

Measuring the impact of school quality on Adolescent Girls and Boys' Educational Outcomes in Rural Malawi

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Presentation Outline

1. Motivations and objectives
2. Conceptual Framework
3. Overview of elements of conceptual framework
4. Study Design
5. Select Preliminary Results

Malawi schooling project objectives

Assess effect of school quality on:

- Educational outcomes: attendance, attainment, progression to secondary, and fundamental competencies
- Transitions to adulthood: sexual initiation and sexual behavior, early marriage and childbearing, and labor force participation, pro-social behaviors

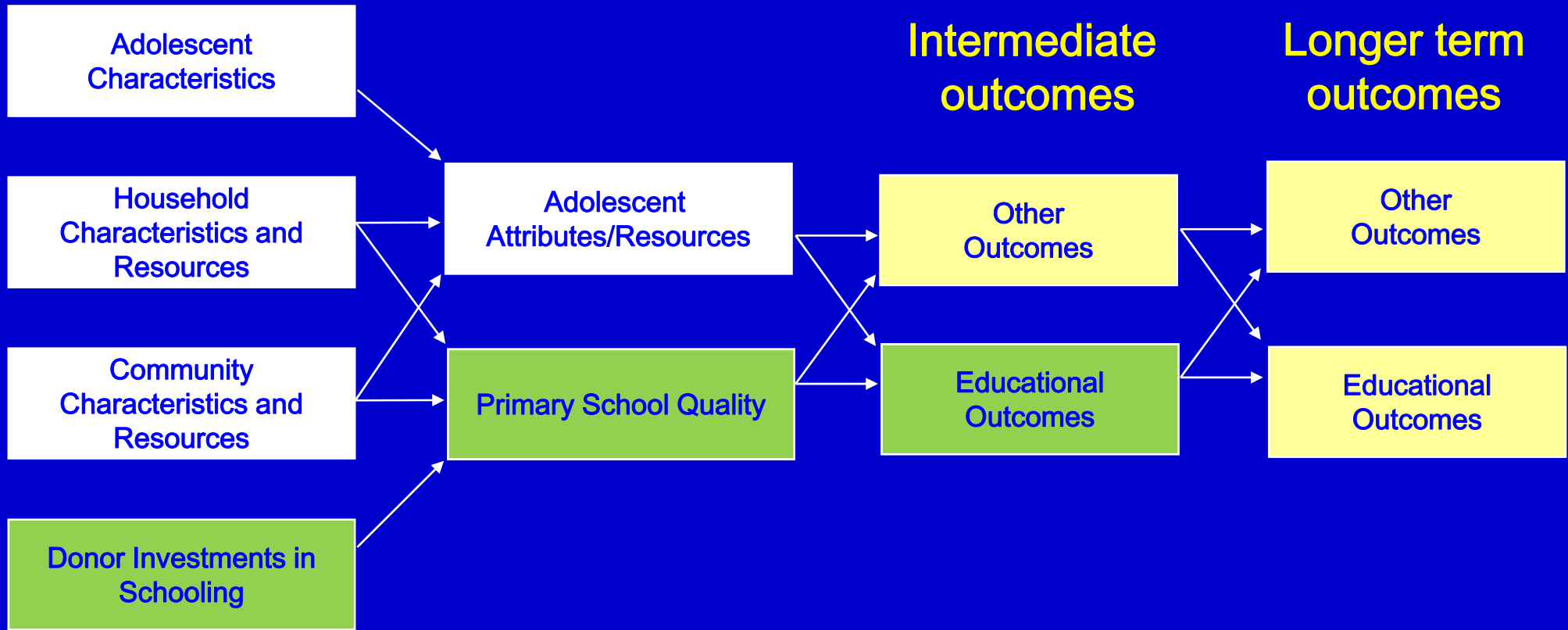
Evaluate educational interventions:

- MOE/Donor teacher training programs: pre-service, in-service
- “Safe Schools” Project – reduce gender-based violence
- New life-skills/HIV curriculum

Malawi study design

- Two rural districts: **Balaka** and **Machinga** in southern region
 - 59 primary schools: 30 in Balaka, 29 in Machinga
 - 1766 Students: aged 14–16, attending standards 4–8
 - 889 out-of-school adolescents, aged 14–16 in school catchment villages
 - 271 teachers and 59 head teachers
- Longitudinal design; **2007**, 2008 (school-based), and 2009 (household-based)
- Handheld Computerized interviewing for sensitive questions: e.g., gender attitudes, physical and sexual harassment, sexual behavior, teacher behavior

Conceptual framework



Donor Investments Schooling

Machinga District

- **USAID MESA (2003-2005):** Malawi Education Support Activity
 - teacher professional development and training: continuous assessment, enhance pedagogical practice, and integrate lifeskills and HIV education into the social studies curriculum
 - supplemented by community level outreach/drama groups: promote the value of schooling (particularly for girls), the importance of effective schools, and enhanced awareness and response to HIV risk
- **USAID MTTA (2006/2007):** Malawi Teacher Training Activity
 - enhance subject specific skills: English, mathematics, science, social studies, and the new lifeskills and HIV/AIDS curriculum
 - cascading training model: head teachers/'mentor-teachers' trained in Teacher Development Centers (TDC), 1 training session per term. Trained teachers conduct school-based workshops

