

# DATA THROUGHOUT THIS DOCUMENT IS REDACTED TO PROTECT STUDENT PRIVACY. THIS DOCUMENT IS INTENDED ONLY AS A SAMPLE OF THE SOE'S DATA-DRIVEN CONTINUOUS IMPROVEMENT EFFORTS.

4/11/18

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## Introduction

In Fall Quarter of this year, I started working with [REDACTED] in order to analyze the data from the School of Education's Clinical Practice Observations and the edTPA exam for my senior project. Her first assignment for me was to play around with the observation data and report any findings that stood out to me (these findings are reported under **Initial Analysis** below). From there, we delved deeper into the observation data and began to include the edTPA data so that we could evaluate the observation data as a prediction tool. After compiling all of my findings from this year, we felt that I had enough information to present to the School of Education.

The goal of this presentation is to share my findings with the School of Education and provide questions for future research and analysis.

## Main Research Goals

Our main research goals were:

- What trends appear in the data?
  - Are there significant patterns that emerge in the way teacher candidates score?
- Are Clinical Practice Observation scores aligning with edTPA scores?
  - Do teacher candidates who perform well on their observations also do well on the edTPA?
- Are there early predictors of success or struggle?
  - Are there certain indicators or groups of indicators that may predict which teacher candidates need more support early on?

## Data Used

There were two datasets used in my analysis:

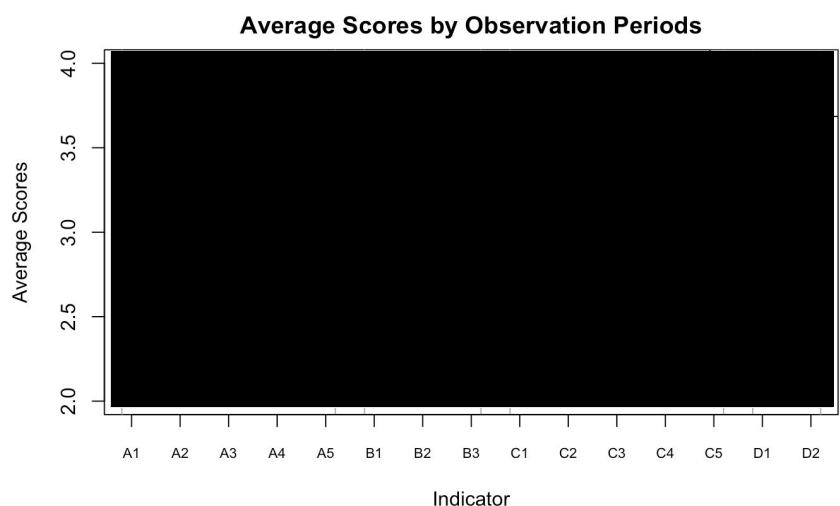
- 2016-2017 Clinical Practice Observation Data
- 2016-2017 edTPA Exam Data

In the Observation dataset, teacher candidates with more than two missing observation periods (out of the total eight) were removed. This left us with [REDACTED] to analyze in both datasets. All datasets were anonymized before being sent to me in order to protect the privacy of Cal Poly students and faculty. Any questions regarding the identities of particular students or faculty can be referred to [REDACTED].

## Demographic Data

There were a total of [REDACTED] teacher candidates and [REDACTED] university supervisors included in the datasets. Of the [REDACTED] teacher candidates, [REDACTED] are in the single-subject program and [REDACTED] are in the multiple-subject program. Of the [REDACTED] single-subject teacher candidates, [REDACTED] taught social studies in their observations, [REDACTED] taught ELA, [REDACTED] taught science, and [REDACTED] taught math.

## Big Picture Findings



With the exception of D2 (Professionalism), **all indicators show growth over time**. The start score is averaged scores from CPII Observation 1, the mid score is from CPII Observation 4, and the end score is from CPIII Observation 4. There appears to be **less growth in area B (Classroom Environment)** as compared to other areas.

Out of the [REDACTED] teacher candidates with reported CPIII Observation 4 scores, [REDACTED]

had an average score of 3.0 or higher. [REDACTED]  
[REDACTED]. [REDACTED]  
[REDACTED]. This could be a problem when it comes to data analysis and may need to be reviewed with university supervisors.

