ABSTRACT

Ordinary people in rural Bihar and in Patna and Delhi have virtually no opportunity to be tested for a hidden talent, be it for athletics or singing or chess or mathematics or art. Not one of more than 800 young people we interviewed has ever competed at the national, state or district level in any of eight activities of different kinds. Alternative careers pass them by. Future champions can remain unidentified and unrewarded. Something better is necessary to make equality of opportunity less a slogan and more a reality. Examples from across the world show what can be done.
1. Talents, Opportunities, and Achievements

Development practitioners, following Amartya Sen, emphasize the importance, in addition to macroeconomic growth, of individual capabilities, and while this is an important micro-level corrective to an otherwise-dominant macro-level view, it nevertheless misses an important point. Being capable isn’t enough: opportunities are additionally necessary.

A highly capable individual can achieve little or nothing – until she is able to connect her talent with a commensurate opportunity. How does a boy come to know he has the talent to be a successful artist unless he has access to paints and painting competitions? How does a girl know she can become a star athlete until she has the chance to show her worth? Lacking opportunities, a talented individual might never be aware of her particular ability.

In diverse walks of life, how is India producing its future champions? Does the search for talent dig deep? Who is in, who is out, who has no access to the competition?

These questions need to be addressed methodically: impressions and anecdotes are all we have but they are misleading. Getting to the answers systematically is critical not only for serving the goals of equity and equality of opportunity but as well for raising the level of national performance through widening and deepening the talent pool. This represents a challenge for development researchers and practitioners. While capabilities and talents are randomly distributed at birth, opportunities are not as evenly dispersed. How unevenly opportunities are, in fact, distributed in any given society is a matter for empirical investigation.

We contribute in a small way in this article to what we hope will become a growing body of work. We interview a total of 410 students in rural Bihar, who attend 8 separate government secondary schools, ranged at distances from zero to 50 kilometers from the state capital, Patna, asking each of them about their experiences with a specified variety of opportunities. We take these investigations into one slum in Patna, interviewing another 103 students. As a further cross-check, and to see if our results are only Bihar-specific, we go into two slums in Delhi, interviewing an additional 293 students. Our total sample size is thus 806 young individuals, almost equally boys and girls and almost equally urban and rural.3

Section 2 lays out the background and introduces the methodology. Different schema for assessing the distribution of opportunities have been devised, which we discuss briefly here.

Section 3 details our findings. These results may not come as a surprise to those who are close to the grassroots, but the documented evidence is nevertheless shocking: not one individual among more than 800 we interviewed has ever participated at the national or state (or even at the district) level in any of these eight different competitive activities. These individuals do not have the kinds of opportunities that help people discover the talents which lie hidden within them that can lead, in the best of cases, to championship prospects, and in many other cases, to viable alternative careers.

Section 4 discusses the implications of these findings for research and policy. Denied the advantage of a comfortable and providing home and denied a good-quality education (that could compensate to some extent for the starting disadvantages),1 these young people are also denied any realistic shot at alternative pathways for self-development. In diverse arenas, their access is negligible; prospects for moving forward are severely limited. The poverty of their circumstances is made worse by a near complete lack of opportunity.

1 Respectively, akpo@duke.edu and sujeetmath@gmail.com.
2 We preceded these field investigations with pilot tests of the protocols and survey instrument in two locations, including varying the recall period from three to five years. The institutional review board at the Center for Policy Research, New Delhi, provided ethical oversight and supervision.
3 The quality of education in government schools, especially in rural Bihar, is such that most 7th-standard students cannot easily solve 4th-standard mathematics problems or read and write at the appropriate level, as indicated by a succession of ASER reports. See, for instance, ASER 2014.
2. Measures, Contexts and Methods

Opportunity can be understood most simply as a set of circumstances that makes it possible to do something or to achieve something. Equality of opportunity exists in a society when individuals with the same native talent and the same ambition have the same prospects of achieving the more desirable and more rewarding things. “An individual’s expected level of achievement should be a function only of his effort and not of his circumstances” (Roemer 1998: 21). Equality of opportunity requires that equally hardworking and talented individuals should be able to rise as high, no matter if they are rich or poor, men or women, upper or lower, urban or rural.

