



Evidence Gaps— Secondary Education

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Conference Programme

Welcoming Address

Panel 1: What Have We Learned About Improving School Participation?

Panel 2: What Have We Learned About Enabling Learning?

Panel 3: Supportive Learning Through Technology

Panel 4: Teacher Characteristics, School Governance, and Incentives

Panel 5: Evidence Gaps: Secondary Education and Girls

Panel 6: Evidence Gaps: Early Childhood Education

Panel 7: From Evidence to Action: Next Step for Scaling Up Evidence

Concluding Remarks

Key Issues: Secondary School

- Growing demand
 - Primary enrollment in Sub-Saharan Africa increased from 115 to 136 million in 2005-09 (World Development Indicators)
 - Implies 11 million more places needed in secondary schools (at current rates of transition from primary)
- Relevance of skills
 - Across SSA, youth account for 60% of the unemployed

Key Issues: Secondary School

- Accessibility
 - Only 40% of population had a secondary school in walking distance in some provinces in Kenya (2009 FinAccess survey)
- Cost
 - Secondary school costs accounted for 55% of annual per capita household expenditures on average in Kenya (2005 Kenya Integrated Household Budget Survey (KIHBS))
- Quality
 - Low performance on standardized international tests
 - Weak preparation in primary school
 - Insufficient number of qualified instructors
 - Substantial variation across schools

Evidence

- Cost and Attendance
 - Cash Transfers
 - Conditional
 - Unconditional
 - Vouchers
 - Information
- Quality
 - Admission systems
 - Effects of attending selective schools

Evidence: CCTs and UCTs

- Families sensitive to costs of schooling. Cash and credit constraints are important
- Early studies: Progresa and Oportunidades in Mexico
- More recent: Evidence from conditional cash transfer (CCT)/unconditional cash transfer (UCT) programmes
- In Malawi, Baird, McIntosh, and Özler (2011) evaluated a CCT/UCT programme targeted to adolescent girls
 - Malawi has low enrolment in secondary school (24 percent)
 - 176 enumeration areas
 - Transfer amounts varied randomly: \$4 to \$10 to parents and \$1 to \$5 for girls

Evidence: CCTs and UCTs

- Both increased enrolment. After 2 years (6 terms):
 - UCT increased enrolment an average of 0.231 terms
 - CCT increased enrolment an average of 0.535 terms, increased attendance and test scores, had persistent effects
- Amount of transfer made no difference in CCT, but higher transfers led to higher enrolment in UCT
- UCT results do not seem to be driven by people misunderstanding them as CCTs
- Teenage pregnancy and marriage rates substantially lower in UCT arm than CCT arm, due to impact of UCTs on girls who had dropped out of school

Evidence: CCTs and UCTs

- CCTs can also be designed to promote re-enrolment, graduation, and tertiary matriculation
- Randomised evaluation in Colombia by Barrera-Osorio, Bertrand, Linden and Perez-Calle (2011):
 - Standard CCT: \$15/month conditional on 80 percent attendance
 - Savings CCT: \$10/month conditional on 80 percent attendance and \$50 at re-enrolment time
 - Graduation CCT: \$10/month conditional on 80 percent attendance, \$300 conditional on graduation from secondary school. Delayed by 1 year unless student enrolled in tertiary institution

Evidence: CCTs and UCTs

- Savings and Graduation CCTs did just as well promoting attendance, despite smaller amounts
 - increased re-enrolment
 - increased tertiary enrolment (49 percentage points for graduation, 9.4 savings)
- Caveat: siblings, especially girls, of lottery winners had lower enrolment.
- Reinforces notion that parents have preferences about which child to educate

Evidence: Vouchers

- In Colombia (Angrist, Bettinger, Bloom, King and Kremer 2007)
 - Vouchers to attend private schools (extra \$24 per student)
 - Lottery-based assignment
- Evidence on lottery winners
 - 15 percentage points more likely to attend private school
 - 10 percentage points more likely to finish 8th grade
 - less likely to repeat grades
 - scored 0.2 standard deviations higher on achievement tests
 - worked 1.2 fewer hours per week
 - more likely to take the university entrance exam

Evidence: Information Provision

- Information on returns to schooling increases attendance at secondary level
- In the Dominican Republic, 8th grade boys at randomly selected schools given information on actual returns (Jensen 2010)
 - Perceived returns very low at baseline
 - Information increased schooling by 0.20-0.35 years
 - Relatively low-cost intervention
- Similar effects in Madagascar (Nguyen 2008)

Evidence: Admission Systems

- Many countries have exam-based admissions
- Inequality in application process
 - Evidence from China, Ghana and Kenya that students from less privileged backgrounds are more likely to make mistakes in applying to secondary school
 - Lai, Sadoulet & de Janvry 2009, Ajayi 2012, Lucas and Mbiti 2012
- Key challenges
 - Lack of information
 - Limitations on choices
 - Complexity of application system
- Suggests importance of information and advising

Evidence: Selective Schools

- Evidence on effects of attending selective schools
 - Mixed results on attainment and performance
 - Effects depend on quality of alternatives
 - Households respond to admission outcomes
- Existing studies
 - China, Ghana, Kenya, Malawi, Romania, Trinidad and Tobago (Park, Shi, Hsieh, and An 2010, Ajayi 2012, Lucas and Mbiti 2011, De Hoop 2010, Urquiola and Pop-Eleches 2011, Jackson 2010)
- Implications: school admission may affect longer-run outcomes for certain students
- Key limitation: focus on academic performance

Moving Forward

- Open Questions
 - Pedagogy
 - Technology
 - Inequality
- Opportunities
 - Data sources
 - Collaboration
- Ongoing Research

Open Questions: Pedagogy

- Mother tongue instruction?
- Local content?
 - e.g. environment-based science teaching
- Hands-on vocational instruction versus theory?
- Soft skills, life-skills, discipline, etc. versus content
- Testing (what to measure, when)
- Tracking (how much, based on what)
- Specialization and field of study

Open Questions: Technology

- Which technologies do and do not work:
 - computers, video, mobile phone technology?
- Role of software, structured programs versus free play
- How can teachers be trained to use technology effectively?
- To what extent can ICT substitute for a lack of quality teachers? To what extent is it a substitute rather than a complement?
- Is technology more effective when interactive (more expensive) or one-way?

Open Questions: Inequality

- Main considerations in designing admission systems
 - “Merit” and academic tracking
 - Diversity and affirmative action
 - How much say should schools have?
- Does the quality of secondary schools matter?
 - What makes a “good” school?
 - What are the long-run effects of attending selective schools?
 - Which students in particular benefit?
 - What are the returns to field of study?
- Additional ways to reduce inequality?
 - Financing and scholarships (merit or need-based)
 - Information provision

Opportunities: Data Sources

– Administrative data

- Standardized exam scores
- Centralized application systems
- EMIS

– Additional information

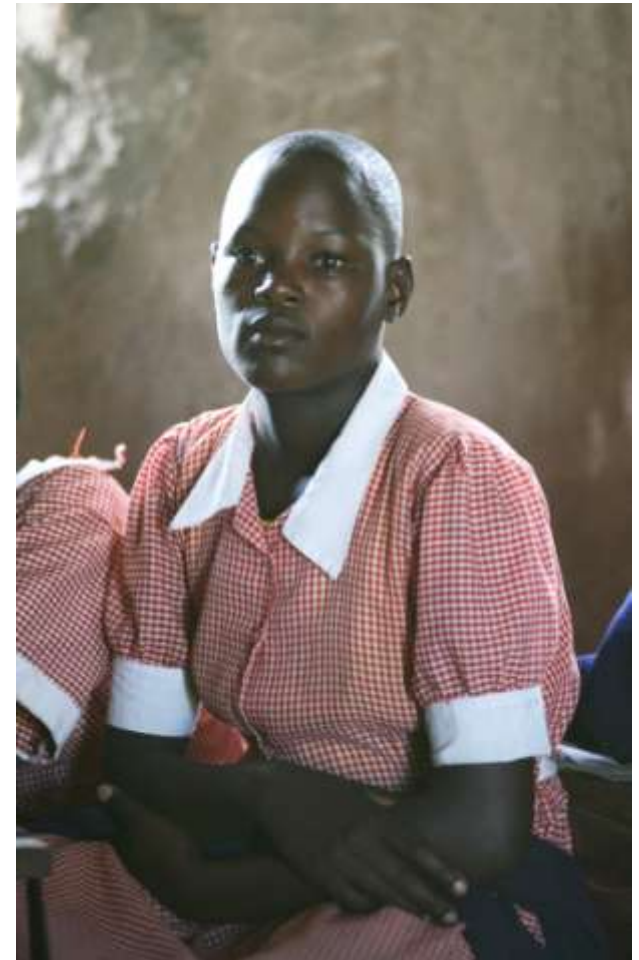
- Student surveys (family background, expectations)
- Longitudinal data (links to labor market outcomes)
- Unique identification numbers (to track students over time)

