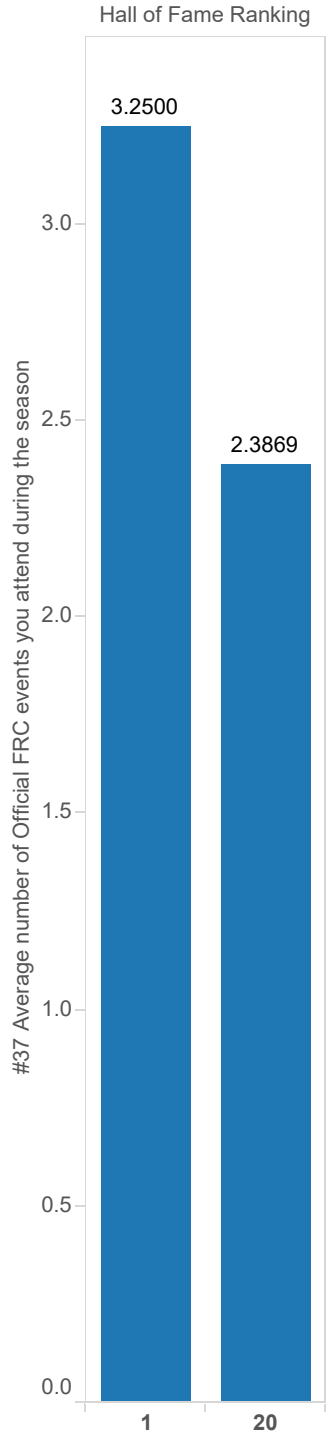
Official Event Attendance vs Championship Wins Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #37 Average number of Official FRC events you attend during the season given Championship Wins Ranking (copy).

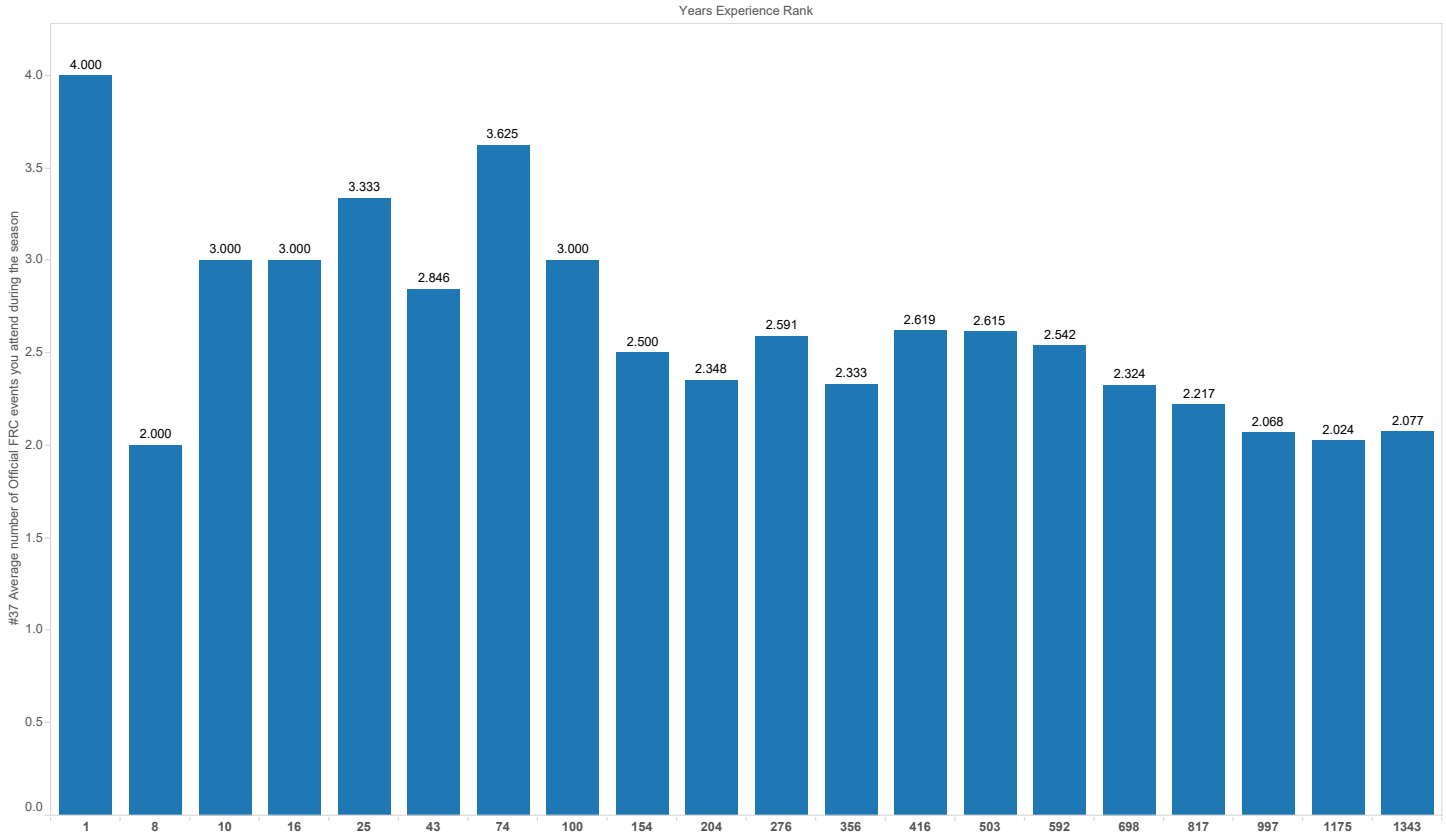
Model formula: (Championship Wins Ranking (copy) + intercept)
Number of modeled observations: 4
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 2
SSE (sum squared error): 0.265175
MSE (mean squared error): 0.132587
R-Squared: 0.834136
Standard error: 0.364126
p-value (significance): 0.0866898

Official Event Attendance vs Hall of Fame Ranking Component



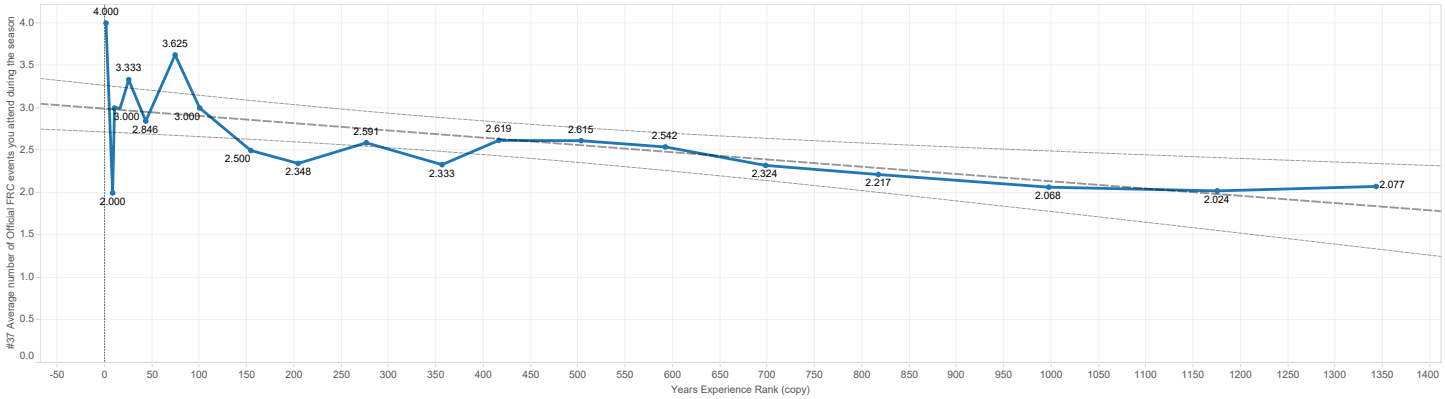
Average of #37 Average number of Official FRC events you attend during the season for each Hall of Fame Ranking. The marks are labeled by average of #37 Average number of Official FRC events you attend during the season.

Official Event Attendance vs Years Experience Ranking Component



Average of #37 Average number of Official FRC events you attend during the season for each Years Experience Rank. The marks are labeled by average of #37 Average number of Official FRC events you attend during the season.

Official Event Attendance vs Years Experience Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #37 Average number of Official FRC events you attend during the season given Years Experience Rank (copy). The model may be significant at p <= 0.05.

Model formula: (Years Experience Rank (copy) + intercept)
Number of modeled observations: 20
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 18
SSE (sum squared error): 3.20677
MSE (mean squared error): 0.178154
R-Squared: 0.432565
Standard error: 0.422083
p-value (significance): 0.0016231

Scouting vs Final Ranking (bin)

% of Total Count of #38 Do you do scouting at Official FRC events? and % of Total Count of #38.1 Do you utilize said scouting data to create a pick list for your team at that event? for each Final Ranking (bin). For pane % of Total Count of #38 Do you do scouting at Official FRC events?: Color shows details about #38 Do you do scouting at Official FRC events?. The marks are labeled by count of #38 Do you do scouting at Official FRC events? and #38 Do you do scouting at Official FRC events?. For pane % of Total Count of #38.1 Do you utilize said scouting data to create a pick list for your team at that event?: Color shows details about #38.1 Do you utilize said scouting data to create a pick list for your team at that event?. The marks are labeled by count of #38.1 Do you utilize said scouting data to create a pick list for your team at that event? and #38.1 Do you utilize said scouting data to create a pick list for your team at that event?.

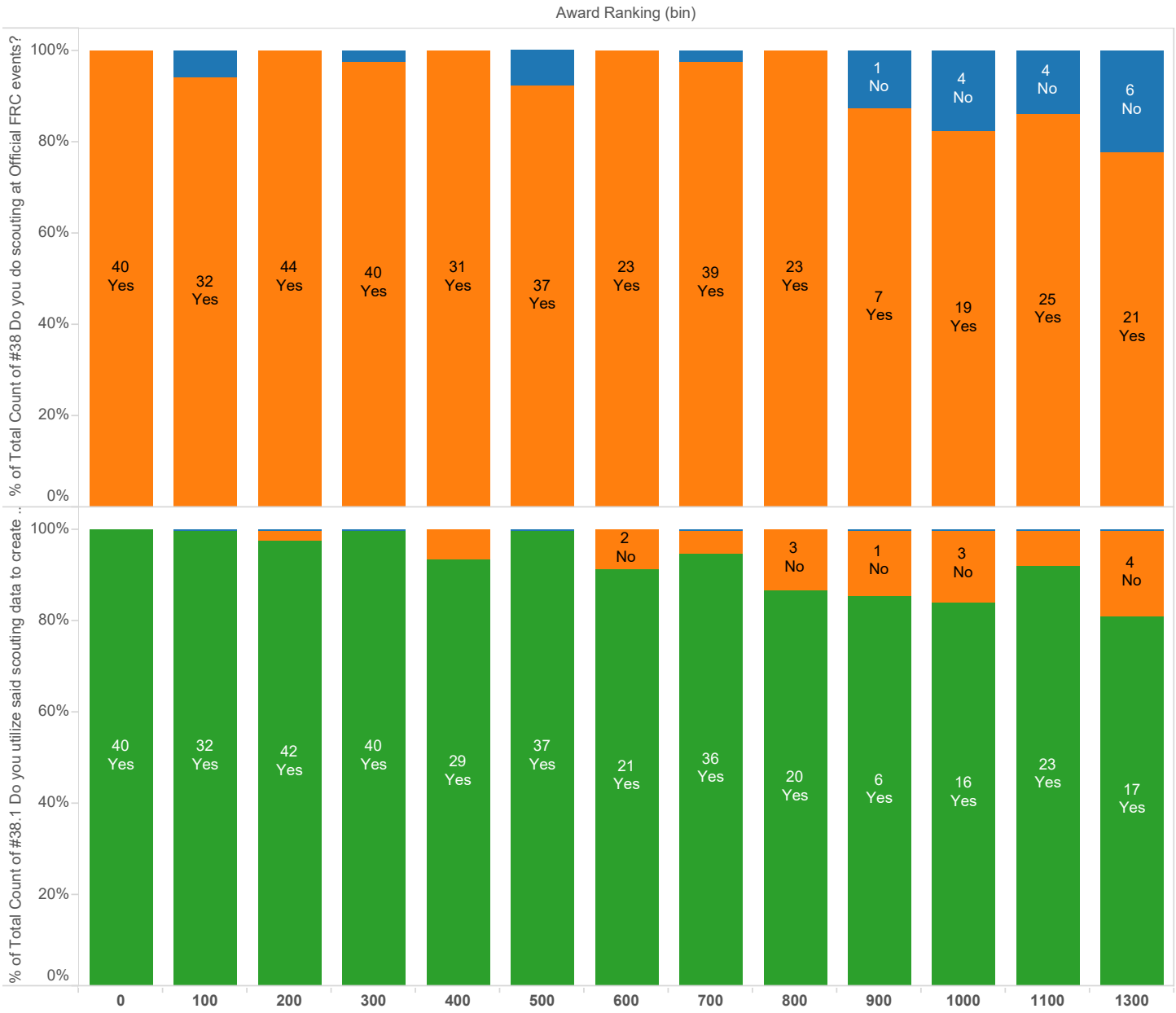
#38.1 Do you utilize said scouting data to create a pick list for your team at that event?

- Null
- No
- Yes

#38 Do you do scouting at Official FRC events?

- No
- Yes

Scouting vs Award Ranking Component (bin)



% of Total Count of #38 Do you do scouting at Official FRC events? and % of Total Count of #38.1 Do you utilize said scouting data to create a pick list for your team at that event? for each Award Ranking (bin). For pane % of Total Count of #38 Do you do scouting at Official FRC events?: Color shows details about #38 Do you do scouting at Official FRC events?. The marks are labeled by count of #38 Do you do scouting at Official FRC events? and #38 Do you do scouting at Official FRC events?. For pane % of Total Count of #38.1 Do you utilize said scouting data to create a pick list for your team at that event?: Color shows details about #38.1 Do you utilize said scouting data to create a pick list for your team at that event?. The marks are labeled by count of #38.1 Do you utilize said scouting data to create a pick list for your team at that event? and #38.1 Do you utilize said scouting data to create a pick list for your team at that event?.

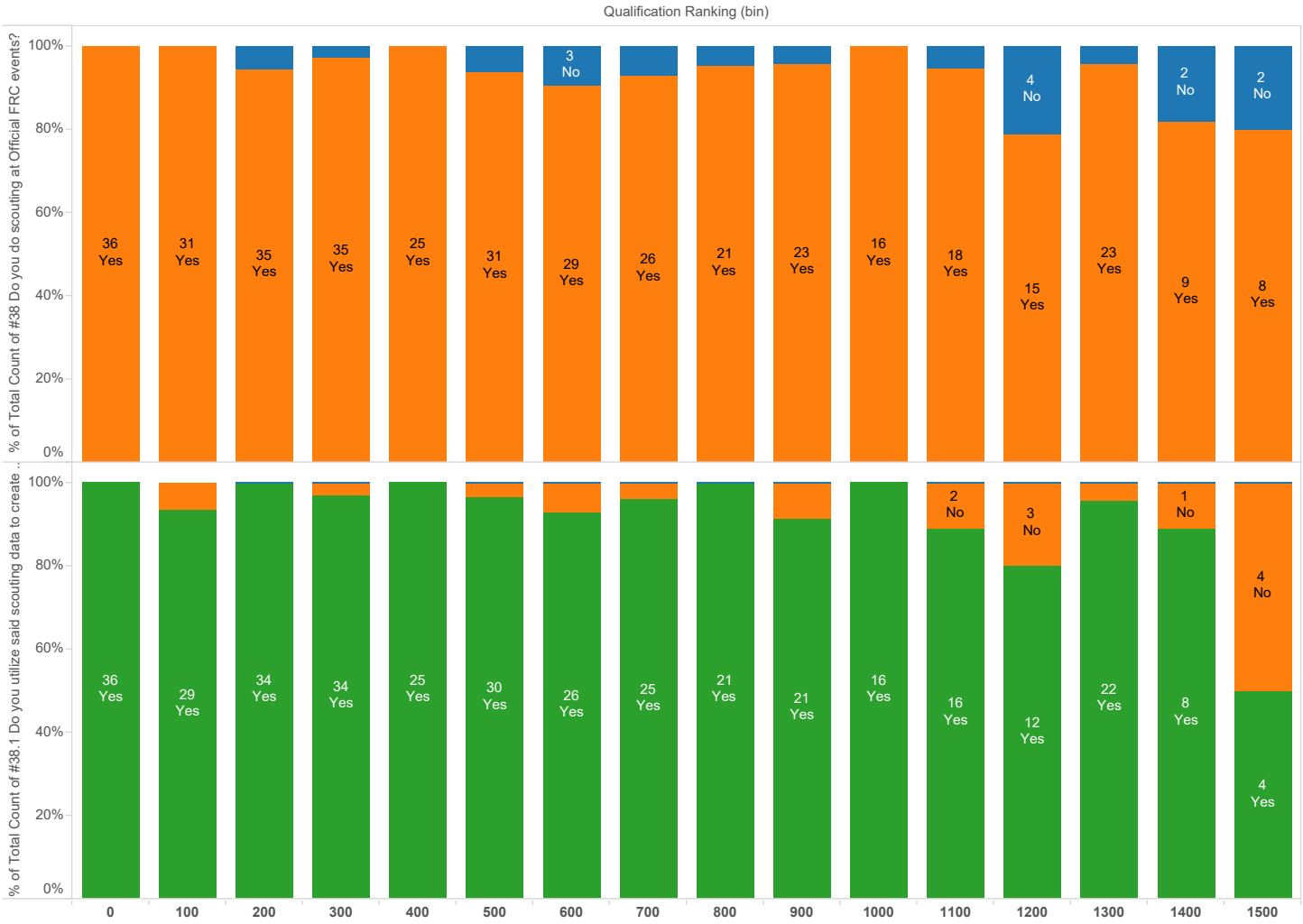
#38.1 Do you utilize said scouting data to create a pick list for your team at that event?

- Null
- No
- Yes

#38 Do you do scouting at Official FRC events?

- No
- Yes

Scouting vs Qualification Ranking Component (bin)



% of Total Count of #38 Do you do scouting at Official FRC events? and % of Total Count of #38.1 Do you utilize said scouting data to create a pick list for your team at that event? for each Qualification Ranking (bin). For pane % of Total Count of #38 Do you do scouting at Official FRC events?: Color shows details about #38 Do you do scouting at Official FRC events?. The marks are labeled by count of #38 Do you do scouting at Official FRC events? and #38 Do you do scouting at Official FRC events?. For pane % of Total Count of #38.1 Do you utilize said scouting data to create a pick list for your team at that event?: Color shows details about #38.1 Do you utilize said scouting data to create a pick list for your team at that event?. The marks are labeled by count of #38.1 Do you utilize said scouting data to create a pick list for your team at that event? and #38.1 Do you utilize said scouting data to create a pick list for your team at that event?.