Donor Investments Schooling

Machinga District

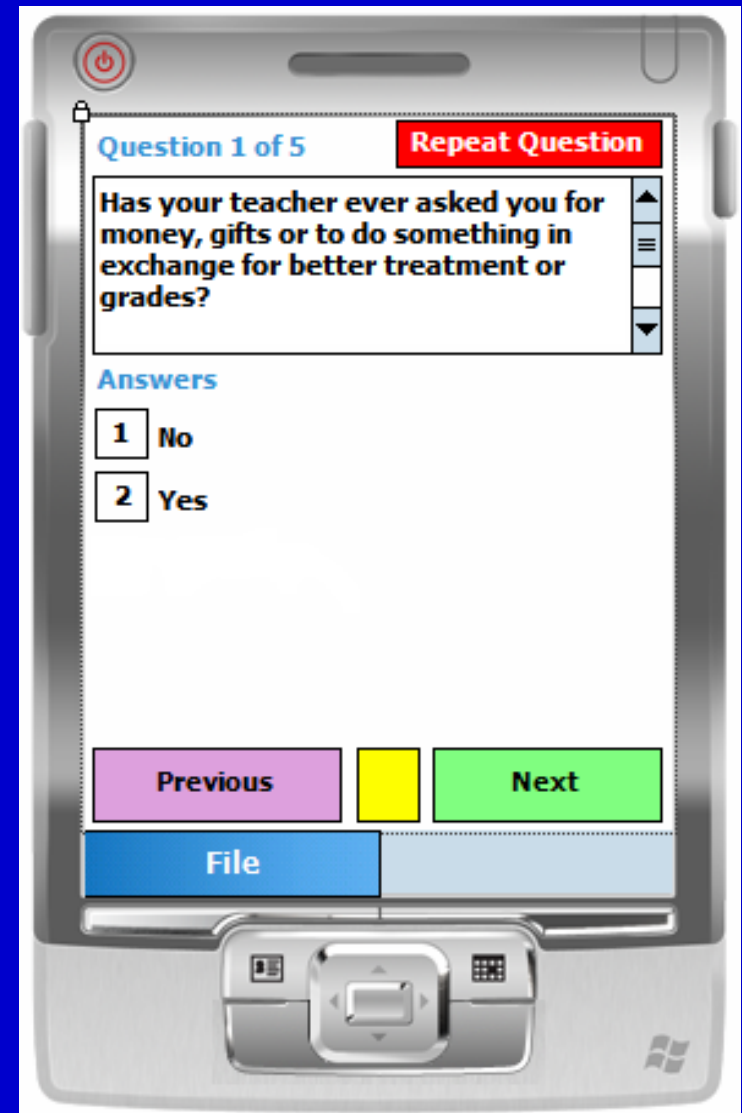
- **USAID Safe Schools Program:**
 - a USAID funded pilot intervention designed to reduce gender-based violence (GBV)
 - random selection of 40 of Machinga's 158 primary schools
 - pre-service and in-service gender training for teachers, institutional support and referral mechanisms to services for GBV victims
 - integration of GBV and gender issues into the curriculum

Dimensions School Quality

- **Material inputs and resources**
 - Classrooms, blackboards, working water source, clean toilet facilities, sports equipment and fields, books
- **Opportunities to learn**
 - Student teacher ratio, student to female teacher ratio, teacher absenteeism, length of school day
- **Classroom dynamics and pedagogical practices**
 - Teacher classroom pos/neg feedback, student participation
- **Gender treatment and attitudes**
 - Teacher attitudes about capabilities, favoritism, sexual harassment, intimidation

Handheld Computerized interview

- **Pop Council ACASI Software:**
Microsoft Technology: .NET Compact Framework, SQL Mobile 2005
- **Audio headphones:** Respondents listened to questions and response categories in Chichewa and Chiyao; also read questions on screen



Instruments

- **Adolescent Survey: FTF and ACASI**
 1. Family and household characteristics
 2. Educational history, **current schooling, schooling experiences**
 3. Marriage, reproductive health, HIV risk, HH labor and employment
 4. Gender and domestic violence, **gender attitudes**, social capital
 5. **Math and literacy evaluation**
- **Teacher and Head-Teacher Survey: FTF and ACASI**
 1. **Education, training and teaching experience**
 2. **Pedagogical practices and teaching behavior: support, punishment**
 3. **Gender equity, attitudes, gender based harassment, violence**
- **School facilities**
 1. **Facilities, teachers, instructional materials**
 2. **Administrative oversight and monitoring**
- **Community**
 1. Health, educational, productive resources
 2. Community groups, NGOs, participation in schools

Schooling Quality: Teacher Training

| Percentage of <u>schools</u> with ... | Balaka | Machinga |
|--|---------------|-----------------|
| One or more untrained teachers | 53 | 41 |
| One or more volunteer/non-permanent teachers | 67 | 48 |

| Percentage of <u>teachers</u> with ... | Balaka | Machinga |
|---|---------------|-----------------|
| Pre-service training at Teacher's training college (mostly MOE) | 62 | 63 |
| In-service training at Teachers Development Center (mostly MOE, MTTA, MESA) | 81 | 89 |
| School-based workshops (mostly MOE, MTTA, MESA) | 74 | 81 |

