### J-PAL Evaluations of Incentives and Accountability Mechanisms to Improve Service Provision

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<th>Evaluation, Location</th>
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<th>PIs and Date</th>
<th>Intervention</th>
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<td><strong>Incentives</strong></td>
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<tr>
<td>1.* In-kind incentives for teacher attendance, Kenya</td>
<td>Education</td>
<td>Kremer and Chen, 2001</td>
<td>Pre-primary school teachers with sufficient attendance at the end of a school term were awarded a bicycle.</td>
<td>No effect. Unannounced visits suggest principals did not accurately enforce incentives.</td>
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<tr>
<td>2. In-kind incentives for test scores, Kenya</td>
<td>Education</td>
<td>Glewwe, Ilias and Kremer, 2010</td>
<td>Teachers received prizes (e.g. suits, household goods) worth 20-50% of monthly salary for high performance or improvement on standardized tests.</td>
<td>No effect on teacher attendance or pedagogy. Test-prep sessions and test scores increased.</td>
</tr>
<tr>
<td>3. Bonus pay for test scores, Andhra Pradesh, India</td>
<td>Education</td>
<td>Muralidharan and Sundararaman, 2011</td>
<td>Teachers received monetary bonuses based on either classroom-level performance (individual incentive) or school-level performance (group incentive) on independent exams.</td>
<td>No effect on attendance, but significant increase in test scores. Individual incentives produced twice as large an impact after 2 years. Classroom observation suggests the test score increase was caused by greater teacher effort.</td>
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<tr>
<td>4. Girls’ merit scholarships, Kenya</td>
<td>Education</td>
<td>Kremer, Miguel, and Thornton, 2009</td>
<td>Grants given to girls who scored well on exams.</td>
<td>5.1 percentage point decrease in teacher absence. Cost $2.00 per day of teacher presence. Significant test score gains for both girls and boys, suggesting teachers responded to increased student motivation.</td>
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*Summary not yet available on J-PAL website*
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<tr>
<td>5. Attendance time-stamping, Udaipur, India</td>
<td>Health</td>
<td>Banerjee, Duflo, and Glennerster, 2008</td>
<td>Date and time-stamping machines installed at health clinics. Absent nurses could be paid less or fired, but could be “excused” if absent for legitimate reasons.</td>
<td>Improved attendance for the first few months, but the impact faded to zero over time, as supervisors became very lax with “excused” absences.</td>
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<tr>
<td>6. Camera monitoring, India</td>
<td>Education</td>
<td>Duflo, Hanna, and Ryan, 2010</td>
<td>Teachers were issued cameras with time stamp function. Teacher’s pay was linked to attendance, which was verified through photographs of teachers with students (2x/day)</td>
<td>20 percentage point decrease in teacher absence. Cost $2.20 per day of teacher presence. Test scores significantly improved.</td>
</tr>
<tr>
<td>7. Community Block Grants, Indonesia</td>
<td>Health and Education</td>
<td>Olken, Onishi, and Wong, 2011</td>
<td>Generasi block grant program conditioned size of grant to performance on health and education indicators the prior year.</td>
<td>Incentivized villages performed better on health indicators relative to villages receiving an unconditional block grant. Health providers, who are partially paid fee-for-service, increased labor. No significant effect on education performance.</td>
</tr>
</tbody>
</table>

**Monitoring, Accountability, and Participation**

<p>| 8. Village Education Committees (VECs), India | Education | Banerjee et al., 2010 | Outreach workers informed villagers about the low quality of education in the village and about the functions of the VEC, and trained community members in a “report card” for local schools. | No impact on community involvement, teacher effort, or student achievement. Another intervention allowing community members to be involved directly in remedial tutoring did improve learning. |</p>
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<td>9. Citizen Report Cards, Uganda</td>
<td>Health</td>
<td>Bjorkman and Svensson, 2008</td>
<td>Informing communities about quality of health care services with “report cards,” facilitating meetings to draw up action plans and “community contracts” with providers.</td>
<td>Service utilization rates and health indicators significantly improved, which was attributed to greater provider effort. 10 percentage point decrease in health worker absence. Cost $25 per day of health worker presence.</td>
</tr>
<tr>
<td>11. Extra Teacher Program, Kenya</td>
<td>Education</td>
<td>Duflo, Dupas, and Kremer, 2010</td>
<td>Hired extra teachers locally, with same qualifications but with 1-year contracts and at one fourth the salary of civil service teachers.</td>
<td>Contract teachers much more likely to be teaching than civil service teachers. Decreased attendance of civil service teachers in extra teacher schools, who had smaller class sizes.</td>
</tr>
<tr>
<td>12. Combatting Corruption in Community Development, Indonesia</td>
<td>Infrastructure</td>
<td>Olken, 2007</td>
<td>(1) Probability of audit of road construction projects increased from 4% to 100%. (2) Interventions to increase participation: invitations to accountability meetings and anonymous comment cards.</td>
<td>(1) Reduced missing expenditures from 27.7 percentage points to 19.2 percentage points. (2) Invitations had no impact on corruption. Comment forms only had an effect when distributed through schools, bypassing local officials.</td>
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<tr>
<td>Community Participation, Indonesia (randomized but not J-PAL affiliated)</td>
<td>Education</td>
<td>Pradhan et al., 2011</td>
<td>Grant plus one or more of the following: (1) training of school committee members, (2) democratic election of school committee members, (3) facilitated collaboration between school committee and village council (“linkage”).</td>
<td>Significant test score improvements for linkage and linkage + election. Training by itself had little impact on any indicator school quality.</td>
</tr>
</tbody>
</table>

**Voter Information**

| 14. | Campaign to Influence Voter Behavior, India | Governance | Banerjee, Green, Green, and Pande, 2008 | (1) Campaign urging voters to vote on development priorities, not caste, using puppet shows and posters. (2) “Report cards” on candidate attendance, participation, and use of discretionary funds. | (1) Increased voter turnout and reduced probability of voting for party representing one’s own caste by 5 percentage points. (2) Increased vote share for candidates whose activities and spending represented voters’ top concerns. |

<p>| 15. | Information Dissemination Campaign, Mexico | Governance | Chong, De La O, Karlan, Wantchekon, 2010 | One week before elections, voters received flyers about (1) municipalities’ overall spending; (2) distribution of resources to the poor; or (3) irregular, unauthorized, or unaccounted-for spending. | (1) No impact. (2) Areas with low spending on the poor saw a 4 percentage point increase in voter turnout and a 6 percentage point decrease in incumbent vote share. (3) Information about high corruption decreased both turnout and incumbent vote share. |</p>
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<tr>
<td>16. Corruption Audits, Brazil</td>
<td>Governance</td>
<td>Ferraz and Finan, 2008</td>
<td>Brazil’s federal government selected 1% of municipalities at random to face publicly reported audits of corruption (procurement fraud, diversion of public funds, and over-invoicing) in federal funds.</td>
<td>For every additional violation, the audit policy reduced the likelihood of incumbent reelection by about 20%. The presence of local radio stations decreased re-election odds when corruption was revealed, but increased the odds for non-corrupt politicians.</td>
</tr>
<tr>
<td>17. * Media Campaigns on Candidate Quality, India</td>
<td>Governance</td>
<td>Banerjee, Pande, and Bossroy, forthcoming</td>
<td>(1) Daylong workshops encouraging voters to elect “clean” candidates; (2) Ads in local media about (a) criminal affidavits of legislators, (b) average prices of votes, (c) benchmarks of public goods provision in exemplar districts</td>
<td>Evaluation in progress, results forthcoming</td>
</tr>
</tbody>
</table>
TEACHER INCENTIVES BASED ON STUDENTS’ TEST SCORES IN KENYA

POLICY ISSUE:
Over the past decade, many developing countries have expanded primary school access, energized by initiatives such as the Millennium Development Goals which call for achieving universal primary education by 2015. However, these improvements in school access have not been accompanied by improvements in school quality. Poor learning outcomes may be due, in part, to high absence rates and low effort among teachers, who often lack strong incentives to perform well at work. Some argue that linking teachers’ pay to students’ performance may be a way to increase teacher effort; opponents argue this will result in “teaching the test”, rather than better teaching of the curriculum.

