Champions Project, Rajasthan:

Working Paper on Project Findings

March 2015

A Collaboration between:
FXB Center for Health and Human Rights, Harvard University and
the Institute of Development Studies Jaipur, Rajasthan, India

Supported by:
Gustav and Rita Hauser Foundation, Passport Foundation, Population Foundation of India and the South Asia Institute

Report authors:

Orla Kelly	FXB Center for Health and Human Rights, Harvard University
Jacqueline Bhabha	FXB Center for Health and Human Rights, Harvard University
Aditi Krishna	Harvard School of Public Health

This report is the result of a collaborative study undertaken in conjunction with:

Shobhita Rajagopal	Institute of Development Studies Jaipur, Rajasthan, India
Kanchan Mathur	Institute of Development Studies Jaipur, Rajasthan, India
RS Sharma	Institute of Development Studies Jaipur, Rajasthan, India
Field Research Unit	Institute of Development Studies Jaipur, Rajasthan, India

Contents

List of Tables

List of Figures

I. Project Summary

Overview

The Champions project aims to determine how female college students from marginalized, low-literacy families across India have managed to progress to tertiary level, successfully overcoming economic, social, and cultural barriers to girls' education. Specifically, "Champions" are defined as young women enrolled in their second year of an undergraduate degree in a government college whose parents have completed no more than a primary school education. By focusing on the uncommon behaviors of this successful minority, rather than the barriers to educational progression, this project employs a "positive deviance" approach.[1] In order to inform education policy, the research aims to identify the individual characteristics, infrastructural supports, social factors, and public policies that helped these disadvantaged young women reach tertiary education.

The Harvard François-Xavier Bagnoud (FXB) Center for Health and Human Rights initiated the first phase of the Champions study in Maharashtra in 2012 in collaboration with partners at the Krantijyoti Savitribai Phule Women's Studies Centre, University of Pune. The National Commission for the Protection of Children's Rights, a government-funded human rights commission, provided material support and technical guidance. In Maharashtra, 20 government colleges participated in the research; data was gathered with 425 participants from across ten districts. The findings from Maharashtra informed the research design in Rajasthan.

In 2013 the FXB Center implemented the next phase of the project in Rajasthan, in collaboration with partners at the Institute of Development Studies (IDS), Jaipur. The project involved quantitative data collection from more than 400 Champions (CHs) drawn randomly from 13 government colleges across the state. In addition 223 "non-Champions" (NCs)—a comparison group of young women matched by age, geographical location, and parental education levels—participated in the study. The non-Champion group attended the same lower secondary schools

[1] Zeitlin, M., Ghassemi, H., and Mansour, M. 1991. "Nutritional Resilience in a Hostile Environment: Positive Deviance in Child Nutrition." *Nutrition Reviews* 49(9):259–268.

as the Champions but dropped out in Class VIII, IX, or X. Comparisons between these two groups enabled the research team to isolate contributors to the success of the Champions. A subgroup of 25 Champions took part in a qualitative "empowerment" workshop, hosted by IDS. The qualitative narratives aided the research team's interpretation of the quantitative findings.

Key Findings

Drawing on McLeroy's and his fellow contributors' version of the social ecology model, project researchers catalogued comparisons between the Champion and non-Champion groups across five interconnected domains: individual, family, school, social, and policy.[2]

Individual: According to McLeroy et al, intrapersonal factors include individual traits such as knowledge, attitudes, behavior, self-concept, and skills.[3] For the purposes of this research they include established personal demographic characteristics such as age and marital status, as well as psychological resilience and agency. There are notable differences in the demographic composition of the Champion and non-Champion groups. Slightly more non-Champions are married or engaged. One in 100 Champions identify as Muslim, contrasted with almost one in five in the non-Champion group (this finding corresponds to a larger statewide trend of the exclusion of Muslim girls at higher levels of education). Paradoxically, more Champions than non-Champions identify as Scheduled Caste (SC), Scheduled Tribe (ST), or Other Backward Castes (OBC). These somewhat contradictory trends indicate the complicated and evolving social milieu that affects girls' educational participation in India. The project questionnaire measured two individual-level characteristics know to be positively associated with educational progression in challenging circumstances—namely, resilience and autonomy. Champions scored significantly higher on the Connor–Davidson Resilience Scale (CDRISC), a psychological resilience scale.[4] Project researchers also developed a scale to measure participants' sense of agency in the household setting. Champions were more likely to report greater mobility, voice in

---

[2] McLeroy, K. R., Bibeau, D., Steckler A., and Glanz, K. 1988. "An Ecological Perspective on Health Promotion Programs," *Health Education Quarterly* 15(4):351–377.

[3] Ibid.

[4] The scale used was slightly amended from that in Connor, K. M. and Davidson, J .R. T., 2003, "Development of a New Resilience Scale: The Connor–Davidson Resilience Scale (CDRISC)," *Depression and Anxiety*, 18: 76–82.

household decisions, and control over personal decisions relating to matters such as religion, education, and marriage than their non-Champion counterparts.

Family: In an effort to maximize the comparability of the Champion and non-Champion groups, participation in the study was limited to those whose parents had completed no more than a primary education. Even with this limitation, Champion parents were found to be more educated than non-Champion parents: 71 percent of Champion participants' mothers and 23 percent of their fathers have absolutely no formal education, compared with 83 percent and 31 percent of non-Champion mothers and fathers, respectively. On average more Champions have mothers that do not work outside the home, with 91 percent of Champions reporting that their mothers are housewives, contrasted to 72 percent of non-Champions. While both groups reported juggling heavy household responsibilities with their studies from a young age, on average. non-Champions reported spending longer hours on household work. In addition non-Champions were more likely to report having missed school at the primary and secondary level because of these chores. Reported levels of paternal and sibling support for educational goals are markedly higher among Champions: 70 percent report that their fathers have been extremely supportive of their educational goals, compared with 16 percent of non-Champions. Nearly four out of five non-Champions reported that grandparents were extremely unsupportive of their educational goals. Champions were more likely to discuss issues of school performance and personal relationships with their parents than their non-Champion peers. Thus, this study reveals some of the more nuanced facets of parental support for education among low-literacy families.

School: To understand the effect of the institutional environment on the educational trajectory of both the Champion and non-Champion groups in this study, the survey contained scales to measure various school factors including infrastructure, peer relationships, teacher absenteeism, and performance across the different levels of schooling. It was expected that the Champion group would report a more positive school experience than their non-Champion peers—however, this was not necessarily the case. More Champions than non-Champions attended private schools at both the primary and secondary level. On average, Champion participants reported that these schools had better infrastructure, including having a functioning and private girl's toilet. At every level of schooling, non-Champions reported longer travel times than Champions (see Table 16). For example, at the upper primary level, 39 percent of non-Champions compared with

23 percent of Champions traveled more than 30 minutes to get to school. Differences in the extent to which teachers discharged their basic duties, such as checking homework were marginal between the two groups at both the primary and secondary level. Surprisingly, Champions were more likely to report higher rates of teacher absenteeism at every level of schooling. Reported levels of teacher violence were low across the two groups with non-Champions reporting marginally lower rates than Champions. On average non-Champions reported missing more school at earlier stages in their education.

Social Support: Champions were more likely to report receiving social support for their education from a variety of sources, including extended family, teachers, and friends. However, the broader social environment acted as a barrier to progression for both the Champion and non-Champion participants. Both groups reported regularly experiencing sexual harassment on the journey to and from school; the harassment intensified as they progressed through secondary school. One in ten of the non-Champion group cited this harassment as the main cause of their dropping out. On average Champions were more likely to have experienced peer bullying, perhaps explained by their greater attendance at private schools where peer bullying occurred more frequently than in government institutions. Strikingly, 97 percent of Champions plan to work after they graduate college, a major shift given that 91 percent of their mothers are housewives. The Champions' ambitious professional aspirations, based on a belief in the possibility of upward mobility, even for young women from disadvantaged backgrounds, emerged in the qualitative data as a key underlying driver in their determination to progress.

Policy: Overall, approximately one in three participants (33 percent of Champions and 27 percent of non-Champions) reported that their families benefited from government social programs. One in five Champions and non-Champions reported that their families are in possession of a below-poverty-line (BPL) card. Champions were more likely to report that their families benefited from certain government schemes such as food, housing, clothing, and healthcare. On the other hand, non-Champions were more likely to report benefiting from student-targeted government education programs, particularly those distributed at the school level such as uniforms, books, and meals. Despite the fact that the majority of participants came from low-income and traditionally marginalized (ST, SC, and OBC) backgrounds, the number of students that received scholarships at the primary or secondary level was remarkably low. Just 15

percent of Champion participants received any kind of governmental monetary support for their education at the upper primary level, increasing to approximately 25 percent at the lower secondary level. Although more non-Champions than Champions reported benefiting from educational subsidies for books and uniforms, non-Champions still failed to progress beyond the lower secondary level, thus suggesting a need to refocus resources and priorities. Many young women within the sample who attended low-cost private schools (and were also from disadvantaged backgrounds) were deprived of government education programs by virtue of their private school enrollment. Relatedly one in five Champion families went into debt to pay education-related fees. The government needs to continue addressing restrictions on entitlements for low-income students attending nongovernment institutions. This is increasingly important given the growing number of partnerships with private schools (at the primary level, by requiring them to reserve 25 percent of places for disadvantaged students and at the secondary level, by depending on private schools to help meet the rising demand).

Report Structure

This report provides details of the project methodology and the results of the analysis of the quantitative data collected from 636 participants in Rajasthan. The next section provides an overview of the social context in Rajasthan and the project rationale. Section III provides details of the project's theoretical underpinnings, research design, and methodology. Section IV presents the results of the quantitative analysis with some reference to the qualitative data to provide context or further explanation. Section V section offers suggestions for policy interventions based on the collected empirical evidence. The final section before the Appendices details research limitations and areas for further study.

II. Project Rationale and Local Context

India is currently home to almost 300 million young women and girls aged 24 or younger. If given true access to meaningful education and training, this population could be a socially and economically transformative force for the nation. However at present, beyond the primary level, school retention rates remain unacceptably low. According to official government data, by the end of upper primary school, only 60 percent of the initial cohort of students are still enrolled, falling to 50 percent by the end of lower secondary school.[5] The net female attendance rate in Indian tertiary education in 2009 was only 13 percent, falling to 6 percent for girls from rural areas, as contrasted with 20 percent for their urban male counterparts.[6] Educational inequality is one of the many documented forms of gender discrimination in India. Other manifestations include disproportionate domestic burden,[7] child marriage,[8] unequal family resource allocation,[9] parents' failure to appreciate the benefit of girls' education,[10] and harassment in the public sphere.

The research described in this report took place in Rajasthan, geographically the largest state in India. In Rajasthan, gender-based inequalities are acute. The state has one of India's lowest child sex ratios at birth with 870 girls born for every 1,000 boys; it also has one of India's lowest child

---

[5] Government of India. 2013. *Educational Statistics at a Glance*. New Delhi: Ministry of Human Resource Development, Bureau of Planning, Monitoring & Statistics. http://mhrd.gov.in/sites/upload_files/mhrd/files/EAG_2013.pdf, p. 10.

[6] Government of India. 2010. *Education in India: 2007–08 Participation and Expenditure NSS 64th Round (July 2007–June 2008)*. Report No 532. New Delhi: Ministry of Statistics and Programme Implementation, National Sample Survey Office. http://www.educationforallinindia.com/participation_and_expenditure_nsso_education.pdf.

[7] Reddy, A. N. and Sinha, S. 2010. *School Drop Outs Or Push Outs? Overcoming Barriers for the Right to Education*. CREATE Research Monograph No 40. Falmer, UK: Centre for International Education, University of Sussex. http://www.create-rpc.org/pdf_documents/PTA40.pdf.

[8] Verma, R., Sinha, T., and Khanna, T. 2013. *Child Marriage in Bangladesh, India and Nepal*. New Delhi: International Center for Research on Women Asia Child Marriage Initiative. http://www.icrw.org/files/publications/PLAN%20ASIA%20Child%20Marriage-3%20Country%20Study.pdf.

[9] Kingdon, G.G. 2003. *Where Has All the Bias Gone? Detecting Gender-Bias in the Household Allocation of Educational Expenditure*. Centre for the Study of African Economies Series WPS/2003-13. Oxford: Department of Economics, University of Oxford.