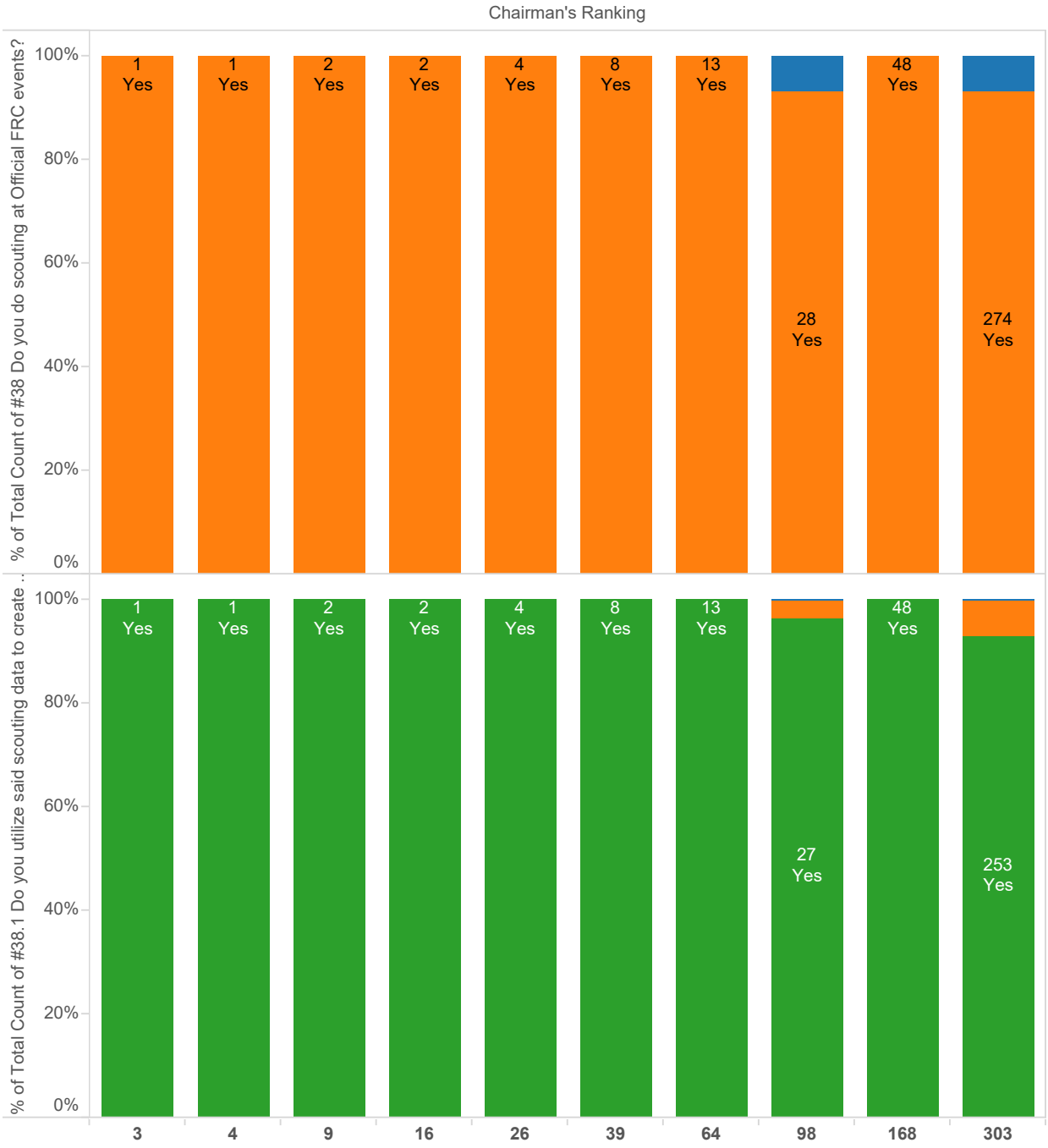
#38.1 Do you utilize said scouting data to create a pick list for your team at that event?

- Null
- No
- Yes

#38 Do you do scouting at Official FRC events?

- No
- Yes

Scouting vs Chairman's Ranking Component



% of Total Count of #38 Do you do scouting at Official FRC events? and % of Total Count of #38.1 Do you utilize said scouting data to create a pick list for your team at that event? for each Chairman's Ranking. For pane % of Total Count of #38 Do you do scouting at Official FRC events?: Color shows details about #38 Do you do scouting at Official FRC events?. The marks are labeled by count of #38 Do you do scouting at Official FRC events? and #38 Do you do scouting at Official FRC events?. For pane % of Total Count of #38.1 Do you utilize said scouting data to create a pick list for your team at that event?: Color shows details about #38.1 Do you utilize said scouting data to create a pick list for your team at that event?. The marks are labeled by count of #38.1 Do you utilize said scouting data to create a pick list for your team at that event? and #38.1 Do you utilize said scouting data to create a pick list for your team at that event?.

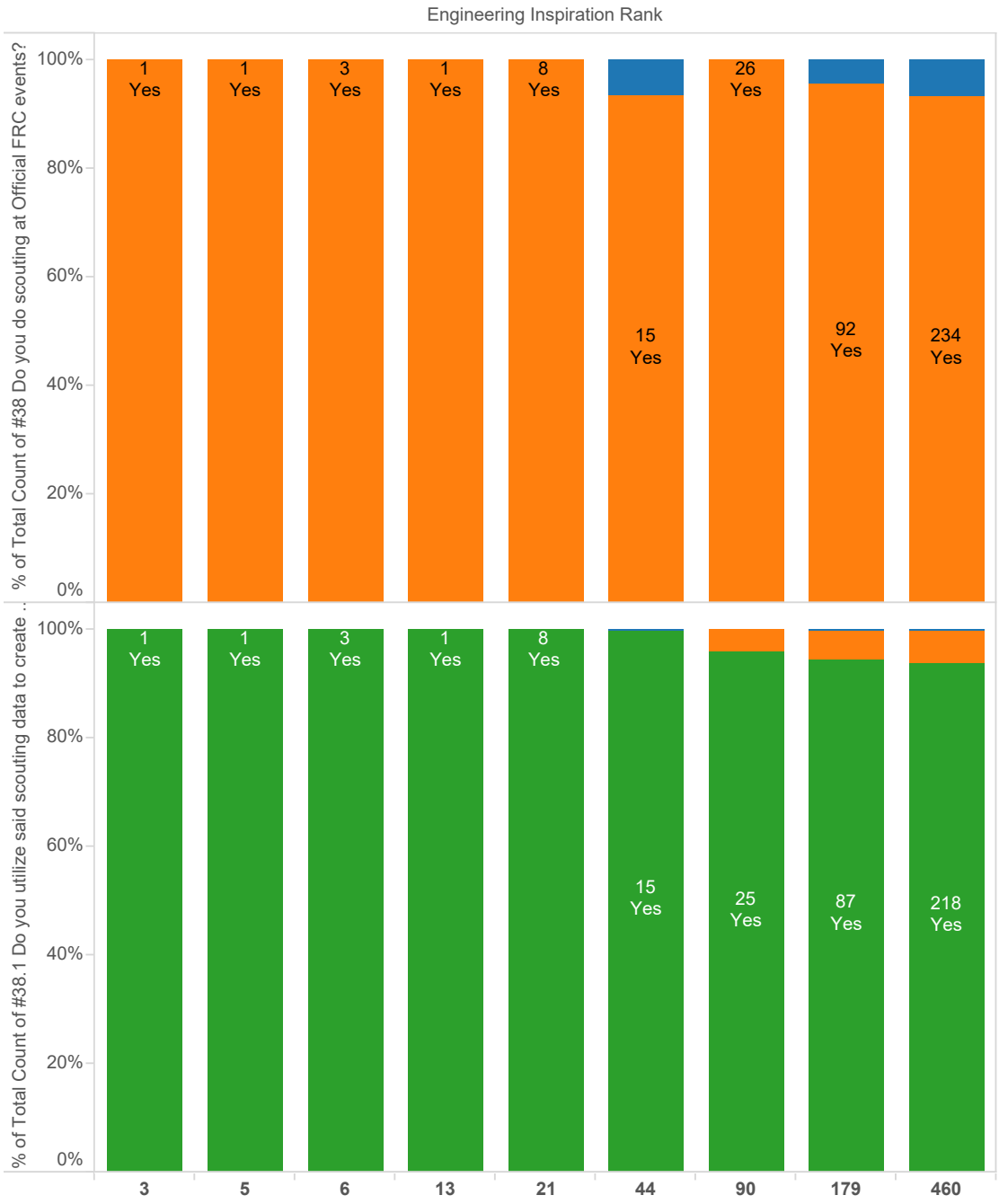
#38.1 Do you utilize said scouting data to create a pick list for your team at that event?

- Null
- No
- Yes

#38 Do you do scouting at Official FRC events?

- No
- Yes

Scouting vs Engineering Inspiration Ranking Component



% of Total Count of #38 Do you do scouting at Official FRC events? and % of Total Count of #38.1 Do you utilize said scouting data to create a pick list for your team at that event? for each Engineering Inspiration Rank. For pane % of Total Count of #38 Do you do scouting at Official FRC events?: Color shows details about #38 Do you do scouting at Official FRC events?. The marks are labeled by count of #38 Do you do scouting at Official FRC events? and #38 Do you do scouting at Official FRC events?. For pane % of Total Count of #38.1 Do you utilize said scouting data to create a pick list for your team at that event?: Color shows details about #38.1 Do you utilize said scouting data to create a pick list for your team at that event?. The marks are labeled by count of #38.1 Do you utilize said scouting data to create a pick list for your team at that event? and #38.1 Do you utilize said scouting data to create a pick list for your team at that event?.

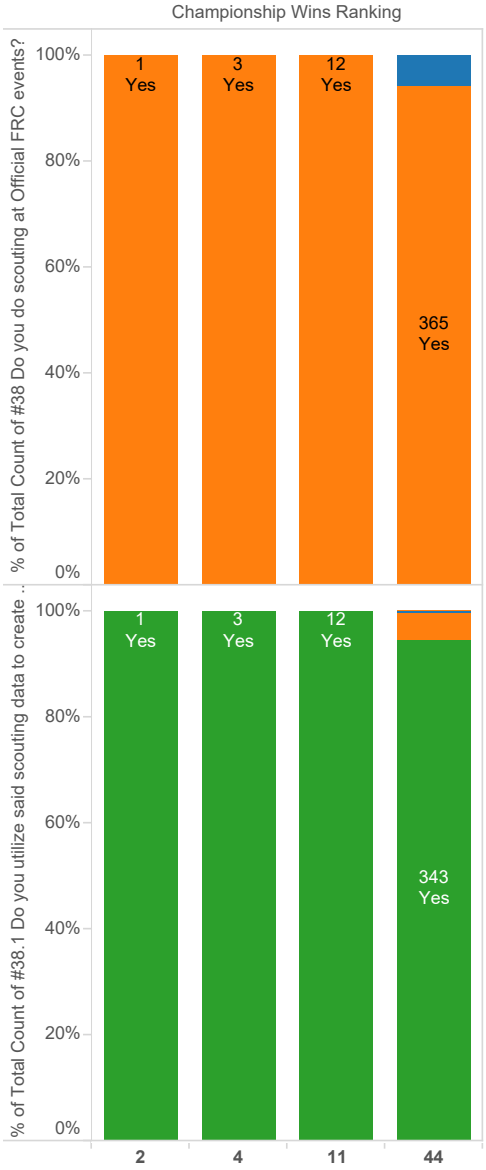
#38.1 Do you utilize said scouting data to create a pick list for your team at that event?

- Null
- No
- Yes

#38 Do you do scouting at Official FRC events?

- No
- Yes

Scouting vs Championship Wins Ranking Component



% of Total Count of #38 Do you do scouting at Official FRC events? and % of Total Count of #38.1 Do you utilize said scouting data to create a pick list for your team at that event? for each Championship Wins Ranking. For pane % of Total Count of #38 Do you do scouting at Official FRC events?: Color shows details about #38 Do you do scouting at Official FRC events?. The marks are labeled by count of #38 Do you do scouting at Official FRC events? and #38 Do you do scouting at Official FRC events?. For pane % of Total Count of #38.1 Do you utilize said scouting data to create a pick list for your team at that event?: Color shows details about #38.1 Do you utilize said scouting data to create a pick list for your team at that event?. The marks are labeled by count of #38.1 Do you utilize said scouting data to create a pick list for your team at that event? and #38.1 Do you utilize said scouting data to create a pick list for your team at that event?.

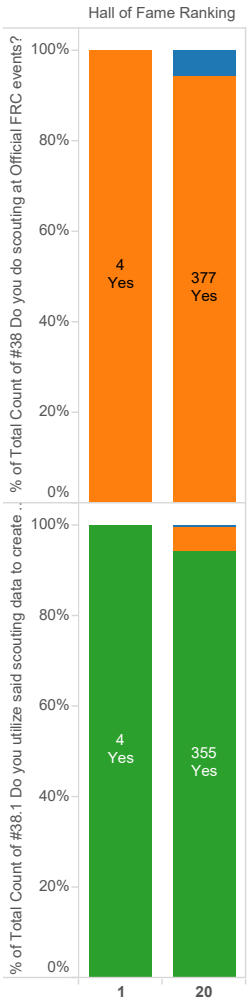
#38.1 Do you utilize said scouting data to create a pick list for your team at that event?

- Null
- No
- Yes

#38 Do you do scouting at Official FRC events?

- No
- Yes

Scouting vs Hall of Fame Ranking Component



% of Total Count of #38 Do you do scouting at Official FRC events? and % of Total Count of #38.1 Do you utilize said scouting data to create a pick list for your team at that event? for each Hall of Fame Ranking. For pane % of Total Count of #38 Do you do scouting at Official FRC events?: Color shows details about #38 Do you do scouting at Official FRC events?. The marks are labeled by count of #38 Do you do scouting at Official FRC events? and #38 Do you do scouting at Official FRC events?. For pane % of Total Count of #38.1 Do you utilize said scouting data to create a pick list for your team at that event?: Color shows details about #38.1 Do you utilize said scouting data to create a pick list for your team at that event?. The marks are labeled by count of #38.1 Do you utilize said scouting data to create a pick list for your team at that event? and #38.1 Do you utilize said scouting data to create a pick list for your team at that event?.

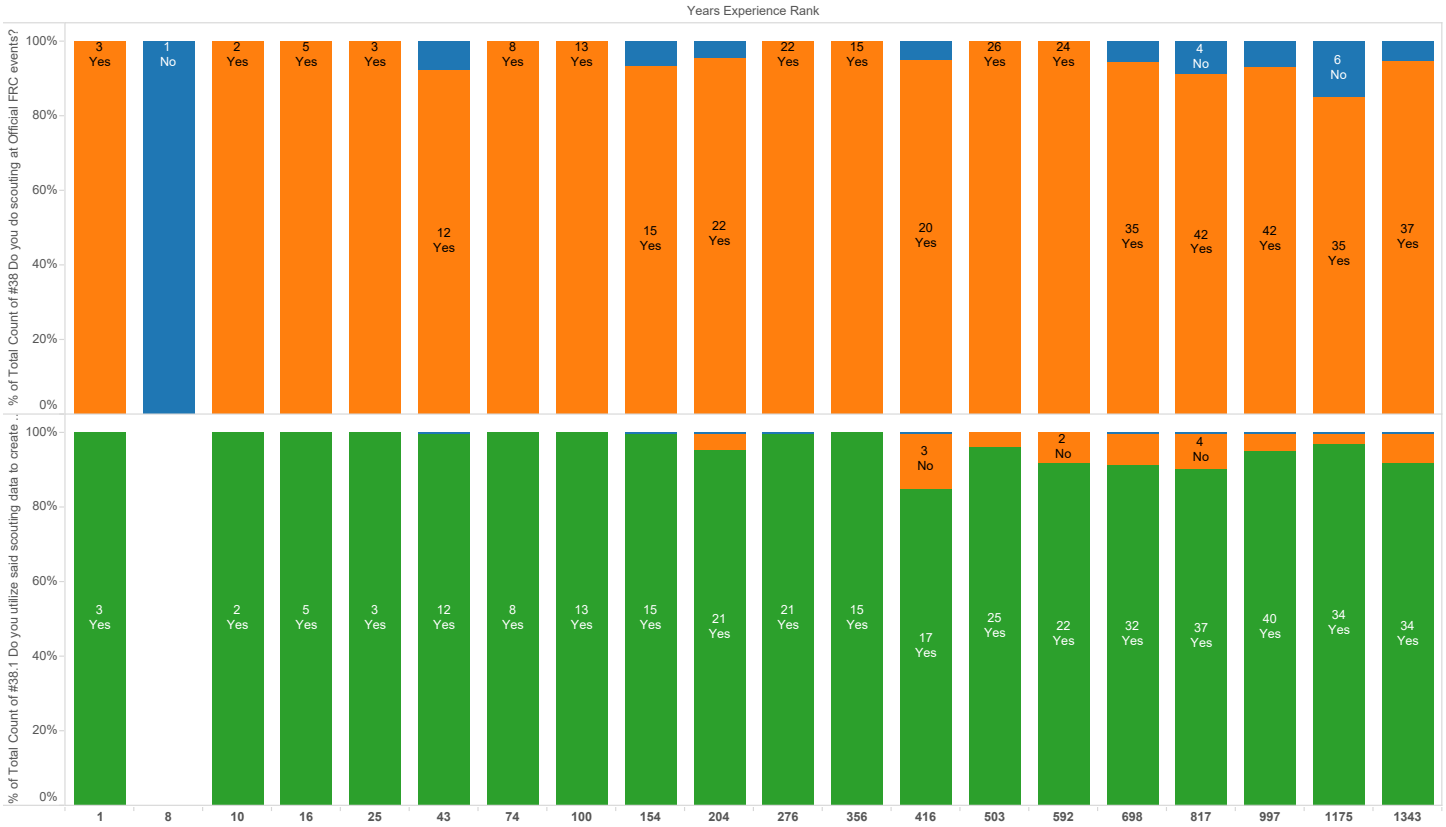
#38.1 Do you utilize said scouting data to create a pick list for your team at that event?

- Null
- No
- Yes

#38 Do you do scouting at Official FRC events?

- No
- Yes

Scouting vs Years Experience Ranking Component



% of Total Count of #38 Do you do scouting at Official FRC events? and % of Total Count of #38.1 Do you utilize said scouting data to create a pick list for your team at that event? for each Years Experience Rank. For pane % of Total Count of #38 Do you do scouting at Official FRC events?: Color shows details about #38 Do you do scouting at Official FRC events?. The marks are labeled by count of #38 Do you do scouting at Official FRC events? and #38 Do you do scouting at Official FRC events?. For pane % of Total Count of #38.1 Do you utilize said scouting data to create a pick list for your team at that event?: Color shows details about #38.1 Do you utilize said scouting data to create a pick list for your team at that event?. The marks are labeled by count of #38.1 Do you utilize said scouting data to create a pick list for your team at that event? and #38.1 Do you utilize said scouting data to create a pick list for your team at that event?.

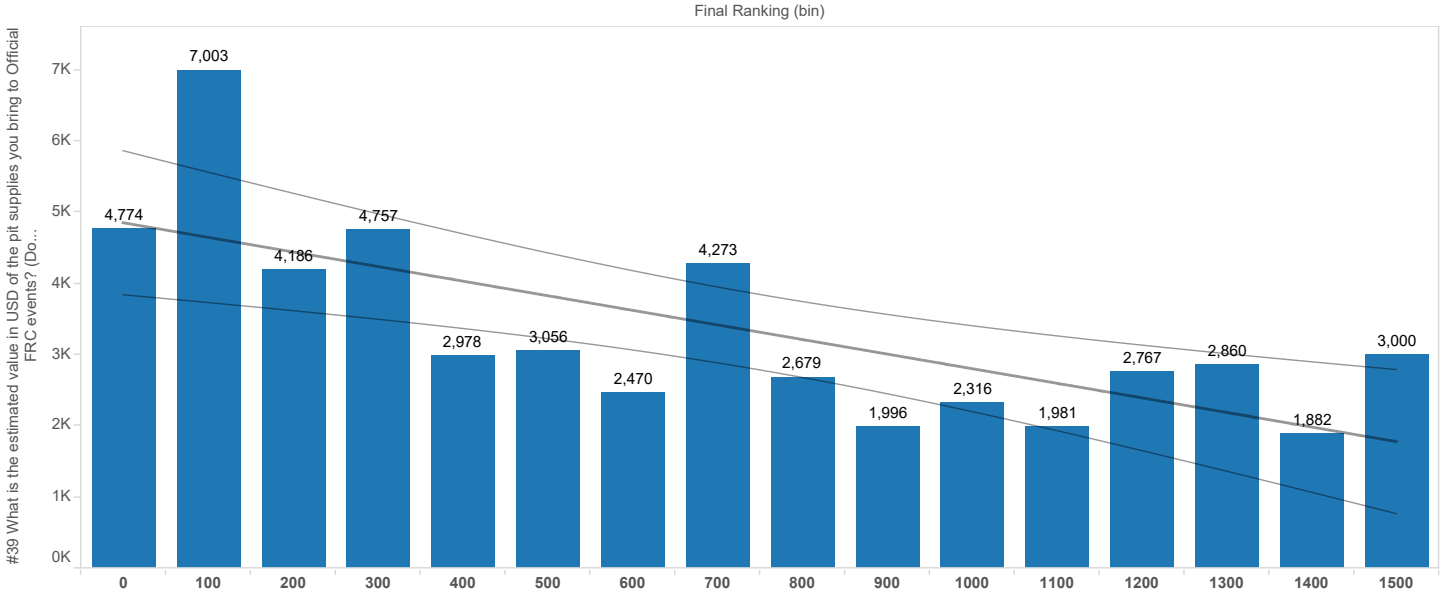
#38.1 Do you utilize said scouting data to create a pick list for your team at that event?

