Improving the Quality of Secondary Education
Problem

• The main constraint to the quality of secondary education is that classrooms in many of Tanzania’s 4,064 secondary schools are too over-crowded for teachers to teach or students to learn
  • An acceptable pupil-classroom ratio would be 40:1
  • The current average across all of Tanzania is 70:1 and around this average is a lot of variation. In some schools the classrooms are even more crowded.

• There are also issues of teacher deployment. Across Tanzania, the pupil teacher ratio is fairly low: 20:1. But there is an excess of social studies teachers and a shortage of math and science teachers, and there is also variation across schools; some schools have too many teachers and some have too few.

• But in general, there is a problem of too many students per classroom which means that teachers cannot effectively.
Intervention

• The government strategy to reduce secondary school overcrowding has three policies
  • Redeploying teachers (because there is evidence that some schools have much lower pupil-classroom ratios)
  • Constructing additional classrooms in existing secondary schools
  • Introducing double-shifting in some schools
**Research question**

• Does the introduction of double-shifting reduce class size?
• Does double-shifting and lower class size increase teacher satisfaction, and increase student outcomes – learning, pass rates and graduation rates?
• What are the costs per student and costs per graduate in double-shift schools?
Theory of change

INPUT
- Change in school timetable
  - Change in schedule for teachers and students (6 hours/day to 5 hours/day)

OUTPUT
- Schools operating with morning and afternoon sessions

OUTCOME(S)
- Reduced class size in schools
- More effective teaching/learning process in classrooms
- Teachers more satisfied
- Students learn more
- Students repeat and dropout less

GOAL
- Better jobs, income and welfare for Tanzanian students
- Better skills and higher growth for economy
Evaluation design

- Randomized trial of the introduction of double shifting in schools with excessive class size (total sample estimated as 1000 schools)
- Phase-in of program over five years (200 schools/year get double-shift)
Data collection

• List of schools with pupil-classroom ratios over 70:1
• List of teachers in each school (to assign them to morning or afternoon schedule) and their subjects
• CSEE (Certificate for Secondary Education Examination) scores
• Repetition rates
• Dropout rates
• Costs (supplemental allowances for some teachers?)
• Teacher/school director satisfaction survey (annually)
How can results be used

• If the program produces the intended results, it could affect the decisions about future school construction – because policy makers would see that this approach is less expensive