[10] Siddhu, G. 2010. *Can Families in Rural India Bear the Additional Burden of Secondary Education? Investigating the Determinants of Transition*. CREATE Research Monograph No. 50. Falmer, UK: Centre for International Education, University of Sussex. http://www.create-rpc.org/pdf_documents/PTA50.pdf.

sex ratios for ages 0–6, with 888 girls for every 1,000 boys.[11] While both under-five mortality rate and infant mortality rates in Rajasthan have declined, the rate of decline among girls is lower with 61 deaths per 1,000 live births compared with 53 deaths for males.[12] Persistently high levels of under-five mortality among girls are indicative of their continued neglect during infancy and early childhood. In the field of education, Rajasthan recorded a female literacy rate of 53 percent in 2011, well below the national average of 65 percent.[13] At every level of education, boys significantly outnumber girls in enrollment and attendance rates. By the upper secondary level, fewer than four out of ten girls are still enrolled in school and less than one in ten make it to tertiary level. The situation is even starker for students from the socially and economically marginalized Scheduled Caste and Scheduled Tribe communities. Rajasthan has one of the highest rates of child marriage in India, with 65 percent of girls in Rajasthan married before the legal age of 18 years.[14]

Against this challenging backdrop the achievement of these "Champions" is even more remarkable. Since education has been long considered an unparalleled mechanism for correcting historic gender inequality and is a proven springboard for human development, exploring the successful strategies of the exceptional few provides essential lessons for all engaged in promoting education opportunities for marginalized young women.

---

[11] Chandramouli, C. No date. "Child Sex Ratio in India." Powerpoint Presentation from Census of India, 2011. Registrar and Census Commissioner, Census India. Accessed June 12, 2015. Available at http://www.actionaid.ie/sites/files/actionaid/child_sex_ratio_-_presentation_by_census_commissioner.pdf. Slide 34.

Government of India. "Rajasthan Profile" from *CensusInfo India 2011.* Accessed June 1, 2015. http://censusindia.gov.in/2011census/censusinfodashboard/stock/profiles/en/IND008_Rajasthan.pdf.

See also Government of India, 2011, *National Census 2011,* http://censusindia.gov.in/2011-common/censusdataonline.html.

[12] Government of India. 2013. "Annual Health Survey Bulletin: Rajasthan 2011–2012." New Delhi: Office of the Registrar General & Census Commissioner. http://www.censusindia.gov.in/vital_statistics/AHSBulletins/files2012/Rajasthan_Bulletin%202011-12.pdf.

[13] Government of India. "Rajasthan Profile."

[14] International Center for Research on Women Report to UNICEF. 2011. *Delaying Marriage for Girls in India; a Formative Research to Design Interventions for Changing Norms.* http://www.icrw.org/sites/default/files/publications/Delaying-Marriage-for-Girls-in-India-UNICEF-ICRW.pdf, v, 1.

III. Theoretical Framing and Project Methodology

Approach

Randomized-control trials (RCTs) have added significantly to the understanding of the positive impact of particular educational interventions such as conditional cash transfers,[15] merit-based scholarships,[16] village-based schools,[17] computer-assisted learning,[18] teacher monitoring,[19] local village committees,[20] and role models for educational participation and achievement in specific circumstances.[21] While these findings are useful for policy evaluation and development, some argue that the artificial nature of RCTs in the social sciences inadvertently induces socioeconomic and behavioral changes that may not be applicable in a non-experimental setting. In contrast, this study employs a "positive deviance" approach.[22] The method unpacks and analyzes uncommon but successful strategies of a high-achieving minority in a real-world setting to determine how they differ from the majority.

Framework

To catalog and analyze the diverse influences on educational attainment among underprivileged young women, this study draws on social ecology research originally developed in the field of public health.[23] Following McLeroy and his coauthors' version of the social ecology model, this report presents the factors affecting educational progression across the following five domains:

---

[15] Baird, S., McIntosh, C., and Ozler, B. 2010. *Cash Or Condition? Evidence from a Cash Transfer Experiment*. World Bank Policy Research Working Paper Series. Washington, DC: World Bank.

[16] Kremer, M., Miguel, E., and Thornton, R. 2009. "Incentives to Learn." *The Review of Economics and Statistics* 91(3): 437-456.

[17] Burde, D. and Linden, L. 2012. *The Effect of Village-Based Schools: Evidence from a Randomized Controlled Trial in Afghanistan*. NBER Working Paper No. 18039. Cambridge, MA: National Bureau of Economic Research.

[18] Banerjee, A., Cole, S., Duflo, E., and Linden, L. 2007. "Remedying Education: Evidence from Two Randomized Experiments in India. *Quarterly Journal of Economics* 122(3):1235–1264.

[19] Duflo, E., Hanna, R., and Ryan, S. P. 2012. "Incentives Work: Getting Teachers to Come to School." *American Economic Review* 102(4):1241–1278.

[20] Pradhan, M., Suryadarma, D., Beatty, A., Wong, M., Alishjabana, A., Gaduh, A., and Artha, R. P. 2011. *Improving Educational Quality through Enhancing Community Participation: Results, from a Randomized Field Experiment in Indonesia*. World Bank Policy Research Working Paper Series. Washington, DC: World Bank.

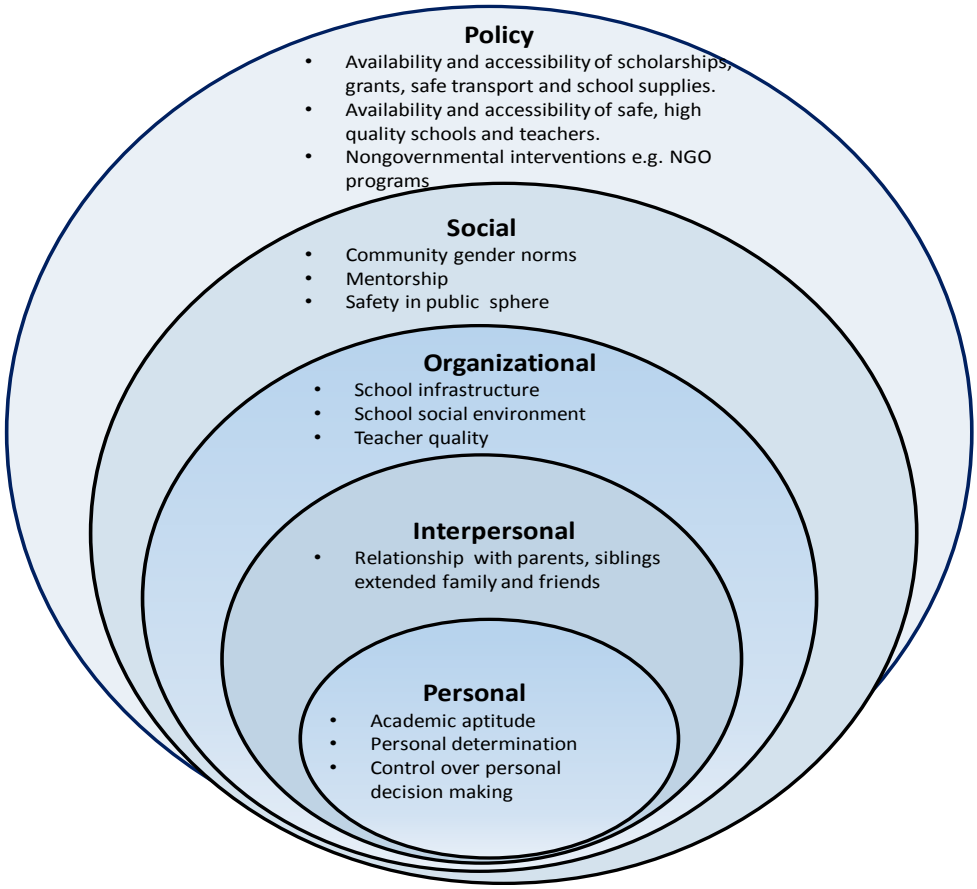
[21] Beaman, L., Duflo, E., Pande, R., and Topalova, P. 2012. "Female Leadership Raises Aspirations and Educational Attainment for Girls: A Policy Experiment in India." Science Magazine 335 (6068):582–586.

[22] Zeitlin, M., Ghassemi, H., and Mansour, M. 1991. "Nutritional Resilience."

[23] Brofenbrenner U. 1979. *The Ecology of Human Development*. Cambridge, MA: Harvard University Press.

intrapersonal (individual), interpersonal (family), organizational (school), social, and policy.[24] The findings in the proceeding section are organized to reflect these multiple layers. Educational participation is shaped by a multiplicity of interconnected factors across the various domains: the girls' own preferences and choices, as well as those of their parents, siblings, and extended family; the nature of their schools; the composition and perspective of their communities; and a range of macro level factors related to the state and country in which they reside (see Figure 1). Nevertheless, the model is helpful as a device for exploring the range of relevant variables and presenting their impacts.

Figure 1. Champions' Social Ecology adapted from McLeroy et al (1988)[25]



[24] McLeroy, K. R., Bibeau, D., Steckler A., and Glanz, K. 1988. "An Ecological Perspective on Health Promotion Programs." *Health Education Quarterly* 15(4):351–377.

[25] Ibid..

Project Methodology

Community Advisory Board: Between June and August 2013, the IDS-FXB team carefully laid the groundwork for the extensive data collection process. A community advisory committee was assembled. Members were drawn from a variety of backgrounds including academia, representatives from nongovernmental organizations (NGOs), and government officials with extensive experience in the field of education. With the assistance of the University of Rajasthan and the Office of Human Research at Harvard, the research team secured the necessary permissions to implement the study. Approval for the research was contingent on the study protocol meeting the necessary rigorous ethical and methodological standards.

College Selection and Coordinators Meeting: Rajasthan is divided into seven zones which are not only administrative, but also have distinct historical and socioeconomic profiles. Participants were drawn from government colleges in five districts across five administrative zones: Banswara, Dholpur, Jaipur, Jhunjhunu, and Jodhpur (see Table 2). The districts were selected based on their socioeconomic diversity and on their physical accessibility. In each district, lists of government colleges with female enrollment were gathered from the state education department. The research team used proportionate random sampling based on female tertiary enrollment rates to select colleges and their respective participant quotas. With state government support for the project, the Rajasthan Department of Education sent letters to the selected colleges requesting that one staff member in each college coordinate with the research team to ensure timely collection of the data. In July 2013, a college coordinators' meeting was held in Jaipur, with one representative from each institution attending. At the meeting, coordinators met the advisory board and research team in preparation for the data collection process.

Figure 2. Data Collection Sites: Maharashtra and Rajasthan

Many members of the team were employed at nonprofit organizations working with victims of physical and sexual abuse. The research team's experience in dealing with these sensitive social issues equipped them with the skills necessary to assist and refer participants who reported experiencing such trauma.

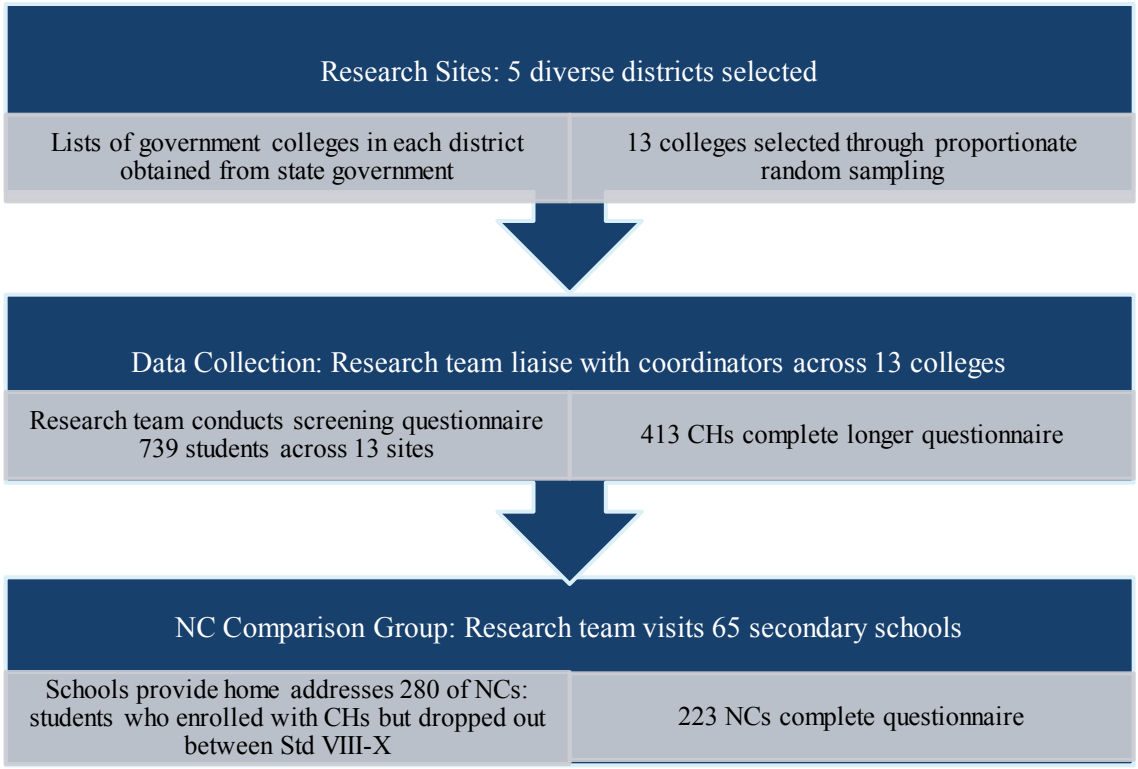
The team members were from Jaipur and relatively close in age to the research participants. Further, many were themselves first-generation learners. This profile made the researchers accessible to the research participants, an attribute known to increase data quality. Before the research began, the team underwent extensive training to ensure that everyone adhered to the ethics and methodology of the project.