Opportunities: Collaborations

- Ministries of Education
- Examination Councils
- Schools and Teachers
- NGOs/Civil Society Organizations
- Researchers

Ongoing Research in Africa

- Ghana: Duflo, Dupas, and Kremer on short- and long-term (10 years) impact on a secondary school scholarship
- Zambia: Ashraf, Low, and McGinn on training programme in negotiating skills for 8th grade girls
- Kenya: Hamory, Kremer, Mbiti, and Miguel on voucher programme for vocational education in Kenya





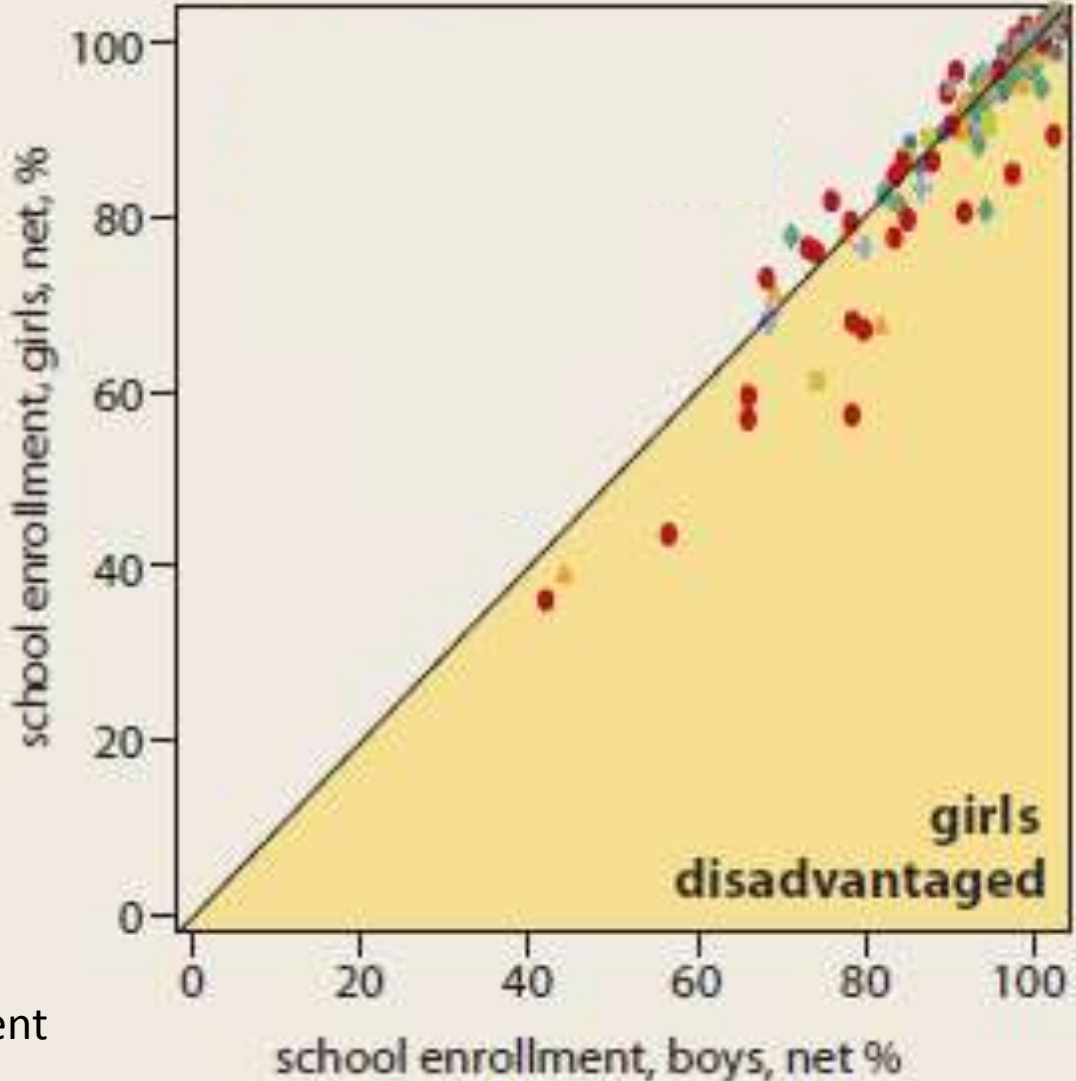
Girls Education: Directions for Future Research