- Null
- No
- Yes

#38 Do you do scouting at Official FRC events?

- No
- Yes

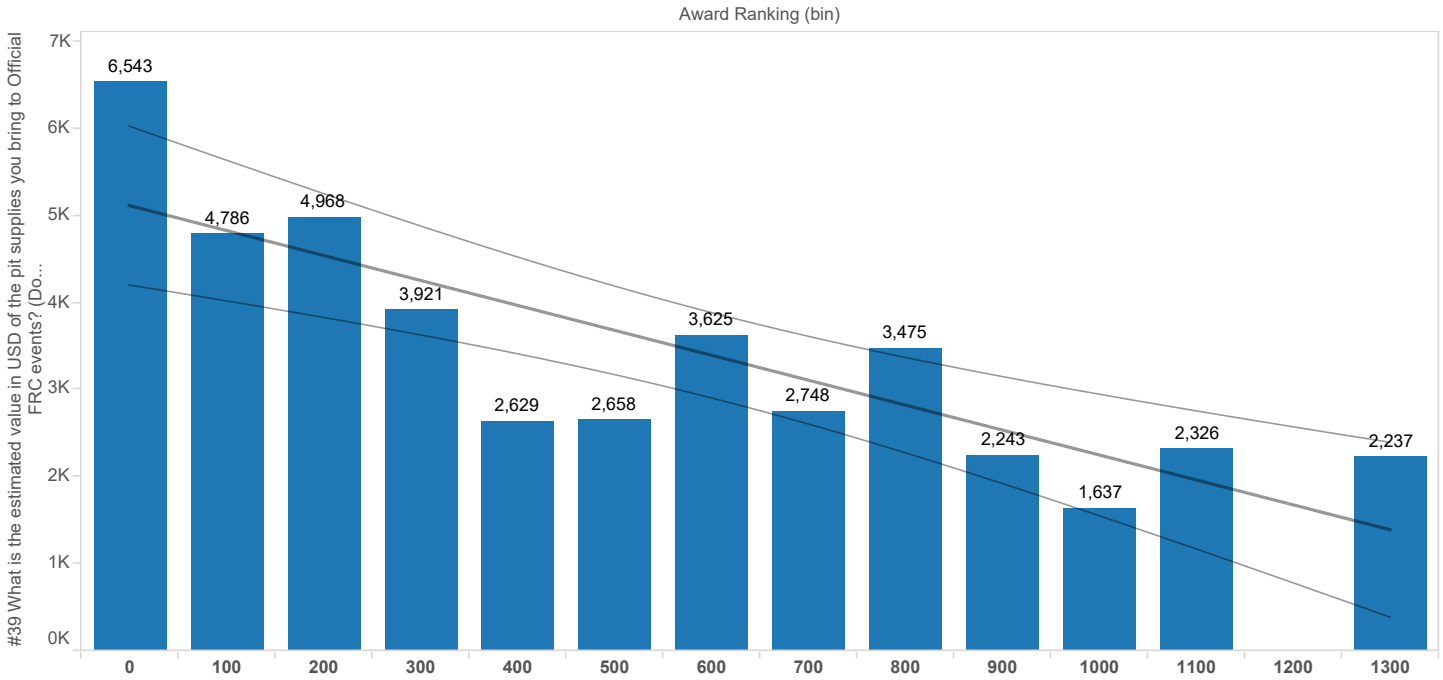
Pit Supplies Value vs Final Ranking (bin)



Trend Lines Model
A linear trend model is computed for average of #39 What is the estimated value in USD of the pit supplies you bring to Official FRC events? (Do... given Final Ranking (bin). The model may be significant at p <= 0.05.

Model formula: (Final Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 1.36768e+07
MSE (mean squared error): 976913
R-Squared: 0.510825
Standard error: 988.389
p-value (significance): 0.0018622

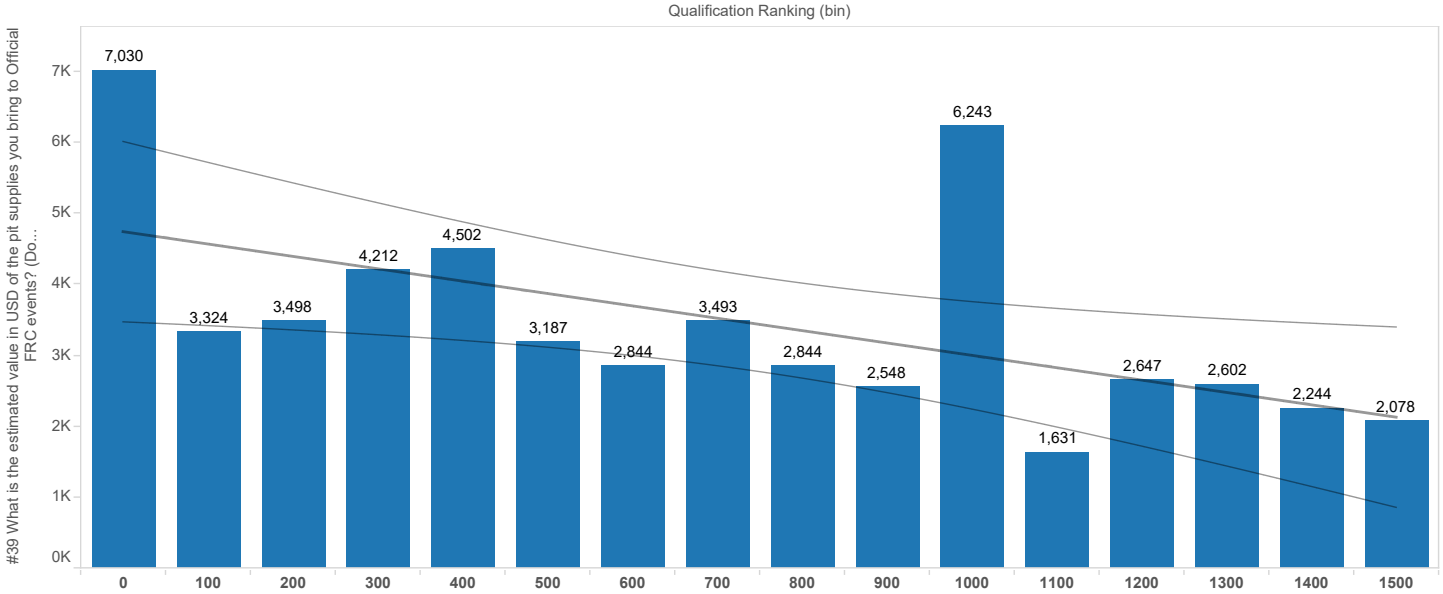
Pit Supplies Value vs Award Ranking Component (bin)



Trend Lines Model
A linear trend model is computed for average of #39 What is the estimated value in USD of the pit supplies you bring to Official FRC events? (Do... given Award Ranking (bin). The model may be significant at p <= 0.05.

Model formula: (Award Ranking (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 7.09558e+06
MSE (mean squared error): 645053
R-Squared: 0.692711
Standard error: 803.152
p-value (significance): 0.0004157

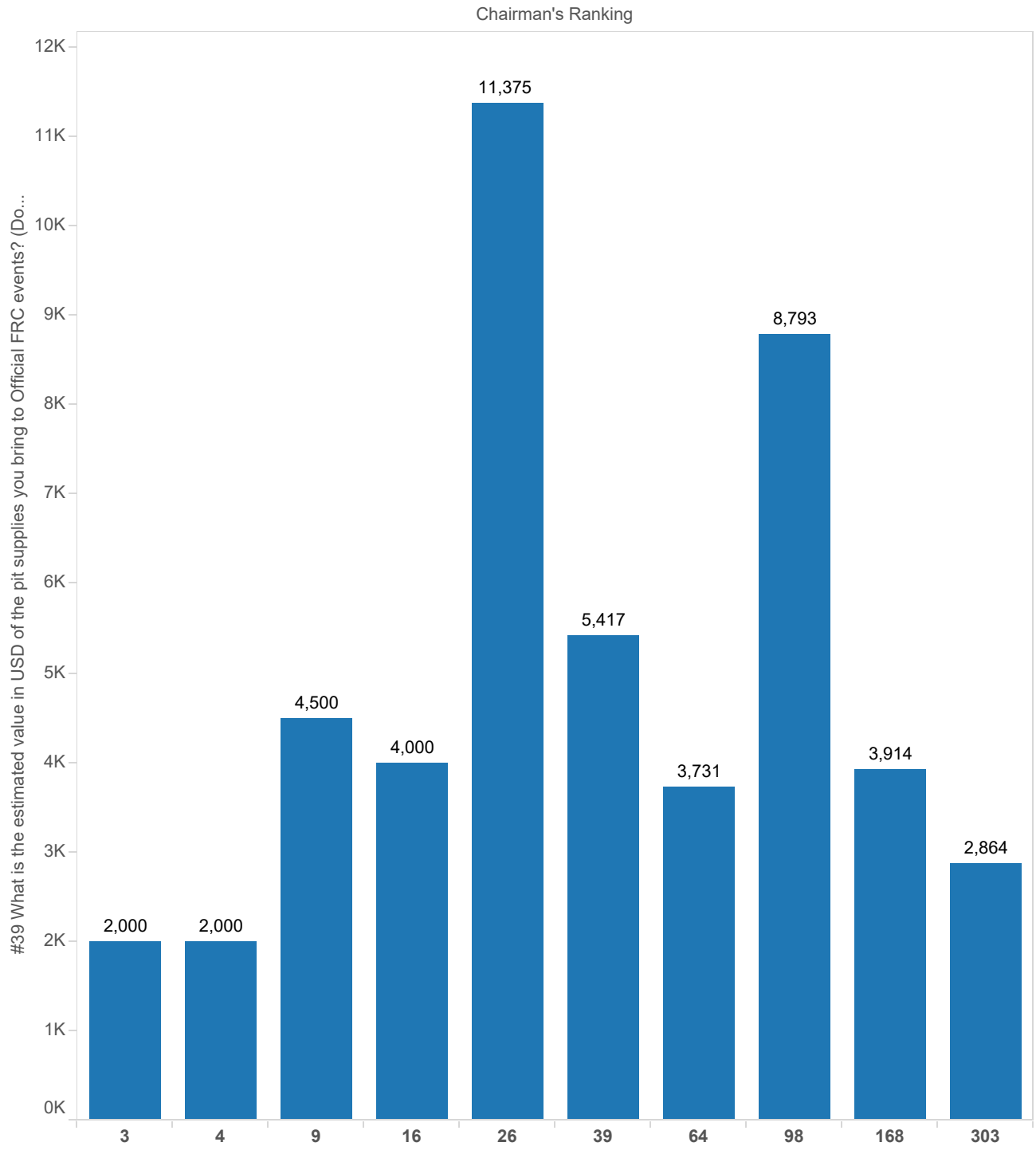
Pit Supplies Value vs Qualification Ranking Component (bin)



Trend Lines Model
A linear trend model is computed for average of #39 What is the estimated value in USD of the pit supplies you bring to Official FRC events? (Do... given Qualification Ranking (bin). The model may be significant at p <= 0.05.

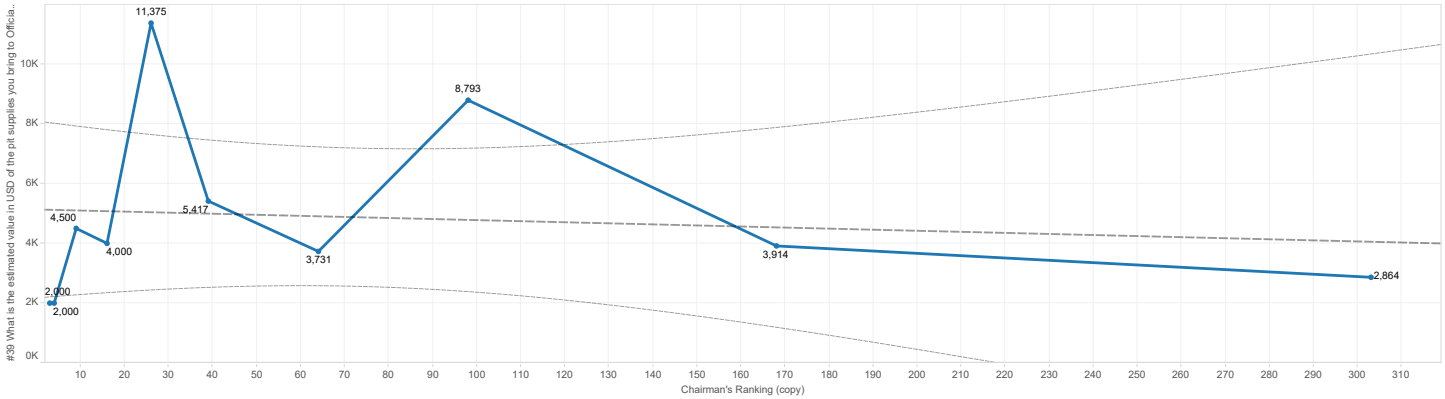
Model formula: (Qualification Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 2.15983e+07
MSE (mean squared error): 1.54273e+06
R-Squared: 0.323849
Standard error: 1242.07
p-value (significance): 0.0214109

Pit Supplies Value vs Chairman's Ranking Component



Average of #39 What is the estimated value in USD of the pit supplies you bring to Official FRC events? (Do... for each Chairman's Ranking. The marks are labeled by average of #39 What is the estimated value in USD of the pit supplies you bring to Official FRC events? (Do....

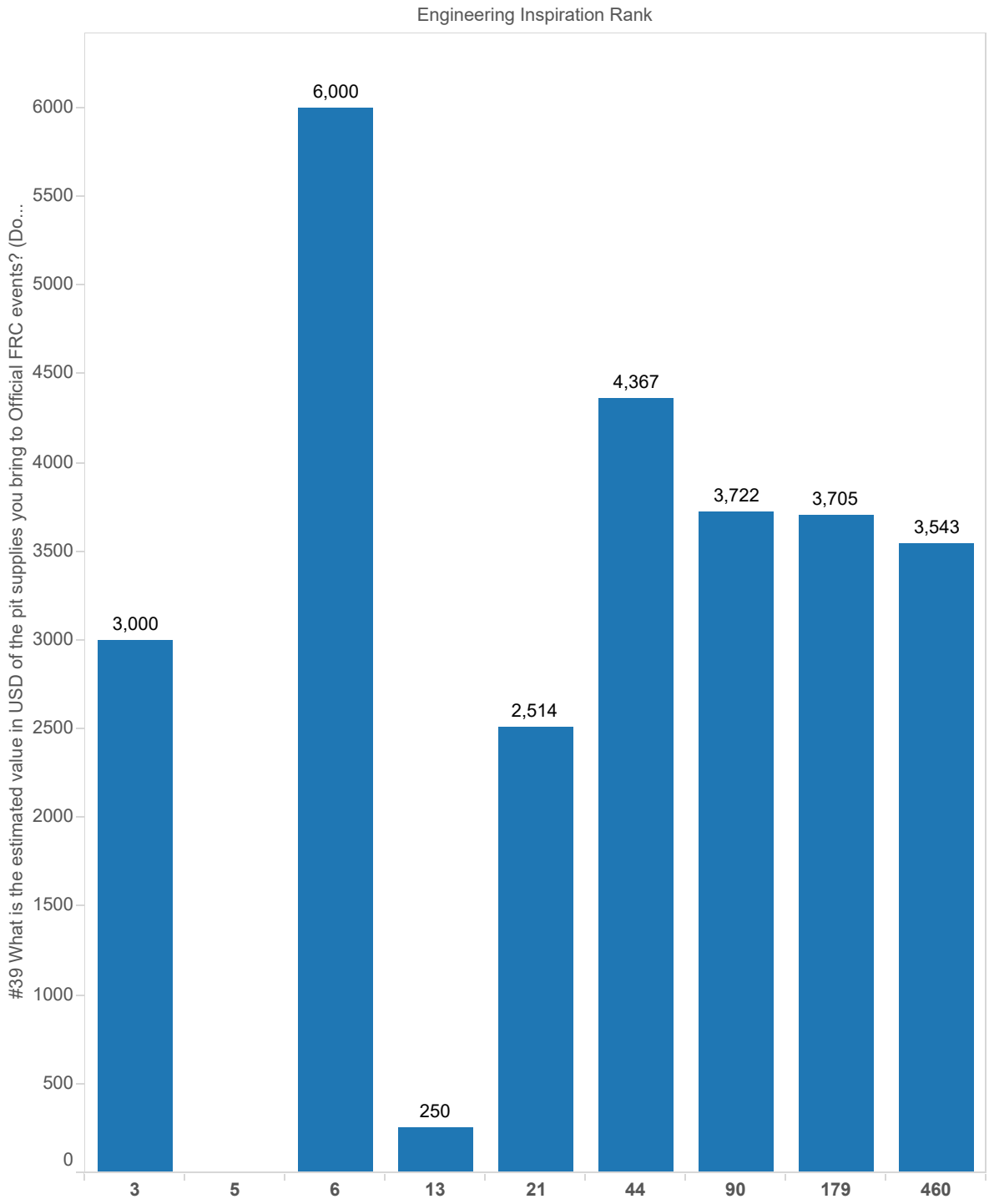
Pit Supplies Value vs Chairman's Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #39 What is the estimated value in USD of the pit supplies you bring to Official FRC events? (Do... given Chairman's Ranking (copy).

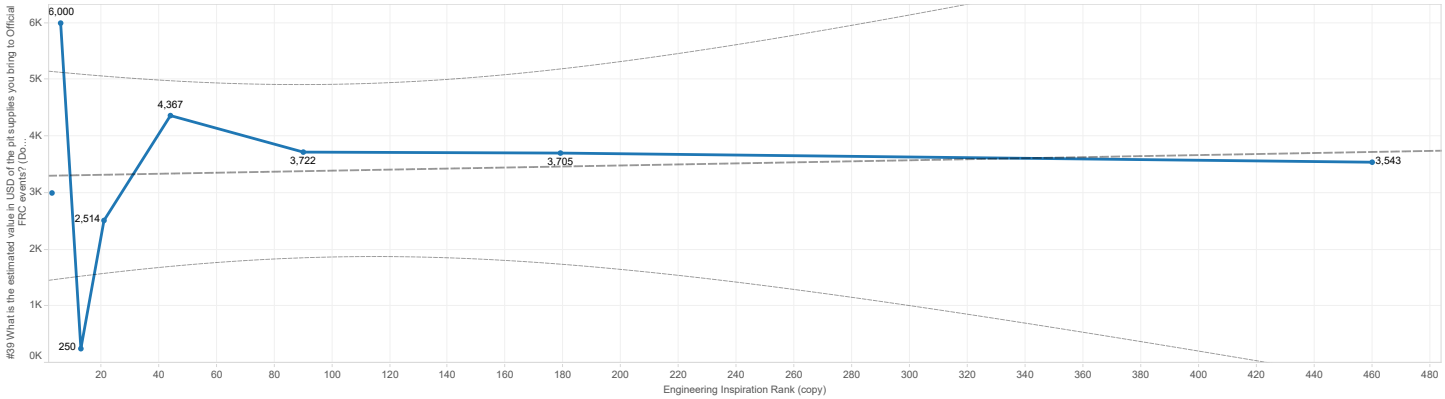
Model formula: (Chairman's Ranking (copy) + intercept)
Number of modeled observations: 10
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 8
SSE (sum squared error): 8.05488e+07
MSE (mean squared error): 1.00686e+07
R-Squared: 0.0129309
Standard error: 3173.11
p-value (significance): 0.754442

Pit Supplies Value vs Engineering Inspiration Ranking Component



Average of #39 What is the estimated value in USD of the pit supplies you bring to Official FRC events? (Do... for each Engineering Inspiration Rank. The marks are labeled by average of #39 What is the estimated value in USD of the pit supplies you bring to Official FRC events? (Do....