Questionnaire Refinement and Project Piloting: A refined version of the questionnaire used in Maharashtra, adapted to local specificities, was employed in Rajasthan. The survey was translated into Rajasthan's dominant language and then back-translated into English, following standardized methods. The instrument includes established measures with strong psychometric properties developed by the World Health Organization, the Population Council, the Population Foundation of India, and several academic institutions. For measures that had not been validated in India, cognitive testing of the items and a small-scale pilot were conducted in Jaipur to ensure reliability and validity. The survey piloting process also served as part of the field research team's training.

Finding the Champions: Having secured the necessary permission from the state government, the team began quantitative data collection in January 2014. At each of the selected colleges, all female second-year students were asked to complete a short eligibility questionnaire to ascertain their parents' education level. Results from this initial screening questionnaire were tabulated and a list of eligible students compiled—namely, those whose parents had completed no more than a primary school education. These students were then immediately invited to complete the longer questionnaire. If there were more Champions than the quota in a particular college, a lottery system was used to randomly select participants. The eligibility survey also contained a socioeconomic scorecard based on the Progress out of Poverty Index (PPI) developed by the Grameen Foundation. The ten-point scorecard measures social performance and enables the ranking of participants on a socioeconomic scale on the basis of the score. The score allowed the

research team to gauge if parental educational attainment served as a good proxy for familial socioeconomic status.

Figure 3. Participant Recruitment Process



As illustrated in Figure 3, 739 students completed the eligibility questionnaire across the 13 government colleges. Of these, 430 were identified as Champions, 413 of whom agreed to complete the longer questionnaire. The survey took about an hour to complete. The participants received refreshments and a commemorative tote bag as a token of appreciation for taking part in the research.

Non-Champion Comparison Group: An amended version of the survey was also administered to a comparison group of young women "non-Champions" (NCs), who were matched with the Champion group on age, location, and parental education level. To find the control group participants, the research team asked the Champion participants to direct them to the secondary schools in the area, including their own institutions. The research team approached these feeder secondary schools in each respective college district. The schools provided lists of students who had enrolled in Standard VIII or IX at the same time as the Champions but had not progressed

beyond their Standard X (lower secondary school graduation) exams. The research team visited the familial households of 280 non-Champions, in which 223 non-Champions met the inclusion criteria and were willing to be part of the research. Collecting data from this control group of girls was essential to identify the unique factors propelling forward the positive deviant group.

Qualitative Component: For the qualitative round of research, from which narrative quotes in this report are drawn, a subset of students who participated in the quantitative research were invited to participate in an empowerment workshop. Three months after the collection of quantitative data, IDS offered a two-day workshop, "Champions: Writing Life Narratives and Sharing Dreams." A representative at each college worked with the research team to identify two students in each college to participate in the workshop. College coordinators stressed that there was no obligation to volunteer. Coordinators from each college, and in some cases a female guardian, traveled with the students to the workshop. The workshop encouraged participants to create visual and written journeys of their lives, through the use of games, facilitated group discussions, poster making, and essay, letter, and diary writing. Champions wrote narratives in response to open-ended questions. These questions probed obstacles to educational progression within the family, at school, or in the community, both during childhood and adolescence. Other questions investigated individuals and institutions that had helped participants overcome obstacles. Narratives also responded to open-ended statements designed to get a sense of participants' life experiences more generally. Facilitators expert in women's studies, qualitative research, and participatory methodologies ran the event. The study grant covered travel expenses associated with workshop participation.

IV. Quantitative Findings

This section of the report provides a detailed overview of the results of the quantitative data analysis. The research team examined descriptive statistics to explore characteristics of the sample and identify differences between participants from Champion and non-Champion backgrounds. In addition, researchers tested for statistical significance to determine associations between individual-, family-, school-, society-, and policy-level predictors and positive outcomes. Quotes drawn from the qualitative narratives add context and texture to the key findings.

Individual Factors

Many educational and social theorists maintain that differences at the individual level such as the student's personal profile, interest in learning, and natural aptitude account for much of the variance in educational outcomes.[26] This study finds many differentiating factors between the Champion and non-Champion participants at the individual level.

Demographic Profile: As illustrated in Table 1, the Champion group is slightly older than the non-Champion group. Slightly more Champions are single. There are significant differences in the caste membership of the two groups. More non-Champions than Champions belong to general castes; conversely more Champions belong to OBC and ST/SC castes.

Table 1
Participant Profiles

	Number	Average Age	Religion %	Caste %	Marital Status %
CH	413	18.8	97% Hindu 1% Muslim 2% Other	17% General 38% ST/SC 45% OBC	78% Single 13% Engaged 9% Married
NC	223	17.9	78% Hindu 18% Muslim 4% Other	36% General 31% ST/SC 33% OBC	75% Single 9% Engaged 16% Married

[26] Mingat, A. and Tan, J. 1992. *Education in Asia: A Comparative Study of Cost and Financing*." World Bank Regional and Sectoral Studies. Washington, DC: World Bank.
Also,Schiller K. S., Khmelkov, V. T., and Wang, X. Q. 2002. "Economic Development and The Effects of Family Characteristics on Mathematics Achievement." *Journal of Marriage and Family* 64 (August 2002): 130–142.

Religion: According to the 2011 national census, the religious profile of the population in Rajasthan is 89 percent Hindu and 8.5 percent Muslim. Muslims are therefore underrepresented within the Champion population (<1 percent) and overrepresented amongst non-Champions (18 percent), as shown in Table 1. Rajasthan is a large and diverse state and variations in the religious demographic composition across districts exist. Therefore, the religious profile of the sample was cross-checked against national district-level data. As Table 2 shows, the trend is consistent at the district level. The lower representation of young Muslim women among the Champion population reflects a lower rate of educational attainment among Muslim girls in the state as whole.

Table 2
Religious Profile by District
n = 413 CH
n = 223 NC

District	**Jaipur %**			**Banswara %**			**Dholpur %**			**Jhunjhunu %**			**Jodhpur %**		
Sample	CH	NC	JPR	CH	NC	BNA	CH	NC	DLR	CH	NC	JNU	CH	NC	JDP
Religion															
Hindu	97%	85%	80%	71%	61%	95%	95%	65%	93%	97%	70%	90%	100%	97%	88%
Muslim	1%	11%	14%	17%	16%	3%	0%	35%	6%	1%	30%	9%	0%	0%	10%
Other	2%	4%	6%	12%	13%	2%	5%	0%	1%	2%	0%	1%	0%	3%	2%

Resilience Scale: The questionnaire included an amended version of the scale (CDRISC) developed by Connor and Davidson to measure psychological resilience.[27] Resilience is defined as a positive personality trait associated with positive adaptation under stress and adversity, rather than as a trait or characteristic which some have and others do not.[28] According to

[27] Connor, K. M. and Davidson, J .R. T. 2003. "Development of a New Resilience Scale: The Connor–Davidson Resilience Scale (CDRISC)." *Depression and Anxiety*, 18: 76–82.

[28] Wagnild G. 2003. "Resilience and Successful Aging among Low and High Income Older Adults." *Journal of Gerontological Nursing*, 29: 42–49.

Garmezy,[29] resilience is best understood as an interaction between the individual and the environment. In the Indian context, Singh and Yu have established the validity and reliability of the scale for use with college students.[30] Educational success in adverse circumstances has been found to be positively associated with adolescent resilience.[31] In the Champions study, participants were asked about their ability to deal with changes, negative events, stress, and challenges. Their responses were measured by a score of 10 to 40, where 10 is indicative of a low level of resilience. Champions scored significantly higher than non-Champions with an average score of 33.5 compared to 25.9 for non-Champions.[32] It is difficult to infer a causal relationship between these two factors. Champions' higher levels of emotional resilience might have helped their educational progress in a challenging environment, but their educational progress might have raised their emotional resilience. The virtuous cycle between educational participation and self-esteem has been well established.[33] The lower scores among non-Champions may be linked to the fact that they were pushed out of the school system at an earlier age which has since affected their emotional well-being.

Aptitude: The Champion group may have displayed more academic acumen and interest in education than their non-Champion counterparts, but there is not enough evidence to tell. The first official measure of academic performance is the Standard X exam. Given that seven out of ten of the non-Champion sample had dropped out before completing this exam it is difficult to draw parallels on performance. It is noteworthy that 30 percent of the non-Champion group cited exam failure as the main reason that they dropped out of education. However, it is problematic to attribute poorer academic performance to a lack of aptitude or interest among the non-Champion

---

[29] Garmezy, N. 1991. "Resiliency and Vulnerability to Adverse Developmental Outcomes Associated with Poverty." *American Behavioral Sciences*, 34: 416–430.

[30] Singh K. and Yu. X. 2010. "Psychometric Evaluation of the Connor-Davidson Resilience Scale (CD-RISC) in a Sample of Indian Students." *Journal of Psychology* 1(1):23-30.

[31] Blum, R. W., McNeely, C. A., and Nonnemaker, J. M. 2001. "Vulnerability, Risk, and Protection" in *Adolescent Risk and Vulnerability: Setting Priorities* (eds. Fischoff, B., Nightingale, E., and Iannotta, J.). Washington, DC: National Academy of Sciences, National Research Council, Institute of Medicine.

[32] $p<.001$, CH Std. Dev. 5.7, NC Std. Dev. 10.

[33] Population Council, SEWA, SEWA Academy. 2006. *Influencing Girls' Lives: Acceptability and Effectiveness of A Livelihoods Skill Building Intervention in Gujarat.* New Delhi: Population Council. http://www.popcouncil.org/pdfs/India_InfluencingGirlsLives.pdf.

group because educational achievement at the secondary level for girls in this situation is so closely linked to factors such as familial support, commute time, and the type of school attended.

As the following sections show, there are notable differences in the experiences of the Champion and non-Champion groups across those factors. For many Champions, their academic success in exams and extracurricular activities was also a source of pride for families, giving Champions greater bargaining power within the household. This theme came up several times in the qualitative workshop. For example, Bela recalls that her educational success was central to her father's decision to let her progress to upper secondary school:

> *Among all my siblings and cousins I was considered intelligent and good in my studies. Initially my father was hesitant [to let me progress] but later he was supportive since I was the first girl in my family to be accepted in to college. —Bela, 19*

Control over Personal Decision Making: The survey included a scale that the research team developed to measure participants' sense of agency in the household setting. The scale probed their perceived levels of control over a range of issues such as education, mobility, and marriage prospects. The scale score ranges from 0 to 32. A maximum of 32 indicates a perception of a very high degree of autonomy. Champions scored an average of 18.9 while non-Champions scored 9.5 points ($p<0.01$), reflecting a significant difference in their sense of independence. An examination of the responses to individual scale items provides a sense of the nature of this autonomy or lack of autonomy: for example, just 8 percent of Champions report never participating in family discussions with the head of household, compared with 46 percent of non-Champions. In another example, 59 percent of Champions feel that they had complete control over what they would wear to a special occasion such as a wedding, compared with just 19 percent of non-Champions. Only 2 percent of Champions feel that they had no control over their future, compared with a staggering 55 percent of non-Champions.