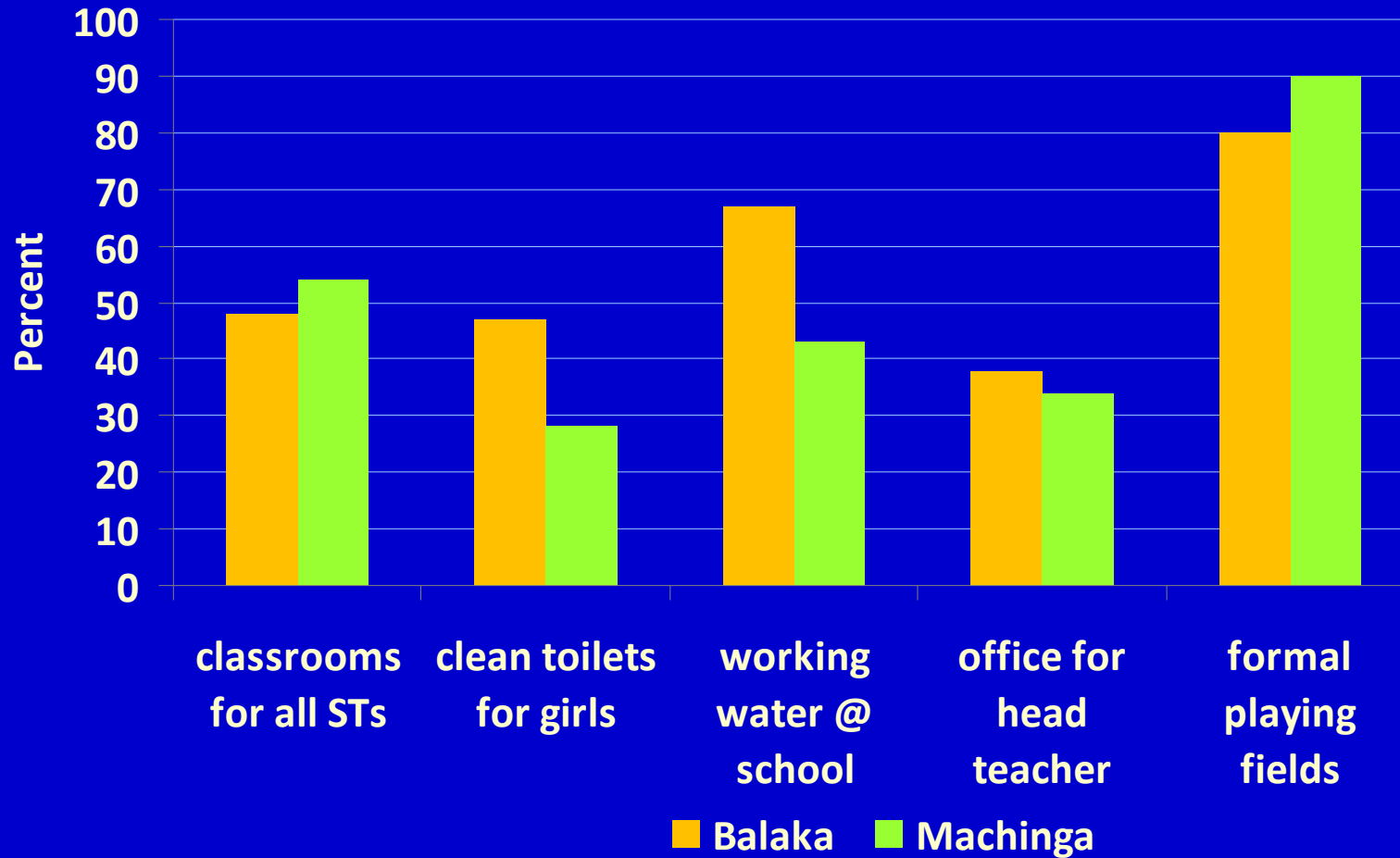
Schooling Quality: Teacher Training

| Percentage of <u>teachers</u> with ... | Balaka | Machinga |
|--|--------|----------|
| Any MESA Training | 8 | 70 |
| Any MTTA Training | 7 | 84 |
| Any Safe Schools program Training | 13* | 21 |

* to be investigated

School Quality: Material Resources

Percent of Schools that have...



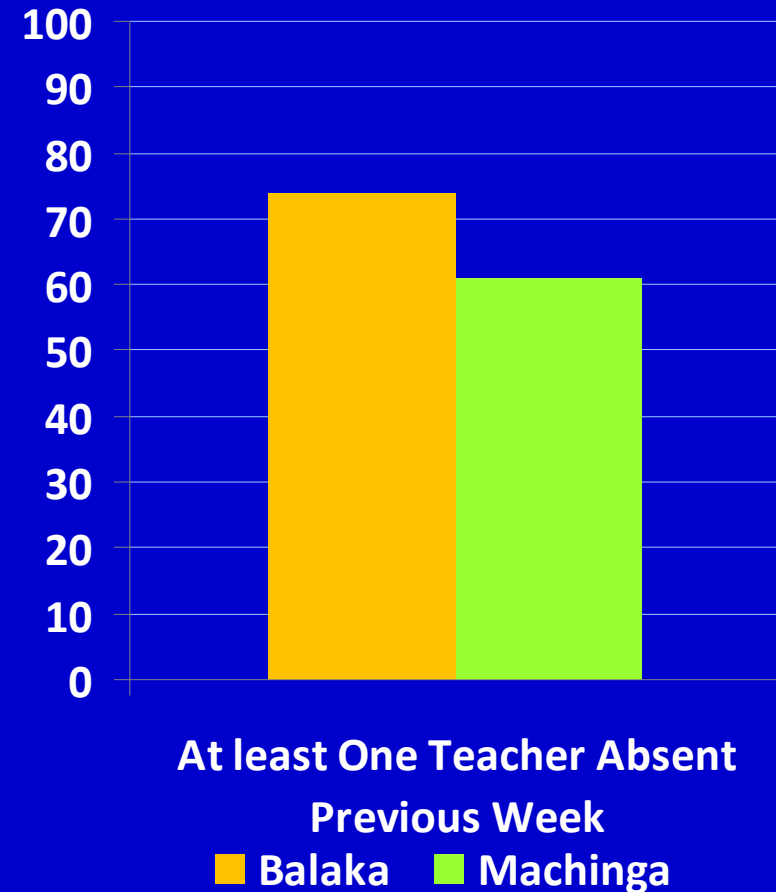
School Quality: Opportunities to Learn

Teacher to student ratios

| | Balaka | Machinga |
|---------------------------------|--------|----------|
| Student Teacher Ratio | 94/1 | 101/1 |
| Student to Female Teacher Ratio | 411/1 | 476/1 |
| Male to Female teacher ratio | 3/1 | 4/1 |