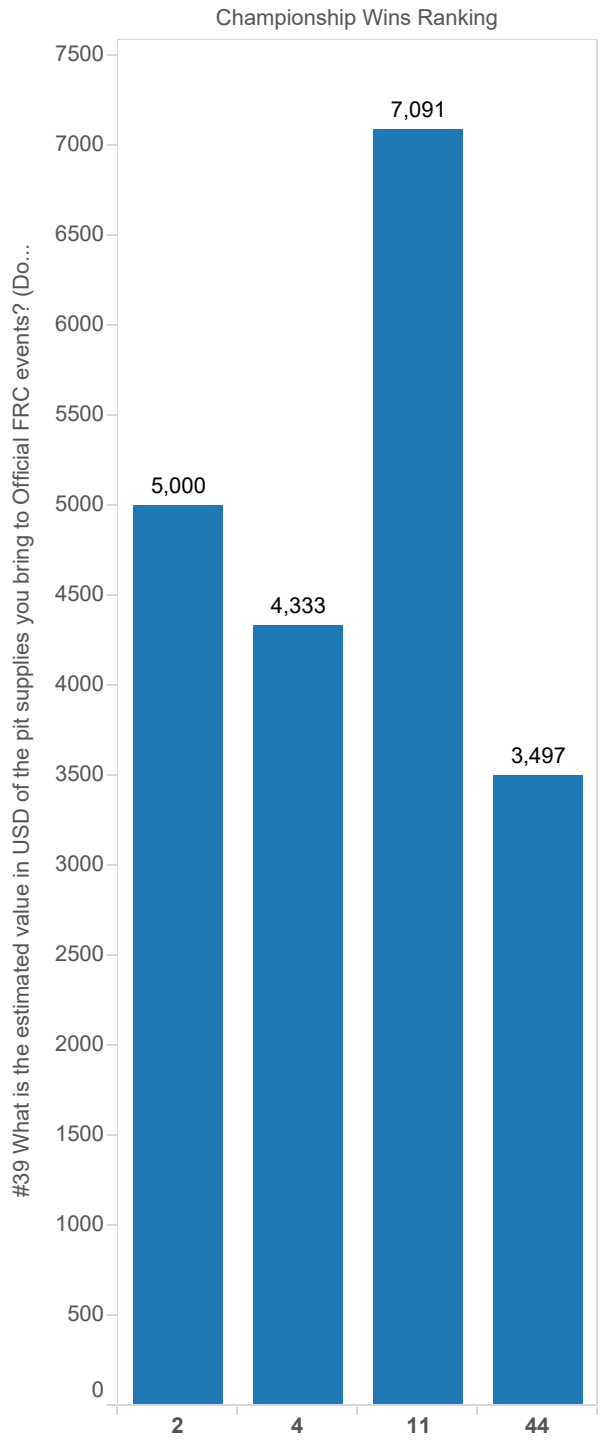
Pit Supplies Value vs Engineering Inspiration Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #39 What is the estimated value in USD of the pit supplies you bring to Official FRC events? (Do... given Engineering Inspiration Rank (copy).

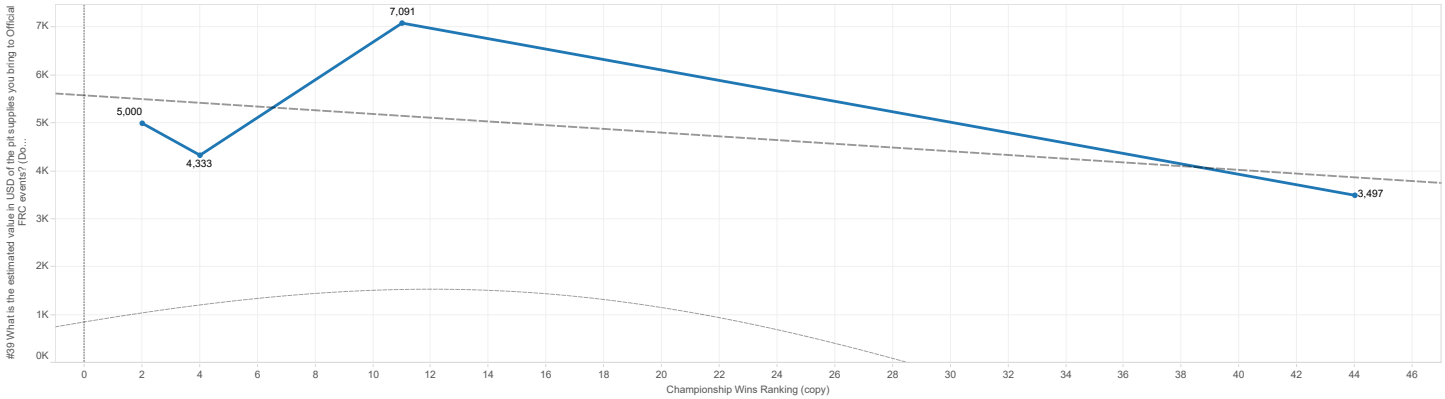
Model formula: (Engineering Inspiration Rank (copy) + intercept)
Number of modeled observations: 8
Number of filtered observations: 1
Model degrees of freedom: 2
Residual degrees of freedom (DF): 6
SSE (sum squared error): 1.86332e+07
MSE (mean squared error): 3.10553e+06
R-Squared: 0.0076625
Standard error: 1762.25
p-value (significance): 0.836707

Pit Supplies Value vs Championship Wins Ranking Component



Average of #39 What is the estimated value in USD of the pit supplies you bring to Official FRC events? (Do... for each Championship Wins Ranking. The marks are labeled by average of #39 What is the estimated value in USD of the pit supplies you bring to Official FRC events? (Do....

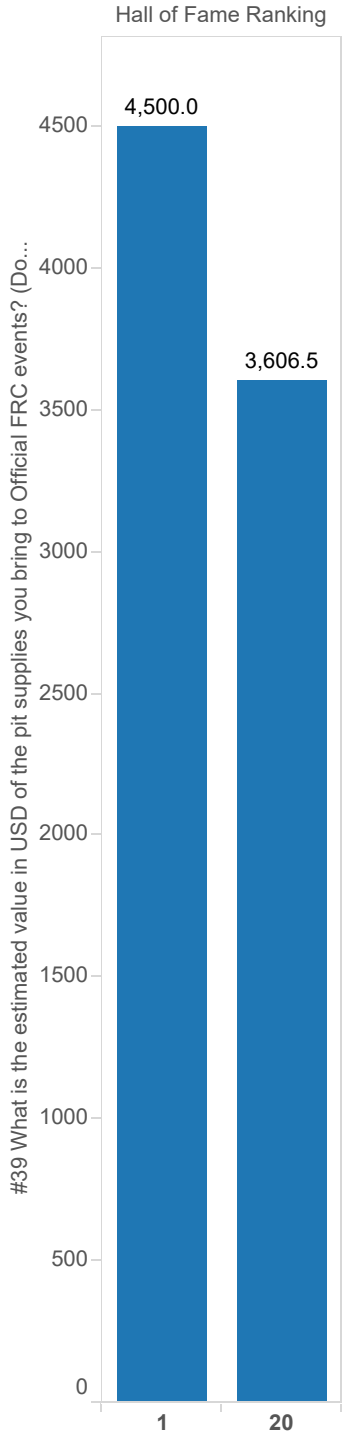
Pit Supplies Value vs Championship Wins Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #39 What is the estimated value in USD of the pit supplies you bring to Official FRC events? (Do... given Championship Wins Ranking (copy).

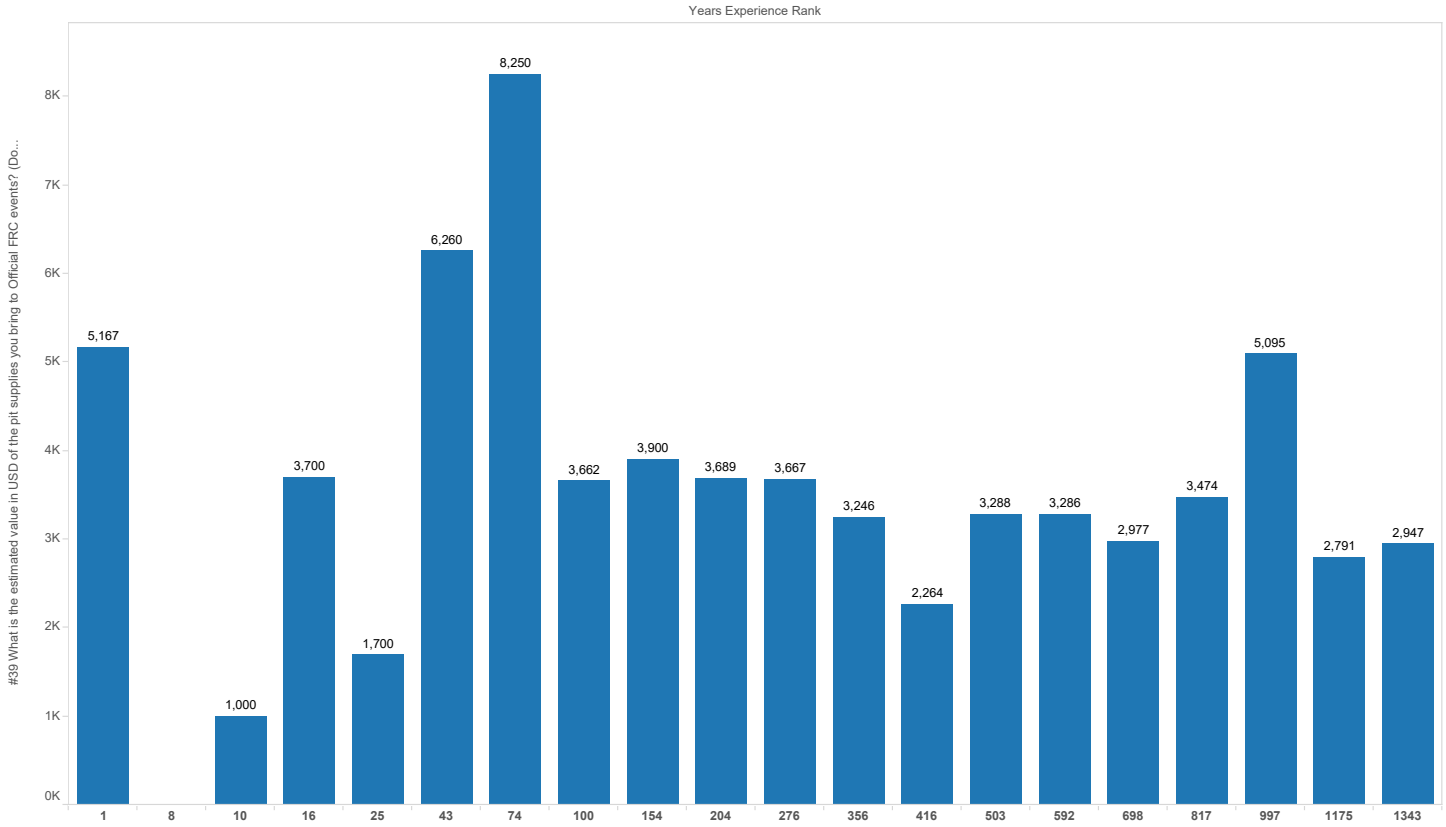
Model formula: (Championship Wins Ranking (copy) + intercept)
Number of modeled observations: 4
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 2
SSE (sum squared error): 5.33938e+06
MSE (mean squared error): 2.66969e+06
R-Squared: 0.245189
Standard error: 1633.92
p-value (significance): 0.504834

Pit Supplies Value vs Hall of Fame Ranking Component



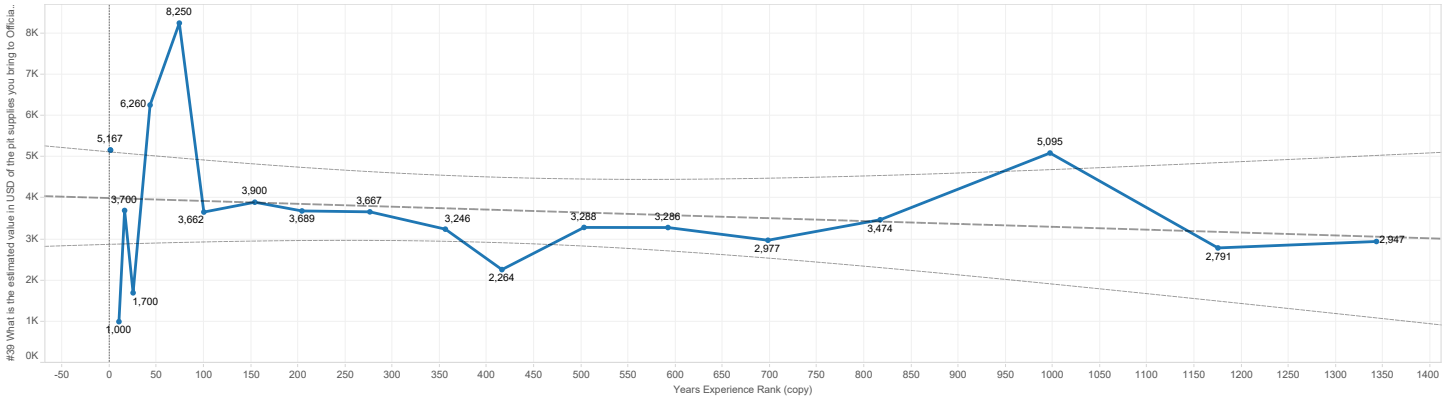
Average of #39 What is the estimated value in USD of the pit supplies you bring to Official FRC events? (Do... for each Hall of Fame Ranking. The marks are labeled by average of #39 What is the estimated value in USD of the pit supplies you bring to Official FRC events? (Do....

Pit Supplies Value vs Years Experience Ranking Component



Average of #39 What is the estimated value in USD of the pit supplies you bring to Official FRC events? (Do... for each Years Experience Rank. The marks are labeled by average of #39 What is the estimated value in USD of the pit supplies you bring to Official FRC events? (Do....

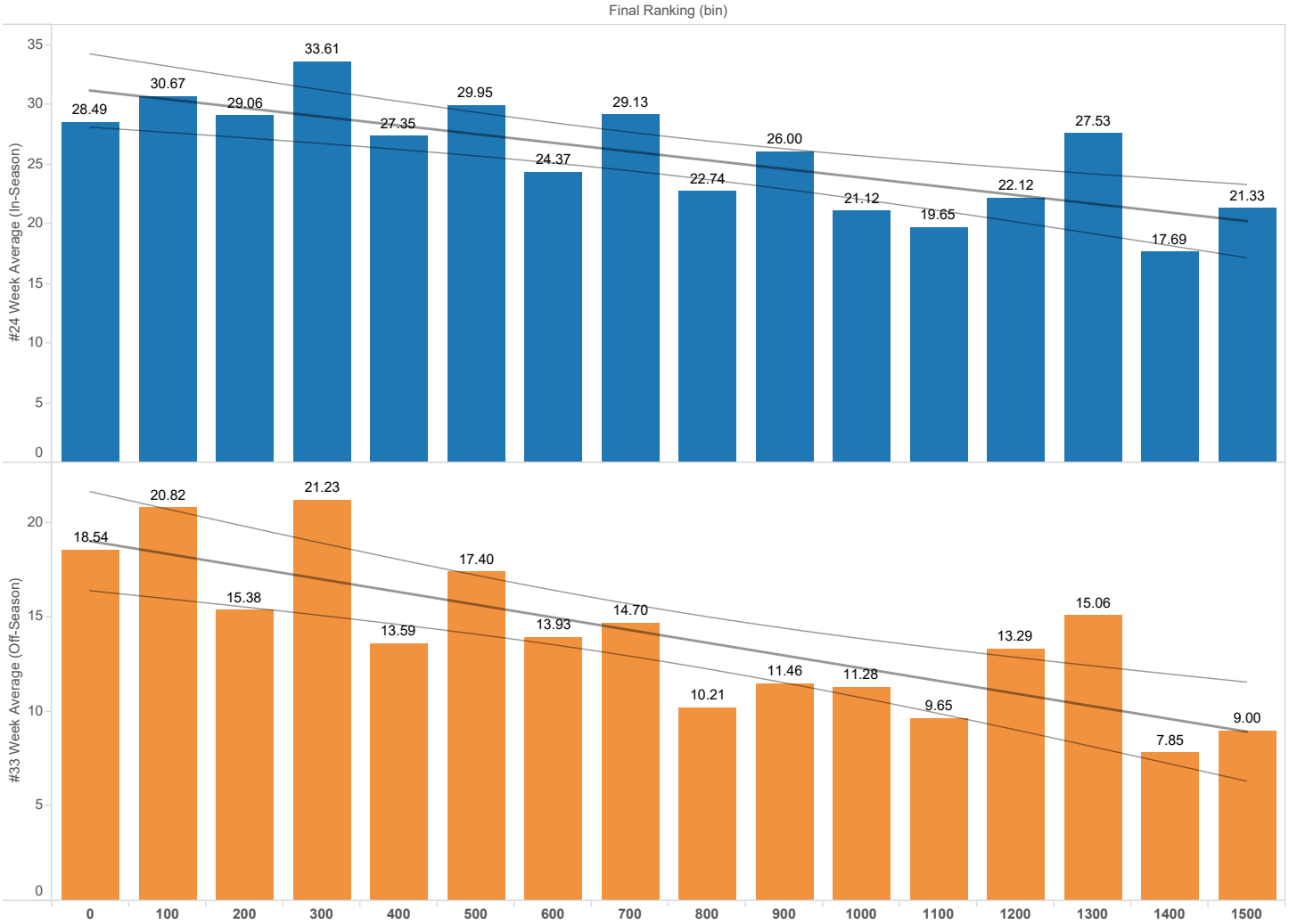
Pit Supplies Value vs Years Experience Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of #39 What is the estimated value in USD of the pit supplies you bring to Official FRC events? (Do... given Years Experience Rank (copy).