Access to Information: Television emerged as an important medium for access to information and exposure to the broader society for both the Champion and non-Champion groups, with 54 percent of Champions and 73 percent of non-Champions regularly watching television. None of the non-Champions had ever used the Internet and only 9 percent read every day. The majority of Champions (88 percent) read a newspaper, book, or magazine every day, but 69 percent have

never used the Internet. The low level of Internet usage across the non-Champion and Champion groups is concerning. In an increasingly technological age, digital exclusion can result in the de-facto denial of a range of skills. The higher levels of access to the Internet among Champions compared with non-Champions may have affected their aspirations to study further. However, the increased access may also be a function of college enrollment. To get a sense of how Champions' and non-Champions' access to media compared with other youth in the state, the participants' media use was compared to that of youth in Rajasthan, as reported in a state representative youth survey conducted during 2007 by the International Institute for Population Sciences (IIPS) and the Population Council, *Youth in India: Situation and Needs 2006–2007, Rajasthan* (henceforth, *Youth in Rajasthan*).[34] As shown in Table 3, Champions read more and watch more TV than the levels reported by women 15- to 24-years-old in *Youth in Rajasthan*. non-Champions reported watching TV at more than twice the rate of women 15- to 24-years-old in 2007. This difference may be partially due to the increased penetration of the TV even among low-income households in the last decade. Television therefore represents an important medium for reaching young women who have dropped out of school and often remain largely isolated due to restrictions on mobility.

Table 3
Media Use by Group
n = 413 CH
n = 223 NC

	Reading %			Television %			Internet %		
	Never	S/times	Often	Never	S/times	Often	Never	S/times	Often
CH	1%	7%	92%	20%	26%	54%	69%	26%	5%
NC	68%	11%	21%	21%	6%	73%	100%	0%	0%
Women 15–24 (2007)	23%	48%	29%	34%	34%	32%	94%	5%	1%

Paid work: Many studies have shown that familial economic constraints and the associated need for the earnings of adolescents for the household contribute to the decline in educational

[34] International Institute for Population Sciences (IIPS) and Population Council. 2009. *Youth in India: Situation and Needs 2006–2007, Rajasthan*. Mumbai: IIPS. http://www.popcouncil.org/uploads/pdfs/2009PGY_YouthInIndiaReportRa.pdf. Data from 84, Table 5.1. Henceforth, *Youth in Rajasthan.*

participation in India.[35] A working hypothesis for this study was that non-Champions may have left education to contribute directly to household finances and conversely that low levels of engagement in paid work may have been a trigger of success for the Champion group. However, this was not found to be the case as Champions and non-Champions engaged in very similar levels of economic activity outside the household. Notably 73 percent of Champions and 72 percent of non-Champions reported having never engaged in paid work outside the home. The theory that non-Champions were forced to leave the education system to directly contribute to household earnings was therefore not supported.

The one in four Champions who did engage in paid work outside the household reported that these jobs were often critical to their ability to cover the costs associated with their education. The qualitative essays show that this was particularly the case when parents were unwilling or unable to financially support participants. For example, having completed upper secondary school, Mala took a break from her education, and engaged in casual labor for a year, in order to save up enough to facilitate her progression to undergraduate study:

> *My father believes that girls need to study only till the XII Standard and when I requested he refused. My maternal uncle also supported my father and said if girls study higher, it would be difficult for us to search for a suitable groom for marriage. My father thus refused to pay money for my education. As there was no money for my education, I had to skip a year in between [and I] worked and collected money for my higher studies.* —*Mala, 22*

Family Factors

Family is still the primary unit of socialization for Indian adolescent girls. It is therefore not surprising that factors such as parental education levels,[36] family socioeconomic profile,[37] and

[35] Burra, N. 1995. *Born to Work*. New Delhi: Oxford University Press.

[36] Schultz, T.P. 1993. "Returns to Women's Schooling" in *Women's Education in Developing Countries: Barriers, Benefits, and Policy* (eds. King, E. and Hill, M.). Baltimore: Johns Hopkins University Press.

[37] Hnatkovska, V., Lahiri, A., and Sourabh, P. 2012. "Castes and Labor Mobility." *American Economic Journal—Applied Economics* 4(2):274–307.

the strength of discriminatory gender norms within the household[38] play a role in determining educational outcomes. The study design limited the variance in parental education levels. Many other familial factors such as the level of support for girls' education varied across the two groups.

Parental Education: The study design stipulated that participants' parents had completed no more than a primary school education, though some had attended lower secondary school. For the Champions, 71 percent of their mothers and 23 percent of their fathers had absolutely no formal education. An additional 16 percent of mothers and 14 percent of fathers had not completed lower primary level. For these families, the daughter's enrollment in tertiary education represents a significant shift in one generation, a clear instance of upward mobility in modern India. Despite the low parental educational threshold required for all study participants, non-Champion parents were still found to have even lower average levels of education. This correlation confirms the well-established positive relationship between parental education level and increased child educational attainment, even at the very lowest levels of educational attainment.

Education levels were particularly low for mothers across the two groups. Rajasthan has the largest difference between male and female literacy rates in the country.[39] It is therefore unsurprising that fathers' education levels are conspicuously higher than mothers' across both the Champion and non-Champion groups. According to several of the Champion essays, mothers' low levels of education and the concomitant economic and social limitations were key motivating factors in their decisions to support their daughters' education as Nidhi emphasizes:

> *My mother had never got an opportunity to study, she was very supportive of my goals. My brother was not keen that I go to college, but my mother and sisters supported me and I got admission in college. —Nidhi, 19*

---

[38] Kelly, O. and Bhabha. J. 2014. "Beyond the Education Silo: Tackling Adolescent Girls Secondary Education in Rural India." *British Journal of Sociology of Education* 35(5):731–752.

[39] Government of India. 2011. *National Census, 2011*. http://censusindia.gov.in/2011-common/censusdataonline.html.

Table 4
Parental Educational Attainment
n = 413 CH
n = 223 NC

	Mother		Father	
Education Level	NC %	CH %	NC %	CH %
No Education	83%	71%	31%	23%
Lower Primary	9%	16%	30%	14%
Upper Primary	4%	6%	22%	23%
Lower Secondary	4%	7%	14%	39%
	Pearson chi2(4) = 10.3918 Pr = 0.034		Pearson chi2(4) = 56.0389 Pr = 0.000	

Family Income: Champions were asked to approximate their family's annual income level. A surprising finding was that more Champions than non-Champions reported household earnings of less than 50000 INR per annum (76 percent and 60 percent respectively).

Table 5
Household Average Annual Income
(Columns add up to 101% because of rounding)
n = 413 CH
n = 223 NC

Income Bracket	CH %	NC %
> Rs.50000	76%	60%
Rs.51000-75000	11%	29%
Rs.76000-100000	3%	9%
Rs.100000 to 200000	8%	2%
200000 and above	3%	1%
Pearson chi2(4) = 54.2568 Pr = 0.000		

Directly reported measures of household income are notoriously problematic.[40] To compensate for this the questionnaire contained several other questions that might help to form conclusions on participant household incomes. For example, familial income might also be inferred from the portion of households that reported having BPL cards. Here, no difference was found between the two groups, with approximately 20 percent of both groups reporting that their households

[40] Moore, J. C., Stinson, L. L., and Welniak, E.J. 1997. "Income Measurement Error in Surveys: A Review." Available on the US Census website at https://www.census.gov/srd/papers/pdf/sm97-05.pdf.

were in possession of the card. However, studies have shown that corruption and cronyism often play a role in access to benefits such as BPL cards,[41] thus limiting assessments on income based on this measure. In the absence of detailed data on household expenditure, it is difficult to make a definitive comparison about family income levels.

What is clear from the Champion qualitative narratives is that financial concerns loomed large for these young women. Even small costs associated with educational participation created significant challenges as illustrated by Jaya's excerpt below:

> *The economic situation of the family was not good, when I had to be admitted to college, my father, arranged for some money. The transport charge of Rs. 12 per trip to college was also difficult to bear by [my] parents. —Jaya, 19*

This economic insecurity was often compounded by family adversity such as death or serious illness in the family, as was the case for Ritu:

> *Post the elementary level I had to struggle to continue my studies. Both my parents had no formal education and most people in the village used to discourage me. My father fell ill when I was in Class VIII, and since then has been no source of regular income in the household. I was under a lot of pressure to drop out of school before completing Class X. I tried to convince my parents that I should be allowed to study further as I did not want to struggle like them for money. —Ritu, 20*

Family Composition: On average, non-Champions have more siblings than Champions; 4.6 compared with 3.9.[42] There are also marginally more girls in non-Champion families. Interestingly, on the whole, Champion households are marginally larger, consisting of 4.69 people on average, in comparison to non-Champions, who reported an average of 4.28 people ($p<.01$).While income levels across the two groups are comparable, it may be that the larger number of children in non-Champion households made it harder for those households to support

---

[41] Sekher, T. S. 2010. *Special Financial Incentive Schemes For The Girl Child In India A Review Of Select Schemes*. Mumbai: International Institute for Population Sciences, for The Planning Commission Government of India in collaboration with United Nations Population Fund. https://www.unfpa.org/gender/docs/sexselection/UNFPA_Publication-39772.pdf.

[42] ($t = 6.2932$ $p < .001$).

their children's education. Sibling school enrollment rates are high across both groups, though non-Champion household rates were marginally lower: 95 percent of siblings under age 18 in non-Champion households are enrolled in school in comparison with 98 percent of those in Champion households ($p<0.01$).

Mother's Occupation: Table 6 below provides a breakdown of participants' mothers' occupation. Here there are important differences between the two groups. Notably, 91 percent of Champions reported that their mothers are housewives, compared with 72 percent of non-Champions. 20 percent of non-Champion mothers are casual laborers or housemaids, compared with only 7 percent of Champion mothers. Furthermore, 7 percent of non-Champion mothers are regularly salaried employees, compared with just 1 percent of Champions. The higher rates of economic participation among the non-Champion mothers may partially explain the higher reported levels of average household incomes for non-Champions compared with Champions reported above. The mothers' economic activities might also have resulted in extra household responsibilities for daughters in non-Champion households. This theory is supported by other study findings: a larger portion of non-Champions reported missing school at both the primary and secondary level because of household chores and sibling care. More than one in ten non-Champions reported that being needed for household work was the primary reason that they dropped out of school. Similar trends have been observed in other studies.[43]

Table 6
Mothers' Occupations
n = 413 CH
n = 223 NC

Occupation	CH%	NC %
Housewife	91%	72%
Regular wage/salaried	1%	7%
Casual laborer	4%	10%
Housemaid	3%	10%
Retired	0%	1%

[43] Though their results were not statistically significant, Das and Singh found an inverse relationship between mothers' participation in the NREGA employment guarantee scheme and daughters' educational participation, using two phases of the District Level of Household and Facility Survey. See Das, S. and Singh, A., 2013, *The Impact of Temporary Work Guarantee Programs on Children's Education: Evidence from the Mahatma Gandhi National Rural Guarantee Act from India,* December 2013, Social Science Research Network, http://dx.doi.org/10.2139/ssrn.2368011.

Total	100%	100%
Pearson chi2(4) = 43.4388 Pr = 0.001		

Father's Occupation: There are differences, too, in the types of occupations reported for participants' fathers. One in four Champions reported that their fathers are self-employed compared to one in three non-Champions. Nearly twice as many Champion fathers are salaried employees (29 percent to 15 percent). The majority of non-Champion fathers are casual laborers. While reported income levels between the two groups are similar, non-Champion families may experience higher levels of income insecurity because more non-Champion mothers and fathers are employed as casual laborers.

Table 7
Fathers' Occupations
n = 413 CH
n = 223 NC

Occupation	CH %	NC %
Self-employed	39%	30%
Regular wage/salaried employee	29%	15%
Casual laborer	26%	52%
Unemployed	3%	2%
Retired	2%	1%
Other	1%	0%
Total	100%	100%
Pearson chi2(5) = 46.5329 Pr = 0.000		

Decision Maker: Similar trends can be observed across the Champion and non-Champion group with regards to decisions relating to their education. Just one in ten Champions and non-Champions reported that they were the main decision makers in matters relating to their education. Fathers emerged as the main decision makers across both groups.