The concept is easy to grasp intuitively, but how is equality of opportunity to be assessed in practice?

The measures that have been developed so far tend to come at opportunity indirectly rather than directly, proceeding in a roundabout way. The Human Opportunity Index (HOI), for instance, an index developed by a group of researchers associated with the World Bank, looks at an individual’s access to basic services such as water, education, electricity, and sanitation as the measure of opportunity, including, notably, access to early childhood development and adequate housing. But opportunity comes prior to achievement, and the achieved level of services is not directly a measure of starting opportunity. Rather, since the focus in this index is on service availability, “it is better seen as a development index that is intended to be sensitive to inequality of opportunity” but without looking directly at opportunity (Brunori et al 2013). Other measures utilize an average or expected level of economic well-being as the appropriate indicator of advantage for each particular subclass of individuals. Once again, opportunity is examined indirectly and with

A notable exception to this pattern is an inquiry that looks at individuals’ opportunity in a direct way. Recording the extents to which children of the kindergarten level participate (or not) in a variety of extra-curricular activities, Allen et al (2022) finds evidence of significant gaps in opportunity and access, even at this early life-stage.

We follow this second mode of inquiry, asking individuals directly about their access to eight different kinds of activities, each involving performative excellence and each serving as the entry level for talents of particular types. We focus on the initial or entry level of competition because, in order to advance and enable their talents to flourish, individuals need first to gain access to the entry level of the competition. In situations where many have no access to the first rung, climbing any higher up the ladder is essentially impossible. We select to work with students of 7th and 8th standards, because these individuals, usually 12-14 years old, are of an age by which talent should have connected with preparation. If they have come so far with no opportunity, no chance to discover who they are and what they can be, then much has already been lost. Minds untrained by the age of 13 or 14 in mathematics or in the regimen of competitive athletics are unlikely to rise to the highest levels, even if at an earlier age they had the potential. We focus on government schools because these are the types of schools, and not privately-run ones, that are attended by the majority of rural and less well-off people in India. Our selections of age-group and school type are, nonetheless, arbitrary. Looking at other cohorts and other locations will be useful for completing the picture.

We picked villages in three blocks of Rural Patna district located at distances of up to 50 kilometers from the city

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https://openknowledge.worldbank.org/bitstream/handle/10986/11919/676540ESWOP123000OportunitiesChile.pdf?sequence=1&isAllowed=y
7 Though dwindling, the share of students in government schools is still higher than 50 percent, especially in rural areas (63 percent) and in urban slums. (State of the Sector Report: Private Schools in India, Central Square Foundation, accessed in December 27, 2022 at State-of-the-Sector-Report-on-Private-Schools-in-India.pdf (centralsquarefoundation.org)
To compare the experiences of rural students with urban ones, we pick two additional sub-samples, one in a slum in Patna – Kamala Nehru Nagar, where we have been working since 2016 – and we study two slums of Delhi, Jahangirpuri (in particular, the area near K- Block and Metro Apartment) and Dwarika (Sector 3, Jhuggi Jhopari Clusters 1, 2 and 3), where we have also undertaken studies earlier. In each case, we repeated the steps of the rural methodology, starting by identifying the government middle schools that are attended by these students.

Our questionnaire is short, easy-to-understand, and requires little explanation. The central motivation is to inquire about the opportunity to participate in events of a talent-spotting kind. We inquire about different talents with the help of the following basic module of questions.

**QUESTION 1**

(A) How many times in the past five years have you taken part in an event where you [Made a painting using color pencils or paints or crayons?] – replaceable part

- Never (Scored 0)
- 1-2 times (Scored 1)
- 3-5 times (Scored 2)
- 5-10 times (Scored 3)
- More than 10 times (Scored 4)

(B) Was it at school or at home or somewhere else (tick all that apply)

- School
- Home
- NGO
- Other

(C) Did you receive any prize after this or have an opportunity to compete at a higher level?