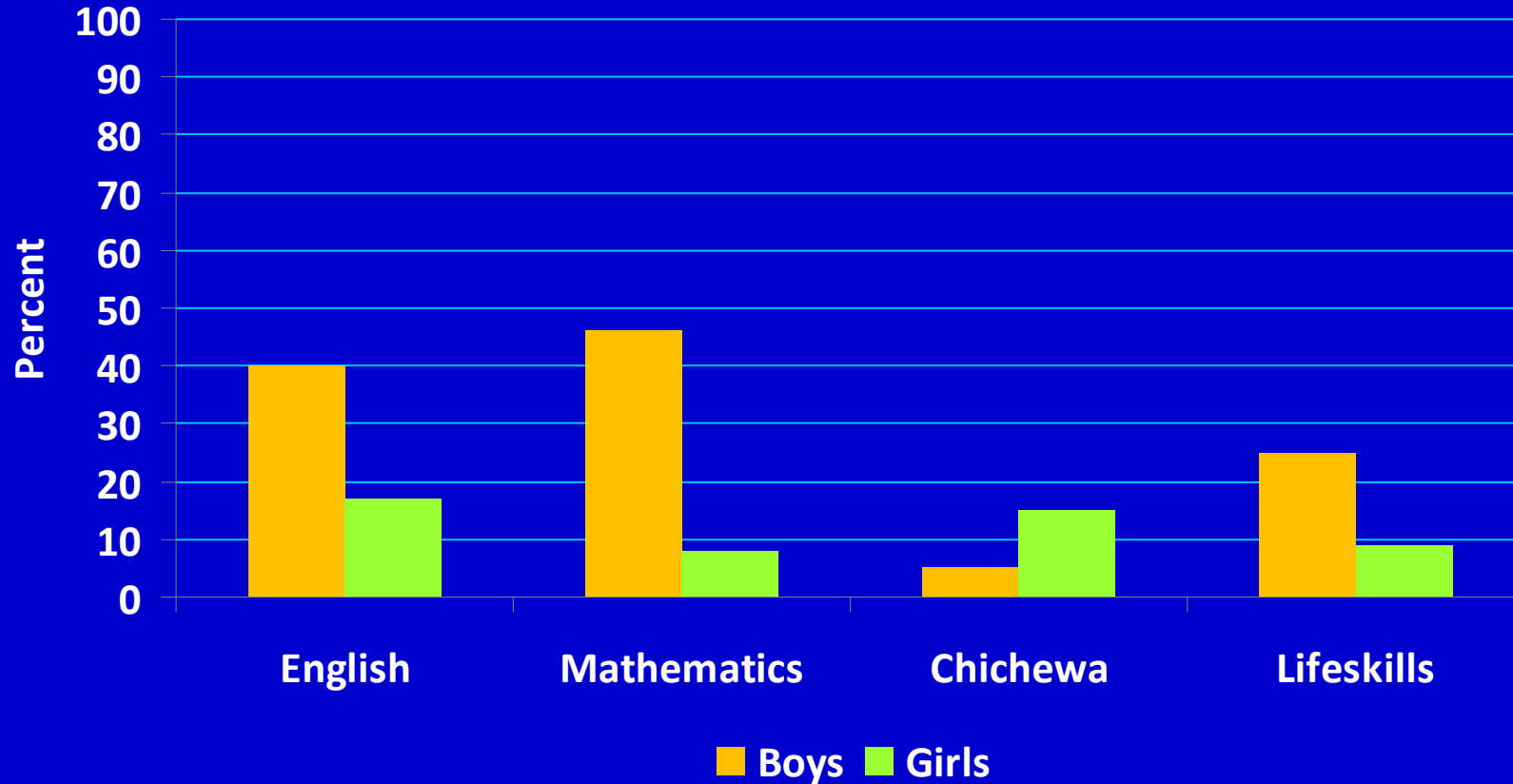
| | | |
|--|-----|-----|
| Average # days missed by teachers in previous week | 2.7 | 1.6 |
|--|-----|-----|

Teacher absenteeism



School Quality: Teacher Gender Attitudes

Average percent teachers who say [boys/girls] better at learning* ...

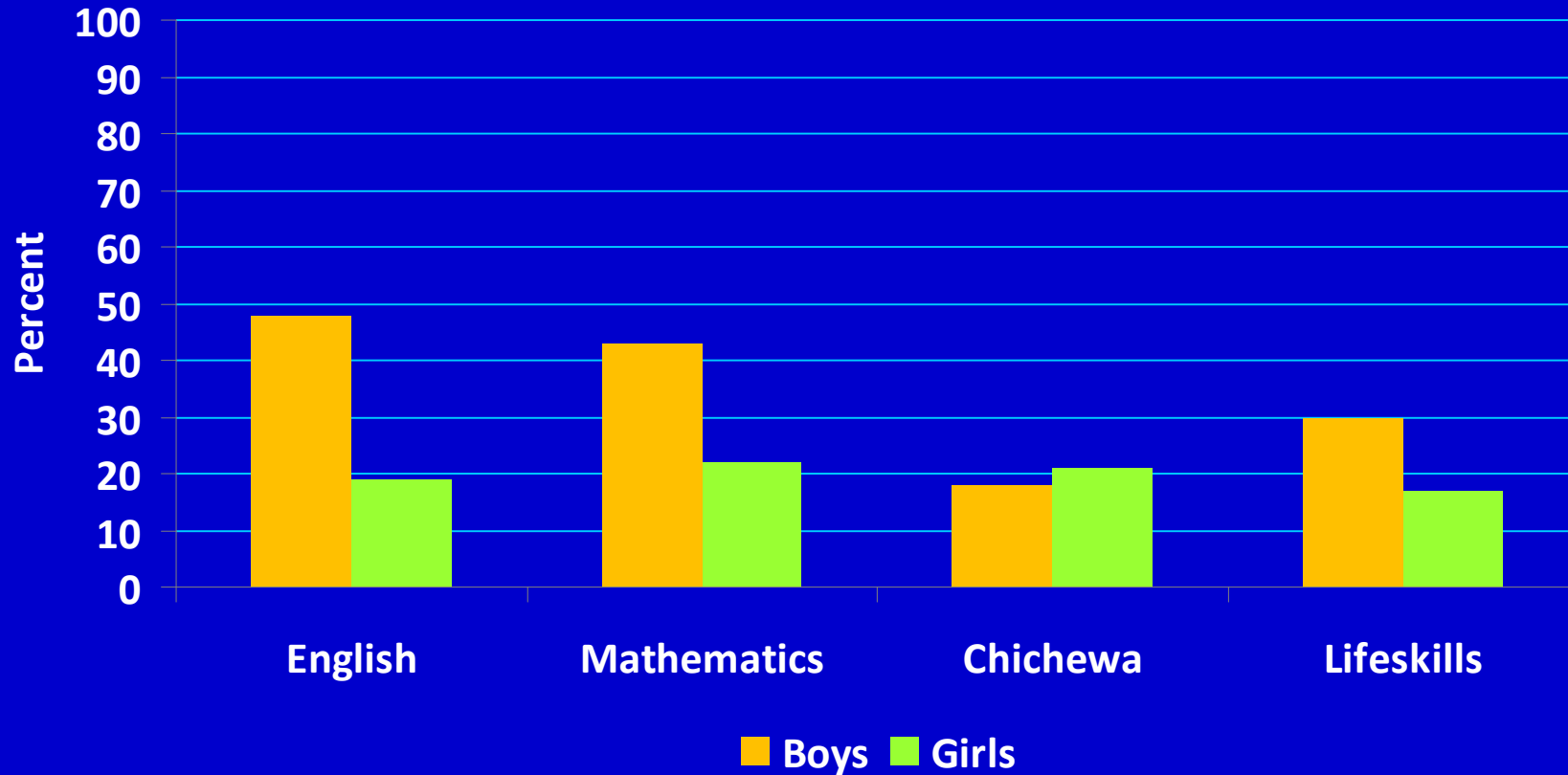


Omitted group: “boys/girls equally good”; male and female teachers included together

* asked via ACASI

School Quality: Student Gender Attitudes

Average percent students who say [boys/girls] better at learning* ...

