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Prep Questions for Case: “Child Welfare and Predictive Analytics: Safety in Numbers?”

Please come to class prepared to discuss these questions:

1. How well does the predictive analytics tool match the needs of DCFS? That is, is this the right tool for the job? Or is this a mismatch in some way?
2. What about DCFS’ org structure and staffing lends itself to success or failure with a predictive analytics tool? Where is there (mis-)alignment? For instance, what if DCFS had regular and significant turnover in the case workers who use the predictive tool – would that make success more or less likely? What if they had low turnover?
3. What are the different ways that the predictive model might be right or wrong? Specifically, what do true/false positive/negatives look like here? How do false positives and false negatives affect deployment of resources, and what are the implications of being wrong?
4. The value of a predictive model here is that it can identify kids who are at risk and enable DCFS to deploy resources to reduce that risk. How does risk mitigation differ in this context from, say, one where a company is trying to reduce risk of customer churn? For instance, imagine the following customer retention example:
 - Customer A is 100% likely to churn (perhaps “100%” is unrealistic, but let’s keep the numbers simple)
 - Customer B is 10% likely to churn
 - You have an intervention that will reduce risk by 10 percentage points, but you only have the resources to use it for one customer. That is, you can either bring Customer A down to 90% OR Customer B down to 0%.

Would you intervene with Customer A or B? How would you make that choice?

Now use the same parameters, but change “customers at risk of churn” to “children at risk of severe abuse or even death.” Now would you intervene with A or B? Is your answer the same across contexts? SHOULD it be the same? Why / why not?

5. Do you think Beverly Walker was correct in getting rid of the predictive model? What would you have done in her situation?