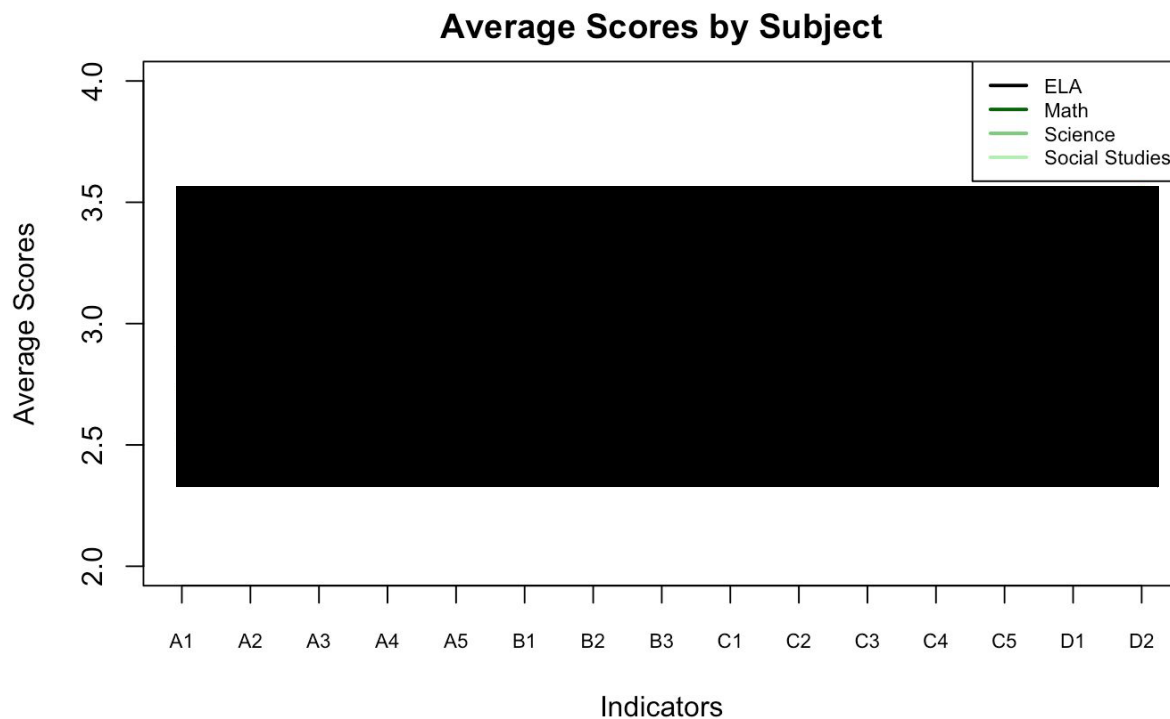
# Initial Analysis

The initial analysis only includes the observation data.

## Subjects

In the following test, I compared mean observation scores across all observation periods by the subject that the teacher candidate was observed teaching. [REDACTED]  
[REDACTED], I found that teacher candidates observed teaching [REDACTED] **had significantly lower scores when compared to every other subject.** All of the other subjects ([REDACTED]) were not significantly different from one another.