Rebecca Thornton



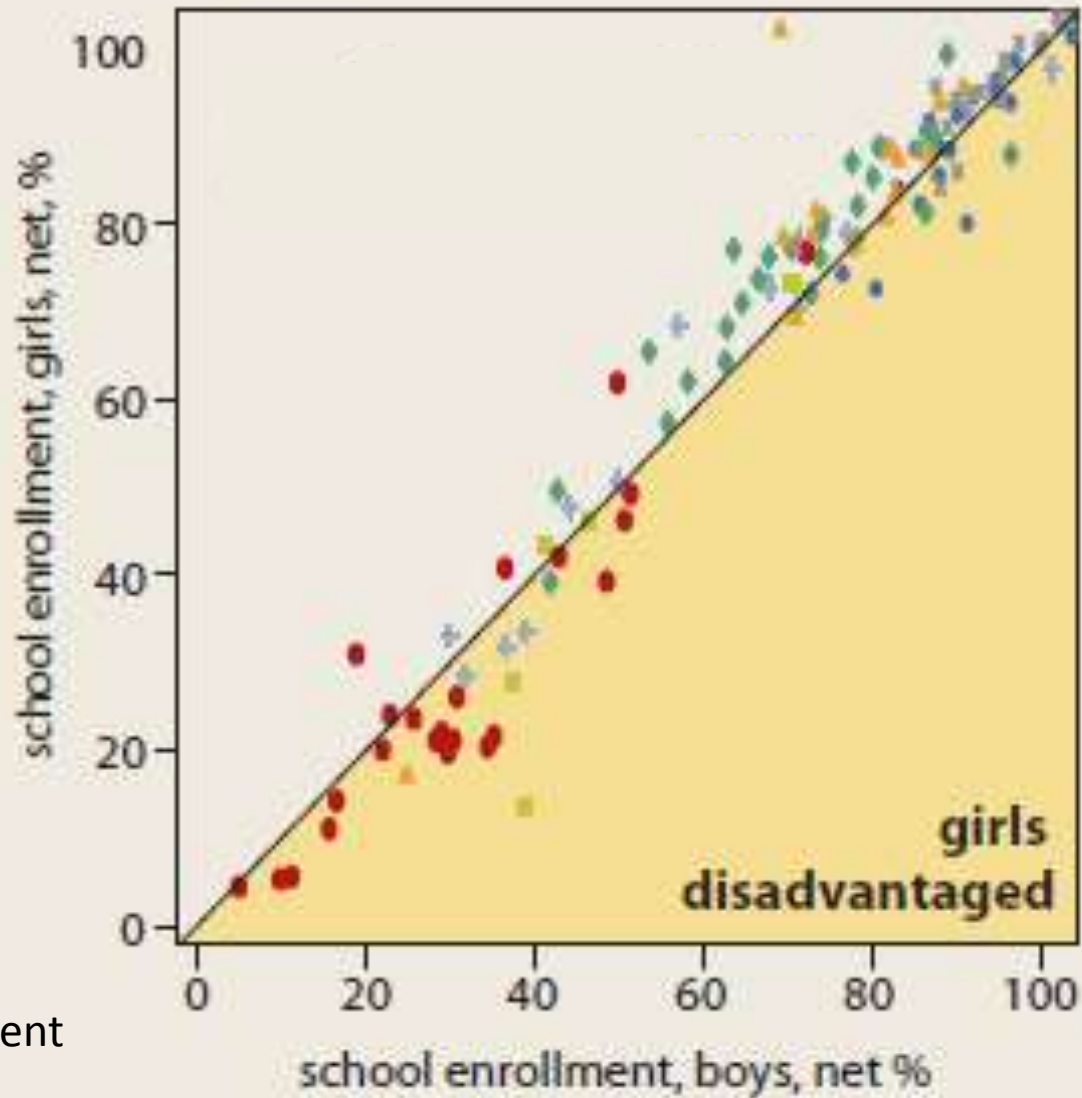


Primary education



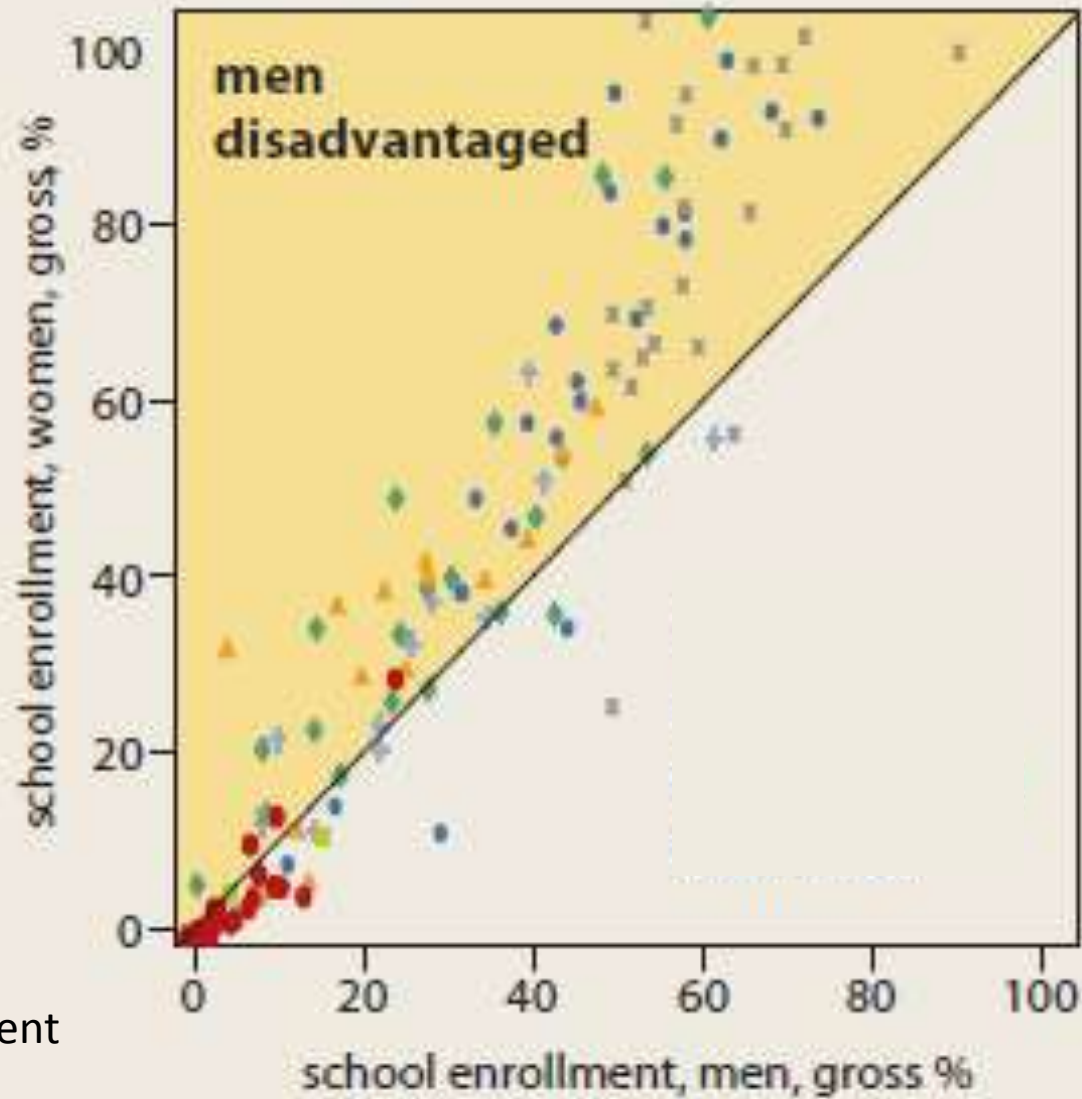


Secondary education





Tertiary education



Sub-Saharan Africa

- Lags behind at all levels of education
- Gender inequality
 - 79 girls for every 100 boys enrolled in secondary school
 - 63 girls per 100 boys at the tertiary level
- Unequal skill attainment: girls are 10 percentage points less likely to be literate
- Many programs work equally well for girls.

What is different about girls?

Source: World Development Indicators

Early marriage

PROPORTION OF WOMEN AGED 20-24 MARRIED BY THE AGE OF 18

	Per cent
Benin	36.7
Burkina Faso	62.3
Cameroon	53.4
Central African Republic	57.0
Chad	71.4
Cote d'Ivoire	33.2
Gabon	33.6
Ghana	27.9
Guinea	64.5
Mali	65.4
Niger	76.6
Nigeria	43.3
Senegal	36.1
Togo	30.5