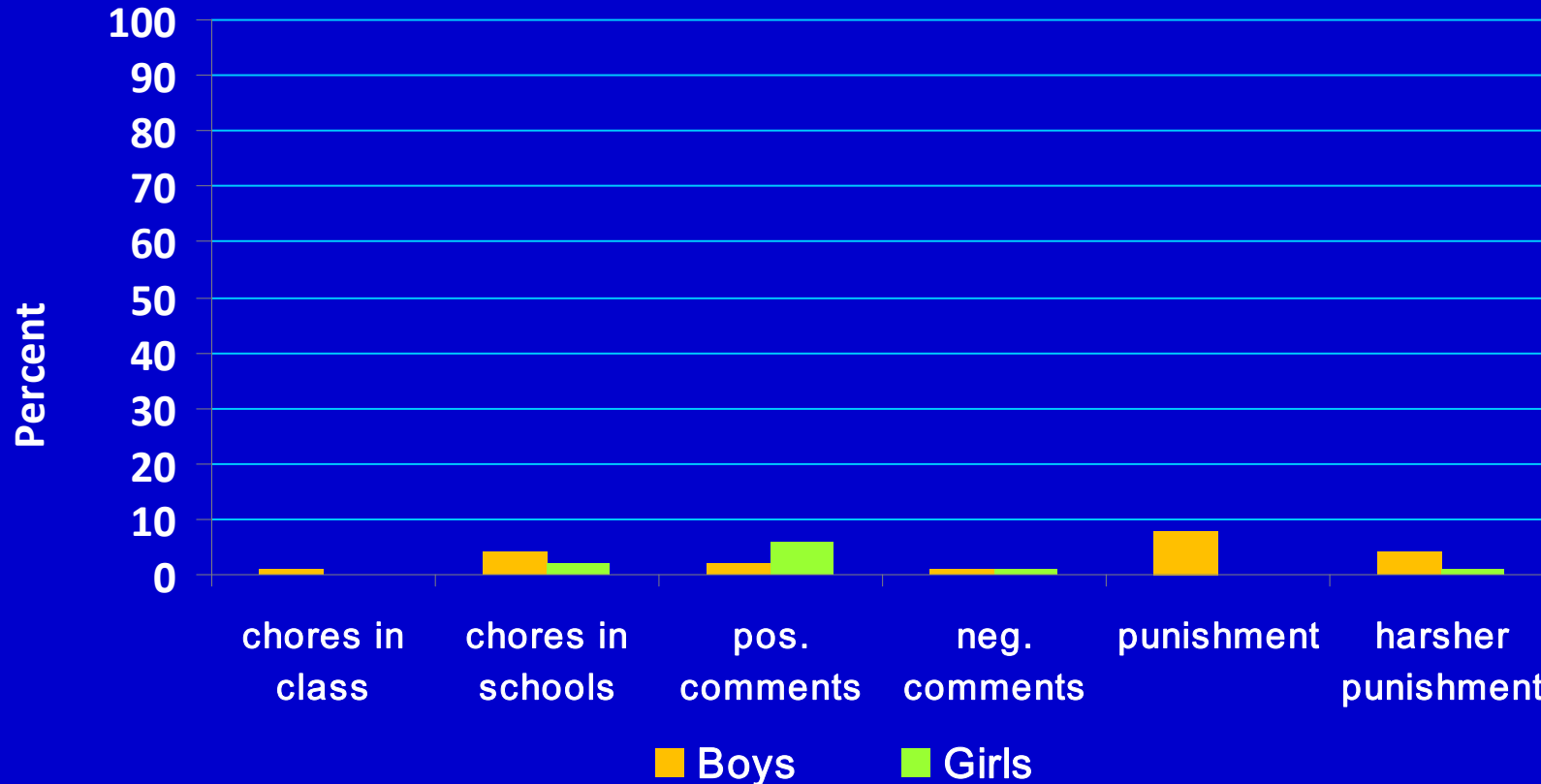


Omitted group: "boys/girls equally good; average of boy and girls together"

* asked via FTF interview

School Quality: Teacher Gender Attitudes

Average percent teachers who say [boys/girls] assigned/receive more* ...