Table 8
Main Household Decision Making Regarding Your Education
n = 413 CH
n = 223 NC

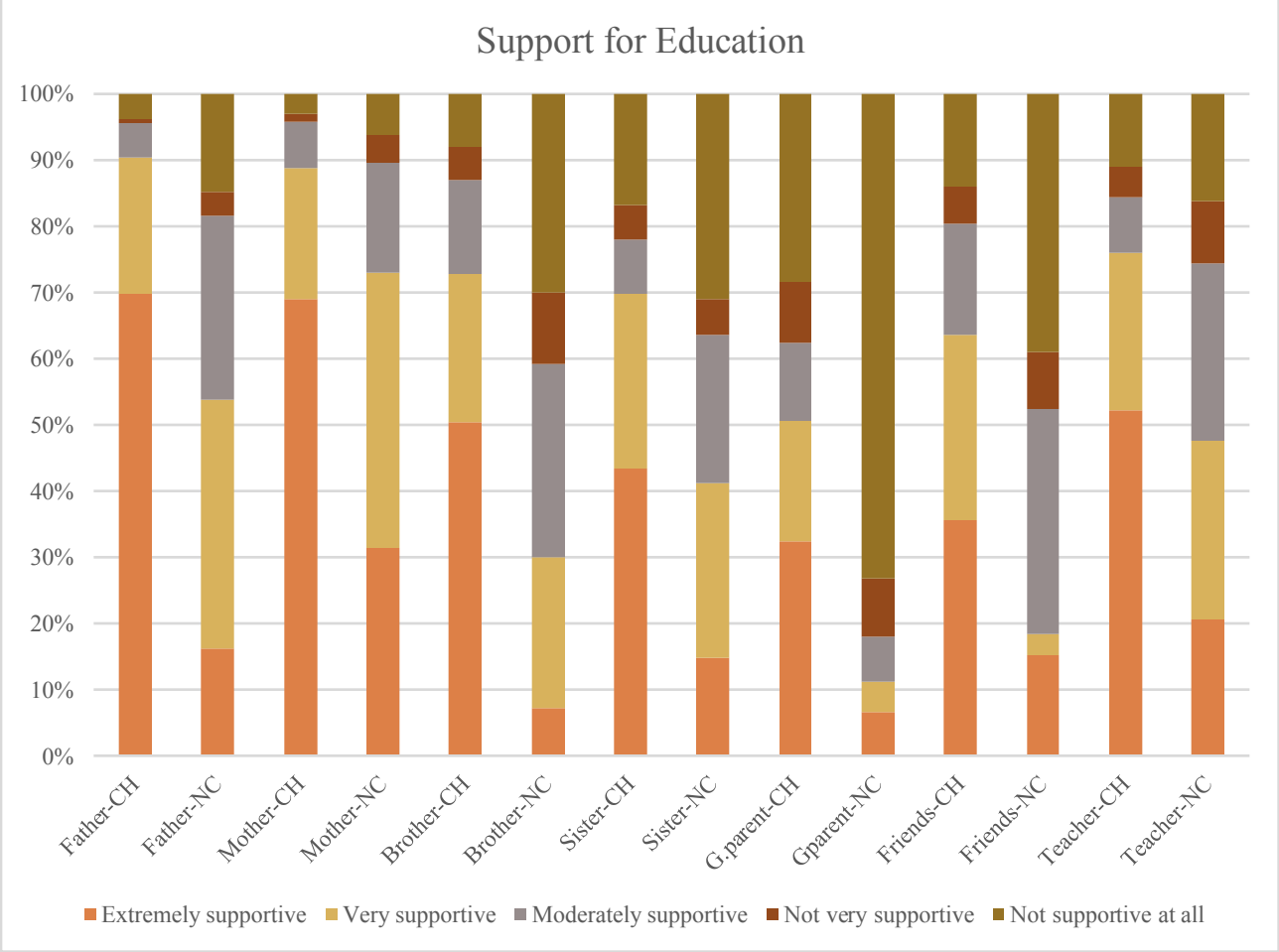
Decision maker	CH %	NC %
Mother	19%	14.5%
Father	67%	66%
Siblings	0.5%	8%
Spouse	3.5%	0.5%
Self	10%	11%
Pr=0.000		

Familial Support for Education: A supportive familial environment has been found to be a key factor in educational success across a range of settings.[44] In this study, participants were asked to rate the level of support they received from their social network for their education from one to five, with five being extremely supportive. The difference in reported levels of support between the two groups is striking. Paternal support and sibling support is markedly higher amongst Champion group: 70 percent report that their fathers have been extremely supportive of their educational goals, compared with 16 percent of non-Champions. Relatedly, nearly four out of five non-Champions reported that grandparents were extremely unsupportive to their educational goals.

[44] Lee, S.S. 2009. "School, Parents, and Peer Factors in Relation to Hong Kong Students Bullying." *International Journal of Adolescence and Youth,* 15: 217–233.
Crosnoe, R., and Elder, G. 2004. "Family Dynamics, Supportive Relationships, and Educational Resilience During Adolescence." *Journal of Family Issues* 25(5):571–602.

Morales, E.E. 2000. "A Contextual Understanding of the Process of Educational Resilience: High-Achieving Dominican American Students and the Resilience Cycle." *Innovative Higher Education* 25(1):7–22.

Figure 4. Support for Education from Social Network



In the qualitative narratives many of the Champions stated that their parents placed great stock in their daughters' education as a tool for upward mobility as Meera notes:

> *Even though the financial condition of our family is not good, my parents have always motivated us to study well so that the children do not have to work as laborers. My mother is very supportive of my studies. She is often pressurized by our relatives for my marriage and told that if you educate her so much you will not be able to find a match for her. She always tells me—do not bother about the comments made by the relatives and neighbours, just concentrate on your studies. –Meera, 19*

Table 9
Support for Education from Social Network
n = 413 CH
n = 223 NC

	Father %		Mother %		Brother %		Sister %		Grand-parents %		Friends %		Teacher %	
	CH	NC	CH	NC	CH	NC	CH	NC	CH	NC	CH	NC	CH	NC
Extremely supportive	70%	16%	69%	31%	50%	7%	43%	15%	32%	7%	36%	15%	52%	21%
Very supportive	21%	38%	20%	42%	23%	23%	26%	26%	18%	4%	28%	3%	24%	27%
Moderately supportive	5%	28%	7%	17%	14%	29%	8%	22%	12%	7%	17%	34%	8%	27%
Not very supportive	0%	4%	1%	4%	5%	11%	5%	5%	9%	9%	6%	9%	5%	9%
Not at all supportive	4%	15%	3%	6%	8%	30%	17%	31%	28%	73%	14%	39%	11%	16%

Parents' dedication to their daughters' education was often juxtaposed to considerable censure from the community. Similarly to Meera, Usha notes that her extended family is quite concerned that her educational success might adversely affect her marriage prospects:

> *My parents were always pressurized by family members to get us married. They were told that if girls are educated too much, they will not be able to find a match for marriage. Even today we have to hear comments like—even if girls are educated they will not earn, if you invest in a boy he will at least earn and support the family. –Usha, 20*

Financial Sacrifice: In keeping with these high levels of support from the immediate family, 32 percent of Champions reported that their parents and other family members had made economic sacrifices to support their education, compared with just 4 percent of non-Champions. Further, 22 percent of Champions reported that their parents had taken out loans to cover the cost of their education, compared with none of the non-Champions.

Parental Involvement in Education: The survey included a scale to measure the extent to which participants' parents were involved in their education during primary and secondary school. Champion and non-Champion parents scored an average of 16 and 6 respectively, out of a

maximum of 28. The results of this scale uncover some of the nuanced family-level factors that may have differentiated Champions' experiences from the majority of other young women from similar backgrounds who do not progress to tertiary level. For example, 69 percent of Champions reported that their parents checked in with them very often to see how they were performing at school, compared with just 6 percent of non-Champion parents. Champions also reported being relieved from household chores very often around exam times: 70 percent, compared with 31 percent of non-Champions. Even controlling for parental education level, non-Champions were still less likely to have received support from their parents.[45] Given the low levels of education among Champion parents, particularly mothers, it is unlikely that they would have been able to offer substantive help to participants with academic matters. The qualitative data showed that parental involvement often came in the form of moral and emotional support which many Champions cited as instrumental in their success.

Relationship with Parents: Participants were asked about the extent and frequency with which they discuss personal issues with their mother and father. Once again marked differences emerge between the Champion and non-Champion group, with Champions far more likely to engage in discussions on a variety of matters with parents. Table 10 compares participant responses in this area with those provided by women 15- to 24-years-old in *Youth in Rajasthan*.[46] Champion participants reported discussing school performance and personal relationships with their parents at higher rates than both non-Champion peers and the *Youth in Rajasthan* peers, potentially indicating an unusually trusting and open household climate. On average, non-Champions were found to be the least likely of the three groups to discuss any personal issues with their parents. The study did however produce one anomalous finding in this regard: a larger, albeit still very small portion of non-Champions reported regularly discussing romantic relationships and reproductive issues with their fathers than was reported by women 15- to 24-years-old in the *Youth in Rajasthan* statewide survey in 2007.[47] This may indicate a slowly declining social conservatism in matters regarding sexual and reproductive health.

---

[45] Logit model with the outcome being champion (yes/no) including parental involvement scale and both parents' education. And parental involvement scale was still significant predictor of CH status.

[46] *Youth in Rajasthan.* http://www.popcouncil.org/uploads/pdfs/2009PGY_YouthInIndiaReportRa.pdf. Data from 98, Table .6.5.

[47] Ibid.

Table 10
Communication with Parents
n = 413 CH
n = 223 NC

Would very often discuss:	**With Mother**			**With Father**		
	CH	**NC**	**W 15-24**	**CH**	**NC**	**W 15-24**
School Performance	58%	22%	39%	50%	13%	38%
Friendships	54%	22%	37%	32%	12%	13%
Being teased/bullied	49%	8%	26%	18%	2%	6%
Romantic relationship	25%	5%	4%	12%	4%	0%
Reproductive issues	12%	4%	3%	3%	2%	0%

Note:
Relationships were found to be significant at the p.001 level.
W 15-24: Women age 15-24 per 2007 survey, *Youth in Rajasthan* Table 6.5.

Based on the questions above, the research team created a 14-point scale quantifying how likely participants were to discuss aspects of their lives with their parents. Champions scored 6.8 out of a possible 14, compared with 4.8 for non-Champions, ($p<0.01$). For communications with fathers, Champions scored 6.7, compared with 4.2 for non-Champions ($p<0.01$).

Household Chores: As Table 11 demonstrates, both Champions and non-Champions reported spending long hours on household work from a young age. With the exception of the lower primary level, non-Champions reported spending more time on housework than Champions while at school. For example, 42 percent of non-Champions versus 29 percent of Champions reported spending more than two hours a day on household chores at the upper primary level. Similarly 58 percent of non-Champions versus 44 percent of Champions reported spending more than two hours a day on household chores at the lower secondary level. The negative effect of burdensome household responsibilities on educational progression for adolescent girls in this

context is well documented and is further evidenced in this study.[48] At the upper primary and lower secondary level, 50 percent of non-Champions gave household work as the main reason they would miss a day of school, compared with 30 percent of Champions. In a similar vein, 11 percent of non-Champions cited household responsibilities as the main reason they dropped out of school.

Despite the high levels of reported parental support for education, Champions were not shielded from these onerous chores. Even at the upper secondary level, 52 percent of Champions reported spending more than three hours a day on household work. These results show that both the Champion and non-Champion group were forced to balance significant household responsibilities with educational commitments. However, Champions spent slightly fewer hours on household chores and 70 percent reported being relieved very often from household chores around exam times. These concessions may have mitigated some of the damaging effects household responsibilities had on their educational progression.

Table 11
Time Spent on Household Work
n = 413 CH
n = 223 NC

	I–V		**VI–VIII**		**IX–X**		**XI–XII**
	CH %	NC %	CH %	NC %	CH %	NC %	CH %
None	42%	57%	29%	13%	8%	1%	6%
1-2 hours	34%	43%	42%	45%	47%	41%	42%
3-4 hours	13%	0%	19%	32%	31%	50%	34%
5 or more	10%	0%	10%	10%	13%	8%	18%
	Pearson chi2(3) = 61.9404 Pr = 0.000		Pearson chi2(3) = 25.7596 Pr = 0.000		Pearson chi2(3) = 29.8704 Pr = 0.000		

The qualitative narratives show the difficulties that Champions faced balancing chores with academic responsibilities, as Meena describes:

[48] Levison, D. and Karine, S. M. 1998. "Household Work as a Deterrent to Schooling: An Analysis of Adolescent Girls in Peru." *Journal of Developing Areas* 32(3): 339–356.

As I grew up I started helping my mother with household chores as I was the eldest. Even today I do most of the housework and farm work. This is a reason why sometimes it is difficult for me to concentrate on my studies and I am not able to get good grades. I get up early to study. I realize that I need to put in more effort and time to improve my grades. I complete all the housework including cooking before going to college. —*Meena, 20*

School Factors

There is a vast amount of scholarship in education research aiming to isolate the positive influences of school-level factors from those at the individual level.[49] To understand the effect of the institutional environment on the educational trajectory of both the Champion and non-Champion groups in this study, the survey contained scales to measure various school factors including infrastructure, peer relationships, teacher absenteeism, and performance across the different levels of schooling. It was expected that the Champion group would have reported a more positive experience than their non-Champion peers—however, this was not uniformly the case.