CONTEXT OF THE EVALUATION:
Learning outcomes in Kenya are poor: while approximately 85% of primary school age children are enrolled in school, only about one third of students finish primary school. Government officials and policy makers are hopeful that improved education will enable individuals to attain higher levels of education. But more schools and an improved curriculum can only go so far – students must be met with a motivated teacher in their classroom. This is often not the case in Kenya, where teachers are absent an average 20% of the time. Teachers’ salaries depend on their education and experience, with no opportunity for performance-based promotion, which appears to result in a system with no incentives to teach well.

DETAILS OF THE INTERVENTION:
This study examines the effects of a teacher incentives program on both teacher behavior and student test scores in Kenya. Out of 100 schools which the Ministry of Education designated as particularly in need of assistance, 50...
were randomly selected for the treatment, while the other 50 served as a comparison group. In collaboration with International Child Support (ICS), researchers designed and evaluated a program in Busia and Teso districts that provided prizes to teachers in grades 4 to 8 based on the performance of their school as a whole on the annual district exams. ICS offered prizes that ranged in value from 21-43% of typical teacher monthly salaries, comparable to merit pay programs in the United States.

Teachers in all 50 schools were aware of the competition, which awarded “Top-Scoring,” and “Most Improved” prizes, as well as second, third and fourth place awards to participating schools. Teachers in these winning schools were subsequently awarded prizes. The program penalized teachers for dropouts by assigning low scores to students who did not take the exam, preventing them from selecting only the most qualified students to take the test. In all, prizes were awarded to 24 of the 50 participating schools.

Data were collected on many types of teacher effort – attendance, homework assignment, pedagogical techniques, and holding extra exam preparation sessions – as well as data on student test scores after the end of the program. The program ran for two years beginning in 1998, with 1996 exam scores used to measure improvements.

RESULTS AND POLICY LESSONS:
During the two years the program was in place, student test scores increased significantly in treatment schools. However, evidence suggests that this improvement did not necessarily occur through the intended channel of regular classroom teaching. Teacher attendance and student dropout and repetition rates did not improve, and no changes were seen in either homework assignment or pedagogy. Instead, teachers were more likely to conduct test-preparation sessions outside of normal class hours. Prior to the program, incentive schools were slightly less likely to offer test preparations, but after the introduction of the program, treatment schools were 4.2 percentage points more likely to conduct prep sessions in the first year and 7.4 percentage points more likely in the second. Test score improvements dropped off after the program was completed, implying there were little to no spillover effects of the test preparations onto actual learning.
TEACHER PERFORMANCE PAY IN ANDHRA PRADESH, INDIA

POLICY ISSUE:
Over the past decade many developing countries have expanded primary school access, energized by initiatives such as the United Nations Millennium Development Goals, which call for achieving universal primary education by 2015. Improvements in school access however, have not always translated into improved learning for students. While traditional approaches to improving education often focus on providing schools with more resources, there has been growing interest in directly assessing and incentivizing schools and teachers based on student learning outcomes. Teachers in developing countries often face little administrative pressure to provide high quality educational instruction. Linking teacher pay to student performance has been suggested as a way of improving accountability of educational providers to local communities and improving education outcomes in schools, but the theoretical predictions regarding its effectiveness are ambiguous and the empirical evidence to date is limited and mixed.

CONTEXT OF THE EVALUATION:
While India has made substantial progress in improving access to primary schooling, average levels of learning remain very low. A recent Education Status Report found that over 58% of children aged 6 to 14 could not read at the second grade level, though over 95% of them were enrolled in school. Public spending on education has been rising as part of the “Education for All” campaign, but there are substantial inefficiencies in public delivery of education services. A recent study of primary schools in India found 25% of teachers to be absent on any given day, and that less than half of those present were engaged in any teaching activity. Since nearly 90% of the education budget is spent on teacher salaries, this implies considerable inefficiency in translating spending into learning outcomes.

DETAILS OF THE INTERVENTION:
This evaluation contributes to the debate on the relative effectiveness of input-based versus incentive-based policies in improving the quality of schools by conducting a randomized evaluation of a teacher performance pay program.
implemented in the Indian state of Andhra Pradesh (AP). Two types of teacher performance pay (group bonuses based on school performance, and individual bonuses based on teacher performance) are studied, with the average bonus calibrated to be around 3% of a typical teacher’s annual salary. In a parallel initiative, two other sets of 100 randomly-chosen schools were provided with an extra contract teacher, and with a cash grants for school materials respectively.

Treatment groups summary table:

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<th>INPUTS (Unconditional)</th>
<th>INCENTIVES (Conditional on Improvement in Student Learning)</th>
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<tr>
<td>NONE</td>
<td>NONE, GROUP BONUS, INDIVIDUAL BONUS</td>
</tr>
<tr>
<td>EXTRA CONTRACT TEACHER</td>
<td>Comparison (100 Schools), 100 Schools</td>
</tr>
<tr>
<td>EXTRA BLOCK GRANT</td>
<td>100 Schools</td>
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As the table shows, the input treatments of one extra teacher or a cash grant were provided unconditionally to the selected schools at the beginning of the school year, while the incentive treatments consisted of an announcement that bonuses would be paid at the beginning of the next school year conditional on average improvements in test scores during the current school year.

The school year in AP starts in the middle of June, and the baseline tests were conducted in the 500 sampled schools during June and July of 2005. Researchers engaged the education testing firm Educational Initiatives (EI), to design the tests based on the syllabus. End of school-year assessments were conducted in all project schools. The results were provided to the schools in the beginning of the next school year, and all schools were informed that the program would continue for another year. Bonus checks based on first year performance were sent to qualifying teachers at the start of the next school year, following which the same process was repeated for a second year. The project was implemented in the field by the Azim Premji Foundation, with the full support of the Government of Andhra Pradesh.

RESULTS AND POLICY LESSONS:
Teacher pay based on student performance is found to be highly effective at improving student learning. After two years of the program, students in incentive schools performed on average 0.28 and 0.16 standard deviations higher than those in comparison schools in math and language tests respectively. Incentive schools do significantly better on both mechanical components of the test (designed to reflect rote learning) and conceptual components of the test (designed to capture deeper understanding of the material), suggesting that the gains in test scores represent an actual increase in learning outcomes. Students in incentive schools do significantly better not only in math and
language (for which there were incentives), but also in science and social studies (for which there were no incentives), suggesting positive spillover effects.

School-level group incentives and teacher-level individual incentives perform equally well in the first year of the program, but the individual incentive schools significantly outperformed the group incentive schools in the second year. At the end of two years, the average treatment effect was a 0.27 standard deviation increase in test scores in the individual incentive schools compared to 0.16 standard deviations in the group incentive schools.

Changes in teacher behavior in response to the program are measured with both teacher interviews as well as direct observation of teacher activity. Results suggest that the main mechanism for the impact of the program was not increased teacher attendance, but greater (and more effective) teaching effort conditional on being present. The study also finds that performance-based bonus payments to teachers were a significantly more cost-effective way of increasing student test scores compared to spending a similar amount of money unconditionally on additional school inputs or extra teachers.
INCENTIVES TO LEARN: A MERIT-BASED GIRLS’ SCHOLARSHIP PROGRAM IN KENYA

RESEARCHERS:
Michael Kremer
Edward Miguel
Rebecca Thornton

PARTNERS:
Government of Kenya Ministry of Education, Science and Technology
International Child Support (ICS) Africa
John D. and Catherine T. MacArthur Foundation
World Bank

FIELDWORK IMPLEMENTED BY:
Innovations for Poverty Action (IPA)

LOCATION:
Busia and Teso districts, Kenya

SAMPLE:
127 primary schools

TIMELINE:
2001 - 2002

THEMES:
Education

POLICY GOALS:
Education Quality
Student Attendance
Teacher Attendance

POLICY ISSUE:
In many education systems, those who perform well on exams covering the material of one level of education receive free or subsidized access to the next level of education. Such merit-based scholarships are attractive to the extent that they can induce greater student effort, assuming that pupils are motivated to strive for scholarship opportunities. However, the role of student motivation in improving education outcomes is relatively poorly understood. Policymakers have frequently focused their attention on increasing school inputs or improving teacher attendance, assuming that students are motivated to take advantage of these improvements. Merit-based scholarships for girls may offer an alternative to increase female education, and more educated women tend to have healthier children and higher incomes. However, the assumption that pupils are inherently motivated to pursue education, and the effect that educational opportunities can have on female learning, are relatively unexplored.