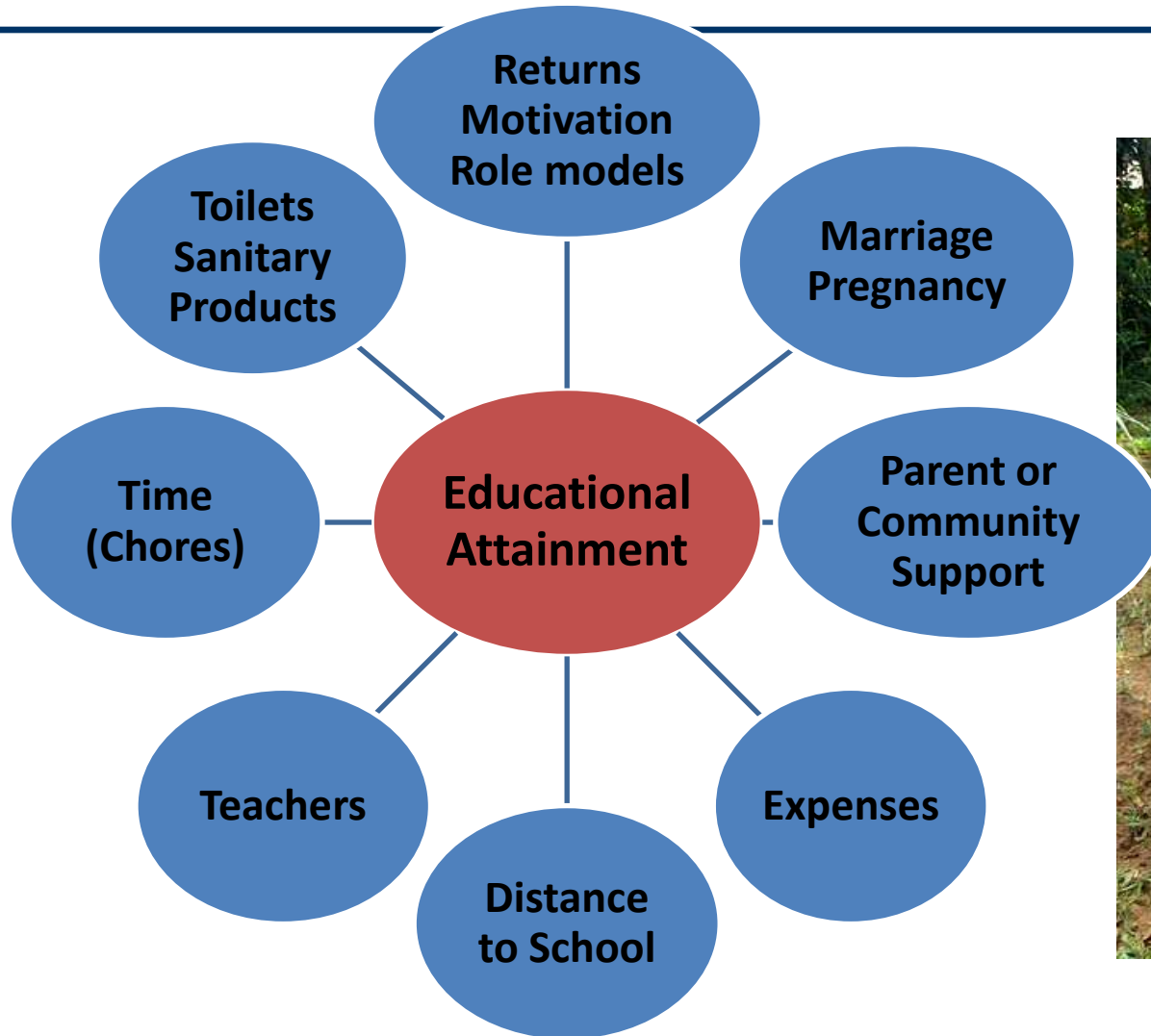
Source: *Early Marriage A Harmful Traditional Practice: A statistical exploration*, UNICEF, New York, April 2005, p. 32.

Household chores

		Benin (1998)		
		Women	Men	Women/ Men
Fetching water	Urban	16	10	160%
	Rural	1h3	24	263%
	Urban and rural	46	19	242%
Collecting firewood	Urban	2	2	100%
	Rural	17	7	243%
	Urban and rural	12	5	240%

World Bank, 2006

Why might gender make a difference?

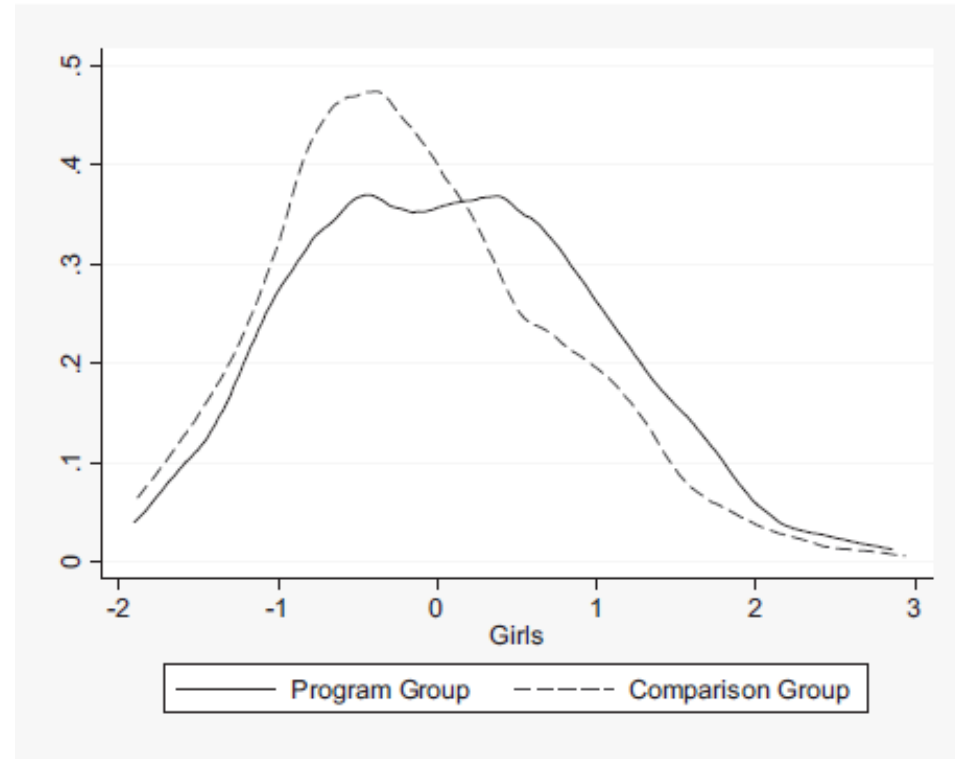


Evidence: Returns to Education

- When returns to women's education increase, so does the schooling of girls.
- New job opportunities
 - Call centers in India increased enrollment in primary school by 5.7 percent (Oster and Millet, 2012).
 - Three years of recruiting services offered to young women in randomly selected villages in India. Less likely to get married, have children, completed more schooling (Jensen, 2012).

Evidence: Returns to Education

- Short term rewards:
Merit Scholarships
 - Increased test scores and attendance
 - Boys and low achieving girls
 - Context matter
 - Lasting effects; 1 year, secondary school
 - Empowerment



Miguel, Kremer and Thornton, 2010; Friedman et al., 2012

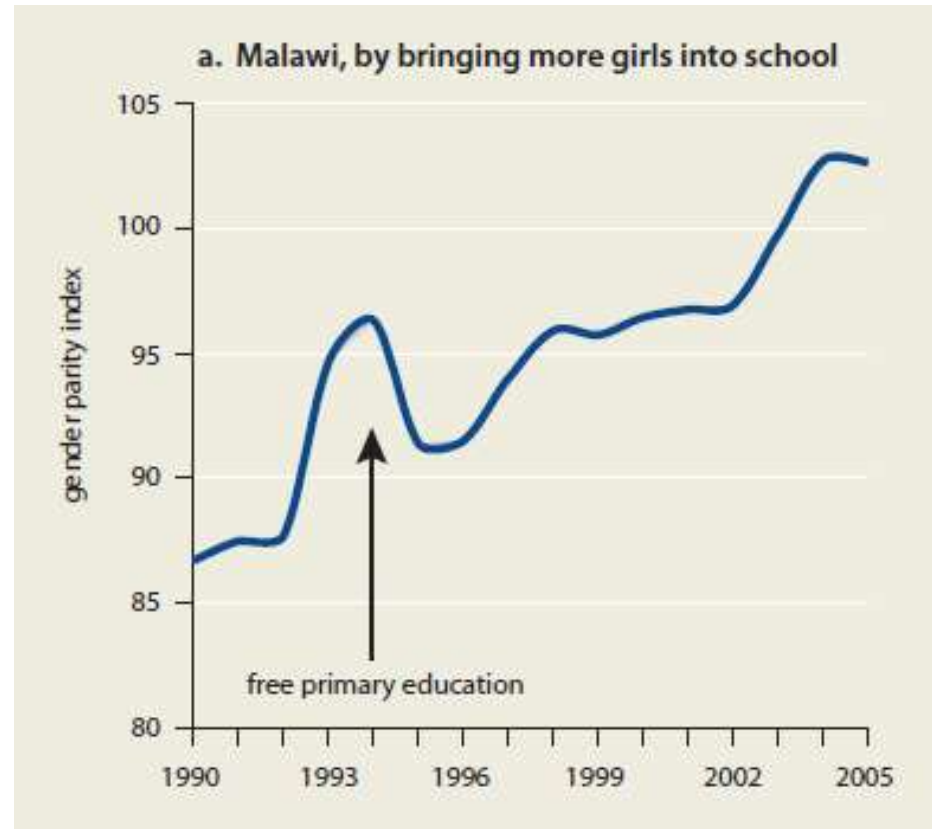
Evidence: Role Models

- Role models (Beaman et al.)
 - 1/3rd of council positions randomly reserved for women in India
- Villages with more female leaders
 - Girls want to marry later (19 pp)
 - Want a better job (8.6 pp)
 - Gender gap in education erased
 - Gender gap in time spent on HH activities reduced by 18 min
- Mechanism?