- Yes
- No
While Question 1A enables an assessment of an individual's participation level (ranging from 0 to 4), Question 1B looks at the locus of participation. Question 1C ascertains, for the cases where participation does occur, whether it is merely ephemeral and symbolic or whether the individual gains access to additional opportunities leading to progressively higher levels.

Questions 2A-2C repeat the same basic module after first removing “Made a painting...” from the [Replaceable part] and replacing it with “Took part in a running or jumping contest where your timing and distance were measured.” Questions 3-8 make similar inquiries in respect of six other activities, including singing, story writing, chess, and mental mathematics.

We select these eight activities because they represent both a wide range and diversity of talents and because the entry-level competition in each case is not expensive to organize; even relatively poor countries, like Kenya and Jamaica, have been doing it very successfully.

In addition, the questionnaire asks about the young individual’s career preferences, her willingness to take part in talent-spotting events of different kinds if these events were to be organized near her, and about a small number of socio-economic indicators, including siblings, household assets, and parents’ education.

There are obvious weaknesses in this method: we do not have a random sample of villages nor a random sample of individuals; we deliberately select government schools and poorer neighborhoods; among slums, we select ones where we have worked earlier. Government schools in Bihar are attended principally by poorer students. Similarly, slums in Patna and Delhi are homes typically to poorer (though often not the poorest) people. The results cannot be generalized to Bihar, far less to the rest of the country. To the extent, however, that the results obtained in rural and urban Bihar are not very different from each other and from those in Delhi, a broader inference can be gained about conditions prevailing across a broader swathe.

### 3. Results: Participation Scores and the Distribution of Opportunity

In order to assess an individual’s access to different types of entry-level opportunities, we sum the responses to survey questions 1a through 8a, constructing aggregate participation scores for each individual. For each activity, a given respondent has a participation score between zero and 4. Summing across eight activities, the individual’s aggregate participation score can range from zero points to the maximum of 32 points. Scores of 20 or more points are encouraging and suggestive of fair access to the entry-level of competition, indicating that the individual concerned is maintaining an intensive level of participation in one activity while being able to try out occasionally for other endeavors. At the other extreme, individual participation scores of 10 points or fewer are indicative of very limited opportunity. The worst possible score, Zero, implies that over the previous five years the individual concerned had absolutely no opportunity to take part in any of these eight disparate activities.

As many as 213 individuals, 42 percent of the Bihar sample, have the lowest possible aggregate participation score—Zero points. Eighty percent have aggregate participation scores of 5 points or lower: a painting once or twice, some singing once or twice—and that was it—over all of five years. Any talent that lives within these individuals has remained latent, untested, and undiscovered. Not one individual in the Bihar sample scores 20 points or higher, indicative of active participation. The highest individual score in the Bihar sample is 18 points (out of a possible 32 points), which is achieved by only two individuals. Nine others have aggregate participation scores of between 15 and 17 points.

The situation in Delhi is only marginally better than the one in Bihar. Among the sample from Delhi slums, 24 percent have the lowest participation score, Zero, while another 181 of these 293 individuals (62 percent) have total participation scores of 5 points of lower. As many as 263 of 293 students (90 percent) have scores of 10 points or lower.
or fewer, a minor improvement over the Bihar picture but still a long distance from desirable scores of 20 points or higher. The gap between talent and opportunity is wide for young people in each of these contexts.

Table 1 presents the detailed results in terms of average participation scores for each activity. Recall that participation in each activity is scored from Zero (never had an opportunity in five years) to 4 (had two or more opportunities every year). An average score of 2 or higher is suggestive of a nurturing environment. Scores close to or below 1 indicate the dearth of opportunities for the majority. As the score comes closer to Zero, opportunities become unknown.

All of the observed average participation scores are very, very low. Take for instance the score for access to athletics competitions. The score for Bihar is 0.34 – a number which implies that at most 34 percent of the sample had access once (and only once) to entry-level competition while the remaining 66 percent had not taken part even once – in all of the past 5 years. The comparable statistic for Delhi, 0.41, is only marginally better, indicating that 59 percent or more had no access whatsoever to sporting competitions, and it's not clear that those who did have access are more deserving in any way.

