



# 2011 Sabotage Report

## INTRODUCTION

Following the 2011 Chiditarod, a survey was emailed to racers, asking them to provide feedback on their experience. The survey was emailed to approximately 500 racers, 94 of which responded. The survey asked racers many closed- and open-ended questions about their racing experience, many times asking for open feedback on the events of the race day and suggestions for improving various elements of the Chiditarod in future years. This report here offers both descriptive statistics of the survey responses as well as some basic analysis of the relationship between sabotage and racing experience.

**Caveat #1:** The data here isn't perfect. We rely on racers to respond to us, and we only have the data we are given by survey respondents to work with. We offer many thanks to those who replied to the survey last year. We do try to put your feedback to good use.

**Caveat #2:** We're a batch of seriously smart cookies, but none of us are actually math majors. There is always a chance that we just bungled some of the statistical analysis. That's unlikely, but it's possible.

All of the analysis was coded and the findings rendered in chart and graph form using Microsoft Excel 2008 for Mac, v 12.2.3. All descriptive statistics and statistical analyses were generated using Stata/IC 10.1 for Macintosh.

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**Hypothesis 1:** Prior to analyzing the 2011 Chiditarod Survey results, we believed that being a first-time racer increases the likelihood that someone will suffer sabotage, and that that sabotage suffered will be more severe for first-time racers.

**Spoiler Alert:** Yea, the data pretty strongly supports this hypothesis. First-timers just haven't learned how to stay out of trouble yet.

**Hypothesis 2:** We also suspected that being a first-time racer decreases the likelihood that racers will dish out sabotage. We thought that first-time racers who got involved in an sabotage were probably on the receiving end.

**Spoiler Alert:** \_\_\_\_\_ Actually, no, the data doesn't support this at all. There is no evidence that first-timers deal out any more or less sabotage than anyone else. Damn, y'all evil.

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## HOW WE CODED THE SURVEY RESPONSES

This report is focusing on the answers to **two questions** on the survey:

1. “How many Chiditarods have you participated in?”
2. “Did you dish out or receive any sabotage? If so, what form did it take? What was the reaction?”

The answers to these questions were then recoded according to both a quantitative and a qualitative coding scheme. Answers to **question 1** were coded into a binary variable: 1 if racers were first timers, 0 if they were not. Answers to **question 2** were coded into 2 binary variables. The first is an indicator variable that notes whether the person reported *receiving* sabotage: 1 if they did, 0 if they didn't. The second was also an indicator variable coded to note whether or not the racer reported *dishing out* sabotage: 1 if they did, 0 if they didn't.

In addition to this yes/no coding for reported sabotage and racing experience, all reported incidents of sabotage, both dealt out and received, were closely analyzed and classified into eight general categories, which reflected general trends in sabotage activity. These categories were developed from a close reading of all reported sabotage incidents in the 2011 survey. The categories developed to describe all reported types of sabotage include:

- **They tying up or locking up of carts** – This includes everything from zip-tying carts together, duct taping carts to telephone poles, saran wrapping carts, chaining cinderblocks and other weights to carts, and other varieties of cart bondage.
  - **Cart hiding and stashing** – Your cart has been relocated to the back of the bar, the other side of the street, the dumpster, to the second story of the building, etc.
  - **Theft of food or cart components** – Theft of food donations from carts; theft of artistic components, like decorations and art pieces, or technical components, like ropes and steering mechanisms, from carts.
  - **Repurposing Sticky Substances** – The relocation of peanut butter, molasses, whipped cream, shaving cream, Vaseline, or a variety of other viscous fluids onto your cart or your person.
  - **Creative/Happy Sabotage** – Someone has surreptitiously applied glitter, stickers, and My Little Ponies to your cart. Wtf.
  - **Disabling Wheels** – Applying obscene amounts of duct tape or some other bulky material to shopping cart wheels for the purposes of hindering their movement and making the cart a real pain in the butt to drag along.
  - **Psy Ops** – This is creative sabotage that is intended to trick other teams into thinking that it is to their advantage to violate the rules of the race. A recent example involves a competing team handing out “free passes” to skip one checkpoint to other teams. This was not a sanctioned “free pass”. Many teams saw through the ruse, but others were swindled and sacrificed a significant amount of time on the diversion of “skipping” a checkpoint. This sort of sabotage is highly discouraged. If anyone is caught pulling these kinds of shenanigans, there will be penalties, and they will involve lengthy chicken dances and lots of jujubes for the judges.
  - **Petty Theft** – We deeply regret that someone reported having their personal belongings swiped. This is very unfortunate. It is also very uncommon. There is a lot of camaraderie
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among Chiditarod racers, and most folks will help each other out in a pinch. But, just in case, please keep an eye on your stuff.

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## WHAT THE SURVEY RESULTS LOOK LIKE

More than half of survey respondents indicated that the 2011 Chiditarod was their first race ever. Racer experience tapered off predictably after that (See Table 1).