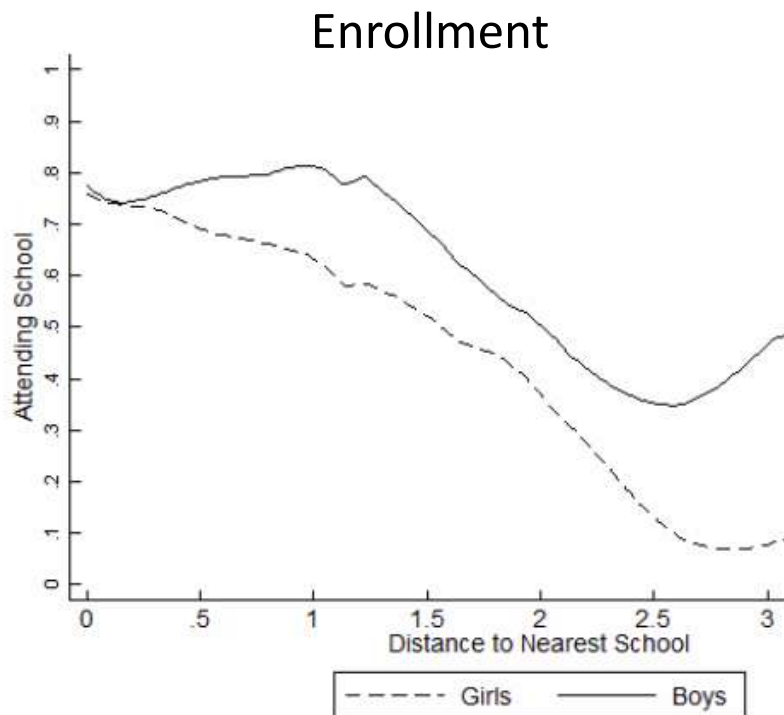
Evidence: Expenses

- Lower school fees or increased income reduces differential investment across boys and girls.
- Unconditional cash transfers (Baird et al.)
- Uniforms (Duflo et al.)
 - Reduced dropouts (2.4 pp)
 - Increased graduation (4.5 pp)
 - Less likely to marry (1.7 pp)



Evidence: Distance to School

- Afghan communities randomly selected to receive a school (Burde and Linden, 2012)



Evidence: What didn't work?

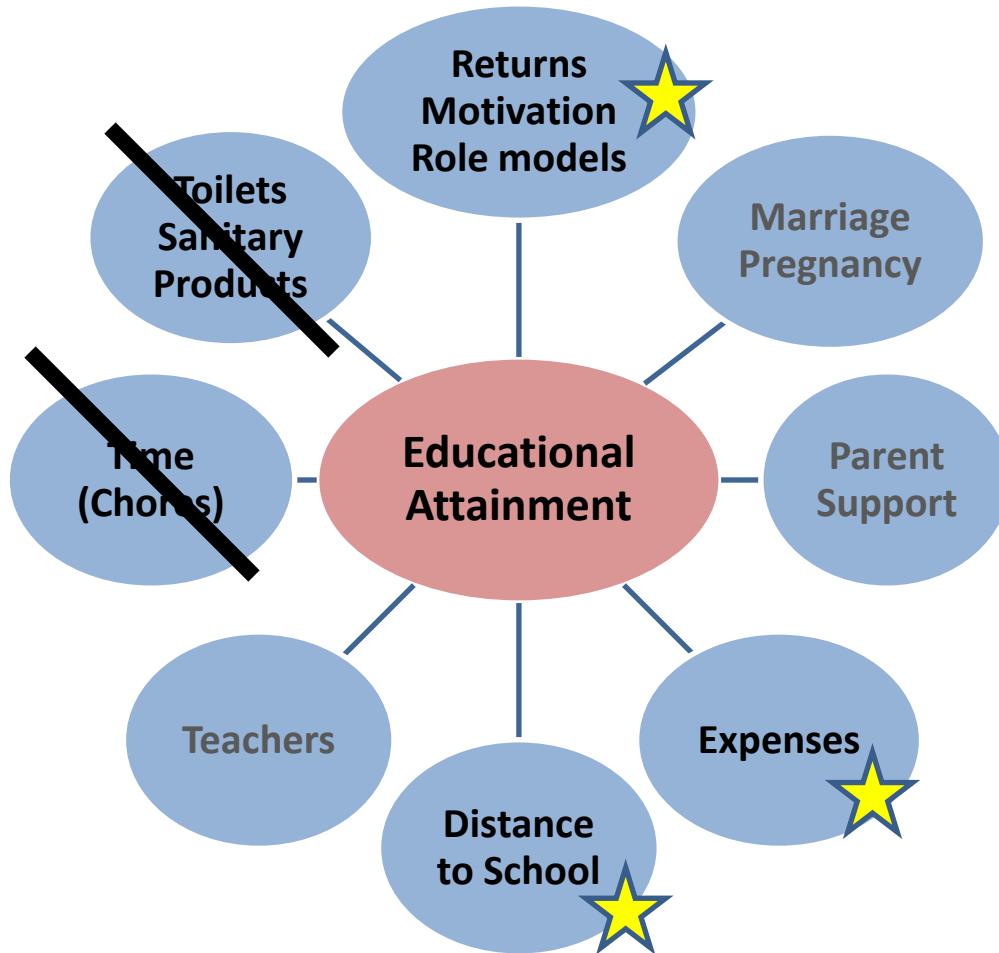
- Girls have burden of household chores. Does this affect attendance? (Devoto et al., 2009)
 - In-house piped water in Morocco reduced time on water chores
 - But...used time for TV watching and socializing

Evidence: What didn't work?

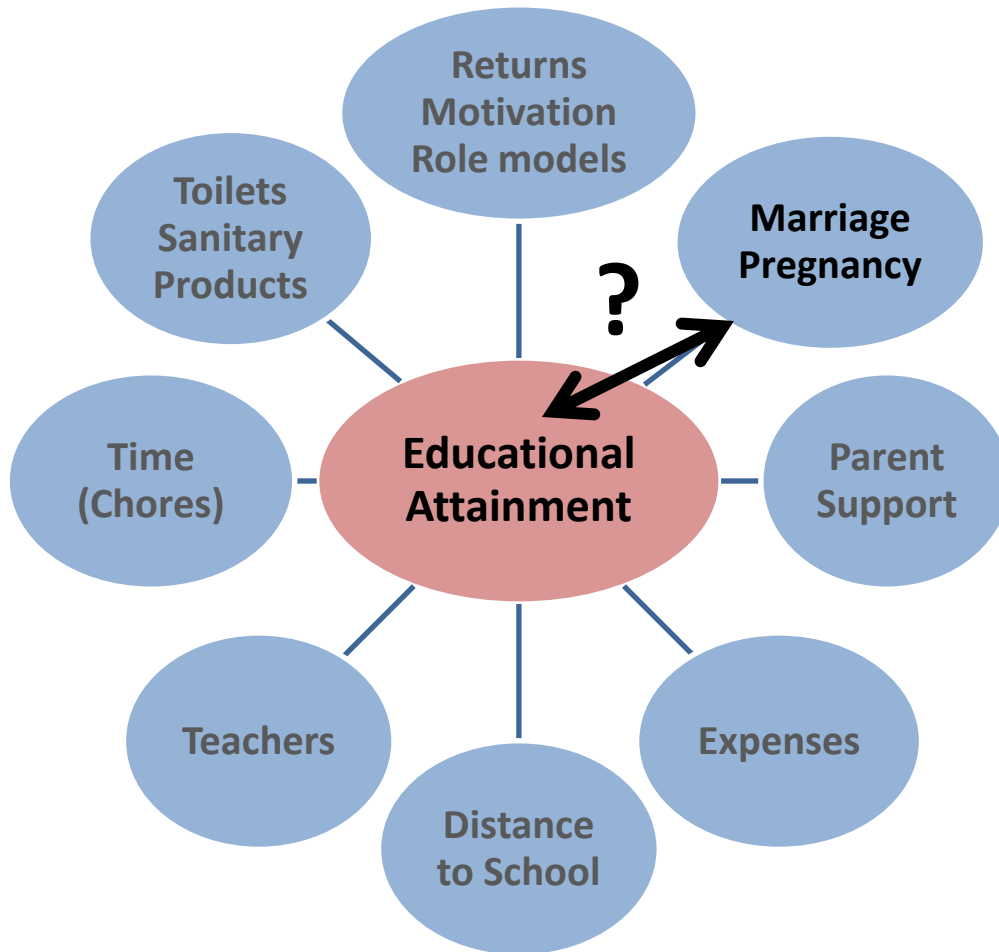
- Does access to menstrual sanitary products improve attendance or learning? (Oster and Thornton, 2011)
 - No effect on attendance or test scores in Nepal.
 - Reduce time on laundry by 22 minutes per day