Type of School Attended: More non-Champions attended government schools at every level of education. In a model based on the length of time spent in government schools where three equals attending a government school at lower primary, upper primary, and lower secondary (all three levels that both groups attended), non-Champions scored an average of 2.8 and Champions scored an average of 1.9.[50] The differences in attendance rates at government schools are shown in more detail in Table 12.

---

[49] Muralidharan, K. and Kremer, M. 2009. "Public-Private Schools in Rural India" in *School Choice International: Exploring Public-Private Partnerships* (Eds. Chakrakbarti, R. and Peterson, P.). Cambridge, MA: MIT Press.

Baker, D. P., Goesling, B., and Letendre, G .K. 2002. "Socioeconomic Status, School Quality and National Economic Development: A Cross-National Analysis of the Heyneman-Loxley Effect." *Comparative Education Review* 4 6(5):291–312.

[50] ($t = 9.5402$ Pr ($|T| > |t|$) = 0.0000).

Table 12
Type of School Attended
n = 413 CH
n = 223 NC

	CH	**NC**	
	% attending government schools	% attending government schools	Sig
Lower Primary (LP)	67%	90%	***
Upper Primary (UP)	67%	92%	***
Lower Secondary (LS)	63%	98%	***
Upper Secondary	60%	NA	

*** p<0.01, ** p<0.05, * p<0.1

Fees: The majority of Champions and non-Champions reported paying some fees both at the primary and secondary level. As expected the fees increased as participants progressed through the school system and were markedly higher for those in nongovernment institutions. Prohibitive school fees have been associated with student dropouts. However, in this study, on average, Champions reported paying much higher fees than their non-Champion counterparts. For example, on average Champions reported paying fees nine times higher than non-Champion at the lower secondary level. It is also noteworthy that 32 percent of Champions reported that their parents and other immediate family members had made significant economic sacrifices to support their education, compared with just 4 percent of non-Champions. Further, 22 percent of Champion parents got into debt to support their education, compared with 0 percent of the non-Champion group.

Table 13
School Fees by Level and Champion Status
n = 413 CH
n = 223 NC

	CH		**NC**		
	% paid fees	INR	% paid fees	INR	Sig
Lower Primary	75%	1265.1	54%	512.19	***
Upper Primary	77%	1836.54	5%	640.61	***
Lower Secondary	87%	2755.02	67%	303.14	***

***** p<0.01, ** p<0.05, * p<0.1**

As expected the size of the fees varied drastically between public and private institutions. Thus the difference in fees paid between the non-Champion and Champion groups can be partially explained by the fact that more Champions attended nongovernment schools. Given that government schooling through primary level is supposed to be cost free, participants who attended government schools may be reporting hidden extra costs such as administration fees or extra tutoring.

Table 14
Annual School Fees in Indian Rupees by Level and Type of School
n = 413 CH
n = 223 NC

	Government school	Nongovernment school	Sig.
Lower Primary	217.3	2672.12	***
Upper Primary	371.14	4152.5	***
Lower Secondary	538.04	5894.82	***
Upper Secondary[1]	986.97	9579.14	***

*** p<0.01, ** p<0.05, * p<0.1
[1]Only for Champions as non-Champions did not attend upper secondary school.

Journey Length: At every level of schooling, non-Champions reported longer travel times than Champions (see Table 15). For example at the upper primary, 39 percent of non-Champions as compared with 23 percent of Champions traveled more than 30 minutes to get to school. By lower secondary school this discrepancy had increased further; just 32 percent of Champions had to travel more than 30 minutes to get to school in comparison to 75 percent of non-Champions. This trend appears to be in keeping with the established positive relationship between shorter commute time and higher retention rates, particularly for girls at the secondary level.[51]

[51] Burde, D. and Linden, L. 2012. *The Effect Of Village-Based Schools: Evidence From a Randomized Controlled Trial in Afghanistan*. NBER Working Paper No. 18039. Cambridge, MA: National Bureau of Economic Research.

Table 15
Journey Length for Champions and non-Champions
n = 413 CH
n = 223 NC

		CH	NC	Both Combined
Lower Primary	15 minutes or less	53%	29%	45%
	15-30 minutes	33%	39%	35%
	30-60 minutes	9%	19%	13%
	1-2 hours	5%	13%	8%
	2 hours or more	0%	0%	0%
	Pearson chi2(4) = 46.1935 Pr = 0.000			
Upper Primary	15 minutes or less	44%	12%	33%
	15-30 minutes	32%	49%	38%
	30-60 minutes	17%	26%	21%
	1-2 hours	5%	13%	8%
	2 hours or more	1%	0%	1%
	Pearson chi2(4) = 74.4383 Pr = 0.000			
Lower Secondary	15 minutes or less	39%	7%	27%
	15-30 minutes	29%	18%	25%
	30-60 minutes	22%	53%	33%
	1-2 hours	9%	23%	14%
	2 hours or more	1%	0%	.5%
	Pearson chi2(4) = 122.0233 Pr = 0.000			

The qualitative essays illustrate the negative impact of the shortage of school facilities:

> *I have never faced any difficulties by family or society for pursuing my education. My father has been the strength behind my continuing my education. The only difficulty I have faced is in terms of the distances of my school and college. I always have to walk very long distances. –Neera, 19*

School Choice: At every level of schooling, more Champions attended the school closest to home: for example, at the lower secondary level, 45 percent of Champions reported attending the

school closest to home, compared with only 25 percent of non-Champions. While commute times for non-Champions were longer, many chose not to attend available institutions closer to home, perhaps because of prohibitive costs.

Table 16
School Choice
n = 413 CH
n = 223 NC

Attend closest school	CH %	NC %
Lower Primary	69%	57%
Upper Primary	57%	27%
Lower Secondary	45%	25%
Upper Secondary	37%	NA

Infrastructure: To compare the infrastructure in the participants' schools at each level, the survey contained a nine-point scale, assessing the availability of such facilities as desks, drinking water, and science labs. On average, Champion participants attended schools with better amenities, though the difference was only marginal: Champions on average score their schools as 4.9 out of 9 as compared with non-Champions whose average school score was 4.1 ($p<0.01$). As Table 17 shows, more Champions attended schools with a functioning girls' toilet. Some studies have found a correlation between a working girl's toilet and increased female educational participation.[52] Thus, better infrastructure may have played a role in Champions' success. At every level, government schools were found to have poorer infrastructure, and to be more lacking in girls' sanitation facilities than private institutions.[53]

[52] Boissiere, M. 2004. *Determinants of Primary Education Outcomes in Developing Countries: Background Paper for the Evaluation of the World Bank's Support to Primary Education.* http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2007/03/28/000090341_20070328103607/Rendered/PDF/391570educatio1eterminants01PUBLIC1.pdf.

[53] See Appendix 3 for breakdown of school facilities by institution type.

Table 17
Girls' Toilets by School Level
n = 413 CH
n = 223 NC

	Lower Primary		Upper Primary		Lower Secondary		Upper Second.
	CH %	NC%	CH %	NC%	CH %	NC%	CH %
No toilet	18%	20%	9%	15%	5%	4%	5%
Toilet not functioning	7%	15%	10%	15%	5%	15%	6%
Usable but unclean or not private	20%	11%	17%	14%	18%	16%	14%
Usable private and well kept	54%	54%	64%	56%	72%	65%	75%
Significance	***		**		***		

*** p<0.01, ** p<0.05, * p<0.1

Teacher Absenteeism: Poor student learning outcomes in India have been attributed in part to high levels of teacher absenteeism, particularly in government schools.[54] Based on this established trend, a hypothesis of this research was that Champions may have attended schools where teacher absenteeism was relatively low, which might have contributed to Champions' lower attrition rates. However that hypothesis was not borne out. Surprisingly, at every level, non-Champions report lower rates of teacher absenteeism than Champions. On average there were no significant differences in teacher absenteeism between government and nongovernment schools.

Table 18
Teacher Absenteeism by School Level
n = 413 CH
n = 223 NC

	Lower Primary		Upper Primary		Lower Secondary		Upper Secondary
Average days missed by teachers	CH %	NC%	CH %	NC%	CH %	NC%	CH%
At least once a week	17%	10%	15%	7%	14%	8%	14%
1-2 days a month	47%	29%	48%	26%	46%	21%	45%
5-10 days a year	26%	34%	27%	41%	27%	46%	25%
Less than 5 days a year	9%	27%	10%	26%	14%	26%	16%
Significance:	***		***		***		

*** p<0.01, ** p<0.05, * p<0.1

[54] Kremer, K., Muralidharan, K., Chaudhury, N., Hammer, J., and Rogers, F. H. 2005. "Teacher Absence in India: A Snapshot." *Journal of the European Economic Association* 3(2):658–667.

Teacher Basic Duties Scale: The survey contained an amended version of a scale created by the Population Council to measure the extent to which teachers engaged in their basic duties such as checking homework and encouraging students to express their opinion in class. The maximum score was 20. In this case, Champions reported somewhat better experiences. On average, non-Champions scored teachers 8.4 out of 20, as compared with Champions who gave teachers an average score of 10.4 ($p<0.01$). These scale scores are the average of scores at the lower primary, upper primary and lower secondary level. As discussed previously, Champions were also more likely to report having had teachers that were extremely supportive of their educational goals: 52 percent of Champions compared with 21 percent of non-Champions (see Table 9, *Support for Education from Social Network*, in the Family Factors section). Champions seem to have had a better experience with teachers overall. According to participants in the qualitative workshop, this factor was instrumental in their educational progression. In some cases teachers went to great lengths for to facilitate Champion's continued educational participation. Deepali recalls one such teacher in her essay on challenges to educational progression:

> *I used to participate in all the school activities and was also part of the girls guide group. I was inspired to study by one of my teachers, who convinced my father that I should be allowed to continue my studies and not be married off. —Deepali, 19*

Teacher Violence Scale: Drawing on a Population Council survey, the questionnaire included a 15-point scale developed to measure the extent to which participants experienced physical, sexual, or verbal violence from school teachers. Reported levels of violence were low across the two groups (lower than reported levels in Maharashtra). Despite more Champions reporting having very supportive teachers, Champions were also marginally more likely to report experiencing violence; with a score of 2.4 out of a possible 15 compared with 1.8 for non-Champions ($p<0.01$). However, note that these violence scores are aggregates of the overall schooling experience, and participants' experience of teachers would have varied from year to year. Interestingly, participants with parents with the lowest levels of educational achievement were the most likely to have experienced violence from teachers in both public and private institutions.

Social Factors

Peer support and mentoring have been associated with increased educational and economic participation, along with better program outcomes for disadvantaged women and girls.[55] Thus, the survey measured the extent to which participants felt supported by their broader social environment in their educational pursuits.

Support from Friends: More Champions had friends that supported them in their educational pursuits. For example 64 percent of Champions reported that their friends were very or extremely supportive as compared with just 18 percent of non-Champions. This is consistent with another finding: 47 percent of Champions received help on their education applications from friends.

Social Views: In questions relating to personal aspirations and the role of women, both Champion and non-Champion groups expressed opinions indicative of an increasingly egalitarian view of the status and role of women. For example, 94 percent of Champions and 88 percent of non-Champions agreed that it is never acceptable for a man to hit his wife. In comparison, 32 percent of unmarried 15- to 24-year-old women in the *Youth in Rajasthan* survey answered that it was acceptable for a man to beat his wife on at least some occasions.[56] The lack of acceptance of violence within the sphere of marriage among both the Champion and non-Champion group is quite a positive finding. It may be linked to young women's increasing exposure and connectedness to broader social networks and media.

An intergenerational change in social views is also apparent in the fact that 97 percent of Champions plan to work after they graduate college. This is a striking shift given that 91 percent of their mothers are housewives. Further, in the qualitative data, the Champions' ambitious professional aspirations, based on a belief in the possibility of upward mobility, emerged as a key underlying driver in their determination to progress educationally despite facing challenging personal, social, and infrastructural circumstances as illustrated by Pooja's excerpt below:

---

[55] Field, E., Jayachandran, S., Pande, R., and Rigol, N. 2014. *Friends at Work: Can Peer Support Stimulate Female Entrepreneurship?* http://sites.duke.edu/ericafield/files/2014/09/Friends-at-Work-Can-Peer-Support-Stimulate-Female-Entreperneurship-6.6.14.pdf.

