

Thursday, January 20, 2011

Teacher Measure: Value-Added

Andy Baxter presented on the current Value-Added measure implemented by Charlotte-Mecklenburg Schools. For the entire powerpoint, please see the Going Deeper on Value-Added presentation previously emailed.

Step 1: Calculate a student's expected score (based on 2 prior scores)

- Based on average data from students in Charlotte-Mecklenburg Schools
- This year every teacher received their value-added information. Overall data ranges from 2002-2010, but principals only have 2007-2010 data.

Step 2: Measure difference in expected score and actual score

Step 3: Determine how much of difference is due to teacher

- Factors - What part of the score is caused by these sources?
 - Random
 - School
 - Classroom
 - Teacher
 - Student
- Factors must ...
 - Affect student test scores
 - Be outside of teacher control
 - Be measurable
 - If it is not measurable, it is not included.
 - Be standardized across schools

Student variables outside teacher control

- Gender
- Age - Student age relative to their peers
- English Fluency - LEP levels
- Exceptional Child by Category
- Academically Gifted
- Repeating Grade
- First Year in the School
- Test Score (2 Prior Yrs)
 - Non-tested subjects and grades will be tested

- Days Absent - percentage of days student was absent in relation to the days enrolled in grade or course
- Days in OSS and ISS (Prior Year) - Coded by school reported discipline, data included since 2008
 - What about schools that discipline/code differently?
- McKinney-Vento status
- Student mobility - number of transfers during the year, this year to include number of schools students have attended in relation to their peers
- Grade (e.g., 4th)
- Year (e.g., 2009)

*Input data comes from NCWise

Classroom variables outside teacher control

- % Male
- Average Age
- % LEP
- % EC
- % Academically Gifted
- % Repeating Grade
- % First Yr in School
- Average Test Score (Prior Year)
- Average Days Absent
- Average Days in OSS (Prior Year)
- Average Days in ISS (Prior Year)
- Class Size

School variables outside teacher control

- % Male
- Average Age
- % LEP
- % EC
- % Academically Gifted
- % Repeating Grade
- % First Yr in School
- Average Test Score (Prior Year)

Approximating home life and other unobserved student factors

- Discipline

- Prior scores
- Absences
- Mobility
- McKinney-Vento
- Age, as compared to peers

Ethnicity is not in the model because the observable factors are “picking up” discrepancies. Although home life is also not a measurable factor, changes and conflict is reflected in last 2 years test data.

Using test scores, a variety of data and factoring in observable factors limits the discrepancies due to environmental factors.

Free and reduced lunch numbers are no longer available, so economically disadvantaged numbers are based on socioeconomic status.

In the formula, weights change based on the correlations.

Including as much data as possible provides the most accurate information as possible.

When using previous scores to measure expected growth, tests dates are considered. No future or simultaneous course scores are used to calculate expected growth. Also, prior test scores are not fixed and previous years can be used and considered.

Group Concerns

- What are the expected testing norms?
- What strategies can be used for dealing with missing data?
- Middle school data vs. high school data - If students have high school scores, why not use them instead of middle school scores?
- Repeating - Does previous EOC scores need to be noted? Should the number of times a student has taken a test be a considered indicator?
- Schools and administration “dumping” less effective teachers in non-tested subject areas/grade levels.
- Creating value-added data for current non-tested subject areas/grade levels
- Factoring Intervention processes - What about students that have not been “labeled” or diagnosed?
- Where will Kindergarten and 1st grade students’ expected scores come from since there is not 2 years of prior data?

- How do Exceptional Children fit? How will factors be considered for severe children? How will teachers be evaluated when they are changing diapers? How will it be equal or fair?

Working issues for 2011 revisions

- Input of missing values
- Ceiling effect - What will be done about students that previously scored extremely high when room for growth is so limited?
- Teacher dosage - How long should a student be in a class before their scores are considered?
- Course dosage - How long should courses be in comparison to others?
- What about teachers that switch grades or subjects?
- What about teachers teaching a variety of subjects?
- Should teacher working conditions be considered? Example: floaters
- SIFE - Designation of LEP
- 504 plans
- What assessments should teachers be responsible for? Example: 8th grade math and Algebra 1
- More pretests will have to be considered and designated for expected growth data
- What about parent responses to poor instruction, such as tutors?
- By grade comparisons for EOCs
- What about schools participating in selection processes? How does value-added account for interim courses such as algebra 1A and greenhouse biology?

Next Meeting: Thursday, January 27, 2011

- Work with small groups to discuss articles and brainstorm ideas. Andy emailed questions for group discussion.