Model formula: (Years Experience Rank (copy) + intercept)
Number of modeled observations: 19
Number of filtered observations: 1
Model degrees of freedom: 2
Residual degrees of freedom (DF): 17
SSE (sum squared error): 4.57087e+07
MSE (mean squared error): 2.68874e+06
R-Squared: 0.0328811
Standard error: 1639.74
p-value (significance): 0.457519

Hours per Week vs Final Ranking (bin)



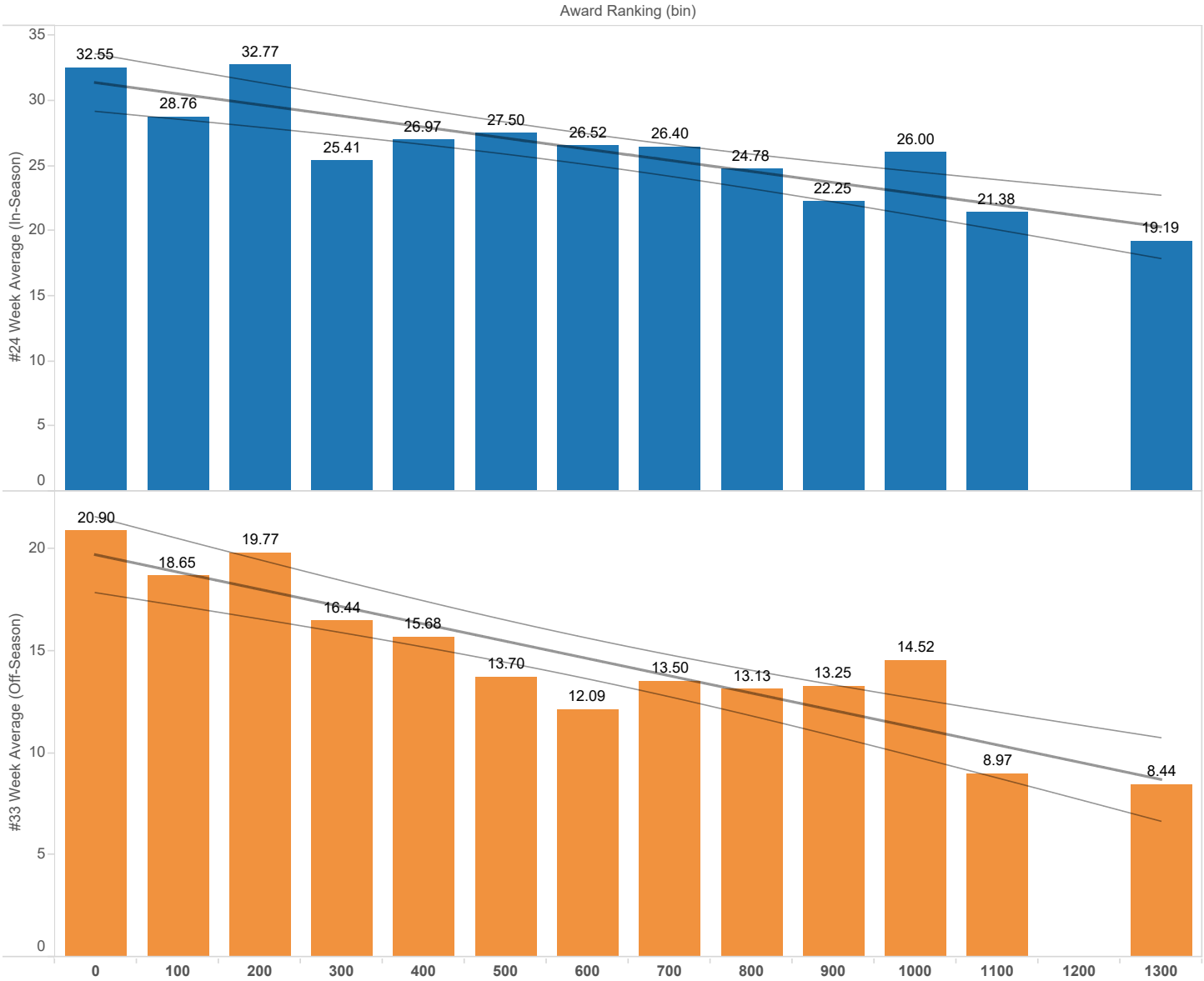
Trend Lines Model
A linear trend model is computed for average of #24 Week Average (In-Season) given Final Ranking (bin). The model may be significant at p <= 0.05.

Model formula: (Final Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 125.722
MSE (mean squared error): 8.98014
R-Squared: 0.589853
Standard error: 2.99669
p-value (significance): 0.0005117

A linear trend model is computed for average of #33 Week Average (Off-Season) given Final Ranking (bin). The model may be significant at p <= 0.05.

Model formula: (Final Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 91.7057
MSE (mean squared error): 6.55041
R-Squared: 0.625802
Standard error: 2.55938
p-value (significance): 0.0002628

Hours per Week vs Award Ranking Component (bin)



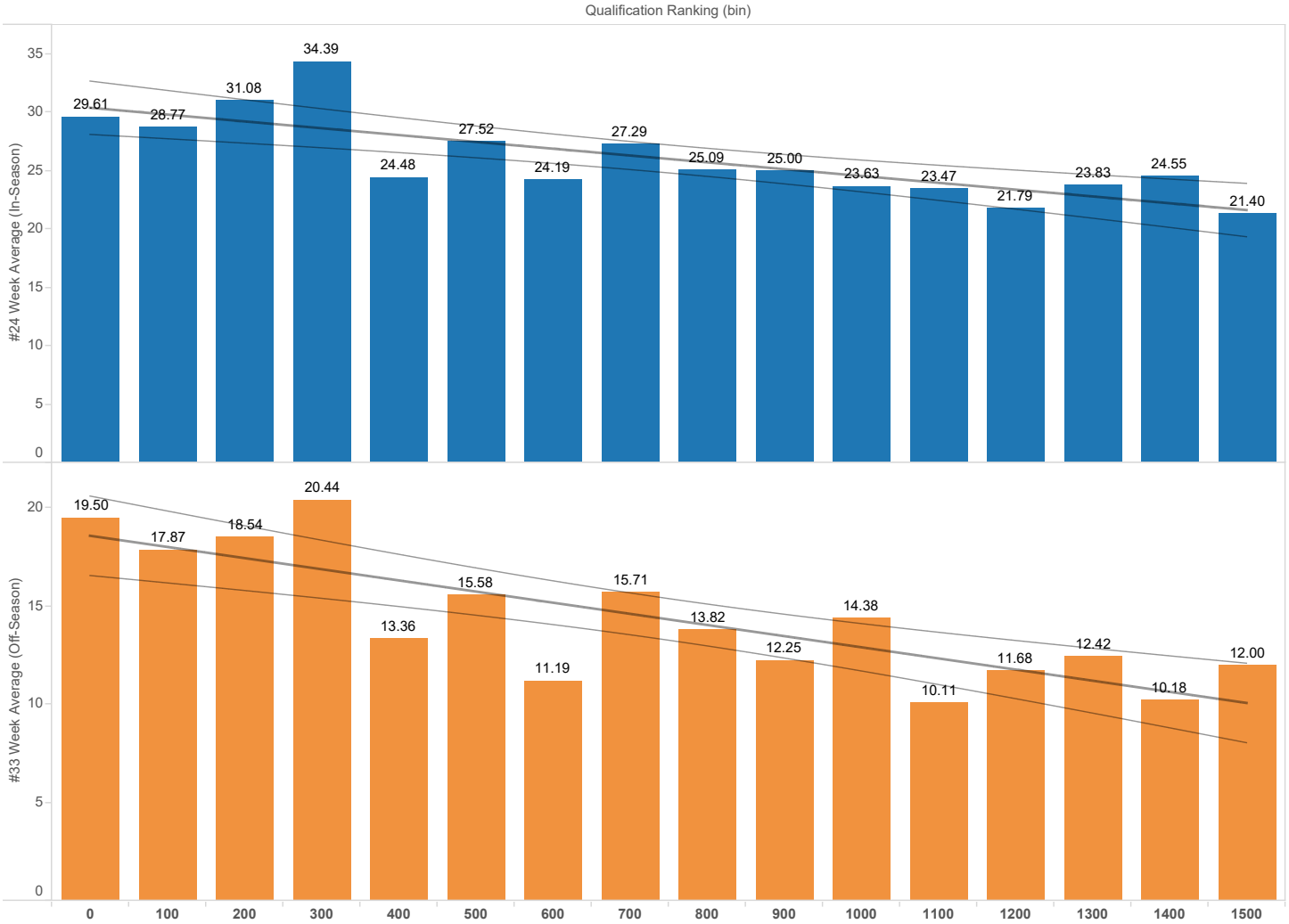
Trend Lines Model
A linear trend model is computed for average of #24 Week Average (In-Season) given Award Ranking (bin). The model may be significant at p <= 0.05.

Model formula: (Award Ranking (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 41.5674
MSE (mean squared error): 3.77885
R-Squared: 0.773151
Standard error: 1.94393
p-value (significance): < 0.0001

A linear trend model is computed for average of #33 Week Average (Off-Season) given Award Ranking (bin). The model may be significant at p <= 0.05.

Model formula: (Award Ranking (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 29.441
MSE (mean squared error): 2.67646
R-Squared: 0.826087
Standard error: 1.63599
p-value (significance): < 0.0001

Hours per Week vs Qualification Ranking Component (bin)



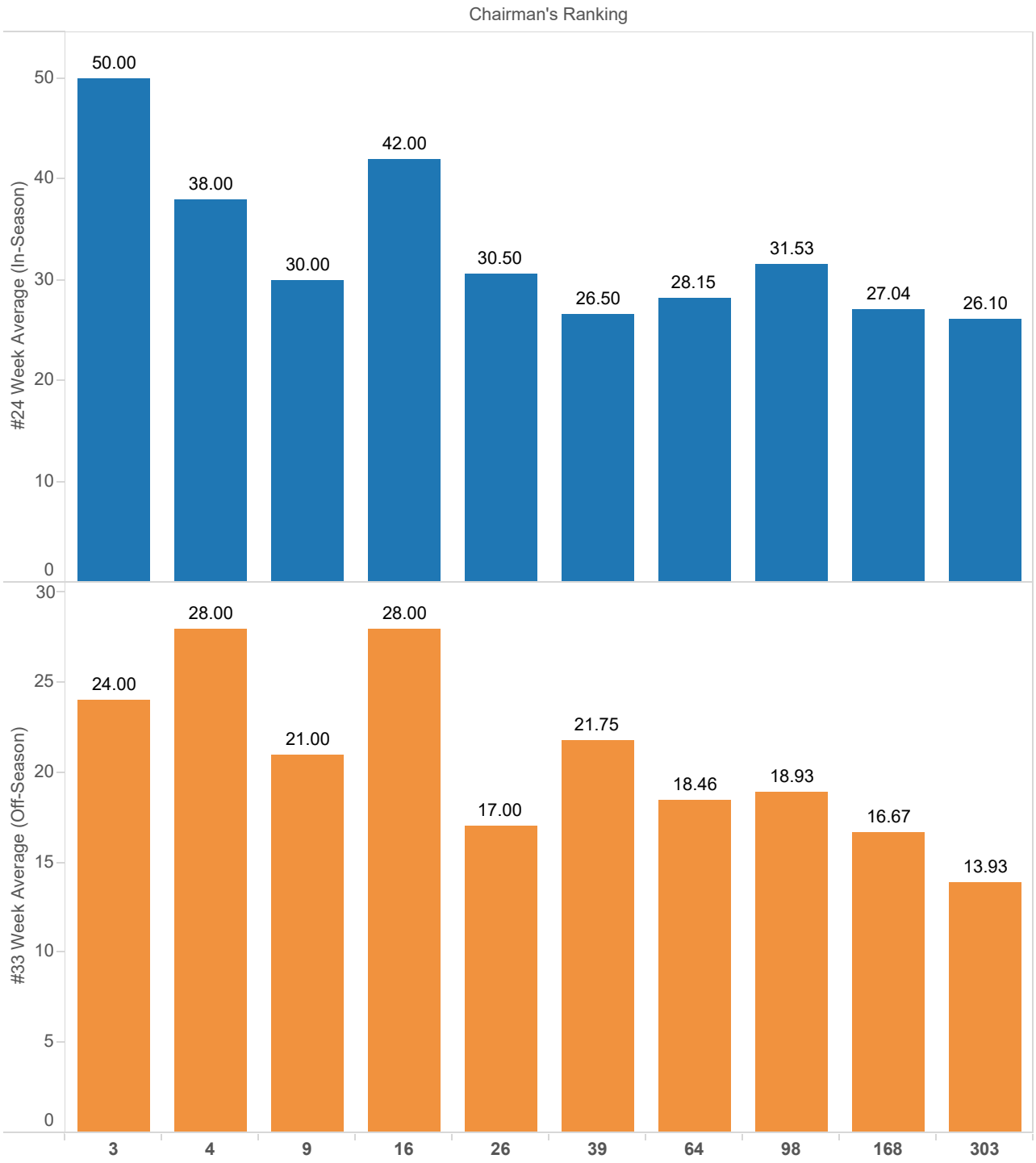
Trend Lines Model
A linear trend model is computed for average of #24 Week Average (In-Season) given Qualification Ranking (bin). The model may be significant at p <= 0.05.

Model formula: (Qualification Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 69.8306
MSE (mean squared error): 4.9879
R-Squared: 0.624605
Standard error: 2.23336
p-value (significance): 0.0002689

A linear trend model is computed for average of #33 Week Average (Off-Season) given Qualification Ranking (bin). The model may be significant at p <= 0.05.

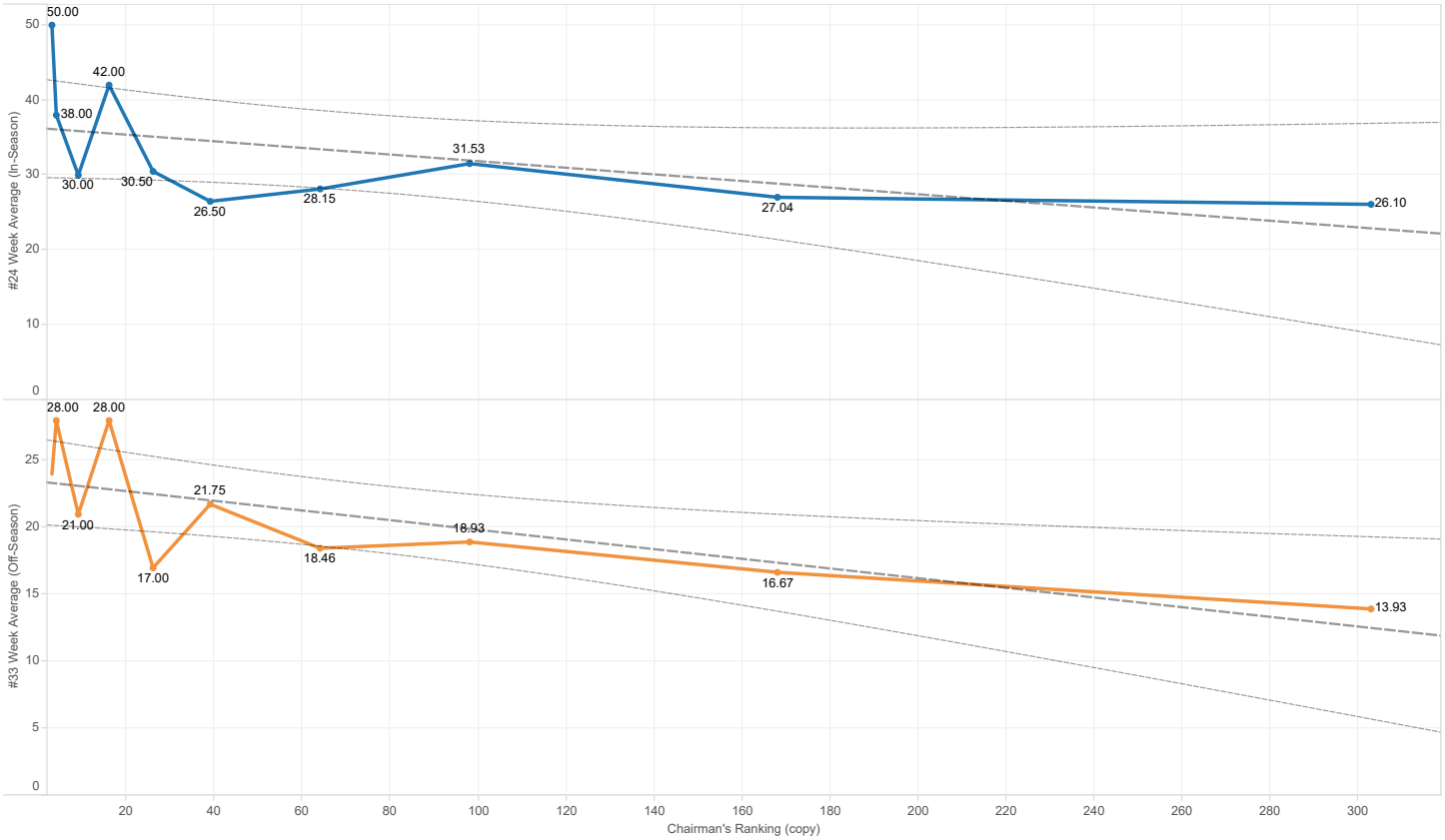
Model formula: (Qualification Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 54.7526
MSE (mean squared error): 3.9109
R-Squared: 0.666953
Standard error: 1.9776
p-value (significance): 0.0001132

Hours per Week vs Chairman's Ranking Component



Average of #24 Week Average (In-Season) and average of #33 Week Average (Off-Season) for each Chairman's Ranking. For pane Average of #24 Week Average (In-Season): The marks are labeled by average of #24 Week Average (In-Season). For pane Average of #33 Week Average (Off-Season): The marks are labeled by average of #33 Week Average (Off-Season).

Hours per Week vs Chairman's Ranking Component (2)



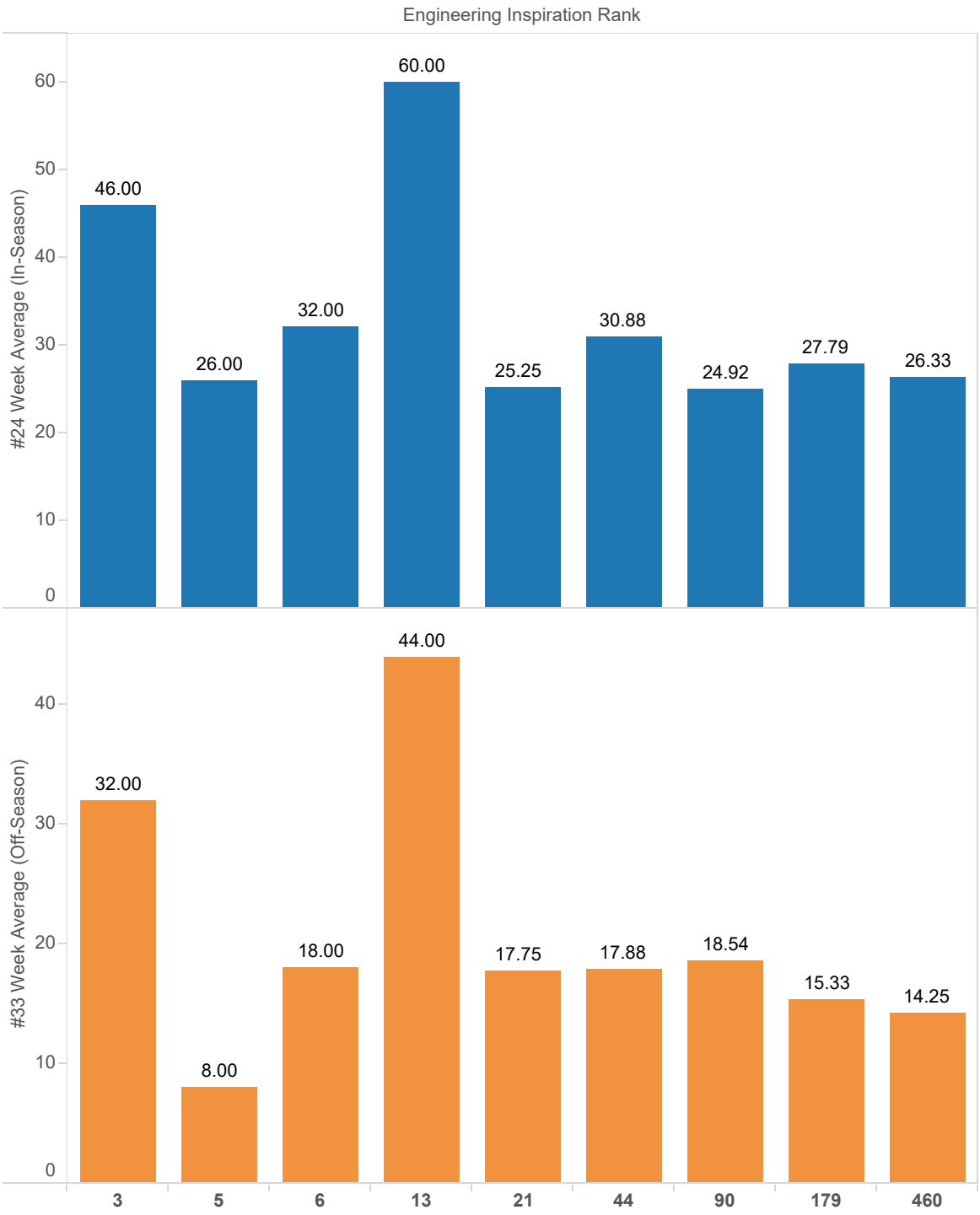
Trend Lines Model
A linear trend model is computed for average of #24 Week Average (In-Season) given Chairman's Ranking (copy).

