

# Statistical Analyses of Non-Static Group Question

---

*Source:* <http://sci.tech-archive.net/Archive/sci.stat.edu/2007-08/msg00008.html>

---

- *From:* [gwcallahan1@xxxxxxxxxxxxx](mailto:gwcallahan1@xxxxxxxxxxxxx)
  - *Date:* Thu, 09 Aug 2007 15:52:21 -0700
- 

I don't have a background in statistics so perhaps someone can lend some guidance with respect to the issue that I present here or tell me where I can go to find guidance.

The goal is to determine how well a group of participants for a given program is performing over a given period of time. The number of participants is not static. The program has a lifecycle where the number of participants starts out small, builds to a maximum then declines through attrition until the program is retired. Participants tend to participate with greater frequency when first added to the program then taper off with time. A very small percentage of participants are extremely active from the time they are added until they leave the program and to a point where they artificially raise the norm.

The question then is how does one compare group performance from one sample to the next if the group dynamic is changing?

How does one account for the influx of new participants and the effect they have on the group?

How does one correct for the overly active participants?

Is it valid to look at only those participants who appear in subsequent sample periods (i.e. exclude additions and removals)?

Statistics is a broad subject. What form of analysis does this problem represent? What texts (books) should I study to gain a better understanding of the problem?

.