[56] *Youth in Rajasthan*.. http://www.popcouncil.org/uploads/pdfs/2009PGY_YouthInIndiaReportRa.pdf. Data from Table 7.7.

I have watched my mother work hard and struggle to make ends meet. She always tells us "I never got an opportunity to go to school but I want all of you to get an education so that you can become independent and do not have to face problems, poverty, and violence." Inspired by my mother I want to study well and become economically independent. –Pooja, 19

Sexual Harassment in Public: Both Champions and non-Champions reported regularly experiencing sexual harassment during the commute to and from school. By the time they reached lower secondary school, one in two non-Champions and one in three Champions reported experiencing stalking. By the lower secondary level, 44 percent of Champions reported experiencing unwelcome touching, rising to 54 percent by upper secondary. Clearly, education-related journeys undertaken by participants were often fraught with the danger of sexual harassment. With the support of their friends and families, Champions may have been able to deal with this harassment, but it contributed to the decision to drop out for many non-Champions. In fact, more than one in ten non-Champions cited the lack of safety on the journey to school as the main reason that they dropped out. The negative implications of these troubling findings are compounded by the lack of opportunities for young women to discuss matters related to sexuality, including harassment and abuse, Only half of the participants reported receiving any kind of sex education (51 percent of Champions and 47 percent of non-Champions). Of those who did receive sex education, only 18 percent of Champions and 7 percent of non-Champions received it in school.

Table 19
Experience of Sexual Harassment in Public by School Level
n = 413 CH
n = 223 NC

	Lower Primary			**Upper Primary**			**Lower Secondary**			**Upper Secondary[1]**
	CH	NC		CH	NC		CH	NC		CH
	% Yes	% Yes	Sig.	% Yes	% Yes	Sig.	% Yes	% Yes	Sig.	% Yes
Derogatory gestures	2%	0%	***	14%	12%		16%	21%		21%
Verbal harassment	9%	3%	***	26%	25%		29%	48%	***	32%
Stalking	4%	1%	***	21%	41%	***	31%	51%	***	35%
Unwelcome touching	0%	4%	***	36%	4%	***	44%	10%	***	54%

[1]Only for Champions as non-Champions did not attend upper secondary school.
*** p<0.01, ** p<0.05, * p<0.1

The qualitative data sheds light on the nature and extent of this harassment, as well as on the young women's frustration with the impunity for abusers:

> *Girls have to face violence and harassment on a daily basis. When I was in school I have faced harassment many times. Once I was returning from school and a boy from the village started following me, he held my hand and started touching me inappropriately and wanted my mobile number. I was scared and I just ran from there. The same boy then started troubling my friend and one day took her away forcefully to an isolated spot and misbehaved with her. She also somehow pushed him away and ran. Such incidents are increasing day by day and many men/boys go unpunished. —Aarti, 21*

Policy Factors

Government spending on education programs has increased significantly over the last number of decades. In an effort to address inequalities in enrollment and outcomes, successive governments have allotted some of this expenditure to programs aimed at increasing the participation of girls and those from marginalized backgrounds. To gauge the effect of these schemes the survey measured the extent to which girls benefited from government assistance schemes targeted at both the household and individual level.

Household Government Assistance: As shown in Table 20, about one in five participants in both groups reported that their families had BPL cards which, along with household income measures, suggest similar household socioeconomic levels across the two groups.

In addition, approximately one in three participants, specifically 33 percent of Champions and 27 percent of non-Champions ($p<0.01$), reported that their household had ever benefited from other government social assistance programs. Of those who did benefit from the social schemes, Champions households are more likely to have benefited from multiple household-targeted government programs such as food, housing, clothing, and healthcare. For example nearly three times the number of Champion households reported receiving food assistance from the

government— 61percent compared with 24 percent of non-Champion households (see Table 20). This may be attributable to the differences in caste compositions between the two groups—a larger portion of Champions identify as SC or ST. Applying for and receiving government social assistance in the form of food, housing, and healthcare supplements may also have allowed Champion households to direct more resources towards their daughters' education compared to non-Champion households.

Table 20
Government Assistance at Household Level
n = 413 CH
n = 223 NC

	CH % Yes	NC % Yes	Sig?
BPL Card	20%	19%	
Government assistance	33%	27%	
Type of Government Assistance Received by Those Answering Yes			
n = 167 CH			
n = 61 NC			
Government assistance for food	61%	24%	***
Government assistance for pensions	38%	11%	***
Government assistance for housing	6%	0%	***
Government assistance for employment	8%	4%	*
Government assistance for health	25%	10%	***
Government assistance for education	20%	7%	***

*** p<0.01, ** p<0.05, * p<0.1

Student Targeted Government Assistance: Conversely, more non-Champions than Champions reported benefiting from student-targeted government educational interventions such as mid-day meal schemes and books. As shown in Table 21, non-Champions were significantly more likely to have received a mid-day meal, books, and other supplies.

Table 21
Student-Targeted Education Schemes
n = 413 CH
n = 223 NC

		CH % Yes	NC % Yes	Sig?
Lower Primary	Mid-day meal	40%	89%	***
	Scholarship	13%	4%	***
	Hostel	1%	0%	
	Bicycle	2%	1%	
	Books	48%	96%	
	Uniforms	1%	33%	
Upper Primary	Mid-day meal	38%	92%	***
	Scholarship	14%	14%	
	Hostel	1%	0%	*
	Bicycle	2%	2%	
	Books	50%	95%	***
	Uniforms	2%	19%	***
Lower Secondary	Mid-day meal	6%	15%	***
	Scholarship	28%	26%	
	Hostel	2%	1%	
	Bicycle	15%	11%	
	Books	44%	94%	***
	Uniforms	2%	11%	***
Upper Secondary	Mid-day meal	3%		
	Scholarship	31%		
	Hostel	2%		
	Bicycle	2%		
	Books	42%		
	Uniforms	1%		

*** p<0.01, ** p<0.05, * p<0.1

The non-Champions' greater use of student-targeted education schemes at least partly relates to their greater numbers in attendance at government schools where many of these schemes are distributed. As illustrated in Table 22, at every level of schooling those who attended

government schools were more likely to have received school supplies, scholarships, and a mid-day meal.

Table 22
Student-Targeted Educational Schemes by School Type
n = 413 CH
n = 223 NC

		Government School	Nongovernment School	
		% Yes	% Yes	Significance
Lower Primary	Mid-day meal	72%	15%	***
	Scholarship	12%	3%	***
	Hostel	1%	0%	
	Bicycle	2%	1%	
	Books	81%	18%	***
	Uniforms	15%	7%	**
Upper Primary	Mid-day meal	71%	12%	***
	Scholarship	17%	6%	***
	Hostel	0%	2%	*
	Bicycle	2%	1%	
	Books	82%	14%	***
	Uniforms	9%	5%	*
Lower Secondary	Mid-day meal	10%	4%	***
	Scholarship	34%	5%	***
	Hostel	2%	1%	
	Bicycle	18%	1%	***
	Books	78%	10	***
	Uniforms	6%	2%	**
Upper Secondary	Mid-day meal	3%	3%	
	Scholarship	45%	7%	***
	Hostel	3%	1%	
	Bicycle	4%	0%	**
	Books	56%	18%	***
	Uniforms	1%	0%	

*** p<0.01, ** p<0.05, * p<0.1

Nongovernment Actors: Civil society organizations often play a role in the provision of social services in low-income communities. NGOs are particularly active in the education sector in

Rajasthan. However, in this study, reported levels of NGO involvement at either an individual or household level were quite low. Just 1 percent of non-Champions and 5 percent of Champions report that their families have ever benefited from services provided by NGOs. It is possible that these organizations played a positive role in educational progression of this small minority (5 percent) of Champions. but, for the majority of participants, civil society organizations did not factor into their educational experience.

Champion Stream Choice: Consistent with findings from the Maharashtra study, within the Champion group, individuals in the general castes have chosen non-arts tracks at the tertiary level much more often than those in other castes. As shown in Table 23, differences in the choice of subjects between caste groups are statistically significant. Given that levels of education are lower among lower caste communities, these young women may have lacked guidance and mentoring when making their subject choices. Another potential explanation is the type of school attended at the secondary level. Those from SC/ST communities were more likely to attend government schools at the secondary level. Government schools are less likely to teach in English which is often the language of instruction in undergraduate degrees in law and science. Language therefore may have been a barrier to entry into non-arts tracks for those who attended government schools at the secondary level. Furthermore, some non-arts degrees such as science have prerequisites such as physics and chemistry which some government schools may not have offered, thus limiting specialization options at the tertiary level.

Table 23
Choice of Course by Caste Group
n = 413 CH
n = 223 NC

	SC	**General**	**ST**	**SBC**	**OBC**	**All**
Arts	71.21%	55.71%	82.76	65.62%	62.7%	65.86%
Science	25.76%	28.57%	17.24	28.12%	32.43%	28.33%
Commerce	3.03%	10.00%	0%	6.25%	4.86%	4.84%
Law	0%	5.71%	0%	0	0%	0.97%

Pearson chi2(15) = 35.2858 Pr = 0.002

V. Policy Implications

According to the empirical evidence collected in Rajasthan, the primary factors contributing to Champions' success are family support, teacher mentorship, and personal resilience. We highlight several opportunities, drawn from this data, to address the challenges facing young women from disadvantaged backgrounds striving to attain a college education.

Familial Support

Challenge: One of the most striking differences between the Champion and non-Champion group is at the family level. Despite similar socioeconomic profiles, Champions were far more likely to report having parents, siblings, and extended families that supported them on their educational journeys than their non-Champion counterparts. Parents of Champions are more likely to have provided moral and material support for their daughter's education. In fact 97 percent of Champions cited parental support as the most instrumental factor in their educational success. Further, Champion parents often shielded their daughters from the community censure directed at their rejection of restrictive gender norms and traditional marriage age. This finding is troubling from a policy perspective: reliance on exceptional families is not a good or universally scalable strategy for social change because it leaves out those who most need support, including those with weak or dysfunctional families.

Opportunity: Given the critical role that parental support plays in young women's educational attainment, targeting educational interventions at the household level is a potentially transformative and underutilized strategy for realizing equitable educational attainment. Some state- and nonprofit-led initiatives have successfully mobilized families and communities to support girls' primary education.[57] However, more could be done to shift the focus beyond the "girl child" to challenge female stereotypes and mobilize grassroots support for the families of young women engaged in secondary and tertiary education. The Champion group that participated in the empowerment workshop recommended involving teachers and local

[57] For example, while Chief Minister of Gujarat, Narendra Modi (the current Prime Minister of India) actively led an annual three-day, statewide, primary school enrollment campaign, targeted at girls. Civil society groups, private companies, village education committees, and parents joined in community activities and committed themselves to ensuring that every child in their village received at least a primary school education. See UNICEF India, no date, "State-wide School Enrollment Drive Launched in Gujarat," accessed May 29, 2015, http://www.unicef.org/india/resources_1873.htm.

government officials to engage with parents. The Champion workshop group also recommended mobilizing the broader community to support girls' post-primary education and to rally against deleterious social norms that often prevent education progression, such as purdah and early marriage. Targeted social messaging, school-initiated meetings, and financial incentives for families supporting their daughters' secondary and tertiary education are important and underutilized strategies.

Government Education Schemes

Challenge: More than half of the participants reported benefiting from government programs administered at the primary and lower secondary level—most commonly, the provision of free meals, books, and uniforms. However, although most participants came from low-income and traditionally marginalized ST, SC, and OBC backgrounds, the number of students that received scholarships was remarkably low. Just 15 percent of Champion participants had received any governmental monetary support for their education at the upper primary level, increasing to 25 percent at the lower secondary level. Overall far fewer Champions than non-Champions benefited from government education programs, partly because many more Champions attended nongovernment schools where penetration of government schemes is low due to restrictions on eligibility. The financial hardships experienced by participants' families in covering the costs of education grow more pressing as children progress through the education system. For example, 22 percent of Champions reported that their parents had taken out loans to support their education. Relying on parents to secure high-interest loans to enable their daughter to complete secondary school puts a tremendous strain on both individual students and their families.

Opportunity: Champions in the qualitative workshop highlighted that many students eligible for government assistance are struggling to navigate an unfamiliar and confusing administrative terrain. Some Champion participants reported lack of transparency around the application process for grants and scholarships at the upper secondary and college levels as particularly problematic. Increased clarity surrounding the process and targeted assistance in applying for scholarships at the school level would help low-income families take advantage of government and scholarship programs that exist but are underutilized where most needed.