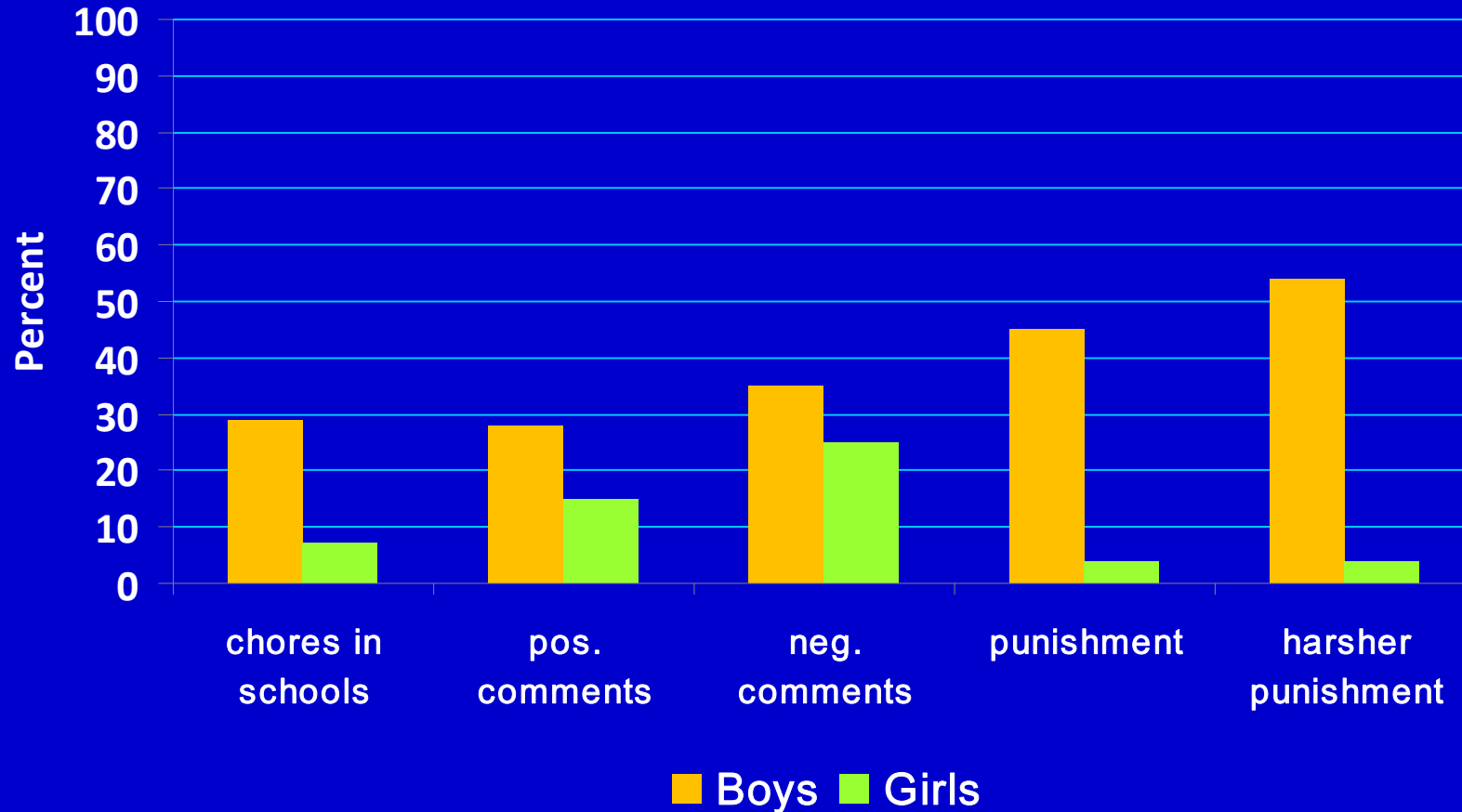


Omitted group: "boys/girls about the same; average of male and female teachers

* asked via ACASI

School Quality: Student Gender Attitudes

Average percent students who say [boys/girls] assigned/receive more...

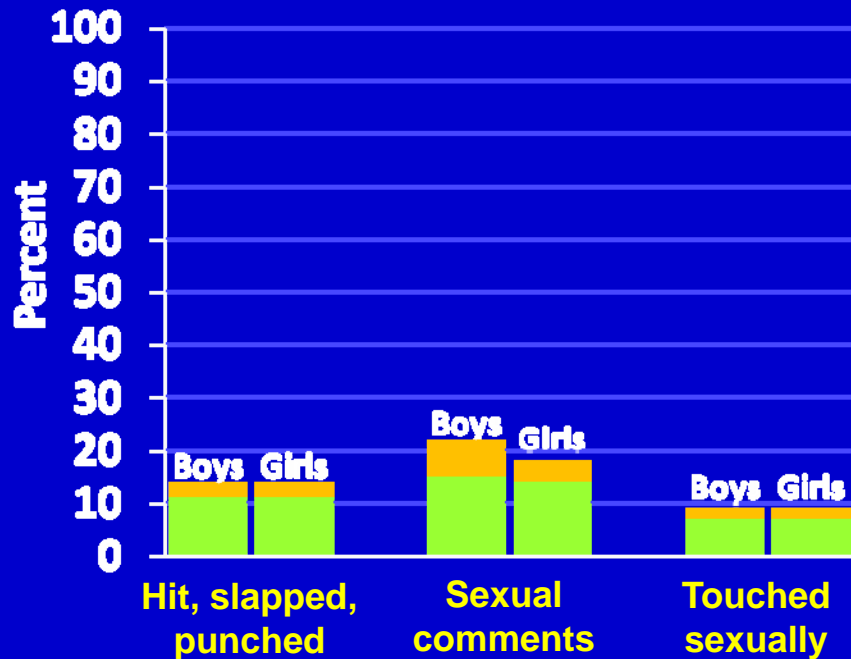


Omitted group: answer "boys/girls about the same"; average of boys and girls

* asked via FTF interview

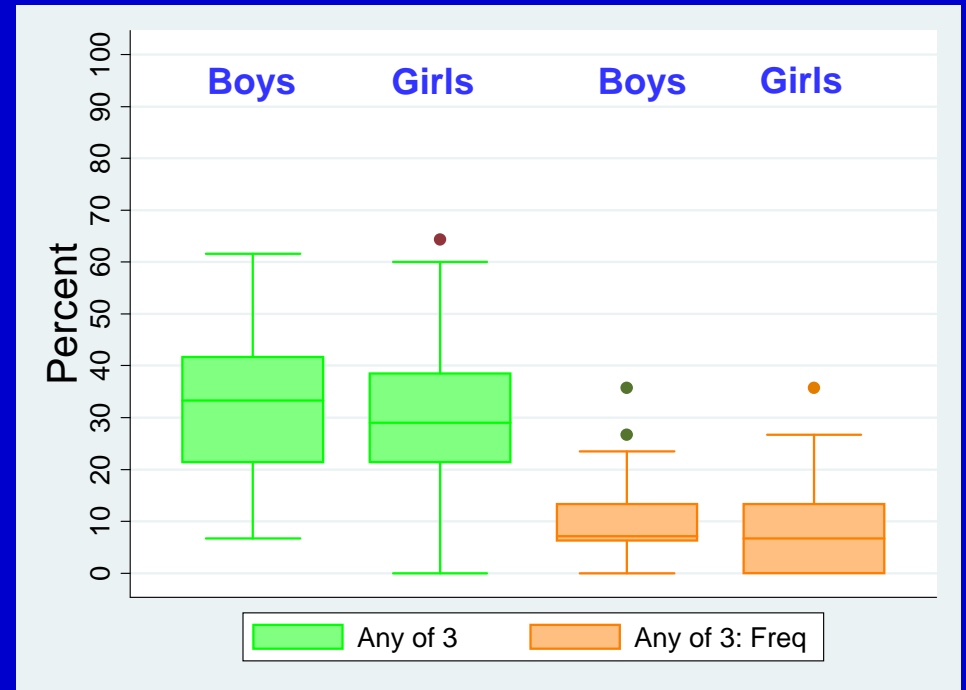
School Quality: Harassment by Students

Average percent students harassed at school* ...