Model formula: (Chairman's Ranking (copy) + intercept)
Number of modeled observations: 10
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 8
SSE (sum squared error): 399.553
MSE (mean squared error): 49.9441
R-Squared: 0.288061
Standard error: 7.06711
p-value (significance): 0.109697

A linear trend model is computed for average of #33 Week Average (Off-Season) given Chairman's Ranking (copy). The model may be significant at p <= 0.05.

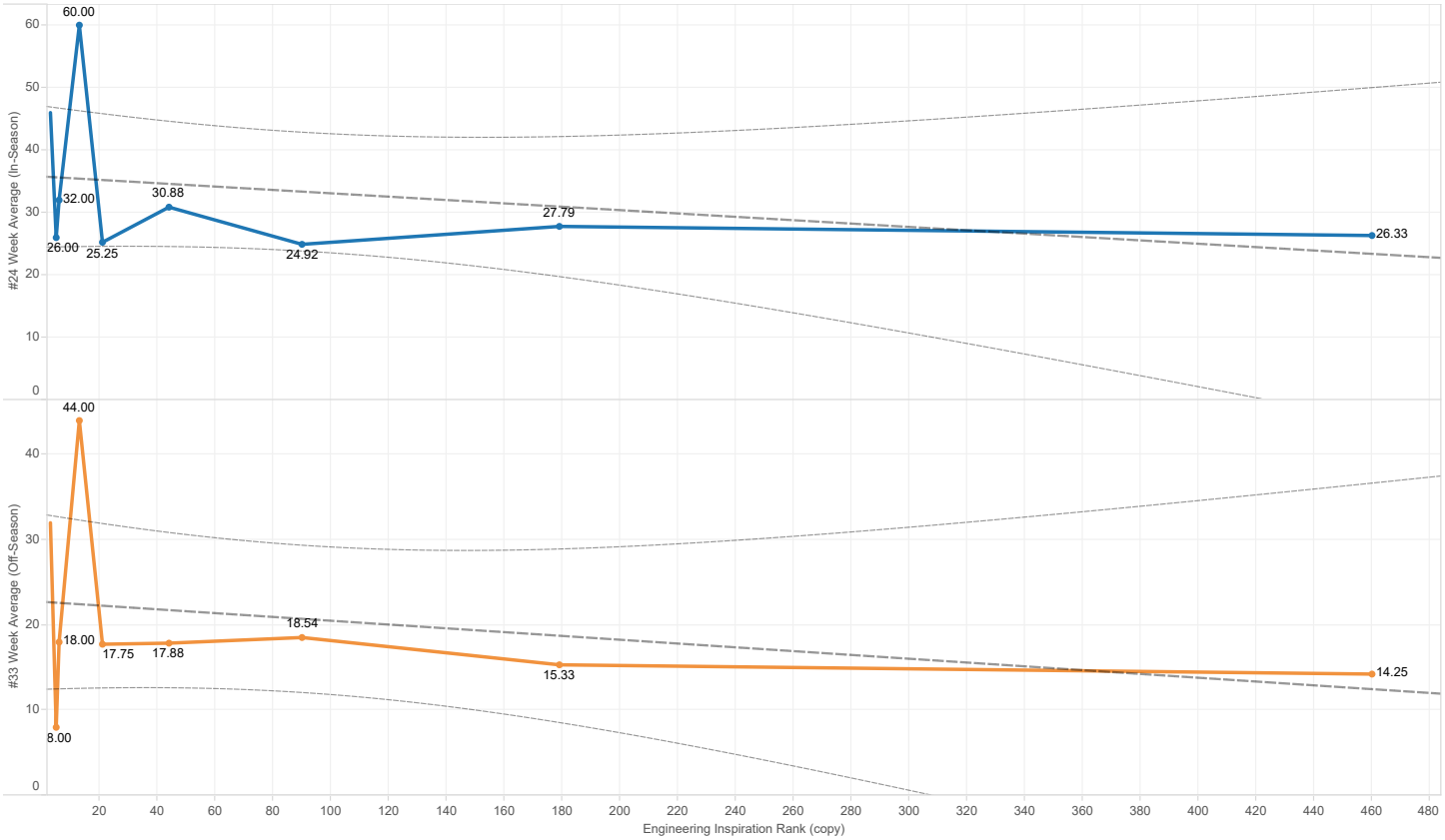
Model formula: (Chairman's Ranking (copy) + intercept)
Number of modeled observations: 10
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 8
SSE (sum squared error): 94.3873
MSE (mean squared error): 11.7984
R-Squared: 0.533897
Standard error: 3.43488
p-value (significance): 0.0163805

Hours per Week vs Engineering Inspiration Ranking Component



Average of #24 Week Average (In-Season) and average of #33 Week Average (Off-Season) for each Engineering Inspiration Rank. For pane Average of #24 Week Average (In-Season): The marks are labeled by average of #24 Week Average (In-Season). For pane Average of #33 Week Average (Off-Season): The marks are labeled by average of #33 Week Average (Off-Season).

Hours per Week vs Engineering Inspiration Ranking Component (2)



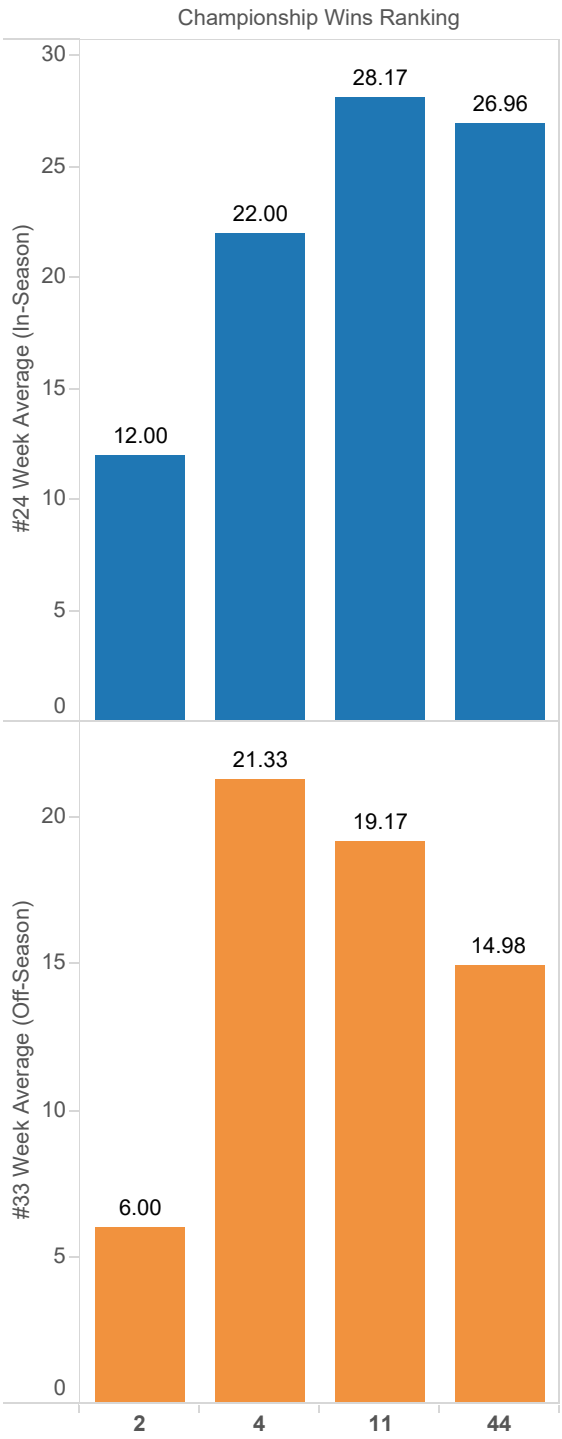
Trend Lines Model
A linear trend model is computed for average of #24 Week Average (In-Season) given Engineering Inspiration Rank (copy).

Model formula: (Engineering Inspiration Rank (copy) + intercept)
Number of modeled observations: 9
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 7
SSE (sum squared error): 1018.8
MSE (mean squared error): 145.543
R-Squared: 0.113192
Standard error: 12.0641
p-value (significance): 0.376013

A linear trend model is computed for average of #33 Week Average (Off-Season) given Engineering Inspiration Rank (copy).

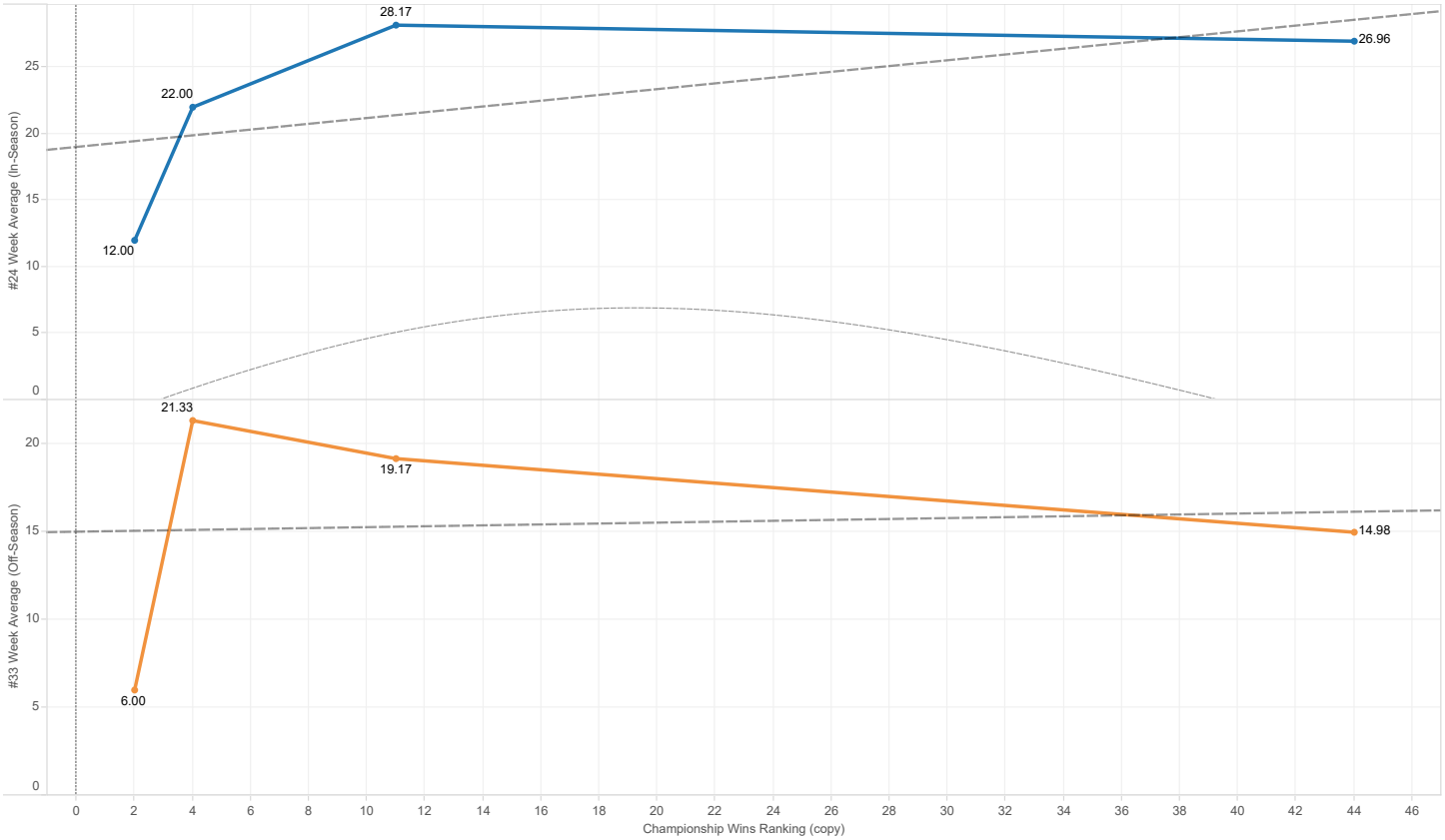
Model formula: (Engineering Inspiration Rank (copy) + intercept)
Number of modeled observations: 9
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 7
SSE (sum squared error): 841.681
MSE (mean squared error): 120.24
R-Squared: 0.0958639
Standard error: 10.9654
p-value (significance): 0.417489

Hours per Week vs Championship Wins Ranking Component



Average of #24 Week Average (In-Season) and average of #33 Week Average (Off-Season) for each Championship Wins Ranking. For pane Average of #24 Week Average (In-Season): The marks are labeled by average of #24 Week Average (In-Season). For pane Average of #33 Week Average (Off-Season): The marks are labeled by average of #33 Week Average (Off-Season).

Hours per Week vs Championship Wins Ranking Component (2)



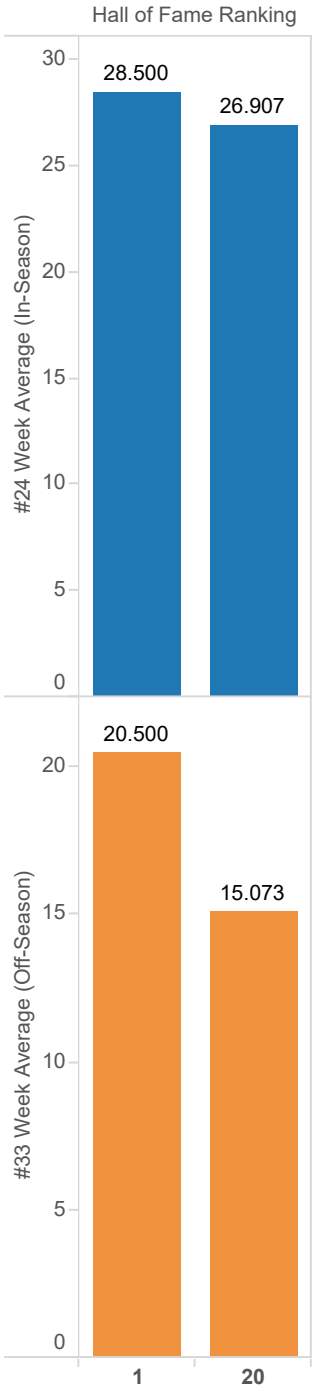
Trend Lines Model
A linear trend model is computed for average of #24 Week Average (In-Season) given Championship Wins Ranking (copy).

Model formula: (Championship Wins Ranking (copy) + intercept)
Number of modeled observations: 4
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 2
SSE (sum squared error): 108.288
MSE (mean squared error): 54.1442
R-Squared: 0.332885
Standard error: 7.35828
p-value (significance): 0.423038

A linear trend model is computed for average of #33 Week Average (Off-Season) given Championship Wins Ranking (copy).

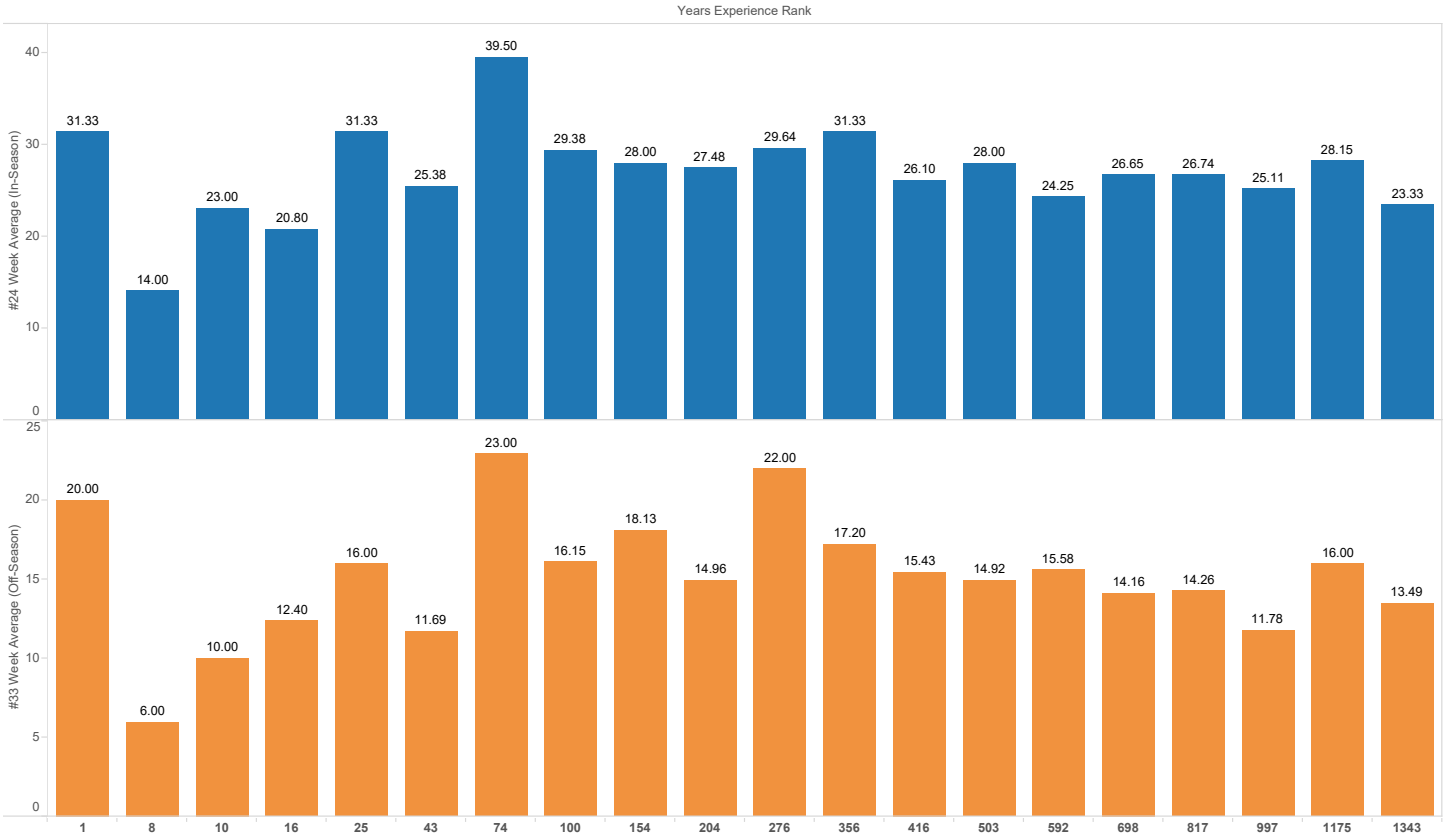
Model formula: (Championship Wins Ranking (copy) + intercept)
Number of modeled observations: 4
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 2
SSE (sum squared error): 137.162
MSE (mean squared error): 68.5812
R-Squared: 0.005548
Standard error: 8.28137
p-value (significance): 0.925515

Hours per Week vs Hall of Fame Ranking Component



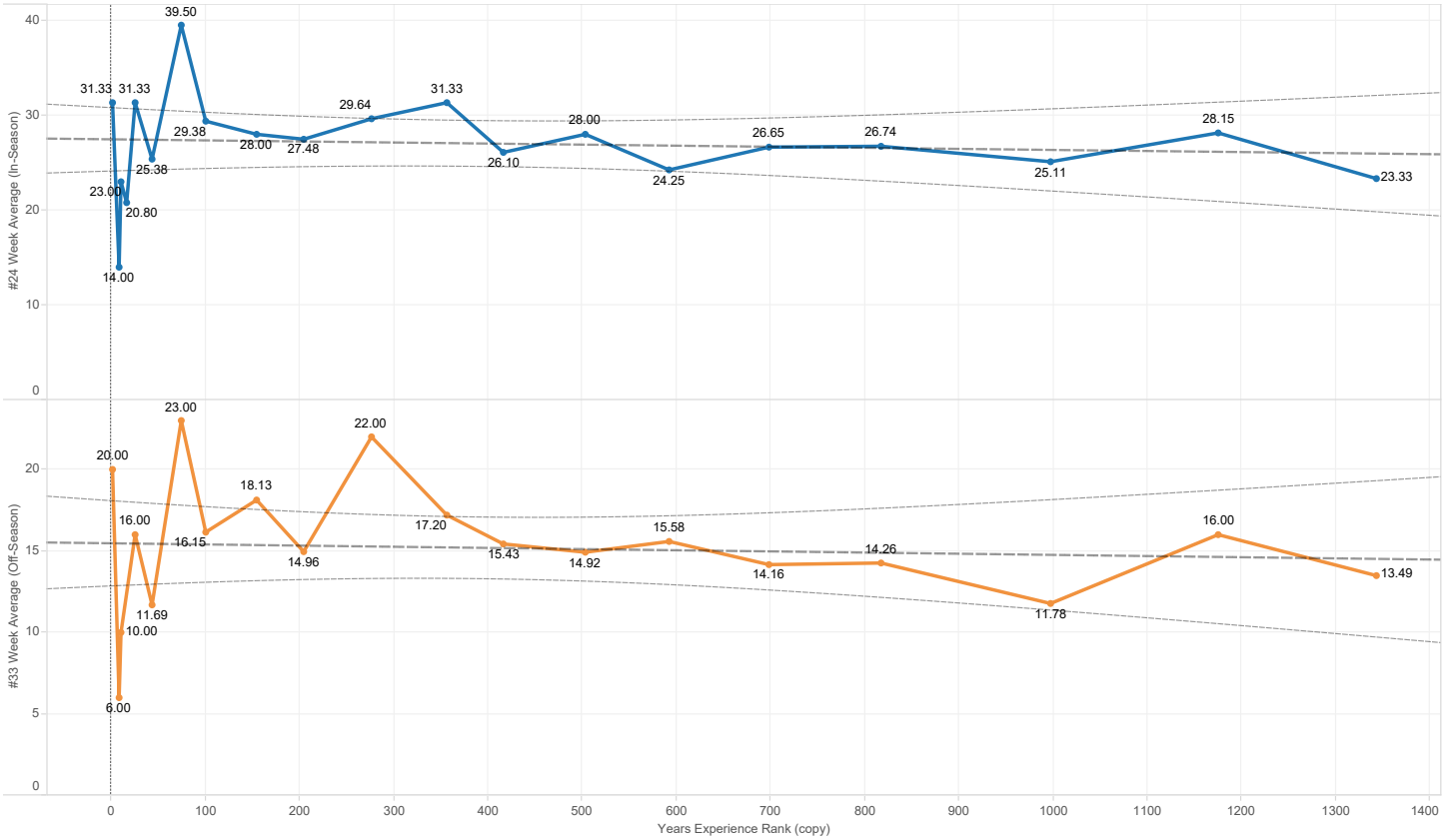
Average of #24 Week Average (In-Season) and average of #33 Week Average (Off-Season) for each Hall of Fame Ranking. For pane Average of #24 Week Average (In-Season): The marks are labeled by average of #24 Week Average (In-Season). For pane Average of #33 Week Average (Off-Season): The marks are labeled by average of #33 Week Average (Off-Season).