Open Questions

- Generalizability of findings?

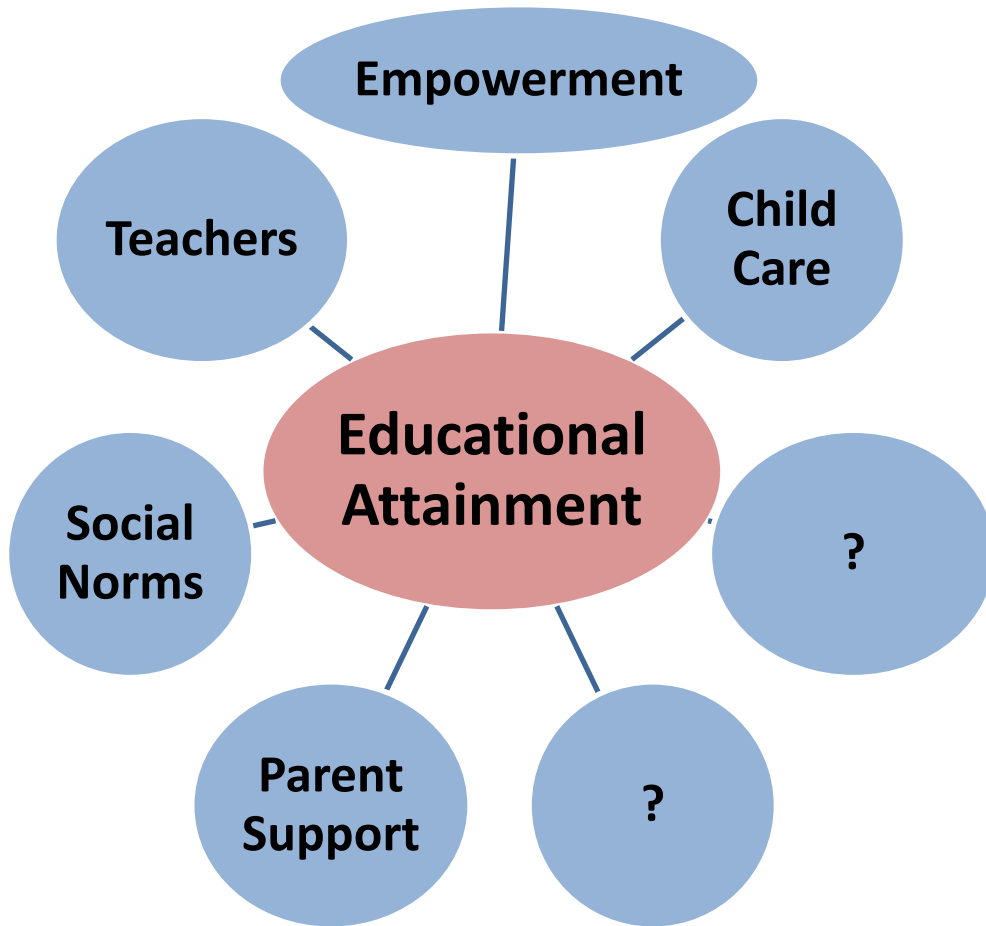


Open Questions



- Evidence that some programs improve other outcomes
 - Marriage
 - Empowerment
 - Aspirations
- Is it better to target schooling or target the specific barrier?

Open Questions



- Other barriers?
- Other programs to be evaluated?

Additional Considerations

- Mechanisms?
- Who to target with which interventions?
Schools, children, parents, teachers,
community?
- One barrier or multiple? Interactions?
- Realistic policies?

J-PAL's Post-Primary Initiative

- J-PAL's Initiative concept: fund that supports a coordinated research agenda around an under-studied, policy-relevant topic
- Goal: help build an integrated body of knowledge, similar to what has been achieved with primary education, on how to improve access, quality, and relevance of post-primary education
- Existing J-PAL Initiatives: Agricultural Technology Adoption, Governance, Youth
- Typically around \$5 million, supporting ~20 full-scale studies

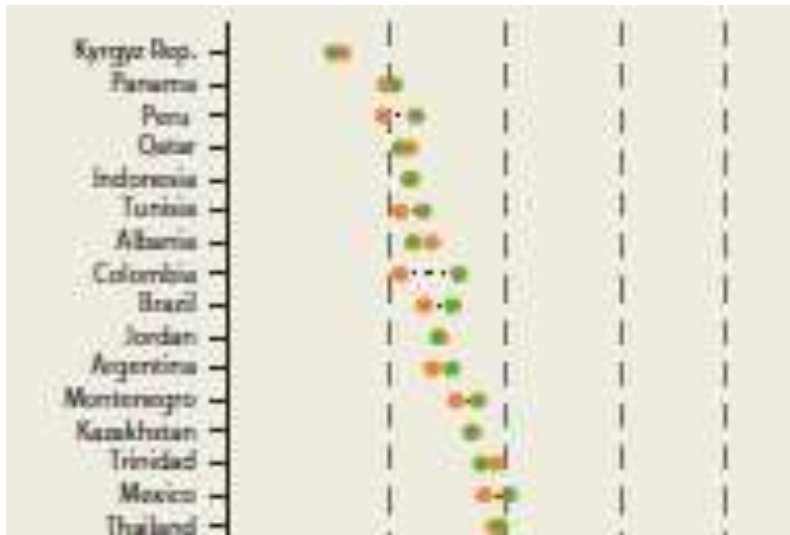
J-PAL's Post-Primary Initiative

- Literature review in progress
 - Identified 67 randomized and non-randomized studies from journals, working papers, conference programs
 - Review for quality of identification strategy
 - Set out what is known, key open questions
- Researchers will compete for funding through several rounds of RFP, with proposals evaluated against criteria set out in review paper
- As studies completed, J-PAL will update review paper, conduct policy outreach and cost-effectiveness analysis