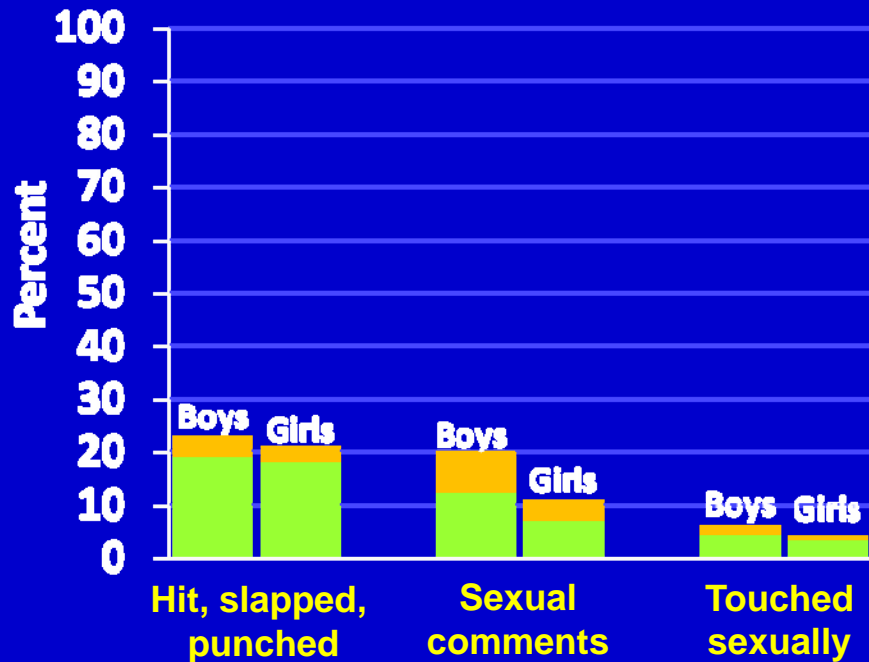
■ Frequent ■ Infrequent

* asked via ACASI

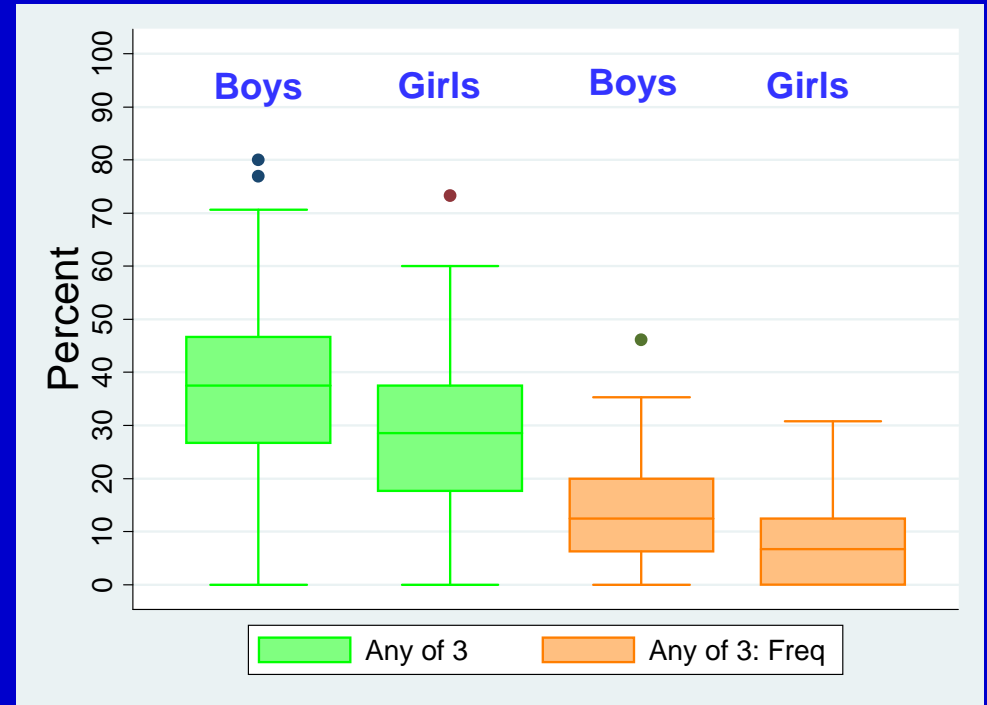


School Quality: Harassment by Teachers

Average percent students harassed at school...