CONTEXT OF THE EVALUATION:
Approximately 85% of primary school age children in western Kenya are enrolled in school, but only about one-third of students finish primary school. Dropout rates are typically higher for girls; in 2001 the 6th grade dropout rate was 10% for girls and 7% for boys. Primary schools charge fees to cover their non-teacher costs, including textbooks for teachers, chalk, and classroom maintenance (approximately US$6.40 per family per year). There are also additional fees for school supplies, textbooks, uniforms, and activities such as taking exams, and these costs
may deter parents from sending children, especially daughters, to school. This project was introduced in part to assist families of high-achieving girls to cover these costs.

DETAILS OF THE INTERVENTION:
The Girls’ Scholarship Program (GSP) was carried out by International Child Support (ICS) Africa, in two rural Kenyan districts, Busia and Teso. Out of a set of 127 schools, 64 were randomly invited to participate in a program which gave merit-based scholarships to 6th grade girls who scored in the top 15% on tests administered by the Kenyan government. For the next two years, winning girls received: (1) a grant of US$6.40 to cover school fees, paid to her school; (2) a grant of US$12.80 for school supplies paid directly to her family; and (3) public recognition at a school awards assembly held for students, parents, teachers and local government officials.

Academic achievement was captured in test scores, which are likely to be a good objective measure, and not significantly affected by cheating. Exams in Kenya are administered by outside monitors, and district records from those monitors have no documentation of cheating.

RESULTS AND POLICY LESSONS:
Implementation: Existing negative attitudes towards outside intervention and an educationally disadvantaged population meant that some schools in the Teso district were unwilling to implement the program when it was offered. Particularly, stronger indigenous religious beliefs and a tradition of suspicion of outsiders caused implementation difficulties, which may have reduced program effectiveness in those areas.

Test Score Effects: The program raised test scores by 0.19 standard deviations for girls enrolled in schools eligible for the scholarship. These effects were strongest among students in Busia, where the program increased scores by 0.27 standard deviations. There were no effects found in Teso. Large positive test score gains were also found among Busia girls with low chances of winning the award, suggesting that there were positive externalities on learning. The average program effect for girls corresponds to an additional 0.2 grades worth of primary school learning, and these gains persisted one full year following the competition. There is also evidence of positive program externalities on the entire class; boys (who were ineligible for the awards) saw scores increase by 0.08 standard deviations on average.

Student Attendance: While the program impact on school participation is nearly zero among girls in the pooled Busia and Teso sample, the impact in Busia is positive at 3.2 percentage points. This corresponds to about a one-quarter reduction in school absenteeism.

Teacher Attendance: The program had a large impact on overall teacher attendance; in the pooled Busia and Teso sample there was a 4.8 percentage point increase, and when only 6th grade teachers were observed a 7.6 percentage point increase in attendance is seen. Teachers could potentially be gaming the system by diverting their effort towards students eligible for the program, but there is no difference in how often girls are called on in class relative to boys in the program versus comparison schools, indicating that program school teachers probably did not substantially divert attention to girls. This finding suggests that greater teaching effort was directed to the class as a whole.

Merit Scholarships and Inequality: The scholarship award winners did tend to come from relatively advantaged households, raising concerns about the distribution of benefits from this program. But in terms of student test score performance, the positive externalities affected all students, and were not concentrated amongst the most privileged.

Parental Involvement Effects: Anecdotal evidence from teacher interviews suggests greater parental monitoring occurred in Busia as a result of the program. One Busia teacher mentioned that parents began to “ask teachers to work hard so that [their daughters] can win more scholarships.” Another Busia teacher asserted that parents visited the school more frequently to check up on teachers, and to “encourage the pupils to put in more efforts.” The greater improvements in both attendance and performance in Busia suggest that merit scholarships are most
effective in the presence of local parental accountability, either formal or informal.
INCENTIVES FOR NURSES IN THE PUBLIC HEALTH CARE SYSTEM IN UDAIPUR, INDIA

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              Rachel Glennerster

PARTNERS: Seva Mandir
          Vidya Bhavan

LOCATION: Udaipur, India

SAMPLE: 100 local health centers

TIMELINE: 2005 - 2007

THEMES: Health

POLICY GOALS: Healthcare Provider Attendance

POLICY ISSUE:
Even if clinics and hospitals are built, and well stocked with drugs and equipment, these investments will not have the desired impact on health outcomes if healthcare providers are chronically absent. Health care systems in developing countries are plagued by high absenteeism rates among healthcare staff. A survey of six countries found 35% of health workers were absent on any given day. Incentives for healthcare providers to come to work are generally very weak in the developing world. However, there is currently little systematic evidence on how easy it is to enforce attendance incentives, or how these improvements will impact the health of the population.

CONTEXT OF THE EVALUATION:
On paper, India’s public healthcare system looks like the model for delivering universal health services in a large, poor country. Its comprehensive design ensures that all households, rural and urban, are close to a free government health facility, yet the system fails to deliver basic health services. The public Indian health care system is plagued by high staff absence, low effort by providers, and limited use by potential beneficiaries who prefer private alternatives. An extensive survey in 2003 on health in 100 villages in Udaipur found that the poor had largely abandoned the public health care system: more than 75% of people needing medical care went to the more expensive traditional healers and private providers.

One potential reason for the low usage of government facilities is pervasive provider absenteeism. Healthcare facilities in rural Udaipur, where this study took place, are closed more often than not, largely because the nurses simply do not show up for work. Primary Health Centers and subcenters are supposed to be open 6 days a week, 6 hours a day, but the 2003 survey found them to be closed 56% of the time during regular business hours, and only 12% of the time was this because the nurse was on duty elsewhere; the rest of the time she was simply absent.

DETAILS OF THE INTERVENTION:
This study evaluates an incentives program to improve Assistant Nurse Midwife (ANM) attendance at rural
subcenters serving 135 villages in Udaipur District, implemented collaboratively by NGO Seva Mandir and the state and local health administrations. Under the program, Seva Mandir monitored ANM attendance at 16 randomly selected two-nurse centers three days a week. Following a directive from the district administration requiring all nurses to be at their center every Monday (so no field visit or meetings were supposed to occur on this day), Seva Mandir was asked to monitor attendance on Mondays at 33 randomly selected single-nurse centers. To monitor presence, Seva Mandir used time/date-stamping machines locked into a caddy and password-protected to prevent tampering. The ANM was required to both sign and stamp a register secured to the wall of the subcenter three times a day: once at 9am, once between 11am and 1pm, and once at 3pm. Random unannounced visits to subcenters (both treatment and comparison) were also conducted by field officers.

The district health administration also installed punitive pay-incentives to accompany monitoring: ANMs absent for more than 50% of the time on monitored days would have their pay reduced proportional to the number of absences recorded that month. Further, ANMs absent for more than 50% of the time on monitored days for a second month would be suspended from government service.

RESULTS AND POLICY LESSONS:
Centers with Two Nurses: There is initially a substantial treatment effect for the monitored ANMs: the rate of presence of the treatment ANMs is about 15 percentage points higher than for the comparison ANMs. However, after 14 months, the rate of presence for the monitored ANM falls from over 60% to 30%, eliminating the difference in presence between treatment and comparison ANMs.