The average participation score for painting, also on the low side, is somewhat higher than for other activities. In both Bihar and Delhi, the chances are higher that young individuals will try their hands at art. But the difference is not large enough to make a qualitative difference. In Delhi, the observed average score for painting (1.42) was achieved through the following combination of individual scores – a large number, of students nearly 80 percent, got only one chance in five years to take part in a grassroots painting competition (scoring 1s).. Hardly anyone took part in multiple competitions. Those who participated more intensively at the entry level were unable to move up to a higher level of competition. We had detailed conversations on this aspect with schoolteachers in Poawan and Sona and followed up with teachers in other locations, and we learned that, even as many schoolteachers would like to see their pupils’ capacities grow, no child from any of these schools, whether in Bihar or in Delhi, has moved up the ladder in the art world. The scenario is generally as follows. On special occasions, whether it be Environment Day or Bihar Day, students are asked by their teachers to draw pictures around themes like environment and sanitation. The school supplies drawing paper, and students bring the crayons. Students enjoy the novelty, the break from routine. But the action ends once the paintings are turned in (and some are pasted on the walls, as we saw in a few schools). With the help of follow-up phone interviews with 45 students who had taken part in such painting activities, we found that while a tiny number had won prizes (pencil boxes, storybooks, a set of pens) after taking part in their school’s competition, not one person was invited or assisted to compete at any higher level.

The same, we found, was true for each of the other activities: none of the tiny numbers who participated more actively at the entry level were able to take part in higher-level competitions.

While average participation scores are higher in Delhi, they are only slightly better than those in Bihar. The situations of these young individuals are concerning overall. Forty-five percent of children growing up in Delhi slums had an opportunity once to write a song, story, or poem for a school competition (but only once over all of five years, and that, too, only at the grassroots level and not at any levels higher) – and the remaining
55 percent had no opportunity whatsoever. Nineteen percent of those in Bihar had an opportunity to act on stage even once in 5 years – and the others, more than 80 percent, never.

These are pretty dismal levels of participation. How could a hidden talent possibly emerge?

To assess how many individuals have participated more intensively, taking part in a particular activity at least once every year for each of the past five years, we isolated those who had scored 3 or more participation points on any of these eight activities. Table 2 presents these results. With the exception of painting, the share of individuals who can be regarded as regular participants (in this minimal manner) is tiny, less than 10 percent in every instance – and once again it isn’t clear how these could be the more deserving ones.

Table 2: Number of Individuals Scoring Three or Four Points (Regular participation)

<table>
<thead>
<tr>
<th>Sample size</th>
<th>Painting</th>
<th>Athletics – running and jumping</th>
<th>Got coaching in any sport</th>
<th>Chess or any other board game</th>
<th>Wrote a Story, Poem or Song</th>
<th>Acted on Stage</th>
<th>Singing or Dancing</th>
<th>Solving Math Puzzles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bihar</td>
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<td>513</td>
<td>83</td>
<td>6</td>
<td>15</td>
<td>7</td>
<td>25</td>
<td>4</td>
<td>9</td>
<td>34</td>
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<tr>
<td>Delhi</td>
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<tr>
<td>293</td>
<td>78</td>
<td>6</td>
<td>8</td>
<td>19</td>
<td>11</td>
<td>6</td>
<td>13</td>
<td>17</td>
</tr>
</tbody>
</table>

Gender and caste gaps are significant, though given the very low level of participation overall, the difference is that between low and lower. Table 3 looks at differences in average participation rates between girls and boys in Bihar. Overall, girls have lower participation scores but in particular activities (singing and story writing) their low participation rates are less low than those of boys.