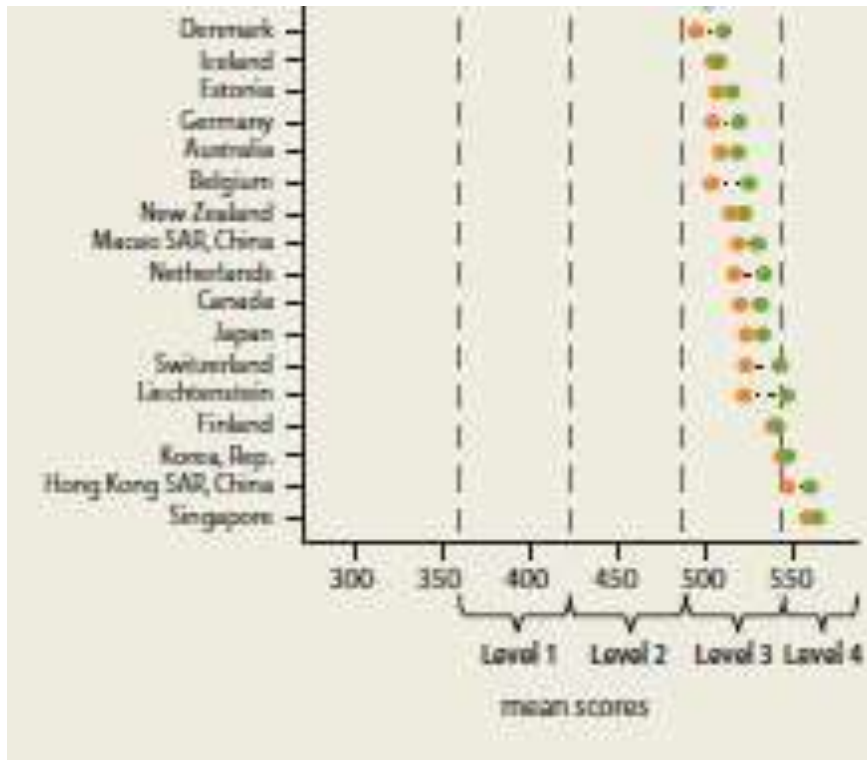
Fields of Study

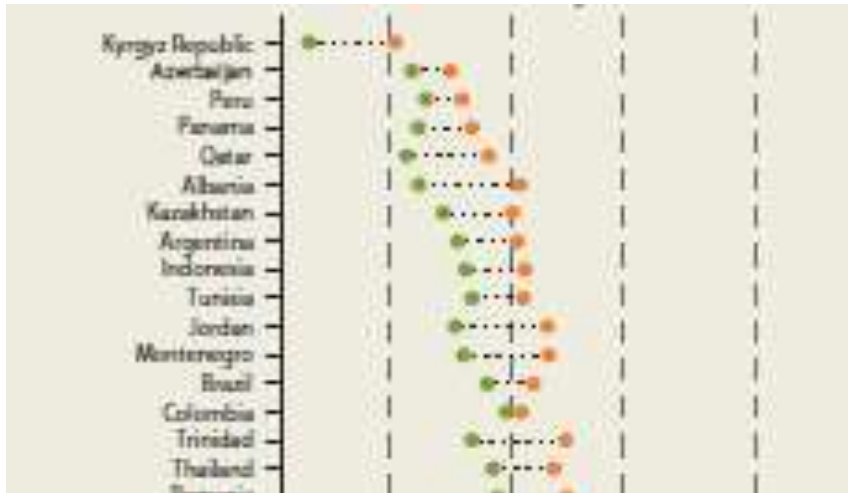
Field of study	Fraction of countries where the field of study is			Number of countries
	Female dominated %	Male dominated %	Neutral %	
Agriculture	3	74	22	89
Education	84	6	10	97
Engineering, manufacturing, and construction	0	100	0	97
Health and welfare	82	4	13	97
Arts and humanities	55	6	39	96
Science	13	68	20	96
Services	21	59	21	87
Social sciences; business and law	23	16	61	97

Source: WDR 2012 team estimates based on data from UNESCO Institute for Statistics.

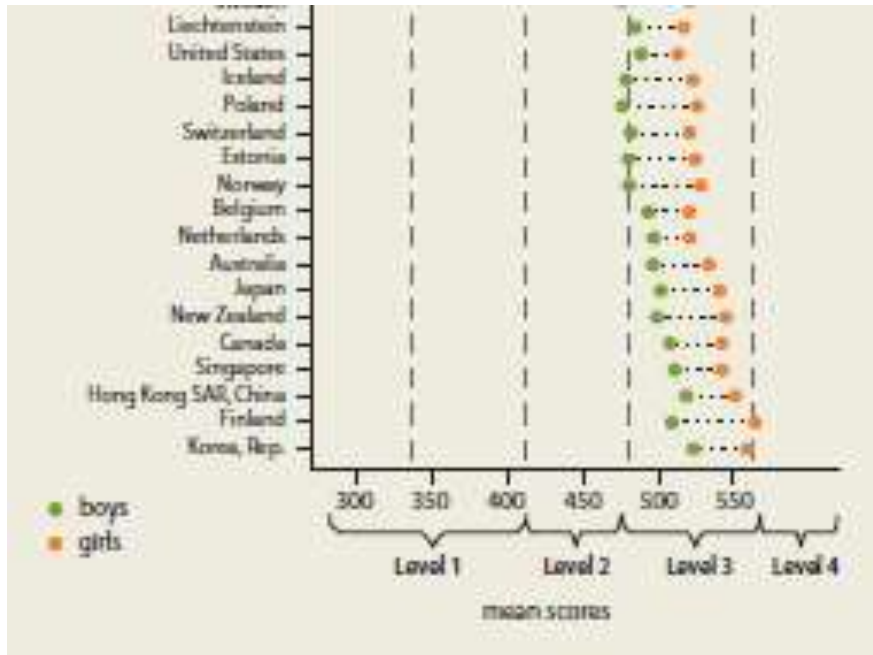


- Standardized math test (2009 PISA)
- Boys
- Girls





- Literacy





VISION

Gender disparities in education will be significantly reduced and more girls will have access to school, complete their studies and perform well at all levels.

Main Goals:

Influence educational policies relevant to expand female education, improve performance and sustain survival;

Document and disseminate information on innovative strategies enhancing female education and empowerment of women;

Encourage reproduction of strategies enhancing female education and empowerment of women;

Build essential linkages between educational research,

OBJECTIVES CONTINUED

Encourage reproduction of
strategies enhancing female education and
empowerment of women;
Build essential linkages between educational
research, policy, planning and implementation

2011 Press Release by the Gender Centre on International Women's Day

- institutions like Forum for African Women Educationalists (FAWE), Ghana Education Service/Girls' Education Unit, UNICEF etc have contributed immensely in increasing girl child enrollment in schools.

Nsaba Girls Diaspora Senior High School



FAWE GENDER RESPONSIVE CENTRE OF EXCELLENCE : NSABA DIASPORA GIRLS HIGH SCHOOL



2011 FAWE AWARD WINNERS & FAWE MEMBERS IN FRONT OF NDGHS



ADVOCACY INITIATIVES AND MEDIA COLLABORATION: *MMAA NKOMMO*

- “The [award-winning women’s talk show] programme was initially sponsored by FAWE (Ghana) Forum for Africa Women Educationists, through the kind effort of Hon. Vida Amadi Yeboah. FAWE also provided the chairs for the participating audience. “ Afia Ansa Ampene - Host

ADVOCACY –FAWE FM





**Panel 5:
L'ENSEIGNEMENT SECONDAIRE
ET LES FILLES: PISTES POUR LA
RECHERCHE FUTURE
COMPAORE Panoussa**



QUELQUES INDICATEURS CLÉS AU BURKINA FASO

- *Au niveau de l'accès*
- Seulement 32,6% (moins d'1/3) des enfants de 12 ans ont accès au postprimaire en 2011 dont 29,50% pour les filles
- Au second cycle du secondaire, à peine 1 enfant sur 10 (9,60%) en âge d'accès à ce niveau (16 ans) y a accédé en 2011.
- Pour les filles, le TBA était de 6,9% au second cycle .