Single Nurse Monitoring: Similarly, the rate of presence on Mondays is initially 59% in the treatment centers and 30% in the comparison centers, a difference of 29 percentage points. After 6 months however, the difference in rates of presence falls to 3 percentage points.

Initially, the threat of punitive pay-deductions led to a dramatic improvement in attendance. After the first 6 months however, the local health administration, which was caught between the pressure of the nurses and their directions to enforce the pay deductions, began to undermine the incentive structure. Nurses intentionally broke the time clock machines while administrators excused all absences. The result was that 16 months after program inception, there was no difference between the absence rates in treatment and comparison centers. These results show that, like other public service providers, nurses are responsive to properly administered incentives. Furthermore, they show that ensuring that nurses come to work is a low priority for the local health administration and that incentive systems are quickly undermined from the inside if supervisors are given any discretion over how and whether incentives are applied.

Even when the incentive was effective at increasing presence, it did not increase the rate at which patients came to the subcenters, which in any case is very low. At any given time between 0.46 and 0.9 clients were being seen in the center, fewer even than the 2-3 clients observed two years earlier.

ENCOURAGING TEACHER ATTENDANCE THROUGH MONITORING WITH CAMERAS IN RURALUDAIPUR, INDIA

RESEARCHERS: Esther Duflo
Rema Hanna
Stephen Ryan

PARTNERS: John D. and Catherine T. MacArthur Foundation
Seva Mandir

LOCATION: Udaipur district, Rajasthan, India

SAMPLE: 113 Informal Education Centers

TIMELINE: 2003 - 2006

THEMES: Education

POLICY GOALS: Teacher Attendance

DATA: Monitoring Works: Getting Teachers to Come to School

POLICY ISSUE:
Over the past decade many developing countries have expanded primary school access, energized by initiatives such as the United Nations Millennium Development Goals, which calls for achieving universal primary education by 2015. However, these improvements in school access have not been accompanied by improvements in school quality. Poor learning outcomes may be due, in part, to high absence rates among teachers, who often lack strong incentives to attend work. There have been relatively few rigorous studies evaluating successful interventions to address absenteeism, so little is known about how reduced absenteeism impacts other educational outcomes. If teachers are incentivized to show up to school, is that all they do- or once there do they teach? Do financial incentives undermine their other motivation to teach well?

CONTEXT OF THE EVALUATION:
Despite booming economic growth and an improved educational infrastructure in many regions in India, primary education is lagging in many remote and marginalized communities. Sixty-five percent of surveyed children enrolled in grades 2 through 5 in government primary schools could not read a simple paragraph, and 50% could not do simple subtraction or division. Teacher absenteeism, a pervasive problem in these schools, may contribute to these poor educational outcomes. Disciplinary actions are rarely undertaken against absent teachers: in a survey of 3,000 Indian government schools, only one principal reported a teacher having been fired for poor attendance.¹ This may account for the extremely high rate of teacher absence in India: in schools examined by this study, teachers attended classes only 60% of the time, and much of the time when they were in class they were not teaching.
DETAILS OF THE INTERVENTION:
This evaluation estimates the effect of incentives on teacher attendance and of increased teacher attendance on students' attendance and abilities in math and language. Seva Mandir, a local NGO, worked with researchers to randomly select 57 of their informal education centers for the intervention, and 56 for a comparison group. Ordinarily, teachers were paid a salary of Rs. 1,000 (about US$22) per month, for 21 days of teaching. In the intervention schools, each teacher was guaranteed a base pay of Rs. 500, and was rewarded with Rs. 50 for each complete day taught. Thus, a monetary incentive was attached to teacher attendance. When these incentives were implemented, monthly pay ranged from Rs. 500 to Rs. 1,300.

In order to monitor teacher attendance, Seva Mandir gave each teacher a camera, along with instructions to have one student take a picture of the teacher and the class at the start and close of each school day. The camera's timestamp feature allowed Seva Mandir to determine when and for how long the teacher was at school. This technological monitoring was a relatively cost-effective method to monitor teacher attendance, since visits by monitors were reduced from daily to once every three weeks.

RESULTS AND POLICY LESSONS:
Impact on Teacher Attendance: The program resulted in an immediate and long lasting improvement in teacher attendance rates in treatment schools. Over the 30 months of the study, teachers at program schools had an absence rate of 21%, compared to 44% at baseline and 42% in the comparison schools. Absence rates stayed low after 14 months of the program, suggesting that teachers did not change their behavior simply for the evaluation – their response was almost entirely due to the financial incentives.

Impact on Education: Teachers who were at school were just as likely to be teaching in treatment compared to comparison schools- they did not just show up for the picture and go home. Student attendance on days the teacher was there was similar in both groups, meaning that students in the treatment group received more days of instruction simply because their teachers were more likely to be at school. A year into the program, test scores in the treatment schools were 0.17 standard deviations higher than in the comparison schools. Two and a half years into the program, children from the treatment schools were also 62% more likely to transfer to a formal primary school, which requires passing a competency test. These outcomes are hopeful. Increasing teacher attendance improves educational outcomes, and cost-effective incentive programs like this could potentially improve the opportunities for children in developing countries such as India.

Cost-Effectiveness: Expressed in terms of cost per outcome, this program cost approximately 11 cents for each additional instruction day per child, $60 per additional school year, and $3.58 per 0.10 standard deviations of increased test scores. Thus, the camera program is a relatively cost-effective program, both in terms of increasing instruction time and in terms of increasing learning.

Replicability in Formal Settings: The question arises as to whether the program can be instituted for regular teachers in government schools. Teachers in government schools are often more politically powerful than teachers in informal or private schools. Thus, it may prove difficult to institute a system in which government teachers would be monitored daily and their pay linked to attendance. However, the above evidence suggests that if teacher attendance can be improved this should flow through into improved test scores.

PROJECT GENERASI: CONDITIONAL COMMUNITY BLOCK GRANTS IN INDONESIA

RESEARCHERS: Ben Olken
Junko Onishi
Susan Wong

PARTNERS: Government of Indonesia
World Bank

LOCATION: Indonesia

SAMPLE: 300 subdistricts

TIMELINE: 2007 - 2009

THEMES: Education
Health
Political Economy & Governance

POLICY GOALS: Community Participation
Education Quality

POLICY ISSUE:
Following the success of conditional cash transfer projects (CCTs) like PROGRESA, which delivered transfers to poor families in rural Mexico conditional upon schooling or regular healthcare visits, many countries have implemented similar programs in the hopes of increasing family income and stimulating demand for social services. CCT programs, including PROGRESA, have sought to stimulate demand for maternal and child health services and education in part by increasing poor families’ liquid capital. However, such demand-side interventions may be inappropriate in contexts where beneficiaries do not have adequate access to health and education services. Thus, researchers are investigating new strategies, such as block grants, that utilize the same ideas of using incentives to improve the effectiveness of health and education.

CONTEXT OF THE EVALUATION:
In 2005, the Indonesian government implemented a cash transfer program, known as the Unconditional Cash Transfer (UCT) Program, to 15.5 million poor and near poor households, in the hope of protecting them from oil price hikes. Cash transfer programs are a means of giving cash to poor households, easing their liquidity constraint and making it easier for them to weather economic shocks. Although the government considers the UCT program to be a success, it has decided that in the future transfers should be linked to improving the social welfare of the poor, by making grants conditional upon certain behaviors.

In 2007, the government began a pilot program to test a new approach to improving health and education: incentivized community-based block grants. Under the program, known as Generasi, over 1,600 villages received an annual block grant, which each village could allocate to any activity that supported one of 12 indicators of health and education service delivery (such as prenatal and postnatal care, childbirth assisted by trained personnel, immunizations, school enrollment and school attendance). To give communities incentives to focus on the most
effective policies, the government bases the size of the village’s Generasi block grant for the subsequent year partly on the village’s performance on each of the 12 targeted health and education indicators. The Generasi program thereby takes the idea of performance incentives from CCTs and applies it in a way that allows communities the flexibility to address supply constraints, demand constraints or some combination.