Access or Motivation? Why do we see such low rates of participation? There could be alternative explanations. It could be, first, that competitive events are actually held at the grassroots level, but individuals are just not interested to participate, and thus, the fact that they did not participate has less to do with opportunity and more to do with willingness and motivation. Or it could be the reverse: events are simply not organized, and individuals just don’t have access. To assess which of these explanations is closer to events on the ground, we inquired from each of our respondents about the kinds of events they would be sure to attend if such events were to be organized at a nearby venue. Nearly 60 percent of respondents in Bihar asserted they would attend every athletics event that was organized. Similarly, the percentages in Bihar who would take part regularly in singing and dancing and story/poem writing, are 42 percent and 34 percent. If this

Table 3: Gender Gap (Bihar)

<table>
<thead>
<tr>
<th>Sample size</th>
<th>Painting</th>
<th>Athletics – running and jumping</th>
<th>Got coaching in any sport</th>
<th>Chess or any other board game</th>
<th>Wrote a Story, Poem or Song</th>
<th>Acted on Stage</th>
<th>Singing or Dancing</th>
<th>Solving Math Puzzles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Girls</td>
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<tr>
<td>272</td>
<td>0.9</td>
<td>0.3</td>
<td>0.11</td>
<td>0.39</td>
<td>0.24</td>
<td>0.46</td>
<td>0.29</td>
<td>2.67</td>
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<tr>
<td>Boys</td>
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<td>241</td>
<td>1.1</td>
<td>0.4</td>
<td>0.28</td>
<td>0.34</td>
<td>0.15</td>
<td>0.20</td>
<td>0.49</td>
<td>3.22</td>
</tr>
</tbody>
</table>
4. Implications for Research and Practice

Where no one has had a chance to go up to the district or state level, where the competition, even at the initial grassroots level, is spotty, sporadic, and inconsequential, what is the hope that the means exist to detect a child who is born to genius? Those who have a lesser capacity, but a real capacity nonetheless, of advancing to become, if not the champion athlete, then a successful sportswriter or trainer or gym owner, are also unable to make these advances—not because all of them lack the talent, but more simply because no one is opening these doors for them.

Absent opportunity, the value of talent plummets. Poverty persists, despite abundant capability.

In addition to the poverty of income they suffer and the poverty of social provisioning—poorer infrastructure, poor-quality education and healthcare—the poverty of opportunities that people experience is a separately important concern. But while governments, non-profit and for-profit organizations have all been taking active roles in the provision of healthcare and education, albeit with varying degrees of success, providing alternative opportunities has not been regarded as a similarly central objective.

This is not the fault of any particular government. It is, rather, a consequence of beliefs prevalent in society that an individual has only one way to advance—through academic studies. A trope popular in Bihar goes as follows—padhoge likhoge banoge nawaab, kheloge koodegey banoge yharaab (by studying hard you become worthy, by playing hard you destroy your life)—and so the effort goes almost entirely into developing just one kind of talent. Everyone is herded into the narrow eye of the needle, aspiring to jobs via competitive exams. Exceptions apart—wrestling in Haryana, boxing in Meghalaya, weightlifting in parts of Odisha, hockey in parts of Jharkhand—there is hardly any evidence that the infrastructure has been put in place which gives young people a wider set of opportunities, enabling them to explore diverse fields as means for self-advancement.

Means need to be uncovered for making this situation better. Research and practice both need to evolve.

Similar investigations will help reveal whether young people in other parts of the country are similarly deprived of connections to opportunities. That will help plot more completely the geography of opportunity in the country. The simple methodology piloted here can assist further investigations.

We need to identify more precisely the thresholds of opportunity in a society. Millionaire parents can pay for private art lessons and expert coaches to help these children negotiate the structure of competitions. But how many others in a society are able to gain access, how deeply access penetrates within the socioeconomic structure, is a matter worth investigating. In some societies, such as Sweden—whose 9 million people won 11 Olympic medals (in 2016), achieving a rate of more than one medal per million people, and who also register more than 300 scientific patent applications per million people—it seems reasonable to surmise that the search for talent penetrates deeply within society, ferreting out a latent talent from wherever she is hidden—otherwise, how could so few be able to accomplish so much year-after-year? Yet, on the other hand, there are societies, such as India’s, with more than 100 times as many people, which collectively win many fewer Olympic medals (2 medals in 2016 at a rate of one medal per 500 million people) and register many fewer patents (6.25 patent applications per million people).9 The second kind of society is not bereft of talent, but it is much more likely that its talents are hidden, remain undiscovered, and go unrewarded. As in the villages and slums we examine, in much of the rest of the country people have “a more brittle horizon of aspirations... and a thinner, weaker sense of career pathways” (Appadurai 2004: 68).