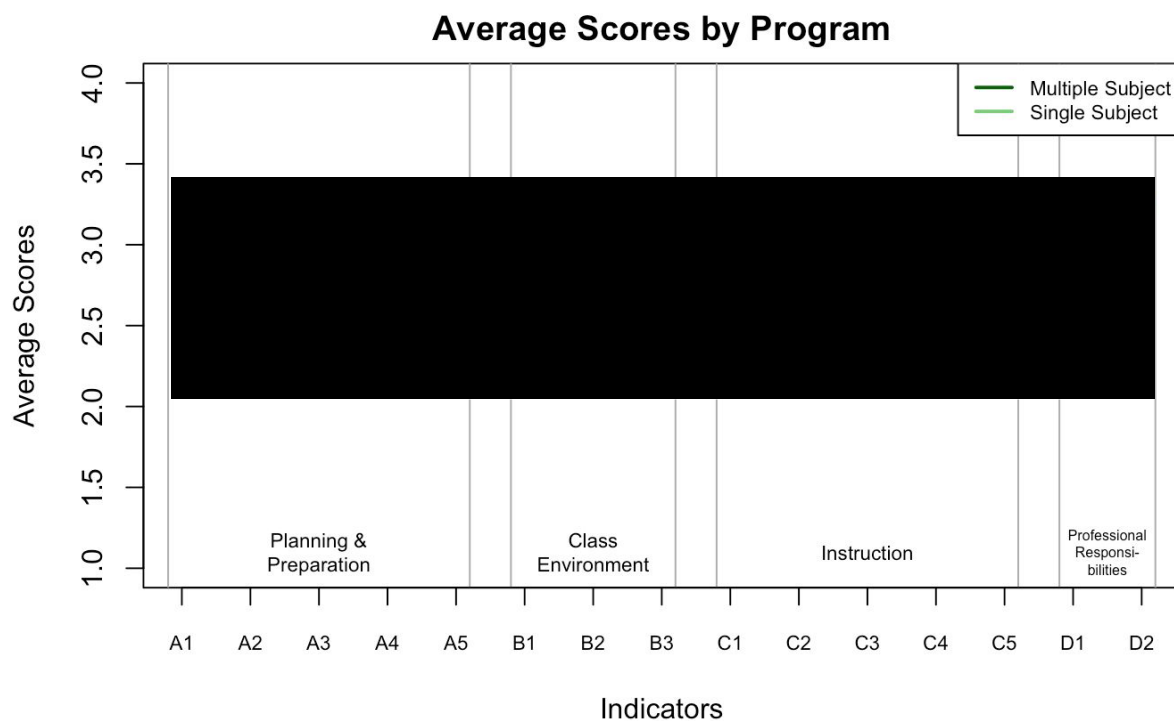
<u>Subject</u>	<u>Mean Score</u>	<u>p-value</u>
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]



## Program

In this section of the analysis, I compared the performance of [REDACTED] and [REDACTED] teacher candidates across all observation periods. [REDACTED]. It appears the main difference occurs in area A (Planning and Preparation) and in C2: Using Questioning.

<u>Program</u>	<u>Mean Score</u>	<u>p-value</u>
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]



## University Supervisors

Another potentially important finding was the fact that my analyses identified [REDACTED] university supervisors who gave significantly higher scores compared to the average supervisor and [REDACTED] that gave significantly lower scores than average. In order to check if this was due to observer bias or because the teacher candidates they observed actually deserved those higher or lower scores, I looked at the edTPA data. Based on the teacher candidates that these [REDACTED] university supervisors observed and their edTPA scores, one could justify the score differences. Overall, the **supervisors were consistent with one another** so we could conclude that differences in scores are most likely due to candidate preparedness.

ID	Mean Score	p-value
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]

## Alignments

### SOE Observation Indicators

- A1. Knowledge of Students
- A2. Setting Instructional Outcomes
- A3. Designing Coherent Instruction
- A4. Designing Student Assessments
- A5. Supporting Emergent Bilinguals
- B1. Creating an Environment of Respect & Rapport
- B2. Managing Classroom Procedures
- B3. Managing Student Behavior
- C1. Communicating with Students
- C2. Using Questioning
- C3. Engaging Students in Learning
- C4. Using Assessment in Instruction
- C5. Supporting Emergent Bilinguals
- D1. Reflecting on Teaching
- D2. Professionalism

**Area A:** Planning and Preparation

**Area B:** Classroom Environment

**Area C:** Instruction

**Area D:** Professional Responsibilities

### edTPA Rubrics

- 1. Planning: Subject-Specific Understanding (**A3**)
- 2. Planning: Support Varied Learning Needs (**A5**)
- 3. Analyzing: Knowledge of Students (**A1**)
- 4. Language: Identifying and Supporting (**A2+A3+A5**)
- 5. Planning: Assessments (**A4**)
- 6. Instruction: Learning Environment (**B1**)
- 7. Instruction: Engaging Students (**C3**)
- 8. Instruction: Deepening Learning (**C1+C2+C3**)
- 9. Instruction: Subject Pedagogy (**A2+A3+C3**)
- 10. Analyzing: Teaching Effectiveness (**D1**)
- 11. Assessment: Student Learning (**C4**)
- 12. Assessment: Providing Feedback (**C4**)
- 13. Assessment: Student Use of Feedback (**C4**)
- 14. Language: Subject-Specific (**N/A**)
- 15. Using Assessment to Inform Instruction (**C4**)