DETAILS OF THE INTERVENTION:
The Government of Indonesia selected 300 Indonesian subdistricts for researchers to evaluate, testing the effectiveness of the annual block grants to improve service coverage and usage of basic health and education services. Of these, 100 will be enrolled in Generasi and given an annual block grant proportional to the number of households in the village. Villages can use these grants to improve the coverage of specified health and education services in their community. When villages re-apply in subsequent years, the size of the block grant will depend in part on past performance relative to other villages in the same subdistrict, providing an incentive for villages to use the funds efficiently.

The evaluation will compare this incentivized transfer program to two alternatives each implemented in half of the remaining 200 subdistricts: a non-incentivized block grant model, which will be an identical program but villages will receive the same amount of money in the second year regardless of village performance, and a comparison group whose villages will receive no transfers.

A series of evaluation surveys will be conducted to assess whether provision of aid is more effective when it is made conditional on performance. The evaluation surveys will also measure whether communities are able to collectively work out solutions to improve physical and financial accesses to services and solve small-scale supply problems, and how the incentive structure alters the type of investments chosen by communities.

RESULTS AND POLICY LESSONS:
Results forthcoming.
CAN INFORMATIONAL CAMPAIGNS RAISE AWARENESS AND LOCAL PARTICIPATION IN PRIMARY EDUCATION IN INDIA?

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PARTNERS: Pratham
World Bank

LOCATION: Jaunpur district in eastern Uttar Pradesh, India

SAMPLE: Households and government schools in 280 villages

TIMELINE: 2005 - 2006

THEMES: Education
Political Economy & Governance

POLICY GOALS: Community Participation
Education Quality

DATA: Pratham Information Project

POLICY ISSUE:
While primary school enrollment rates have risen sharply in much of the world, the quality of education remains low in many developing countries. Many children who attend school regularly are still unable to read or do basic arithmetic. Community oversight and participation has been advocated to increase education quality. However there is currently little rigorous evidence as to whether this works, and how community participation can be encouraged. Is more direct action by communities to teach their children to read effective?

CONTEXT OF THE EVALUATION:
In Uttar Pradesh, India’s most populous state, many districts have a literacy rate below 50%. In response to these problems, the government established Village Education Committees (VECs) in every village in 2001. VECs consist of the elected head of the village government (pradhan), the head teacher of the local school, and three parents who are nominated by their community. These committees are responsible for monitoring school performance, claiming public funds and hiring an additional contract teacher in the event of overcrowding.

Despite the promising aspects of this program, a survey conducted in 2005 indicated that 38% of VEC members did not readily identify as being part of the committee, and 25% did not even know they had this role. Only 3.6% of all VEC members knew they had the ability to request funds to hire another teacher, which is one of the main
DETAILS OF THE INTERVENTION:
Working jointly with Pratham (a local NGO) and the World Bank, researchers designed three interventions that were randomly assigned in 280 villages in four rural blocks in Jaunpur district, eastern Uttar Pradesh, a populous and educationally struggling area in India. These interventions served to determine if more information and encouragement to use the channels available to them would cause VECs and community members to demand and receive better services. They contrasted this with direct action to improve learning outside the official channels.

- **Intervention 1:** In 65 villages, field workers started a series of conversations about education in small groups throughout the community. These conversations covered the current status of schools in the village, the quality of local schools, state mandated provisions for schools, mid-day meals, and local funds available for education. People were asked if they knew about the VEC and its membership and responsibilities. After two days of meetings in small groups, a community-wide meeting was held where people were encouraged to ask for information from the VEC, with information gaps filled in by Pratham’s field workers. VEC members also received a pamphlet on their roles and responsibilities from the staff.

- **Intervention 2:** In addition to all the steps outlined above, communities in another 65 villages were trained and encouraged to conduct testing to see if children could read simple text and solve basic arithmetic problems. Volunteers put together a "report card" for each community, which was presented at the community-wide meeting.

- **Intervention 3:** In addition to the above two steps, Pratham officers taught volunteers in another 65 villages a simple technique for helping children learn to read. Volunteers were encouraged to start after-school reading classes, and staff returned an average of seven times to provide in-service training. The objective was to use Pratham-designed materials and local volunteers to supplement the normal curriculum, and improve literacy among village children, and 85 villages received no treatment, serving as a comparison.

RESULTS AND POLICY LESSONS:
Impact on Information Gaps: The average effect of all three treatments was an increase of 7.8 percentage points in VEC members who knew they could access public funds, and a 13 percentage point increase of members who had been properly trained. Parents were also 2.6 percentage points more likely to know that a VEC existed in their community.

Impact on Engagement: Despite these improvements in awareness, there was little difference between the VECs’ performance in treatment and comparison villages. The only significant difference was that 20% more contract teachers were hired in Intervention 2 villages (although not in Intervention 3 villages). Also, the intervention did not increase the level of engagement of parents with schools. Parents were no more likely to have visited the school or to have volunteered time or money in the treatment villages than in the comparison villages.

Impact on Reading: In 55 of the 65 Intervention 3 villages, volunteers ran a total of 400 reading courses. The average child in an Intervention 3 village who could not read anything at the baseline was 7.9% more likely to be able to read at least letters. Those who could read only letters at baseline were 3.5% more likely to read at least paragraphs or words, and 3.3% more likely to read stories if they were in an Intervention 3 village. These changes in average literacy across the village came despite the fact that only 8% of children, including 13% of those who could not recognize letters prior to the intervention, attended the classes. If we assume that all the improvement in the villages came from the reading classes then children who attended the classes must have seen very big improvements in reading. In particular, children who could not read at baseline but attended classes ended up being able to read letters at endline, and 98% of children who could read at the word or paragraph level were able to read at the story level.

This was the only intervention which actually improved educational outcomes, by empowering individuals to improve teaching in their own communities. This suggests that enabling local action which does not depend upon
large-group participation may be a means of directly affecting educational outcomes.
COMMUNITY-BASED MONITORING OF PRIMARY HEALTHCARE PROVIDERS IN UGANDA

POLICY ISSUE:
Nearly 11 million children under five die each year, many from preventable diseases such as pneumonia, malaria and measles. Though prevention and treatment for such diseases is relatively cheap, official health infrastructure in developing countries is often inadequate to deliver the necessary services. Some possible reasons for this include ineffective systems of monitoring and weak accountability relationships between the service providers and those whom they are serving. Poor incentives for public providers to deliver quality services may result in high absenteeism and low-quality patient care. Participation of beneficiaries in the monitoring of public service delivery may be important for improvement, given that care recipients have the most to benefit from improved health services.

CONTEXT OF THE EVALUATION:
Uganda, like many newly independent countries in Africa, had a functioning healthcare system in the early 1960s, but saw a collapse of government services as the country underwent political upheaval. The government has been implementing major infrastructure rehabilitation programs in the public health sector, but improved outcomes have remained elusive – nearly three quarters of all deaths are from preventable causes.

Rural dispensaries are the lowest tier of the Ugandan health system and they provide preventive outpatient care, maternity and laboratory services. A number of actors are responsible for supervision and control of the
dispensaries including the Health Unit Management Committee, who monitor the day-to-day running of the facility, but have no authority to sanction workers. The Health Sub-district, one level above, is supposed to monitor funds, drugs and service delivery, but this monitoring is infrequent. Only the Chief Administrative Officer of the District and the District Service Commission have the authority to suspend or dismiss staff. Usually staffed by one medical worker, two nurses and three aides, dispensaries provide no incentives for their workers to increase their efforts. Community members are generally unaware of how many children are dying in their community, and don’t know what level of quality to expect in their health services.

DETAILS OF THE INTERVENTION:
Researchers conducted a randomized evaluation at 50 dispensaries from nine districts in Uganda to see if community monitoring would improve health worker performance and the impact this might have on health utilization and outcomes. Baseline data was collected from all providers’ records and 5,000 individuals across communities, quantifying utilization, facility performance and health outcomes.