Hours per Week vs Years Experience Ranking Component



Average of #24 Week Average (In-Season) and average of #33 Week Average (Off-Season) for each Years Experience Rank. For pane Average of #24 Week Average (In-Season): The marks are labeled by average of #24 Week Average (In-Season). For pane Average of #33 Week Average (Off-Season): The marks are labeled by average of #33 Week Average (Off-Season).

Hours per Week vs Years Experience Ranking Component (2)



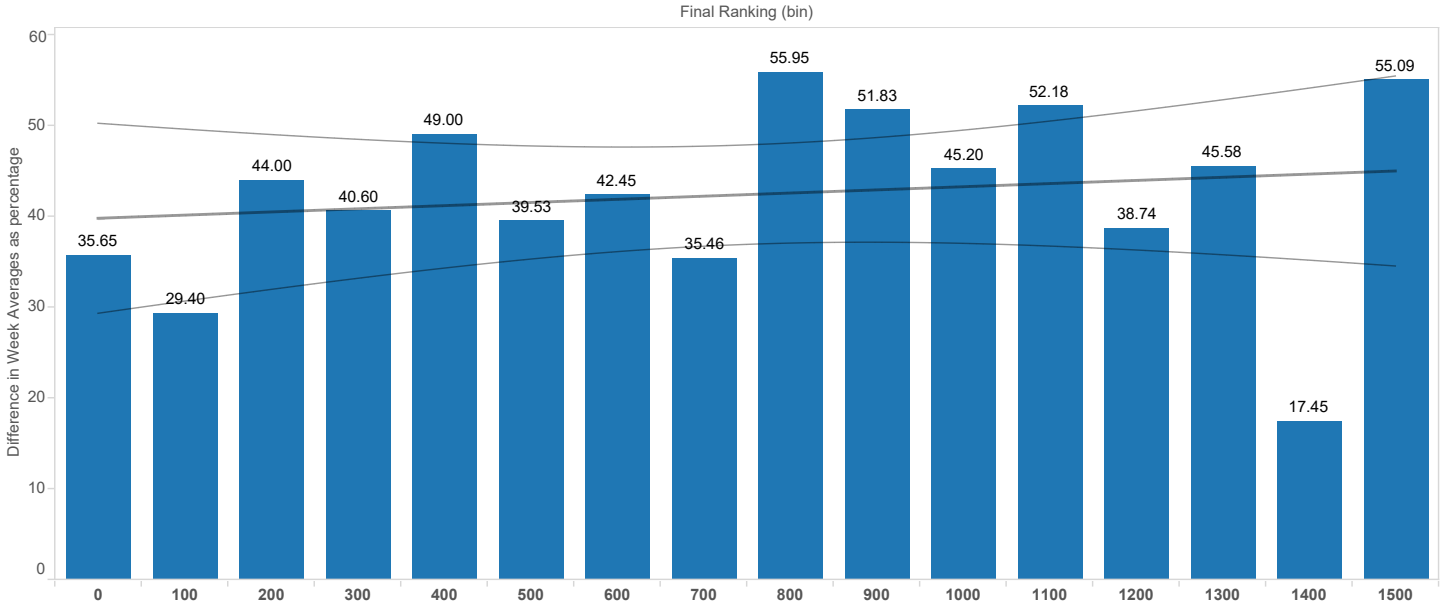
Trend Lines Model
A linear trend model is computed for average of #24 Week Average (In-Season) given Years Experience Rank (copy).

Model formula: (Years Experience Rank (copy) + intercept)
Number of modeled observations: 20
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 18
SSE (sum squared error): 476.201
MSE (mean squared error): 26.4556
R-Squared: 0.0087104
Standard error: 5.1435
p-value (significance): 0.695529

A linear trend model is computed for average of #33 Week Average (Off-Season) given Years Experience Rank (copy).

Model formula: (Years Experience Rank (copy) + intercept)
Number of modeled observations: 20
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 18
SSE (sum squared error): 291.895
MSE (mean squared error): 16.2164
R-Squared: 0.0057818
Standard error: 4.02696
p-value (significance): 0.750016

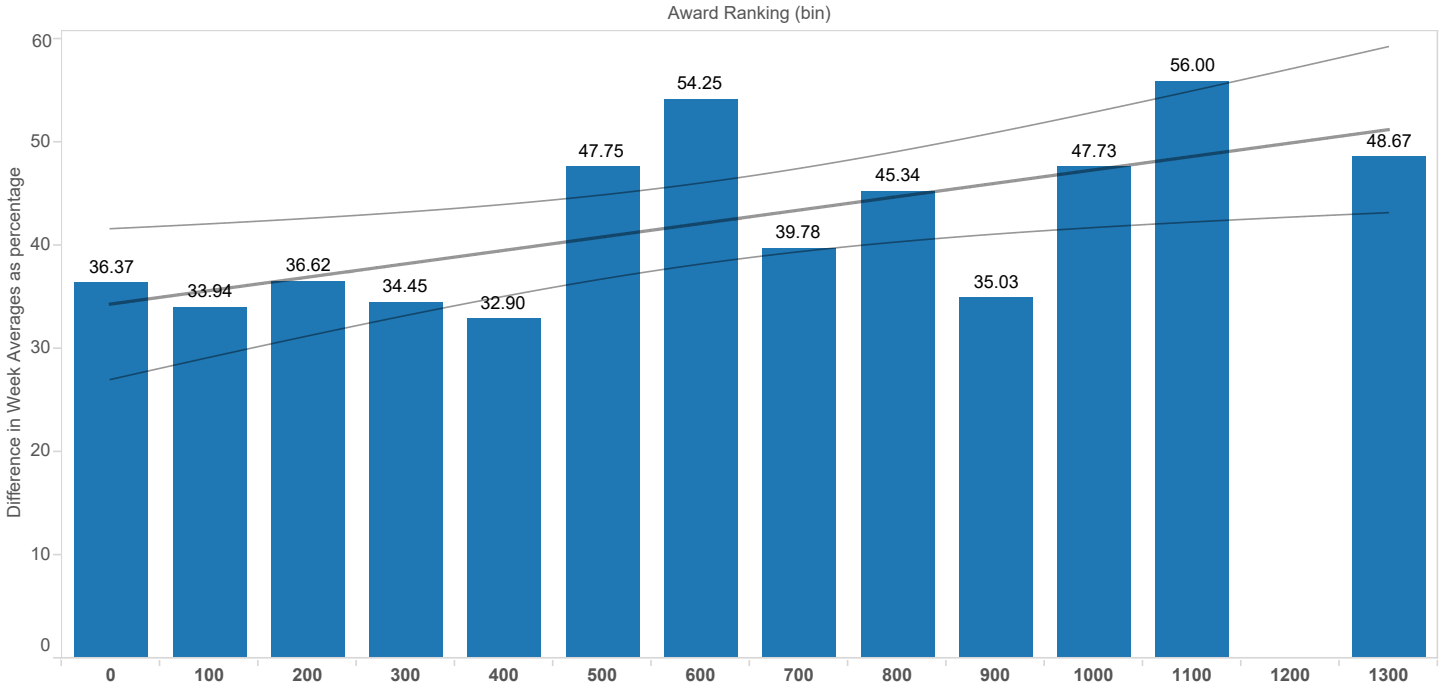
Percent Decrease between In-Season and Off-Season Hours vs Final Ranking (bin)



Trend Lines Model
A linear trend model is computed for average of Difference in Week Averages as percentage given Final Ranking (bin).

Model formula: (Final Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 1462.5
MSE (mean squared error): 104.465
R-Squared: 0.0272695
Standard error: 10.2208
p-value (significance): 0.541082

Percent Decrease between In-Season and Off-Season Hours vs Award Ranking Component (bin)

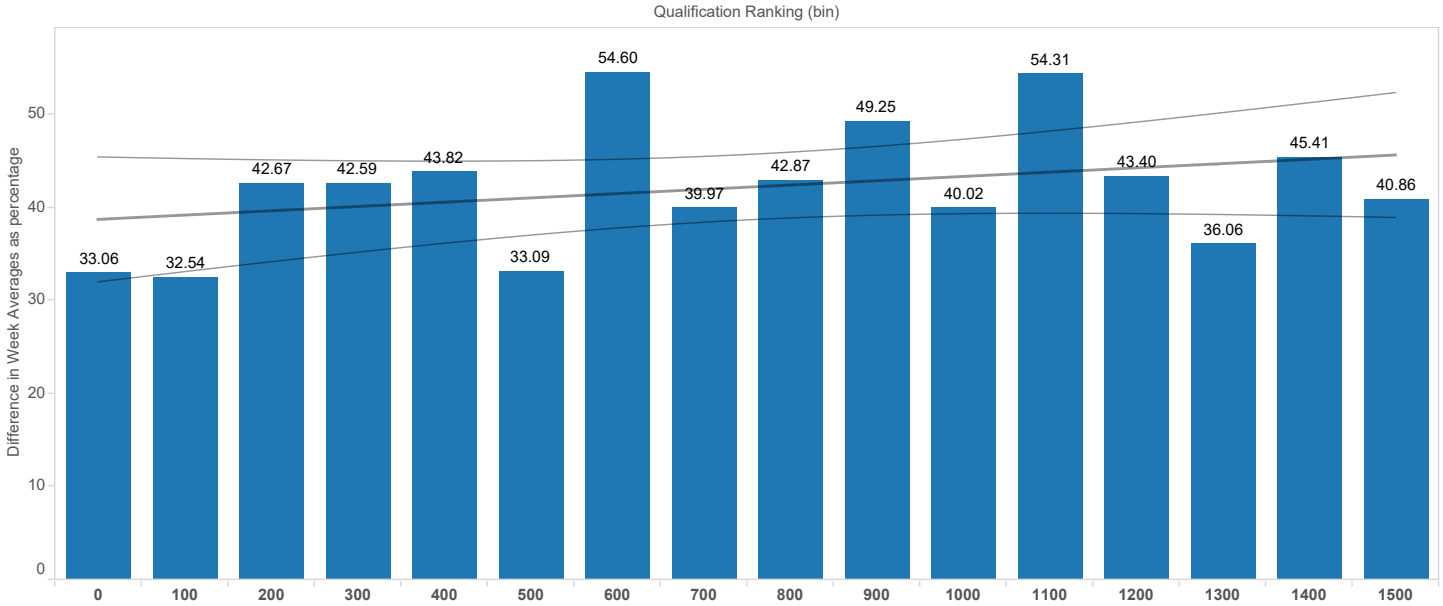


Trend Lines Model

A linear trend model is computed for average of Difference in Week Averages as percentage given Award Ranking (bin). The model may be significant at p <= 0.05.

Model formula: (Award Ranking (bin) + intercept)
Number of modeled observations: 13
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 11
SSE (sum squared error): 456.03
MSE (mean squared error): 41.4572
R-Squared: 0.419986
Standard error: 6.43873
p-value (significance): 0.0166009

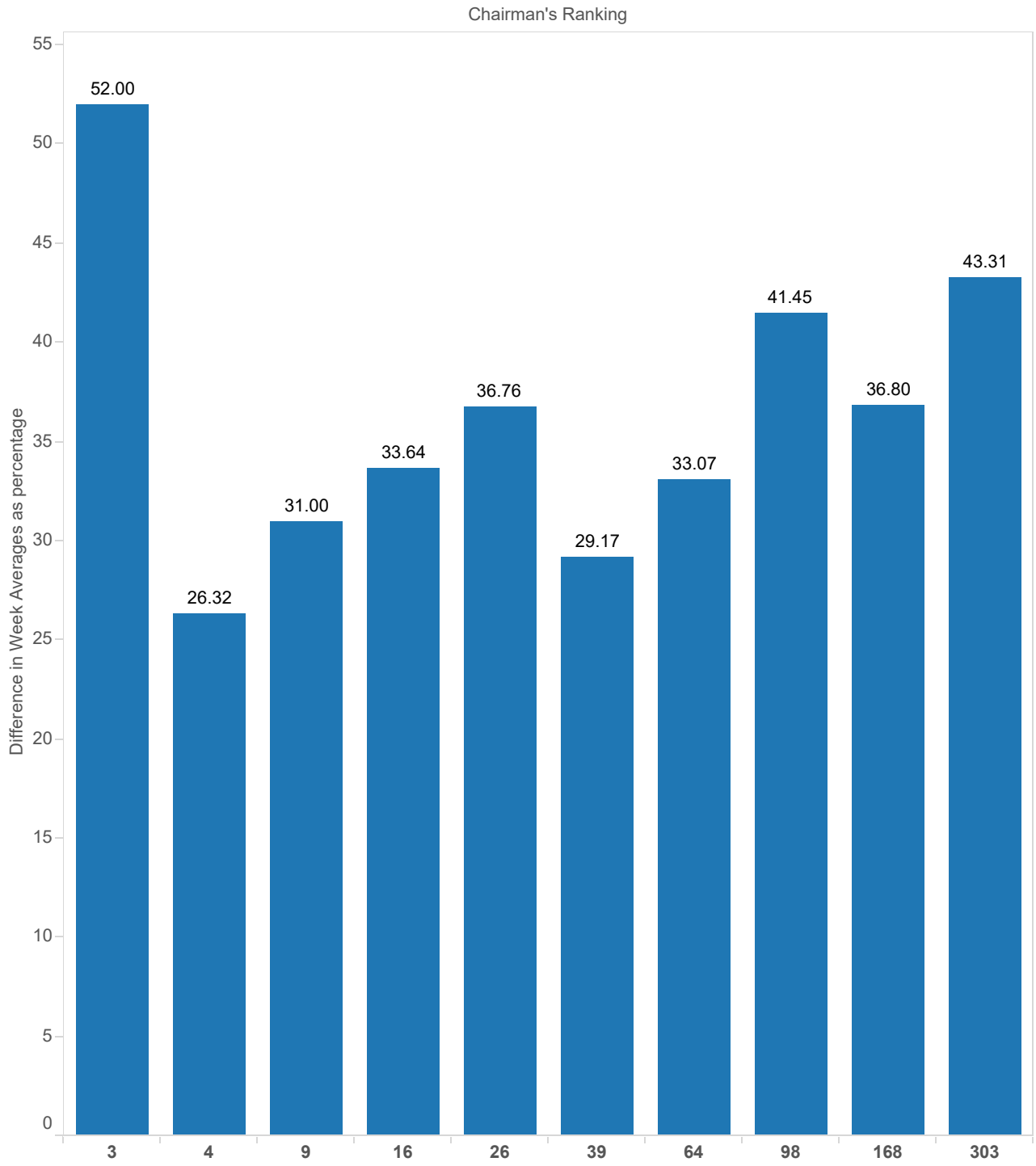
Percent Decrease between In-Season and Off-Season Hours vs Qualification Ranking Component (bin)



Trend Lines Model
A linear trend model is computed for average of Difference in Week Averages as percentage given Qualification Ranking (bin).

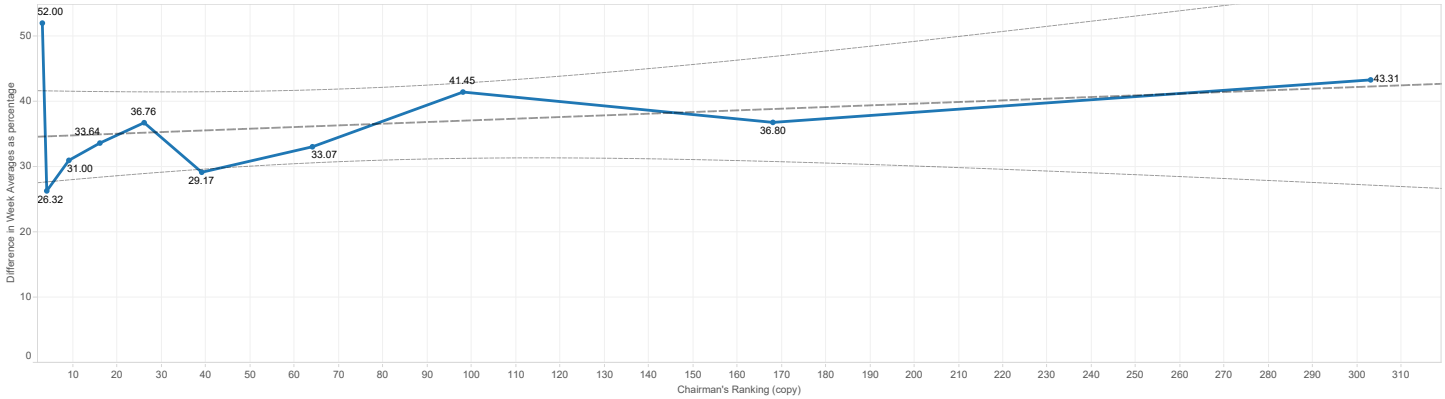
Model formula: (Qualification Ranking (bin) + intercept)
Number of modeled observations: 16
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 14
SSE (sum squared error): 602.118
MSE (mean squared error): 43.0084
R-Squared: 0.107312
Standard error: 6.55808
p-value (significance): 0.215502

Percent Decrease between In-Season and Off-Season Hours vs Chairman's Ranking Component



Average of Difference in Week Averages as percentage for each Chairman's Ranking. The marks are labeled by average of Difference in Week Averages as percentage.