Although more non-Champions than Champions benefited from educational subsidies, non-Champions still failed to progress beyond the lower secondary level, thus suggesting a need to refocus resources and priorities. Many young women within the sample who attended low-cost private schools (and were also from disadvantaged backgrounds) were deprived of government education programs by virtue of their private school enrollment. The government needs to continue addressing restrictions on entitlements for low-income students attending nongovernment institutions. This is increasingly important given the growing number of partnerships with private schools (at the primary level, by requiring them to reserve 25 percent of places for disadvantaged students and at the secondary level, by depending on private schools to help meet the growing demand).[58]

Mentoring

Challenge: The need for formalized academic guidance and career mentoring among this group is acute. According to the data, just to progress through the education system, the majority of Champions relied on exceptional teachers for administrative, moral, and on occasion, even financial support. Given the low levels of educational attainment among participants' parents, and indeed among the parents of millions of other first-generation learners across India, it is not surprising that students rely upon teachers for help in navigating the academic system. Currently this support is not systematic, thus disadvantaging those not fortunate enough to have had a teacher willing to go beyond the bounds of duty to provide the guidance required. Many teachers are operating in overburdened and underfunded contexts that compound the mentorship challenge.

In addition to administrative assistance, first-generation learners require formalized early career mentoring from educators familiar with the curricular and institutional choices available. This cohort reported having very little contact with adults outside their immediate family due to restrictions on mobility and social engagement. This lack of exposure to career mentors limited their access to critical information on which to base their educational choices. Many Champions reported that they chose subjects at the upper secondary and college level based on gender norms

[58] Government of India. 2012. *Twelfth 5-Year-Plan Report.* New Delhi: Government of India. http://12thplan.gov.in/.

and costs rather than on employment interest or subject-matter affinity. As a result of these constraints, the majority of Champions were enrolled in liberal arts (BA) degrees without clear career trajectories. Those from the lowest income categories were significantly less likely to have specialized in non-liberal-arts subjects such as science and technology, which have potential for more secure and better remunerated employment.

Opportunity: Encouraging and rewarding teachers for time invested in supporting female students from economically and educationally deprived backgrounds, both in their engagement with academic pursuits and with the college application process, could facilitate a more equitable system. There are also implications for the private sector. Corporate social responsibility (CSR) programs, particularly in the science and technology sectors, should explore internship programs starting at the secondary level for motivated students, including girls. Offering career guidance and mentorship to young women would address the national technical-skills shortage and ensure that young women receive the training needed to participate in the knowledge economy. Private mentoring initiatives such as those established by the Intel Foundation in India could also serve as models to help more first-generation learners successfully pursue careers in the growing industries of science and technology. The government could take the lead in convening private sector players interested in developing such CSR initiatives; it could provide trainings, examples of good practices, and, eventually, publicity as a reward for successful programming.

Life-Skills Education for Adolescents

Challenge: Opportunities to create healthy, caring, and trusting friendships across the gender divide seem nonexistent for many of today's Indian adolescents. Champions characterized their relationships with boys as driven by apprehension, insecurity, and fear. Fora for discussing and learning about reproductive and sexual health, sexual attraction and desire, and the complexities of relationships and marriage also appear to be nonexistent. Just half of the participants had ever received sex education. Of those who did receive information on the topic, mothers were cited most often as the primary source (71 percent), followed by teachers (18 percent) and healthcare providers (11 percent). As discussed earlier, the survey also contained questions that evaluated participants' knowledge on reproductive health issues. For example when asked if a girl could get pregnant from kissing, 18 percent said yes, 12 percent said no. The majority of participants (70 percent) did not answer the question, which may indicate lack of knowledge or a high degree

of discomfort with the topic. It is therefore possible that conversations with mothers were limited to issues related to menstruation and that information about sexual urges, conception, and sexually transmitted infections was limited. The data also show that just one in four Champions and one in twenty non-Champions regularly discuss their romantic relationships with their mothers. Topics relating to sexuality and sexual orientation are unlikely to be adequately addressed within the family.

Opportunity: Life-skills education for adolescents was introduced as a separate subject across 4500 government schools in Rajasthan in 2005; the subject is now institutionalized within many government schools.[59] Widespread establishment of this program in both government and nongovernment schools is essential for ensuring that students acquire accurate information about adolescent reproductive and sexual health including HIV/AIDS, substance abuse, and other traditionally taboo subjects. Since more than half of the country's adolescent population is not attending formal schooling, other mechanisms for addressing these social issues need to be explored. The data shows that many in both the Champion and non-Champion groups watch television every day. Television therefore offers an opportunity to address neglected topics and to reach this traditionally underserved youth population.

Harassment in Public

Challenge: Champions are contesting prevailing social norms for girls and young women by spending increased time in the public sphere—at college, on public transport, and in public spaces. For many this exposure is perilous, fraught with dangers of stigma, community censure, and sexual harassment. For example, by the upper secondary level, the majority of the 413 Champion participants regularly experienced unwelcome touching on the journey to or from school. One in ten non-Champions gave harassment as the primary reason that they dropped out of school.

[59] UNFPA India: No date. "Empowering Young People with Life-skills Education." Last updated May 26, 2015. http://www.unic.org.in/display.php?E=12870&K=.

Opportunity: Harassment is stressful and intimidating for young women, who are reluctant to report these incidents.[60] This issue must be addressed more systematically, through rigorous implementation of recent legal reforms, or it will probably hamper significant advances in female educational access and mobility, whatever the economic investment in promoting these goals. The Champion participants in the empowerment workshop provided the following suggestions to enhance public safety for young women:

- Provide safe transportation facilities in rural and urban areas;
- Open more schools and colleges with hostel facilities for girls;
- Install CCTV cameras at crucial public places, such as bus stops;
- Discuss incidents of harassment and violence against women and girls at the panchayat level, as well as in schools and colleges;
- Establish help lines in all towns and gram panchayats to address violence against women;
- Generate awareness about violence and sexual harassment issues as part of the curriculum at the school and college level (girls are often blamed for the violence and harassment they face); and
- Establish Mahila Thana (Women's Police Stations) in all districts.

Technology

Challenge: Only one in three Champions had ever used the Internet. None in the non-Champion cohort had ever accessed it. Internet access and computer skills can open paths to freedom of expression, political engagement, and information about health, education, and economic empowerment. Conversely, in an increasingly technological age, digital exclusion can result in the de-facto denial of range of critical skills.

[60] There are many incidences reported in the media of young women attempting, sometimes successfully to take their own lives out of despair due to stalking and "eve teasing." See, for example, M. Saini, 2014, "Fed Up Of Stalking By Boys, Two Rohtak Girls Commit Suicide," *Times of India,* August 25, 2014. http://timesofindia.indiatimes.com/city/chandigarh/Fed-up-of-stalking-by-boys-two-Rohtak-girls-commit-suicide/articleshow/40869703.cms.

Opportunity: Investment in programs in government secondary schools to train young women in computer literacy could help address the national technical-skills shortage while also ensuring that these young women have the training necessary to participate in the knowledge economy. Public-private partnerships, fulfilled by corporate social responsibility programs, such as those undertaken by NASSCOM and Google for female technology entrepreneurs, could play a role in bridging the digital divide.[61]

[61]*Business Standard*. 2014. "NASSCOM, Google launch 'Girls in Technology'," March 8, 2014, http://www.business-standard.com/article/companies/nasscom-google-launch-girls-in-technology-114030700611_1.html.

VI. Limitations and Further Research

Limitations

- The data gathered in this study only relates to government colleges so inferences cannot be made about first-generation female learners studying in nongovernment colleges.

- Though the five regions where the study was conducted were purposefully chosen on the basis of their diversity, a design that included a larger number of districts with more remote ones would have enhanced the statewide generalizability of the findings.

- The research team only visited the original family homes of non-Champions. non-Champions who had moved away from their familial home to their in-laws after marriage were therefore excluded from the research.

- The non-Champions were located using information provided by secondary schools that the Champions attended. The schools were identified using a referral method: Champions were asked to refer the research team to the secondary schools they attended and others in the area. Due to restrictions on access, the majority of the schools that the research team approached to gather information on dropouts (i.e. non-Champions) were government secondary schools. Approximately one in four of Champions attended private schools as compared with less than 5 percent of non-Champions. The lack of representation of non-Champions who attended private institutions within the sample somewhat limits the comparability of the school choice between the non-Champion and Champion groups.

Further Research

- Despite the similarity in Champions' and non-Champions' social, economic, and educational backgrounds, distinct differences can be observed in their household dynamics. A crucial next step in explaining the factors contributing to the Champions' success and in building on the positive deviance methodology would be a thorough investigation into the determinants of the observed household differences. This would include an investigation of the reasons behind parents' differential engagement with their daughters' education, and, more broadly, an exploration of the factors generating more or less egalitarian and participatory family dynamics.

- Other key topics for future research include incentives for effective teacher mentorship, mechanisms for simplifying and systematizing scholarship access and college enrollment, and strategies for reducing the obstacles that low-caste girls face in accessing science and professional degree courses.

VII. Appendices

Appendix 1: Community Advisory Board

The community advisory board team comprised of the following members:

- Dr. Sharada Jain, Secretary and Director, Sandhan (NGO), Jaipur. As a National Resource Agency, Sandhan supports resource agencies and community groups working for educationally marginalized groups;
- Shri Rajendra Bhanawat, IAS (Retd), Managing Trustee Doosra Dashak (NGO). Doosra Dashak focuses on addressing the learning needs of the school-going and non-school-going adolescents belonging to the most marginalized communities, in remote rural areas in Rajasthan;
- Prof. Rajiv Gupta, Retired Professor of Sociology, University of Rajasthan;
- Prof. Naresh Dadhich, Professor of Economics and Director Institute of Development Studies;
- Ms. Sulagna Roy, Education Specialist, UNICEF, Jaipur office;
- Ms. Veenu Gupta, Principal Secretary, School Education, Government of Rajasthan.

Appendix 2: Participating Colleges

The following colleges took part in the research

- S.P.D.M Girls P.G. College Kotputli (Jaipur)
- Baba Gangadas Govt. Girls P.G. College Shahpura (Jaipur)
- Baba Bhagwandas Govt. P.G. College Chimanpura (Jaipur)
- L.B.S. P.G. College Kotputali (Jaipur)
- R.R Morarka Govt.P.G.College (Jhunjhunu)
- Seth Netram Maghraj Govt. P.G. College (Jhunjhunu)
- Swami Vivekanand Govt. P.G. College Khetadi (Jhunjhunu)
- Govt. P.G. College Chomu (Jaipur)
- Shakambhai Government P.G College Sambar Lake (Jaipur)
- Haridev Joshi Government Girls College (Banswara)
- Shri Guru Govind Guru Government College (Banswara)
- Government P.G. College (Dholpur)
- Govt. College, Phalodi (Jodhpur)

Appendix 3: Supplementary Analyses

Toilets by Types and Levels of Schooling

	Lower primary			**Upper primary**			**Lower secondary**			**Upper secondary**		
	Govt.	Private	Other	Govt.	Private	Other	Govt.	Private	Other	Govt.	Private	Other
No toilet	84	12	3	84	14	1	80	10	10	79	11	11
Unusable	92	6	2	95	4	1	82	9	9	72	12	16
Usable but unclean or not private	75	22	3	77	19	4	81	16	4	76	19	5
Usable private and well kept	66	29	6	68	25	7	70	24	7	55	33	12
Total	73	22	4	74	21	5	73	20	6	60	29	11
Significance	***			***			**			***		

School infrastructural score by type and levels of schooling (Standard deviation in parentheses)

	Government	**Private**	**Other**	**Total**
Lower primary	3.64	4.75	3.85	3.89
	(1.27)	(1.65)	(1.56)	(1.46)
Upper primary	4.08	4.94	4.47	4.27
	(1.52)	(1.66)	(1.59)	(1.60)
Lower secondary	5.09	5.55	5.39	5.20
	(1.96)	(1.82)	(1.69)	(1.93)
Upper secondary	5.58	5.83	5.80	3.68
	(1.90)	(1.90)	(1.83)	(3.11)

Peer Harassment by School Level and Caste
(Reference group: SC)

	(1) Lower primary	(2) Upper primary	(3) Lower secondary
General	-1.61***	-1.21***	-0.91***
	(0.44)	(0.34)	(0.34)
ST	0.17	-0.065	0.23
	(0.51)	(0.39)	(0.39)