QUELQUES INDICATEURS CLÉS AU BURKINA FASO

- *Au niveau de l'achèvement*
- *Seulement 17,50% des élèves du postprimaire terminent leur cycle dont 14,3% pour les filles*
- *Au second cycle le taux d'achèvement des filles est de 6%.*
- *Ce qui pose le maintien des filles au secondaire avec des rendements scolaires peu reluisants:*

QUELQUES INDICATEURS CLÉS AU BURKINA FASO

- *le taux de redoublement des filles atteint 26,5% en 6^{ème} , 47,4% en classe d'examen en fin de 1^{er} cycle et 37,2% en Terminale*

QUELQUES INDICATEURS CLÉS AU BURKINA FASO

- Des coûts unitaires par niveau très élevés au secondaire

	Précol.	Primaire	Enseignement secondaire général			tech formation	ENEP	Ens. Sup *
			1 ^{er} cycle	2 nd cycle	Total			
			(a)	(b)	(a) + (b)			
en % du PIB / habitant	35,10%	16,60%	19,30%	62,50%	26,40%	180,70%	340,90%	215,20%
Indice primaire =1	2,11	1	1,2	3,8	1,16	10,9	20,5	12,9

DÉPENSES MOYENNES DES MÉNAGES (EN DOLLARS US) PAR ENFANT ET NIVEAU D'ÉTUDE ET LE MILIEU DE RÉSIDENCE

	Préscolaire	Primaire	ESG 1	ESG2	Ens.	Ens.
					Tech.	Sup.
Dépense moyenne USD	115	20	99	158	238	220
Ménages ayant recours						
Au public uniquement	16	13	52	62	137	136
Au privé uniquement	171	90	225	190	170	765
Au public et au privé	30	53	91	200	315	230
Localisation						
Rural	2	11	56	41		
Urbain	146	33	103	156	231	215

IDENTIFICATION DES OBSTACLES LIÉS À L'ACCÈS, AU MAINTIEN ET À LA RÉUSSITE DES FILLES (PAR ORDRE, DU PLUS IMPORTANT AU MOINS IMPORTANT)

Accès	Maintien	réussite
Pauvreté	Pauvreté	Pauvreté
Distance	Grossesse	Adolescence
Frais de scolarité	Mauvaises fréquentations	Grossesse
Insuffisance des établissements	Adolescence	Mauvaises fréquentations
Pesanteurs	Manque de volonté	Démission parents
Grossesse	Travaux domestiques	Travaux domestiques
Mariages	Pesanteurs socioculturelles	Pesanteurs socioculturelles
Démission des parents	Distance	Manque de volonté
Faible niveau d'instruction des parents	Mariage	Frais scolaires
Insuffisance de place au collège	Démission parents	Mariage
Nombre d'enfants	Frais scolaires	Distance
Manque de confiance		Harcèlement
Mauvaise perception de l'école		

LA CATÉGORISATION DES OBSTACLES

- ❑ Ces facteurs peuvent être répartis en trois catégories :
 - ✓ les facteurs liés à l'environnement familial ;
 - ✓ les facteurs liés à l'environnement scolaire ;
 - ✓ les facteurs liés à la personnalité des filles.

LA CATÉGORISATION DES OBSTACLES

❑ les facteurs liés à l'environnement familial

- ✓ Les facteurs d'ordre économique :
 - Pauvreté,
 - Aide familiale,
 - Travaux domestiques/ménagers

- ✓ **Les facteurs d'ordre socioculturel:**
 - le faible niveau d'instruction des parents,
 - la mauvaise perception de l'école,
 - les pesanteurs socioculturelles,
 - les mariages forcés/précoces,
 - le nombre élevé d'enfants dans la famille,
 - la démission des parents.

LA CATÉGORISATION DES OBSTACLES

- ❑ **les facteurs liés à l'environnement scolaire** (*Ce sont les facteurs liés à la nature de l'offre scolaire*)
 - l'insuffisance des établissements;
 - l'insuffisance de places au collège;
 - l'éloignement des établissements des lieux de résidence des élèves (les distances),
 - Le coût de la scolarité comprenant les frais de scolarité et les autres frais connexes (restauration, habillement, déplacement, fournitures)
 - l'efficacité du système (le rendement, les redoublements et les échecs répétés).

LA CATÉGORISATION DES OBSTACLES

❑ les facteurs liés à la personnalité des filles

- les difficultés de comportements (la gestion de la sexualité dont une des conséquences sont les grossesses;
- l'attitude vis-à-vis de l'école;
- les mauvaises fréquentations;
- le manque de confiance en soi;
- le manque de motivation pour les études;
- les difficultés d'apprentissage;
- la motivation insuffisante pour la poursuite des études;
- l'emprise des pesanteurs socioculturelles.

QUEL OBSTACLE ATTAQUÉ?

- **La faiblesse des revenus des ménages** qui ne permet pas de faire face à:
 - ✓ aux frais de scolarité,
 - ✓ aux problèmes d'hébergement,
 - ✓ aux problèmes de restauration,
 - ✓ aux de déplacement des enfants en cas d'éloignement de l'établissement du lieu de résidence
- **Et les pesanteurs socio culturelles**

LES ACTIONS MENÉES AU SECONDAIRE

□ **Au plan politique:**

- ✓ Adoption de textes officiels portant fixation des quotas à l'admission des élèves dans l'enseignement technique et professionnel (50%/50%)
- ✓ Institutionnalisation de camp scientifique national au profit des filles du secondaire afin d'inciter leur culture scientifique
- ✓ Mise en place d'un Conseil national de prévoyance contre la violence en milieu scolaire

LES ACTIONS MENÉES AU SECONDAIRE

- **La gratuité et l'obligation scolaires dans 45 départements choisis dans le cadre de la mise en œuvre de la réforme du système éducatif depuis 2007/2008:**
 - **Gratuité des frais d'inscription, gratuité des fournitures scolaires, présence de la cantine scolaire et prise en charge totale des frais de vacation pour suppléer au manque des enseignants par l'Etat**
 - ✓ ***Constats: augmentation de l'effectif des élèves de 107% entre 2008 et 2011***
 - ✓ ***Augmentation de l'accès et de la fréquentation des filles de 133% entre les deux périodes***

LES ACTIONS MENÉES AU SECONDAIRE

❑ **Au niveau socioculturel**

- ✓ Dans le cadre du projet enseignement post-primaire, phase 2 co-financé par la Banque Mondiale et le Royaume des Pays-Bas, des actions de sensibilisation pour briser les barrières sociologiques à la scolarisation (avec implication des élus locaux dans 18 provinces dites prioritaires)

LES ACTIONS MENÉES AU SECONDAIRE

□ **Au plan économique**

- ✓ En plus de l'élargissement de la cantine scolaire à tous les établissements surtout en zone rurale, il y a la construction des centres d'hébergement pour les filles à coûts sociaux dans les chefs lieux de provinces (programme débuté en 2011)
- ✓ Octroi de soutien financier (bourses) aux filles sous forme de parrainage (Plan, Born Fonden, etc).

LES ACTIONS MENÉES AU SECONDAIRE

□ **Au plan pédagogique**

- ✓ Généralisation du programme éducation sexuelle et de prévention à la violence en milieu scolaire ;
- ✓ renforcement les capacités pédagogiques des enseignants en matière de genre ;
- ✓ mise en œuvre du plan de formation de formateurs à la prise en compte du genre dans l'éducation secondaire (avec l'appui de l'UNICEF, du CIEFFA)

LES ACTIONS MENÉES AU SECONDAIRE

□ **Au plan pédagogique**

- ✓ mise en place des appuis pédagogiques aux filles en difficultés ;
- ✓ Mise à la disposition des filles d'un cadre de prévention contre les violences (téléphone vert, soutien psychologique en cas de violence).

DOMAINES À EXPLORER

- Quels types d'intervention scolaire ont le plus d'impact sur l'accès, le maintien et la réussite au secondaire?

Cantines?

Constructions de foyers pour les filles?

Suivi pédagogique individuel des élèves filles?

Octroi de bourses ou parrainage?