Equality of opportunity prevails in a society when all worthy human capacities are encouraged, developed, and rewarded. The wider the range of capacities and abilities that a society fosters, the greater the extent to which it achieves equality of opportunity.10

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9 For Olympic medals, see Olympic Medals per Capita. For patent applications, see Countries Compared by Industry > Patent applications > Residents > Per capita. International Statistics at NationMaster.com
10 Equality of Opportunity (Stanford Encyclopedia of Philosophy)
A culture of non-access has to be replaced by the practices of self-exploration. Other societies, both richer ones and poorer ones, have successfully invested in building opportunity structures that enable people to benefit from different kinds of talent. Illustrative examples are presented in this TEDx talk - https://fb.watch/dWw1XJ3A23/

Remedying the situation will require thinking outside the box. Relying only on the usual actors is not likely to work.

Civil society actors must step up and begin making investments in talent ladders, starting by building demonstration projects at the grassroots level that help generate role models and develop an infrastructure of support, a ladder or sequence of progressively higher opportunities leading unbroken from the grassroots through intermediate stages to the highest levels. Laudable work has been done in recent years to build higher-level rungs in diverse talent ladders. A number of sports academies and arts schools have been set up by public and private sector players at the state and national levels. The initial rungs of talent ladders remain weak and non-existent, which is why a country the size of India paradoxically faces shortages of talented individuals. Whether it be Math Olympiad winners or capable software professionals or artists or runners, the supply chain of talent is weak and has remained weak for years. Only a certain socioeconomic spectrum is represented. A much broader set of individuals does not find place among the competitors.

Resolving the future human capital needs, for instance, of the software industry requires reaching out widely today to track down the talent of the future. The child in the Bihar village or the Delhi slum who is a math genius needs to be identified and helped develop.

Small-scale examples exist that show what is possible and worthwhile in these regards. Building upon the knowledge we can acquire from these examples and from exemplars in other countries, we need to launch a national pilot program that builds up the infrastructures of participation in a phased manner. Starting with a small number of grassroots locations, lower-level rungs of talent ladders need to be built sequentially. Connecting with the structures of training and competition that have been erected at the state and national levels, these bottom-up ladder-building efforts will create unbroken pathways that talented individuals take to rise as high as they are individually able.

Laudable work has been done in recent years to build higher-level rungs in diverse talent ladders. A number of sports academies and arts schools have been set up by public and private sector players at the state and national levels. The initial rungs of talent ladders remain weak and non-existent, which is why a country the size of India paradoxically faces shortages of talented individuals. Whether it be Math Olympiad winners or capable software professionals or artists or runners, the supply chain of talent is weak and has remained weak for years. Only a certain socioeconomic spectrum is represented. A much broader set of individuals does not find place among the competitors.

National performance will improve as formerly undiscovered talents are identified in ever growing numbers. When they see that their elders are becoming well-known runners or artists or coders or chess players, young people will be able to visualize better alternatives for their own futures.

It is possible, it is necessary. Talent is the resource a 21st-century nation cannot afford to squander. Altering the poverty of circumstances will require making poverty of opportunity a thing of the past.

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11 Illustrative examples are presented in this TEDx talk - https://fb.watch/dWw1XJ3A23/
12 Take, for instance, chess, an activity in which India has made considerable headway in recent years. Even for this activity, however, which requires no expensive equipment and is relatively easy and cheaply organized, the top ten players currently are all from well-off urban households, four are children of doctors, three of former chess champions, and the other three are children of bankers or contractors. There is not one rural-origin individual and not one who grew up in a slum.
13 In the field of athletics, for instance, some shining examples are wrestlers from Haryana who regularly rise to the top and win international medals, assisted by a well-articulated ladder of competitions, starting with easily accessible akhadas at the entry level, along with, Anantpur Sports Academy and Mann Deshi Champions.
REFERENCES