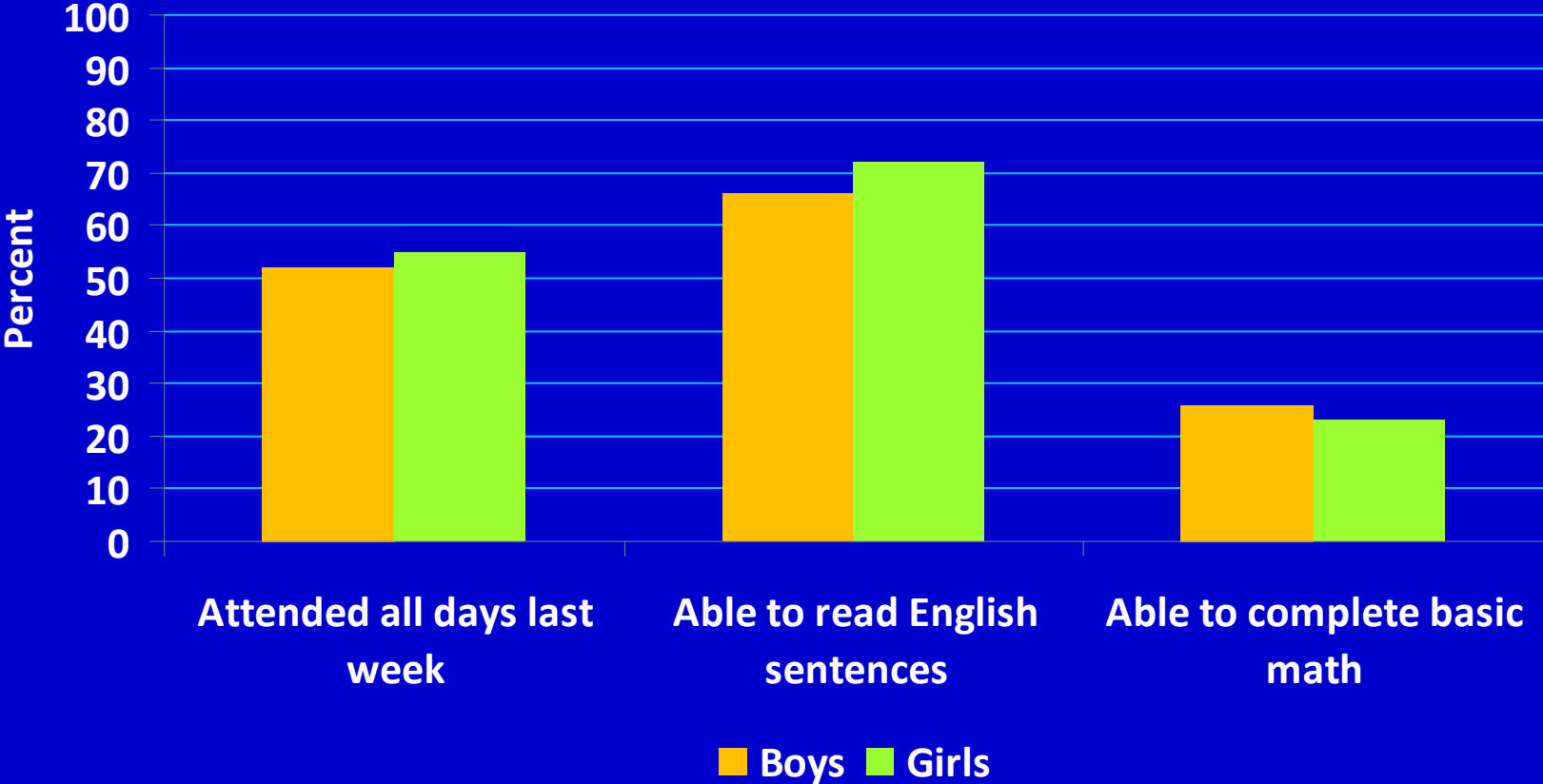


■ Frequent ■ Infrequent



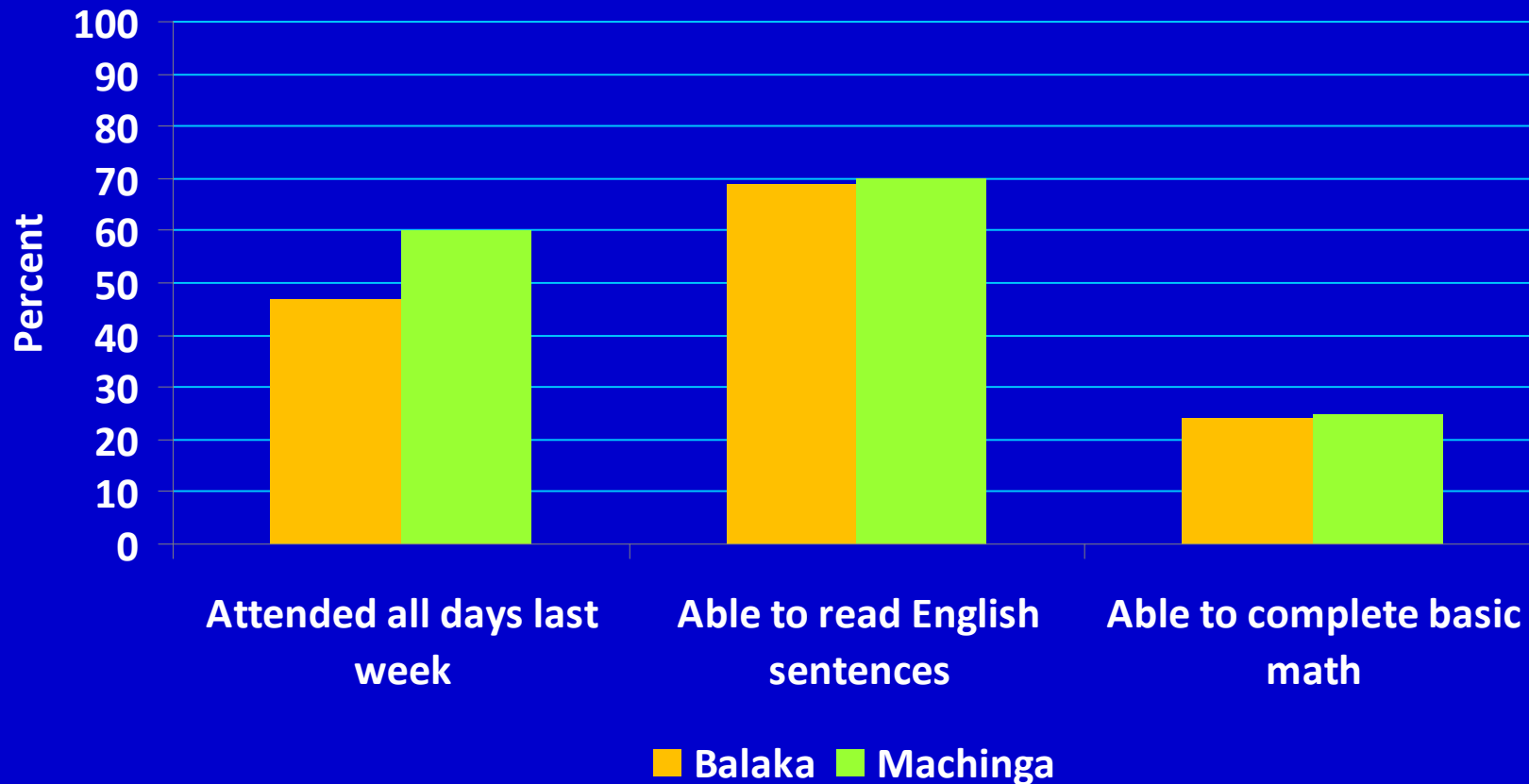
Educational Outcomes: By Gender

Percent of [boys/girls] who ...



Educational Outcomes: By District

Percent of students who...



Schooling Quality & Educ Outcomes

English Literacy

| Schooling quality indicator... | Expected Assoc. | Balaka | Machinga |
|-------------------------------------|-----------------|--------|----------|
| Material resources (avg. score) | + | - | + |
| Student teacher ratio | - | - | - |
| % Untrained teachers at school | - | - | + |
| % Volunteer teachers at school | - | - | + |
| % Teachers: say boys better English | - | - | - |
| % Students: say boys better English | - | - | - |

+/- sign at .10 or lower

Project Future Goals

- Develop Partnerships with NGOs and MOE to evaluate interventions to improve schooling experiences
- Develop Partnerships with educational researchers to implement innovative techniques to assess school quality
- Seek funding to interview respondents beyond 2009 to assess longer-term effects of school quality on social opportunities and transitions to adulthood

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