Subject: Re: Stu Assign initiatives: needs
Date: Tue, 26 Jun 2001 09:47:35 -0700
From: Derick Miller <ddm@well.com>
To: Bruce Wicinas <bwicinas@value.net>
CC: Francisco Martinez <Francisco_Martinez@berkeley.k12.ca.us>

Hi Bruce,

I should start with two qualifications:

First, I hesitated a long time before writing this, because I did not want this to be taken the wrong way. The problem with e-mail is that it is hard to communicate intention. This was not meant as a slight against you or your commitment on any level.

Second, I am not really capable of doing the analysis that I am talking about, so I'm not sure how helpful I can be in pointing the direction. But I will try....

We talked about some of these issues a bit during the meeting. I did not elaborate much on my thinking, but I am happy to make the attempt.

I think that there are a number of assumptions that have to be made to come up with a single data set that represents a "what if" scenario. The only way to overcome this limitation is to analyze the problem with some care and come up with the list of variable assumptions and then look for ways to check those assumptions or reduce the amount of bias they bring to the data.

Second, there are a number of behavior trends that we talk about. With some vigorous analysis, we might be able to confirm (or deny) the validity of these anecdotally supported generalizations.

Third, in analyzing an alternative system, there are a number of alternatives for implementation. With a lot of muscle (say a team of graduate students with sophisticated analytical skills), we could test a number of ways to implement the system and see if we can come up with a good system that actually works well.

Fourth, there are a number of trends that we could come to understand which, if we could model, would allow us to predict (within limits, of course) where we would end up. For example, we talk a lot about families that apply in the first round, get their first choice and still don't enroll. If we can simulate this behavior as a part of our analysis, we might be able to get a better idea of the affect on the results.

I hope this gives you an idea of what I am talking about. This is a task which is beyond my capacity to carry out (at least without significant training ;-), but there are those who are capable of this sort of analysis. You might be one of those people who can do this given the time ....

In short, we need a much deeper analysis of the assumptions, the creation of a complex set of modeling tools and a lot of number crunching to provide different views of the material. These views need to be intelligently analyzed (perhaps suggesting several iterations of the process).

Just a couple examples of what we might gain from this:

1. A number of anecdotal statements about how the system works in practice could be confirmed or denied.

2. We could properly test some of the alternate plans. For example:

a. We could verify if the magnet admissions process, or a variation thereof, would yield good results. We were told early on that it would, indeed, give us comparable results. Then you ran some numbers and it was not clear, one way or the other. It would be nice to know the answer.

b. We could determine if there was a sensible level numbers of cycles, with sensible dates for each, and sensible capacity percentages for each cycle that would make the alternative plan we looked at work. If we could make it work over the last couple years and this coming year, it might make sense to adopt the plan for a couple years.

Of course, any such plan needs to be monitored carefully, and new plans need to be generated in parallel so that it can be swapped out if too many learn to "work they system."

I hope this is enough to give you an idea of what I am talking about.

Derick

Bruce Wicinas wrote:

> Derrick wrote:
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> > Bruce has worked hard to provide us with data to analyze, but it is clear (to me, at least) that the kind of analysis we need to do will require much more complex and laborious number crunching than what we have been able to do. There are a large number of assumptions that have to go into any cut of the data we have taken; many of these assumptions need to be examined more carefully.
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> I regret that this assignment committee coincided in the same spring with my extra task at Berkeley High. That made it pretty hard to give it as much attention as I would have liked. This said, however... I'm curious about what other quantitative analysis you think might bear fruit.