Bias challenge

1. You’re testing advertising e-mails for bathing suits and you test one version in February and the other in May.
   1. The most obvious form of bias is that you should never test things at different times. A/A testing would show it for this problem. Even the same e-mail is likely to get more clicks in May since that is when people start stocking up on their summer gear.
2. You open a clinic to treat anxiety and find that the people who visit show a higher rate of anxiety than the general population.
   1. Leaving aside the whole topic of underreported mental illness, people who voluntarily come in seeking treatment for a condition are of course going to be more likely to actually have a higher rate than normal. It would be similar to saying that ‘people walking in to restaurants are found on average to be hungrier than people walking by them’
3. You launce a new ad billboard based campaign and see an increase in website visits the first week.
   1. One of my initial thoughts to this would simply be that people like new things. It would be interesting to see if you could break down the increase in visits by completely new customers or people who have visited before. That would tell you if your new billboards were effective in drawing in new business or simply reminding people who already like your product about you.
4. You launce a new loyalty program but see no change in visits in the first week.
   1. Similar to the first week issue above but this just needs more time. Loyalty programs usually try and get customers to repeat on a regular schedule and one week is not nearly a long enough time to a) bring in new customers to start recording results and b) see if a pattern for rate of return of customers is noticeably better than previous time periods.