**Rubrics 1-5:** Lesson Planning

**Rubrics 6-10:** Instruction

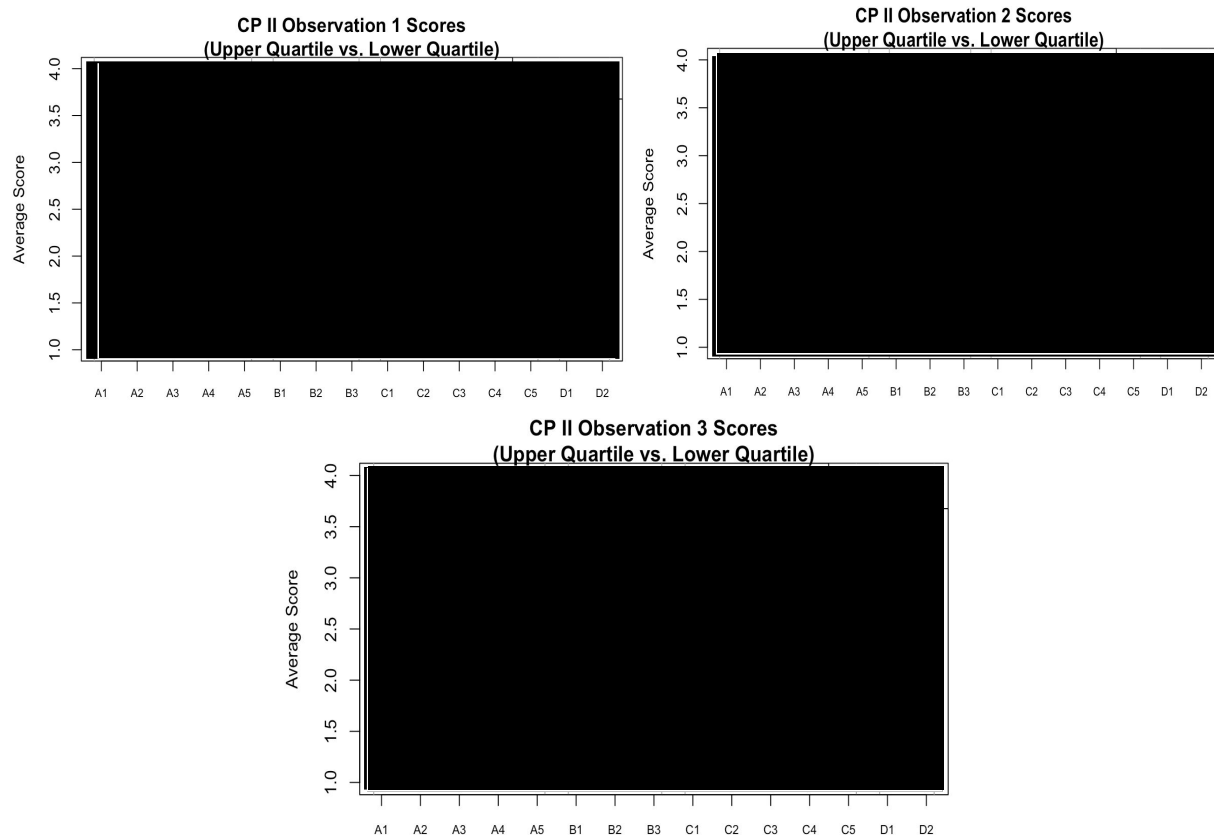
**Rubrics 11-15:** Assessment

## Secondary Analysis

The secondary analysis included both the observation data and the edTPA data, allowing for comparison and a more in-depth analysis. The main questions that guided this analysis were:

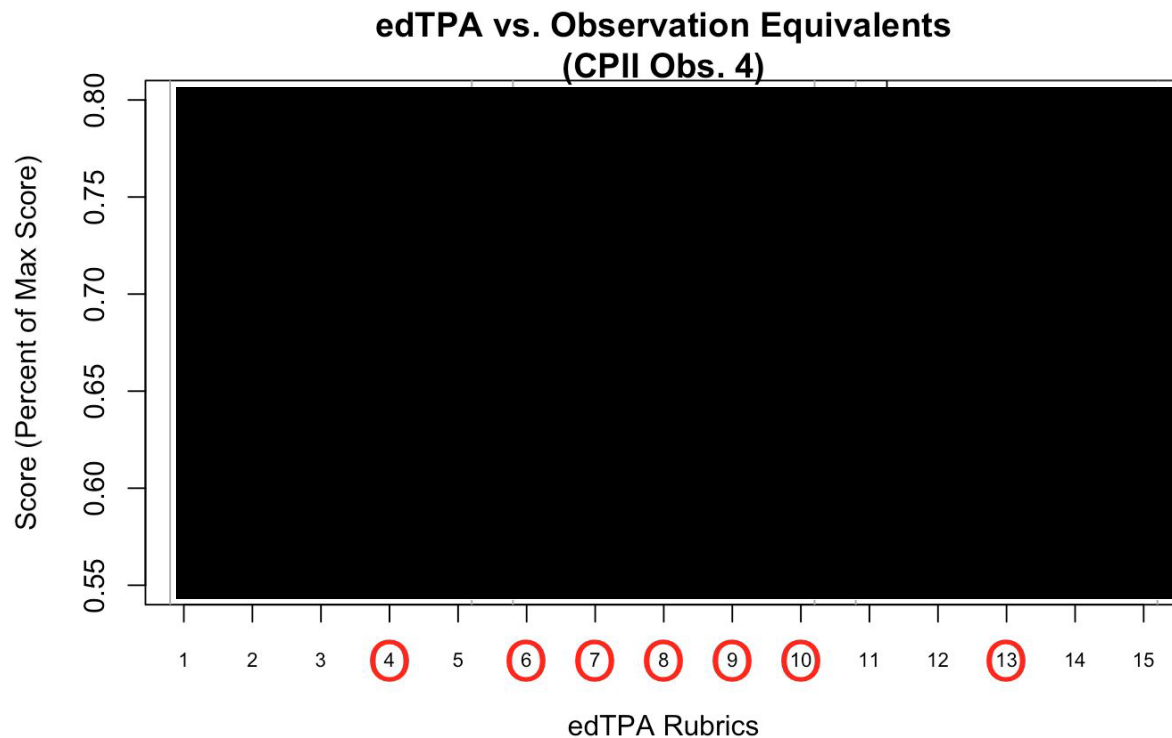
- Is professionalism an early predictor of success?
- Is there an alignment between edTPA scores and CPII Observation 4 scores?
- Are there other early predictors of success or struggle?

### Is professionalism (D2) an early predictor of success?



In all observation periods preceding the edTPA exam ( ), those who scored in the lowest quartile ( ) on the edTPA ( ) than those who scored in the highest quartile ( ). Because of this, **there is not enough evidence in this data to suggest that professionalism during observations is a predictor of success on the edTPA.**