<b>Racer Experience</b>		
No. of Chiditarod Races Run (including 2011)	No. of Respondents	Percentage
1	51	54.26
2	24	25.53
3	9	9.57
4	3	3.19
5	4	4.26
6	3	3.19
<b>Total</b>	<b>94</b>	<b>100</b>

Table 1: Reported Racer Experience in Years

Based on the reported incidents of sabotage from the 2011 Chiditarod Survey (See Table 2), the tying or locking up of carts is far and away the most common form of sabotage (34.04%), followed by cart stashing and relocation (14.89%). These two forms of sabotage alone make up nearly half of all the sabotage that was reported in the 2011 Chiditarod Survey.

<b>Reported Incidents of Sabotage</b>		
Type of Sabotage	No. Reported Incidents	Percentage
Tying or Locking up Carts	32	34.04
Cart Hiding/Stashing	14	14.89
Theft of Food or Cart Components	12	12.77
Repurposing Sticky Substances	11	11.7
Creative/Happy Sabotage	10	10.64
Disabling Wheels	8	8.51
Psy Ops	6	6.38
Petty Theft	1	1.06
<b>Total</b>	<b>94</b>	<b>100%</b>

Table 2: Reported Incidents of Sabotage, Dished-out and Received

Finally, while it is difficult to draw any statistically significant conclusions from crude distributions of sabotage across the two classes of racers (first timers and experienced racers), we think that tables are really pretty and wanted to make more of them. So, we calculated the

percentage of racers in each class who were subject to sabotage and the percentage of racers in each class that dished out sabotage. This breakdown indicates that more first-time racers received sabotage than experienced racers (56.86% vs. 23.26%, respectively; See Table 3) but that first-time racers and experienced racers dished out sabotage on their fellow racers in similar numbers (See Table 4). Collectively, these two tables also show that about the same number of people reported giving and receiving sabotage during the 2011 Chiditarod (45.75% and 41.49%, respectively).

<b>Receiving Sabotage</b>				
	N	No. Reporting Receiving Sabotage	Percent Receiving Sabotage	95% Confidence Interval
<b>Chidita-Virgin</b>	51	29	56.86%	[42.25% - 70.65%]
<b>Experienced Racer</b>	43	10	23.26%	[11.76% - 38.63%]
<b>All Racers</b>	94	39	41.49%	[31.31% - 52.11%]

Table 3: Percentage of First-time and Experienced Racers Who Reported Receiving Sabotage

<b>Giving Sabotage</b>				
	N	No Reporting Dishing Out Sabotage	Percent Saboteurs	95% Confidence Interval
<b>Chidita-Virgin</b>	51	22	48.84%	[33.31% - 64.54%]
<b>Experienced Racer</b>	43	21	43.14%	[29.35% - 57.75%]
<b>All Racers</b>	94	43	45.74%	[35.42% - 56.34%]

Table 4: Percentage of First-time and Experienced Racers Who Reported Dishing-out Sabotage

## OUR HIGH-FALUTIN' STATISTICAL ANALYSIS.

Stand back. We're going to try science.

Since the three major variables in question—indicating whether or not a racer is a first-timer, received sabotage, or dished-out sabotage—are coded as binary variables, we are able to compare the distribution of giving or receiving sabotage across first-time and experienced racers with a basic Chi-squared test.

**CHI<sup>2</sup>-DITA-WHAT?** Briefly, a Chi-squared test compares two statistical distributions to each other (in this case all the responses from first-timers and all the responses from experienced racers). The Chi-squared test quantifies how similar or different those two distributions are from each other. This comparison is given as a risk-ratio—i.e. the chance that you will dish out sabotage if you are a first-time racer versus the chance that you will dish out sabotage if you are an experienced racer. The Chi-squared test also allows us to calculate how likely it is that increasing the sample size (i.e. having 1,000 survey respondents rather than only

94) would reveal these two distributions to be essentially the same. In other words, the test also calculates how likely it is that any difference that we see between the two groups is spurious, or pure chance. The statistical term for this likelihood is called the p-value. If a p-value is calculated at 0.01, then there is a 1% chance that any difference in the compared distributions is caused by chance based on bias in the sample; if the p-value is 0.5, there is a 50% chance that the difference is pure chance. It is generally accepted that if a calculation has a p-value of 0.05 or less, it is considered “statistically significant.” Anything higher than 0.05 means the evidence is considered inadequate to support the conclusion that there is a real difference between the two groups<sup>1</sup>.

**THE CALCULATIONS.** Below are basic contingency tables (Tables 5 and 6) for this Chi-squared test, generated from the data listed in the descriptive statistics section.