In the randomly selected treatment villages, local NGOs facilitated three sets of meetings. In the first, community members, both the disadvantaged and the elite, discussed the status of their health services and means of identifying steps the providers should take to improve health service provision. Second, a provider staff meeting was held to contrast the information on service provision as reported by the provider with the findings from the household survey. The third, an interface meeting, allowed community members and health workers to discuss patient rights and provider responsibilities. The outcome was a shared action plan, or a contract, outlining the community’s and the service provider’s agreement on what needs to be done, how, when and by whom. These three sets of meetings were aimed to kick-start the process of community monitoring. Finally, staff and interface meetings were held 6 months later to review progress and suggest improvements. More than 150 participants attended a typical village meeting.

RESULTS AND POLICY LESSONS:
Impact on Quality Care: A year after the first round of meetings, health facilities in treatment villages were 32% more likely to have suggestion boxes and 16% more likely to have numbered waiting cards, relative to the comparison facilities. There was a 12 minute reduction in wait time, a 13 percentage point reduction in absenteeism, and the overall facility cleanliness improved.

Impact on Health Outcomes: In the intervention group, utilization of general outpatient services was higher (20%), more people came for child birth deliveries (58%) and more patients sought prenatal care (19%). More people sought family planning services (22%) and immunizations increased for all age groups, especially newborns. Households also began switching from self treatment and traditional healers to dispensaries in response to the intervention. Relative to the comparison group, intervention communities saw an increase in infant weight and a 33% reduction in the mortality of children under 5 years old. Variation in treatment intensity across districts shows a significant relationship between the degree of community monitoring and health utilization and outcomes.

Scale-Up: The overall effect of this intervention was significantly positive, bringing great hope to the possibility of community led and sustained monitoring efforts. However, before scaling up, future research should examine long term effects, experiment with alternative tools, and study to what extent the results can be generalized to other social sectors.
PRIMARY EDUCATION MANAGEMENT IN MADAGASCAR

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Gerard Lassibille
Trang Van Nguyen

**PARTNERS:**
Agence Francaise de Developpement (AFD)
Government of Madagascar Ministry of Education
World Bank

**LOCATION:** Rural Madagascar

**SAMPLE:** 3,774 primary schools

**TIMELINE:** 2005 - 2007

**THEMES:**
Education
Political Economy & Governance

**POLICY GOALS:**
Community Participation
Education Quality

**POLICY ISSUE:**
Successful efforts to expand access to education in the developing world have not always translated into actual improvements in skills and learning for students. It remains an open debate as to whether top-down approaches are more effective in improving educational quality than approaches which promote beneficiary participation, such as parental monitoring. Top-down approaches can provide administrators with the tools necessary to better monitor their schools, but this assumes that they have the incentives to do so. Bureaucrats may have more incentives to improve the quantity, rather than quality, of education services since the benefits of improving quality are diffuse and harder to verify. The combined effects of these perverse incentives can result in a large number of children who are in the classroom, but are not learning. Promoting local accountability may be a useful means of improving schooling outcomes, if it can be determined which factors makes beneficiary participation effective at improving education delivery.

**CONTEXT OF THE EVALUATION:**
Madagascar divides its 2.7 million children into 15,000 public primary schools. Despite the significant increase in primary school enrollment following Madagascar’s 2002 reforms and an influx of international financial support, resource allocation across schools remains inefficient, and better resource endowments rarely translate into better student performance. Only 63% of grade 5 children pass the primary-cycle exam, an assessment of the minimum level language and math knowledge presumed at this grade. District administrators face a performance review only every 3 years, and the subdistrict heads rarely face any credible threat of penalties or firing.

**DETAILS OF THE INTERVENTION:**
Researchers, in collaboration with The Ministry of Education in Madagascar, ran a randomized experiment in 3,774 primary schools in 30 public school districts. These districts represented all geographic areas in the country, but were focused on schools with the higher rates of grade repetition.

All district administrators in treatment districts received operational tools and training that included forms for supervision visits to schools, and procurement sheets for school supplies and grants (district-level intervention). In some of these schools, the subdistrict head was also trained and provided with tools to supervise school visits, as well as information on the performance and resource level at each school (subdistrict-level intervention).

Lastly, several districts also introduced a school level intervention which involved parental monitoring through school meetings. Field workers distributed a ‘report card’ to schools, which included the previous year’s dropout rate, exam pass rate, and repetition rate. Two community meetings were then held, and the first meeting resulted in an action plan based on the report card. One example of the goals specified in the action plans was to increase the school exam pass rate by 5 percentage points by the end of the academic year. Common tasks specified for teachers included lesson planning and student evaluation every few weeks. The parent’s association was expected to monitor the student evaluation reports which the teachers were supposed to communicate to them. These tools allowed parents to coordinate on taking actions to monitor service quality and exercise social pressure on the teachers.

**Intervention By Group:**

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<th>Sample of Observations</th>
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**RESULTS AND POLICY LESSONS:**

**Impact from Top-Down Approach:** The interventions targeted at the district and subdistrict level had minimal effects on the administrator’s behaviors, and the schools and students under their responsibility. Though each tool – forms for supervision visits to schools and procurement sheets for school supplies and grants – was used by 90% of subdistrict heads and more than 50% of district heads, subdistrict heads visited their schools only slightly more often than those in the comparison group, an insignificant improvement. Teachers in both groups did not plan for lessons more, and no improvement in test scores was seen in the two years following the program.

**Impact from Bottom-Up Approach:** The interventions at the school level led to significantly improved teacher behavior. Teachers were on average 0.26 standard deviations more likely to create daily and weekly lesson plans and to have discussed them with their director. Test scores were 0.1 standard deviations higher than those in the comparison group two years after the implementation of the program. Additionally, student attendance increased by 4.3 percentage points compared to the comparison group average of 87%, though teacher attendance and communication with parents did not improve.
PEER EFFECTS, PUPIL-TEACHER RATIOS, AND TEACHER INCENTIVES IN KENYA

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Pascaline Dupas
Michael Kremer

PARTNERS: Government of Kenya Ministry of
Education, Science and Technology
International Child Support (ICS) Africa

FIELDWORK IMPLEMENTED BY: Innovations for Poverty Action (IPA)

LOCATION: Western Province, Kenya

SAMPLE: 210 primary schools

TIMELINE: 2005 - 2007

THEMES: Education
Political Economy & Governance

POLICY GOALS: Community Participation
Education Quality
Teacher Attendance

POLICY ISSUE:
The introduction of free primary education has raised primary school enrollment in many developing countries. For a number of reasons including budget constraints, increased enrollment has often not been matched by increased numbers of government-salaried teachers. The resulting overcrowding of schools, as well as the influx of new students with little or no preparation, poses new challenges to policymakers. One method of lowering the pupil-teacher ratio, versions of which have been used by many governments, is to hire low paid local contract teachers in addition to government-salaried ones. Empowering the local community to monitor teachers' performance may also increase teachers' effort and students' learning, but there are concerns that these teachers may be less experienced and therefore less effective.

CONTEXT OF THE EVALUATION:
In the past decade, Kenya has made rapid progress towards the goal of universal primary education. Due in part to the elimination of school fees in 2003, primary school enrollment rose nearly 30% between 2002 and 2005, and currently an estimated 76% of eligible children are enrolled in primary school.¹ This creates new challenges, as increased enrollment has not been met with increased numbers of teachers. Two years after the introduction of free primary education, first grade classes in sample schools had an average of 83 students. Classes were also largely heterogeneous: students differ vastly in age and school preparedness.

DETAILS OF THE INTERVENTION:
ICS, a Dutch NGO which operates heavily in this area, provided 140 schools with funding to hire a local contract teacher to address classroom overcrowding. The contract teachers were paid approximately one-quarter of the salary of regular civil service teachers, but had the same educational qualifications. In each school, ICS held a meeting with parents and teachers to explain program rules regarding the hiring of an additional teacher. School committees hired the contract teachers and were free to replace or keep the original contract teacher based on performance. In the first year of the program, the contract teachers were assigned to grade 1. A new grade 1 section was created, thereby reducing class size for first graders by 33 to 50%. In the second year, the extra teachers moved to second grade with the same group of students. Another 70 schools did not receive funds to hire a contract teacher, and served as a comparison group.