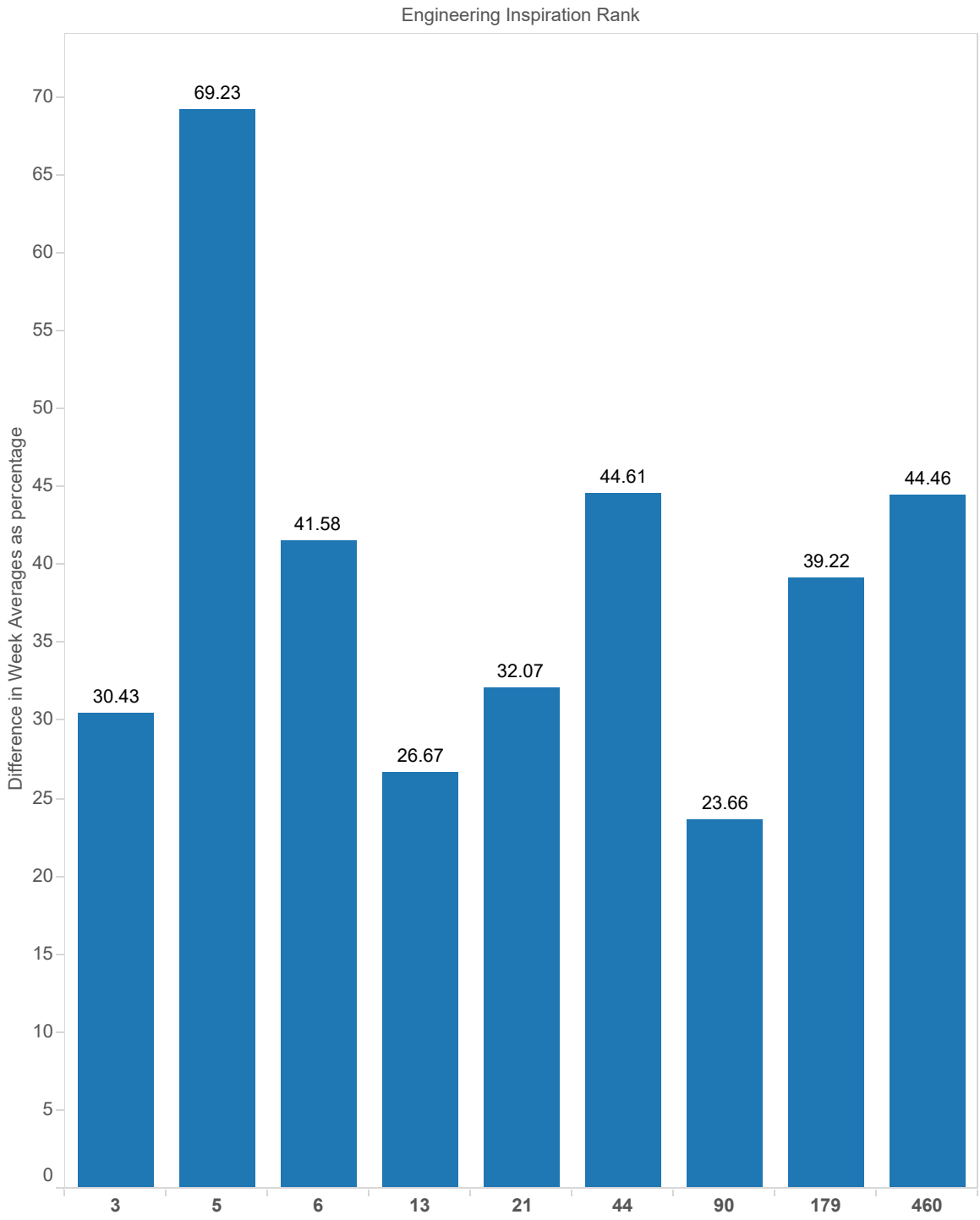
Percent Decrease between In-Season and Off-Season Hours vs Chairman's Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of Difference in Week Averages as percentage given Chairman's Ranking (copy).

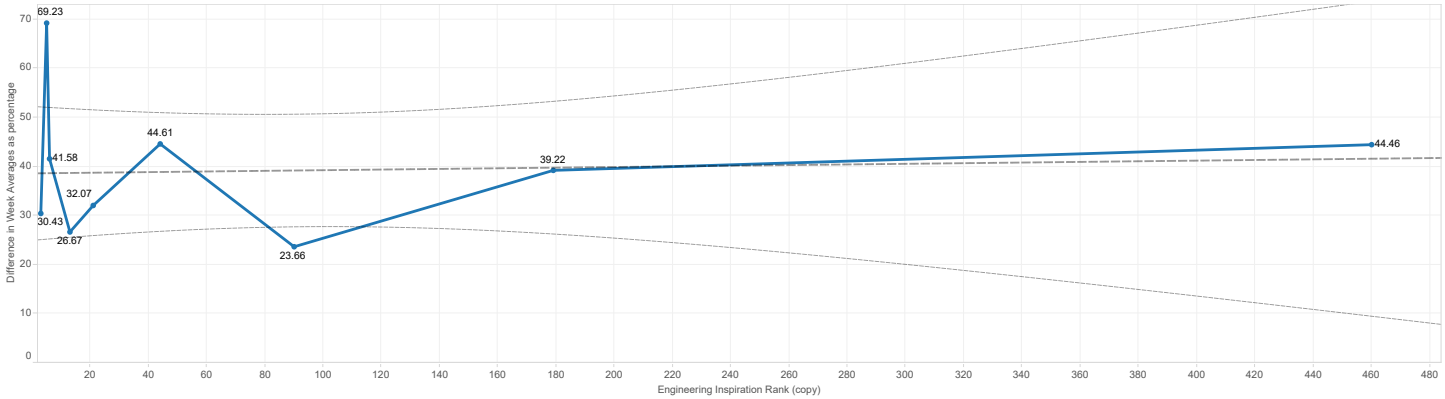
Model formula: (Chairman's Ranking (copy) + intercept)
Number of modeled observations: 10
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 8
SSE (sum squared error): 464.565
MSE (mean squared error): 58.0706
R-Squared: 0.104325
Standard error: 7.62041
p-value (significance): 0.362663

Percent Decrease between In-Season and Off-Season Hours vs Engineering Inspiration Ranking Component



Average of Difference in Week Averages as percentage for each Engineering Inspiration Rank. The marks are labeled by average of Difference in Week Averages as percentage.

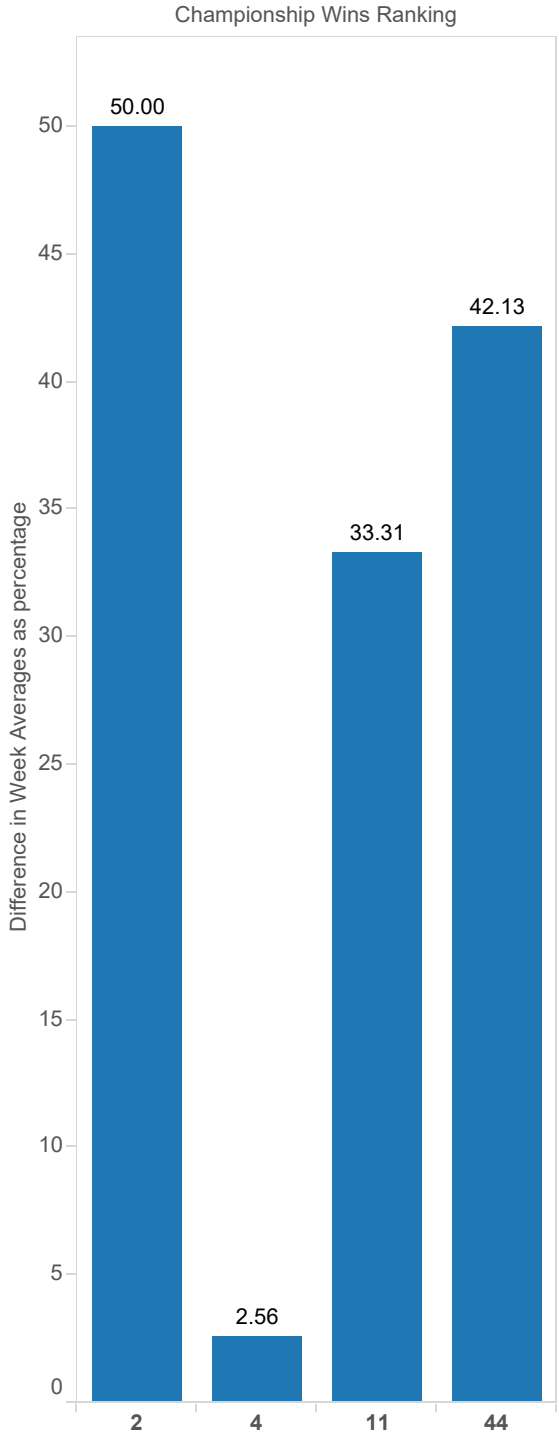
Percent Decrease between In-Season and Off-Season Hours vs Engineering Inspiration Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of Difference in Week Averages as percentage given Engineering Inspiration Rank (copy).

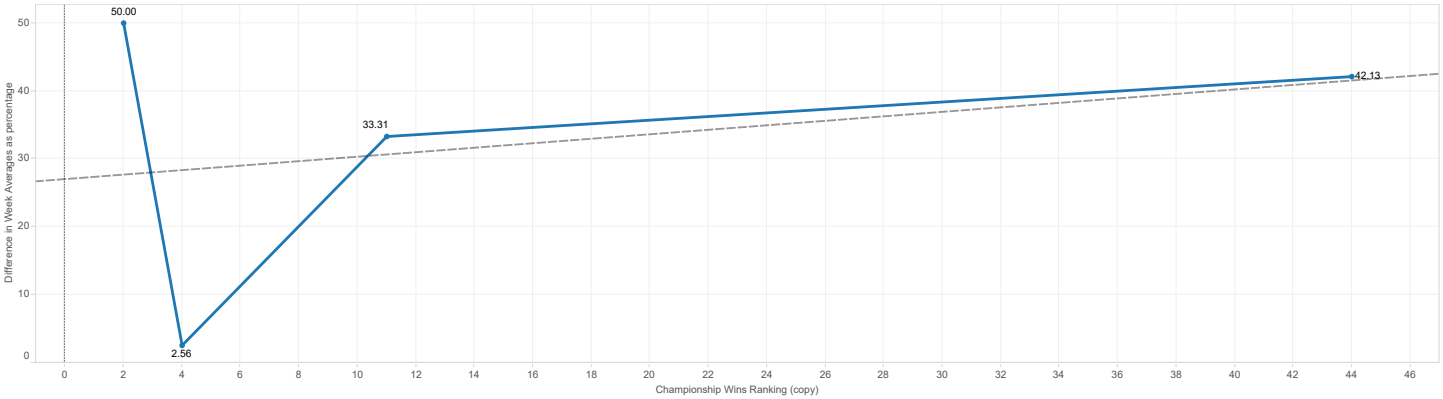
Model formula: (Engineering Inspiration Rank (copy) + intercept)
Number of modeled observations: 9
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 7
SSE (sum squared error): 1483.14
MSE (mean squared error): 211.877
R-Squared: 0.0050833
Standard error: 14.556
p-value (significance): 0.855368

Percent Decrease between In-Season and Off-Season Hours vs Championship Wins Ranking Component



Average of Difference in Week Averages as percentage for each Championship Wins Ranking. The marks are labeled by average of Difference in Week Averages as percentage.

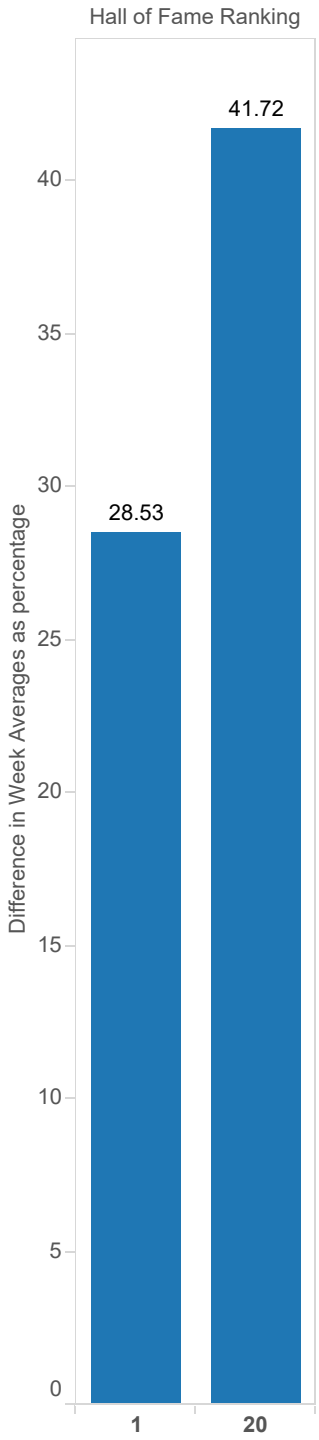
Percent Decrease between In-Season and Off-Season Hours vs Championship Wins Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of Difference in Week Averages as percentage given Championship Wins Ranking (copy).

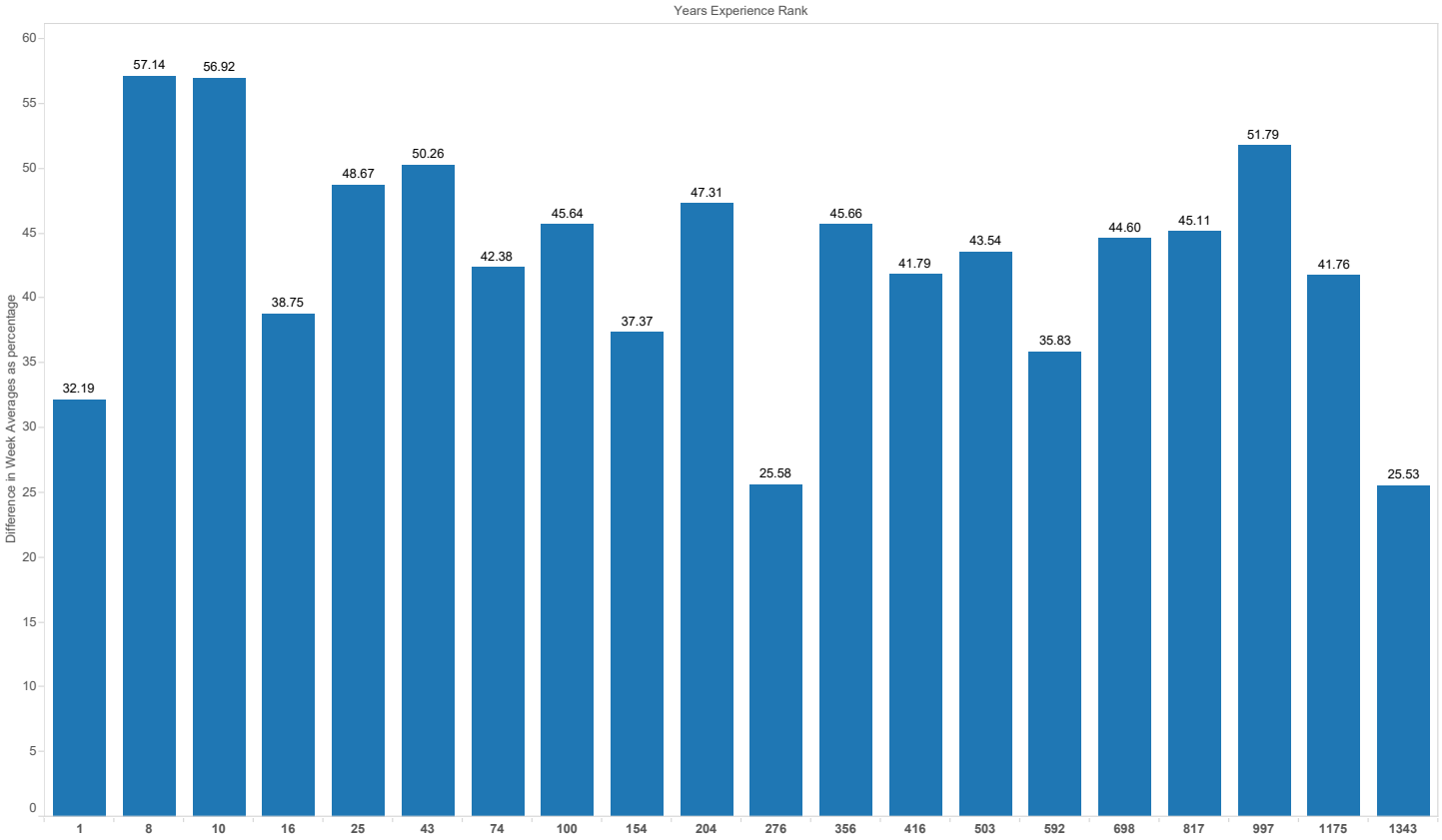
Model formula: (Championship Wins Ranking (copy) + intercept)
Number of modeled observations: 4
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 2
SSE (sum squared error): 1169.98
MSE (mean squared error): 584.989
R-Squared: 0.0963513
Standard error: 24.1865
p-value (significance): 0.689595

Percent Decrease between In-Season and Off-Season Hours vs Hall of Fame Ranking Component



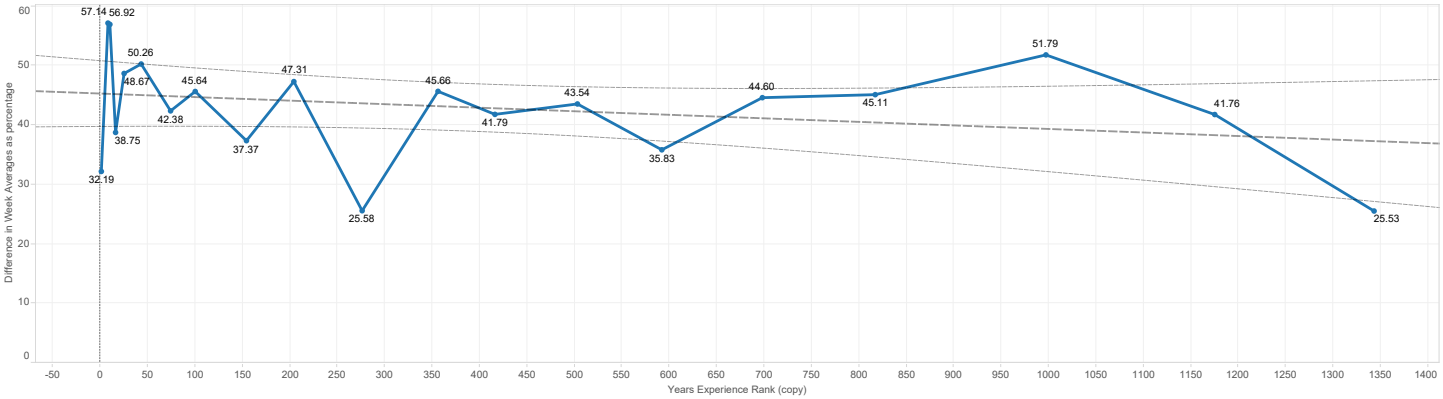
Average of Difference in Week Averages as percentage for each Hall of Fame Ranking. The marks are labeled by average of Difference in Week Averages as percentage.

Percent Decrease between In-Season and Off-Season Hours vs Years Experience Ranking Component



Average of Difference in Week Averages as percentage for each Years Experience Rank. The marks are labeled by average of Difference in Week Averages as percentage.

Percent Decrease between In-Season and Off-Season Hours vs Years Experience Ranking Component (2)



Trend Lines Model
A linear trend model is computed for average of Difference in Week Averages as percentage given Years Experience Rank (copy).

Model formula: (Years Experience Rank (copy) + intercept)
Number of modeled observations: 20
Number of filtered observations: 0
Model degrees of freedom: 2
Residual degrees of freedom (DF): 18
SSE (sum squared error): 1306.82
MSE (mean squared error): 72.6008
R-Squared: 0.0833046
Standard error: 8.52061
p-value (significance): 0.217153