		Dished Out Sabotage					Recieved Sabotage		
		No	Yes	Total			No	Yes	Total
Chidita-Virgin	No	22	21	43	Chidita-Virgin	No	33	10	43
	Yes	29	22	51		Yes	22	29	51
	Total	51	43	94		Total	55	39	94

Table 5: Contingency table comparing First-time Racer Status (Exposure) to Dishing-out Sabotage (Outcome) – AND – Table 6: Contingency table comparing First-time Racer Status (Exposure) to Receiving Sabotage (Outcome)

We ran the Chi-squared test using Stata/IC 10.1 statistical analysis software. We first ran the test to compare receiving sabotage across the two racer groups. This is a test of **Hypothesis 1** – that first time racers are more likely to receive sabotage.

The Chi-square test revealed that **first time racers are 2.44 times more likely than experienced racers to fall victim to sabotage at the hands of other racers** (See Table 7). We can say with 95% confidence that the true risk for virgin racers is between 1.35 and 4.43 times greater than for experienced racers. **With a 2-sided p-value of 0.0015, these findings are highly statistically significant**, and we reject the null hypothesis that there is no relationship between racing experience and falling victim to sabotage.

We then ran a second Chi-squared test comparing dishing out sabotage across the two racer groups. This is a test of **Hypothesis 2** – that first time racers are less likely to dish out sabotage.

According to this second Chi-squared test, **first-time racers were 88% as likely as experienced racers to dish out sabotage on others in 2011; however, with a 2-sided p-value of 0.6787, this relationship is not even close to statistically significant**, meaning that we are

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<sup>1</sup> If you want to read more about the Chi-squared test and how it works, this website is a good resource: <http://math.hws.edu/javamath/ryan/ChiSquare.html>

not able to reject the null hypothesis that there is no relationship between racing experience and dishing out sabotage (See Table 8). In other words, we found no evidence that racing experience affects the likelihood that someone will act as a saboteur. **You are all equally evil, because good is dumb.**

**Results of Chi<sup>2</sup> tests comparing First-time Racers and Experienced Racers**

*Receiving Sabotage*

	Point Estimate	95% Confidence Interval
Risk Difference	0.336	[0.151 - 0.522]
Risk Ratio	2.45	[1.35 - 4.43]

2-sided Fisher's exact p-value = 0.0015

*Dishing-out Sabotage*

	Point Estimate	95% Confidence Interval
Risk Difference	-0.057	[-0.259 - 0.145]
Risk Ratio	0.88	[-0.37 - 0.43]

2-sided Fisher's exact p-value = 0.679

Table 7 – Results of the two Chi-Squared tests comparing incidents of Sabotage among First-time Racers and Experienced Racers

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**CONCLUSIONS**

We are able to draw two general conclusions from this analysis.

**Conclusion 1: Newbies Beware!** Every year, there are a handful of first-time racers who leave the race completely bummed out because of some sabotage that occurred that they felt was mean-spirited or highly un-sportsman-like. As organizers, our suspicions are that these disappointments are largely rooted in the fact that many first-time racers don't know what to expect on race day. Sabotage requires that people be clever and creative, and these are traits that we try to encourage in *all* aspects of the race. The best way you can help you and your teammates avoid such disappointment on race day is to educate yourselves about what to expect, come to the race day prepared for sabotage, and try to roll with the punches, if they happen to come—and there is about a 56% chance that they will.

If you are running the Chiditarod for the first time, prepare yourself. Read the Chiditarod Handbook. Bring your box of tools to the race. Many teams bring box cutters and bolt cutters to the race with them in order to free up their cart if it has been compromised. Be aware that check-points are havens for opportunistic sabotage. **NEVER LEAVE YOUR CART UNATTENDED.** Your shopping cart is a rambunctious youth that needs tough-love parenting skills. Keep it on a short leash. Otherwise, who knows what trouble it could get into.

**Conclusion 2: We have created a monster! (Raawwr! Monster...rawwr!)** It seems clear from these survey results—most particularly from the number of first-time racers that participate in dishing out sabotage—that the culture of sabotage at the Chiditarod has developed a life of its own. It is firmly rooted in the greater Chiditarod-involved population of Chicago, not just the core organizers. In other words, we, as organizers, are no longer steering the culture of sabotage; rather, we are always racing (ha!) to keep up with it as it plows ahead of us and changes over time. We do all that we can to ensure fair game play. We do all that we can to ensure that no one gets hurt physically or emotionally. **Respect for our entire community and all of its members is the primary motivator behind the Chiditarod.** But we can't control everything. We can't control everybody. Despite our best efforts, we can't ensure that everyone at the race has the same idea about fair game play, or that everyone at the race has the same idea of what respect looks like. The Chiditarod is an ever-changing, ever-evolving event. Its success relies on our ability to get along with each other and to make room for disagreement to exist and be resolved. Let's face it. We're a huge group of diverse people. There will sometimes be disagreements.

But always keep in mind:

- We do this for our fellow Chicagoans who suffer from food insecurity.
  - We do this together because we are stronger together, as a community, than we are as individuals.
  - We do this for each other and with each other because we are all equally rad.
  - It's all in good fun!
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## RECOMMENDATIONS

Buck up, campers, and keep being excellent to each other.

Mush!