In half of the 140 funded schools, called “non-tracked schools,” first-grade students were randomly assigned to the section taught by the contract teacher or the section taught by the regular civil service teacher. This resulted in a mixture of preparedness levels in both sections. In the other half of the 140 funded schools, called “tracked schools”, students were assigned to sections based on their level of preparedness, and the contract teacher was randomly assigned to either the higher- or the lower-preparedness section. Finally, half of all funded schools (half of non-tracked and half of tracked schools) received training on local school committee oversight of the contract teacher.

RESULTS AND POLICY LESSONS:
Providing school committees with funds to hire an extra teacher on a short-term contract had a generally positive effect on learning, as measured by test scores. Contract teachers were present in school more than their civil-service counterparts, and their students scored higher on exams. However, the impact depended heavily on how the program was implemented. Training school committees to monitor teachers in conjunction with hiring contract teachers increased program effectiveness. Dedicating one class to help those students with weak academic preparation substantially improved test scores for all students.

Hiring supplementary contract teachers can be part of the solution to Kenya's teacher shortage. To get the most out of these teachers, implementation details matter. The biggest gains come when local school committees are empowered to effectively monitor these teachers and when extra classes are structured so as to target instruction to students’ initial achievement level. All in all, this is a highly cost effective way to cut absenteeism and promote learning in developing countries.

1 http://www.unicef.org/infobycountry/kenya_statistics.html#52
COMBATING CORRUPTION IN COMMUNITY DEVELOPMENT IN INDONESIA

| RESEARCHERS: | Ben Olken |
| PARTNERS: | Department for International Development (DFID) World Bank |
| LOCATION: | East Java and Central Java provinces, Indonesia |
| SAMPLE: | 608 villages |
| TIMELINE: | 2003 - 2004 |
| THEMES: | Political Economy & Governance |
| POLICY GOALS: | Community Participation Corruption |
| DATA: | Monitoring Corruption: Evidence from a Field Experiment in Indonesia |

POLICY ISSUE:
Corruption plagues many developing countries where the world’s poorest live, and combating it continues to be an arduous task. Corruption acts like a tax, adding to the cost of providing public services and conducting business. Many suggest the right combination of monitoring and punishment can control corruption, but often the very individuals tasked with monitoring and enforcing punishments may themselves be corruptible. Another approach to reducing corruption is community-level monitoring. Local community members have the most to gain from a successful anti-corruption program, and are thus believed to have better incentives to monitor than bureaucrats. However, there is little empirical evidence on the success of such strategies.

CONTEXT OF THE EVALUATION:
An Indonesian government program supported by a loan from the World Bank, the Kecamatan Development Program (KDP), funds projects in approximately 15,000 villages each year. Each village receives an average of US$8,800, which they often use to surface existing dirt roads. This large amount of money creates incentives for price inflation, collusion with suppliers, kickbacks for village leaders and manipulation of wage payments.

Two checks on corruption are built into KDP. First, funds are paid to village implementation teams in three installments. To receive the second and third payments, the teams must make accountability reports at an open meeting where they account for how they spent the money. Second, each project has approximately a 4% chance of being audited by the government.

DETAILS OF THE INTERVENTION:
To examine the role of community monitoring and audits on corruption, researchers conducted a randomized evaluation in 608 Indonesian villages in East Java and Central Java, Indonesia’s most populous provinces. Each
village in the study was about to start building a village road with KDP funding. Some villages were randomly selected to be told, after funds had been awarded but before construction began, that their project would subsequently be audited by the central government, increasing the likelihood of an audit from 4% to 100%. These audits carry the possibility of criminal action if corruption is detected, and the results of the audits were read publicly to an open village meeting, potentially resulting in social sanctions.

To investigate the impact of increasing community participation in the monitoring process, two interventions were established to enhance participation at accountability meetings. Some villages were selected to have invitations to these meetings distributed throughout the community, encouraging direct participation in the monitoring process and reducing elite dominance of the process. In the second experiment, an anonymous comment form was distributed along with the invitations, providing villagers an opportunity to relay information about the project to be shared at the meetings, without fear of retaliation.

Corruption was measured by comparing the researcher’s estimate of what the project actually costs, determined by the quantity of materials used and estimate of material prices and wages paid on the project, to what the village reported it spent on the project on an item by item basis.

RESULTS AND POLICY LESSONS:
The evidence suggests that increasing the probability of external audits substantially reduced missing funds in the project. Increasing the probability that a village was audited by the central government from 4% to 100%, reduces missing expenditures from 27.7 percentage points to 19.2 percentage points. One reason that the decrease was not larger is that a 100% audit probability does not imply that village officials face a 100% probability of detecting corruption and imposing a punishment. In fact, although auditors found violations of some type or another in 90% of the villages they visited, the vast majority of these violations were procedural in nature, and there were very few, if any, cases in which the auditors had enough concrete evidence to actually prosecute offenses.

The invitations increased the number of people participating in the accountability meetings by about 40%, more than by including a comment form, since many villagers used the form as a substitute for attendance. But inviting more people to the meeting had almost no effect on corruption, and the comment forms had an effect only when they were distributed via schools, bypassing local officials. This study provides evidence that community participation, widely viewed as a panacea for development projects, often has little impact on levels of corruption, and that pains must be taken to prevent elite capture for it to be an effective means of reducing corruption.
CAMPAIGNS TO INFLUENCE VOTING BEHAVIOR IN UTTAR PRADESH, INDIA

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Donald Green
Jennifer Green
Rohini Pande

PARTNERS: Sarathi Development Foundation
Satark Nagrik Sangathan (SNS)

LOCATION: Rural Uttar Pradesh

SAMPLE: 1,000 villages in 27 electoral constituencies

TIMELINE: 2007

THEMES: Political Economy & Governance

POLICY GOALS: Community Participation
Corruption
Politician Performance

POLICY ISSUE:
Transparency is valuable to democratic governments because it can provide citizens, who have the best understanding of their own needs and preferences, with information on how officials are working to meet those needs. Citizens can use this information to reward better performing incumbents, put pressure on their legislators, promote a more efficient allocation of goods and reduce the opportunities for corruption. However, obtaining information on the responsibilities or performances of their elected officials is not easy. Possibly because of the lack of such information, politics in many developing countries, and particularly in rural areas, is often based on caste and religious ties rather than on politicians’ performance.

CONTEXT OF THE EVALUATION:
Uttar Pradesh (UP) is India’s most populous state, and also one of the poorest. Over 80% of the population of UP is Hindu by religion. Ethnic politics in UP, as in much of India, are closely linked to the Hindu caste system. Historically the caste system divided Hindu society into a more rigid less hierarchically ordered set of endogamous groups. Groups that are lower in this hierarchy—which are grouped by the present political system into two broad groups called the Scheduled Castes (SC) and Other Backward Castes (OBC) and form a majority in the population—have been explicitly discriminated against in terms of access to education and other public facilities. However, in more recent years, the sense of hierarchy has been breaking down and the lower castes are more likely to see themselves as just another ethnic group often demanding restitution against past discrimination.

Both ethnic politics and political corruption are seen as important features of UP’s political landscape. In addition, a significant fraction of legislators face criminal charges, further complicating voters’ decisions.
DETAILS OF THE INTERVENTION:
Researchers, together with local NGOs, evaluated multiple pre-election voter education campaigns (PEVACs). A first campaign (conducted with Sarathi) in Uttar Pradesh during the 2007 election examined how voters in rural areas would respond to messages urging them to not vote on caste lines but to vote for development. This campaign was conducted in villages using puppet shows and posters.

A second campaign was implemented during the Delhi 2008 election by Satark Nagrik Sangathan (SNS), a Delhi-based NGO which promotes transparency and good governance. In this campaign, SNS produced “report cards” on each of the 70 Members of the Legislative Assembly (MLAs) in Delhi, and published them in the Hindustan newspaper. This newspaper was provided (for free) to slum dwellers in a random sample of polling stations. The report card included information on a candidate’s attendance at legislative sessions, how many questions they asked, their work in committees, and how they spent their MLA development fund. The report cards also included information on a candidate’s education, criminal history, and asset holdings.