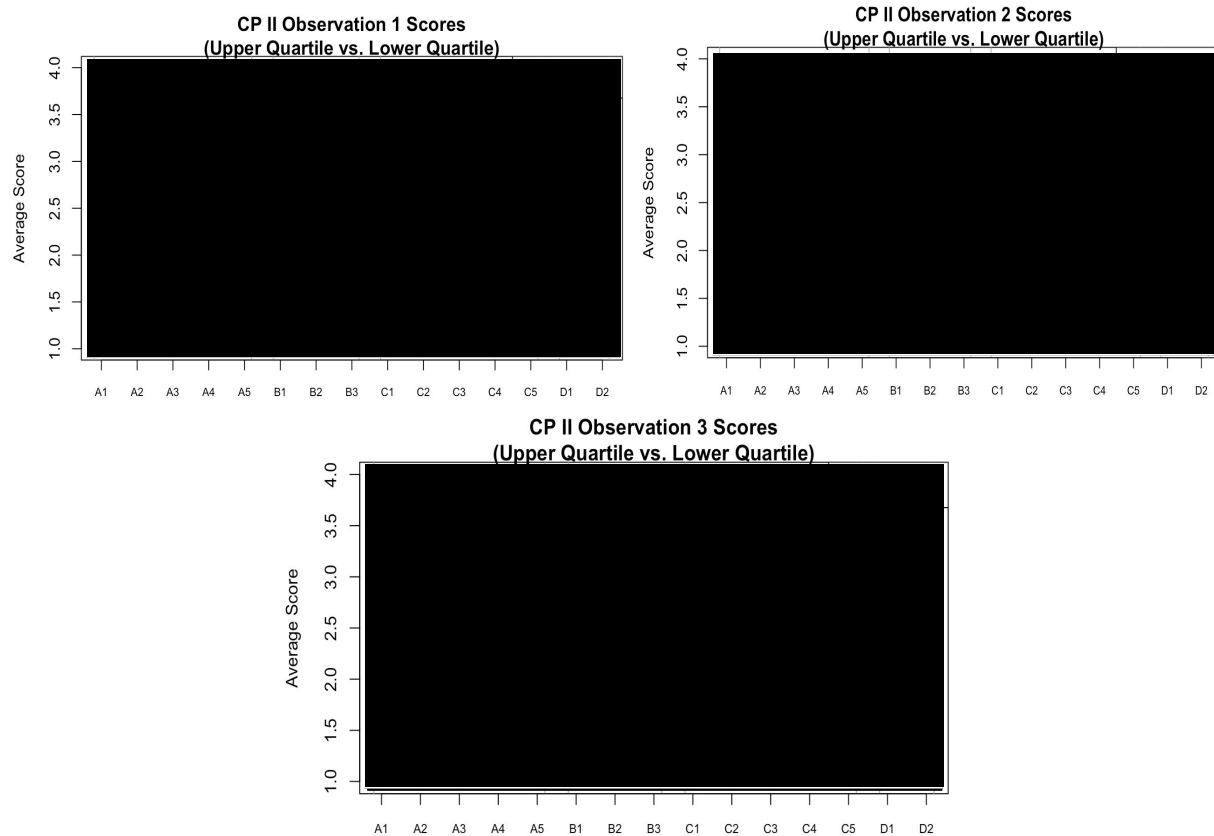
Is there an alignment between edTPA scores and CPII Observation 4 scores?



For this analysis, I ran paired t-tests, which compare mean scores after taking into account individual teacher candidates' effects. In other words, it recognizes that some teacher candidates tend to score higher and some tend to score lower and is purely looking at the difference between the two scores. The rubrics circled in red were statistically significant differences. One point of concern is the fact that the entire Instruction area is circled. **There may need to be some adjustments made in the alignments, supervisor training, or candidate preparation specifically in the Instruction section.**

Another concern is the fact that rubrics 11, 12, 13, and 15 are all aligned to C4: Using Assessment in Instruction. It may be in the School of Education's interest to assess a teacher candidate's assessment ability in more ways.

Are there other early predictors of success or struggle?



Once we knew who had received high and low scores on the edTPA, we could go back in time and see how these specific teacher candidates performed in their [redacted] observations. [redacted]

[redacted] High performance in Planning and Preparation may be a predictor of success on the edTPA and it would be beneficial to look at previous years' data to see if the same relationship appears.



## Considerations

There are several questions leftover that I am unable to answer from the data alone; these questions may be useful for future senior projects or investigations done by faculty.

- Why did teacher candidates who were observed teaching [REDACTED] perform significantly different from teacher candidates observed teaching other subjects?
- What adjustments can be made to better align the Clinical Practice Observation data with the Instruction section of the edTPA?
- [REDACTED]  
[REDACTED]
- Assessment is tested in a variety of ways on the edTPA but only in one way in the Clinical Practice Observations. Should assessment be a larger part of the observation tool?
- Is it accurate or fair to assess a teacher candidate's performance using a one-day observation or would some form of an aggregate be more appropriate?
- Are these findings a result of practices by the School of Education or by random chance with this cohort?

## Contact

If you would like digital copies of my previous analyses or any clarifications from this presentation, please feel free to email me.

[REDACTED]  
[REDACTED]