RESULTS AND POLICY LESSONS:
Uttar Pradesh 2007 Campaign: In rural UP, the message that people should not simply vote along caste lines significantly changed voter behavior. First, voter turnout increased. Further, survey data collected by the Center for the Study of Developing Societies showed that the likelihood that an individual would vote for the party which represented their caste decreased from 57% to 52% in villages which received this campaign. Finally, this reduction in caste-based voting was also accompanied by a reduction in the vote share of candidates facing heinous criminal charges.

Delhi 2008 Campaign: The report card intervention had important effects. Voting patterns made it clear that the poor do have distinct preferences for representatives who focus on issues that are important for them. Exit surveys helped researchers gather information on what issues were most important to voters in different areas, and the overwhelming favorites were price rises and local development. Actual voting patterns tracked these preferences. In areas where price rises were a major issue, candidates who formed committees to monitor the price of rationed foods got a significant boost. In areas where local development was a priority, however, incumbents who spent more of their discretionary funds in slums increased their voter share.
INFORMATION DISSEMINATION CAMPAIGN AND VOTERS’ BEHAVIOR IN THE 2009 MUNICIPAL ELECTIONS IN MEXICO

RESEARCHERS: Alberto Chong
Ana De La O
Dean Karlan
Leonard Wantchekon

PARTNERS: Inter-American Development Bank

LOCATION: Jalisco, Morelos and Tabasco, Mexico

SAMPLE: 450 treated voting precincts and 1,910 comparison precincts in 12 municipalities

TIMELINE: 2009

THEMES: Political Economy & Governance

POLICY GOALS: Community Participation
Politician Performance

POLICY ISSUE:
It is widely held that access to information is a vital component of democracy building and government accountability. A recent World Bank report champions information as “a tool to empower citizens in developing countries to hold their public agents accountable.” Information flows, the report argues, not only enhance democratic participation but make democracy work for ordinary people.” Meanwhile, scholars have found that correcting information asymmetries through the media promotes government responsiveness, diminishes the electoral success of corrupt incumbents, contains opportunistic behavior, and prevents widespread theft of public resources. Little is known, however, about the effect of information on voter behavior and voter choice. Does information about local governments’ performance spark participation in local elections? Are more informed voters more likely to topple governments who govern badly?

CONTEXT OF THE EVALUATION:
Despite optimistic views about fiscal decentralization in Mexico, local governments’ performance has remained poor. In 2008, for example, more than 80 percent of municipal governments’ resources were spent either on the bureaucracy or were unaccounted for. While elections should enable voters to discipline their mayors, a single-term limit is imposed on all elected officials in Mexico, putting the mayor’s immediate fate in the hands of the party and not the electorate. Further impeding voters’ ability to hold mayors accountable are widespread misconceptions about which public works and services municipal authorities are responsible for providing, as well as a lack of available information about the amount of money municipalities receive and how this money is spent. In an attempt to ensure greater municipal accountability, a 1999 constitutional reform established the Federal Auditor’s Office (ASF). On a yearly basis, the ASF selects a sample of municipalities in each state to audit. The results of the audits are published in lengthy reports, which are made available online. Though public, these reports
are rarely used by media or political parties in local campaigns because the release date of the reports is not aligned with the timing of elections.

DETAILS OF THE INTERVENTION:
Researchers sought to assess the effects of information dissemination on participation in the 2009 municipal and congressional elections in Mexico. Approximately one week before Election Day, flyers with different kinds of information on municipal spending were delivered to all households within the boundaries of treated voting precincts. The first group received information about municipalities’ overall spending; the second group received information about distribution of resources to the poor; and the third group received information about irregular, unauthorized, or unaccounted for spending. The comparison group did not receive any information. The information in the flyers was extracted from public reports issued by the Mexican Federal Auditor’s Office.

RESULTS AND POLICY LESSONS:
Effects of Information about Spending on the Poor: When voters were exposed to information about low levels of spending on poor areas (25 percent or less of all available funds), turnout increased by 4 percentage points. In terms of the effects of this information on incumbent party vote share, low levels of spending in poor areas corresponds to a 6 percentage points decrease in incumbents’ vote share.

Effects of Information about Corruption: When voters were exposed to information about high levels of corruption, turnout decreased by 4 percentage points (because precincts in the control group turn out at a rate of 51 percent, the effect represents an 8 percent decrease in turnout). In addition, exposure to either medium or high levels of corruption is correlated with a significant decrease in the incumbent party’s share of votes.

Effects of Information about Overall Spending: The effect of information about the share of available resources spent was small and statistically indistinguishable from zero, even after taking into account the level of spending. Information on overall spending also had no statistically significant effect on the share of votes for incumbents.


POLICY ISSUE:
Although citizens are responsible for the election of political leaders in most democracies, voters often lack access to relevant information about politicians’ past performance and preferences which could help them make informed voting decisions. In situations where the interests of voters and politicians are not aligned, politicians may be incentivized to exploit their informational advantage for personal gain, often resulting in corrupt practices. Transparency is valuable to democratic governments because it can provide citizens, who have the best understanding of their own needs and preferences, with information on how officials are working to meet those needs. Transparency is often considered to be the most effective and powerful method of monitoring politicians and preventing corruption, but there is limited evidence on how public awareness of corruption affects political accountability.

CONTEXT OF THE EVALUATION:
In May 2003, the government of Luiz Inácio Lula da Silva started an unprecedented anti-corruption program based on the auditing of municipal government’s expenditures. This program, implemented through the Controladoria Geral da União (CGU), a federal agency responsible for overseeing the implementation of federal resources, aims to discourage the misuse of public funds among public administrators.

Under this program, each year federal auditors from the CGU audit a random 1% of Brazil’s 5,500 municipal governments. The auditors examine accounts and documents for any irregularities in federally-sponsored projects and public works. After approximately one week of inspections, a report describing all the irregularities is released to public prosecutors and the municipal legislative branch.

DETAILS OF THE INTERVENTION:
Researchers in Brazil sought to investigate whether making information on politician corruption publically available would affect the electoral outcome of incumbent mayors. Political corruption is defined as any irregularity associated with fraud in procurements, diversion of public funds, and over-invoicing.
Prior to the October 2004 municipal elections, the Federal government audited 676 municipalities. In a random sub-set of 376 municipalities the results of the audit were released prior to the election. The remaining 300 municipalities served as a comparison group, and did not have the results of the audit released until after the election. The randomized assignment provided an opportunity to observe whether voter-access to information about a politician’s corruption level prior to the election impacted the average vote share and re-election rate for incumbent mayors.

Data about political outcomes and mayoral characteristics are drawn from the Tribunal Superior Eleitoral (TSE) which provides vote totals for each candidate by municipality, and data about the socioeconomic and demographic characteristics of each municipality are drawn from national population censuses.

RESULTS AND POLICY LESSONS:
For every additional corrupt violation reported, the audit policy reduced the likelihood of re-electing an incumbent by approximately 20%. The effect of the policy was similar for other measures of electoral performance, such as the change in vote share and margin of victory. These results suggest that voters not only care about corruption, but once empowered with the information, they update their prior beliefs and punish corrupt politicians at the polls.

In municipalities with local radio stations, the effect of disclosing corruption on the incumbent’s likelihood of re-election was more substantial. Results indicated that for municipalities that released audit results prior to the election and revealed at least one count of corruption, the presence of an additional radio station decreased the incumbent’s probability of re-election by 10.7%. Not only did radio stations increase the effect of the audit when corruption was revealed, it also promoted the re-election of non-corrupt incumbents. When corruption was not found in a municipality with a local radio station, the audit increased the likelihood that the mayor was re-elected by as much as 20 percentage points.

These results indicate that the disclosure of information enhances political accountability.