

Affirmative Action, Education and Gender: Evidence from India

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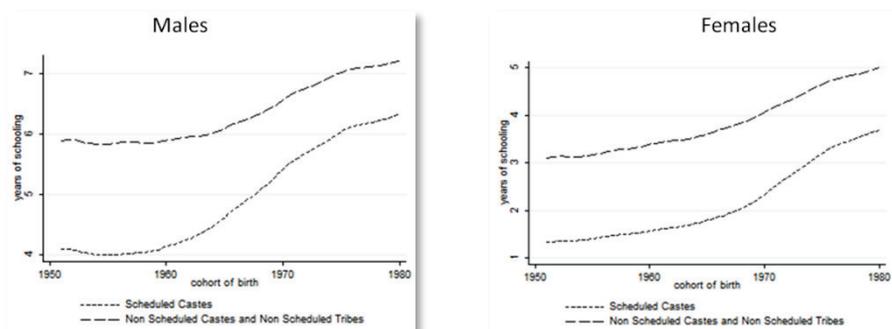
Since its Independence, India has implemented affirmative action programs, also called « reservations », to protect minority groups such as the Scheduled Castes (SC), the Scheduled Tribes (ST), or the Other Backward Classes (OBC). Those programs consist mainly in quotas in public employment, legislative assemblies, higher education institutions and a variety of other programs. However, no matter how widespread and old those programs are, they are still strongly debated. Particularly in education, in a context of intense competition among students to enter higher education institutions, affirmative action policies are heavily contested. **Nonetheless, quite surprisingly, the effect of those policies on education has been under researched.** In this study, I use a unique historical event taking place in the 1970's to evaluate the effect of access to affirmative action program on school attainment. I show that while males see the number of years of schooling increase by up to 0.8 years, females do not seem to benefit from affirmative action programs to prologue their studies.

DID AFFIRMATIVE ACTION POLICIES HAVE ANY EFFECT ON EDUCATIONAL OUTCOMES ?

The Indian affirmative action policies in the education sector take many forms. Apart from quotas in higher education, the members of SC can have reduction in fees, dedicated hostels to facilitate the pursuit of education outside of the student's hometown or village (hostels for girls in particular), scholarships, etc. Indeed, the various educational policies targeting the SC represent a large share of the expenditures directed at SC¹.

However, while the efforts devoted to the education of the SC is relatively large, measuring their impact is not an easy task. The target population of those types of programs is by definition very specific and therefore it is difficult to find a « counterfactual » - a population similar to the targeted population in every aspect except in its access the policy. Hence, while the schooling gap between Schedules Castes and the general population has decreased in the past decades for males and much less for females (Figure 1), the exact role played by affirmative action policies in this evolution is hard to distinguish from other policies targeting the poor.

Figure 1 : Evolution of schooling years by cohort



Source: DHS, 99

USING A “NATURAL EXPERIMENT” TO EVALUATE AFFIRMATIVE ACTION POLICIES

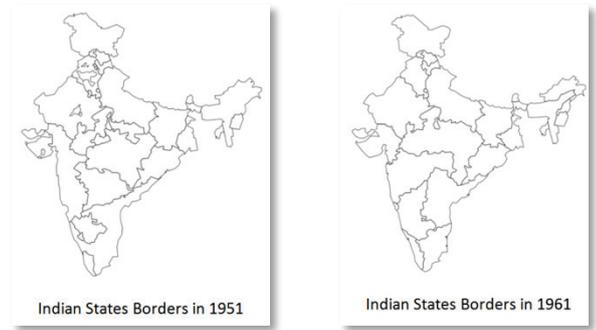
This study takes advantage of an unusual historical event which allows for distinguishing the specific role of affirmative action policies on the educational attainment of the SC.

The castes targeted by affirmative action policies were defined at the time of Independence at the State level and, within each state, by area². Hence, some castes were considered as SC in one state, but not in another, and within a state, in a given area while not in another. Moreover, in 1956, the borders of the Indian states were deeply changed (Figure 2) but the geographical definition of the SC lists remained unchanged. This greatly multiplied the cases in which a caste could be considered as SC in one part of a state and not in another part of the same state.

1. 55% in the 5th Plan (1974-1979), the period under study

2. By “area”, I mean a group of districts, the local administrative level of the Indian states. Those “areas” are solely used for the definition of the SC lists

Figure 2 : change in the borders of the Indian States



For administrative reasons, this situation lasted for 20 years until, in 1976, the SC lists were harmonized within each state and most of the within-state area restrictions were removed. Therefore, in 1976, some castes that should have had access to the SC status in their area since 1956, finally obtained the benefits from the affirmative action policies. In other words, extremely similar individuals in all aspects to other SC obtained the SC status in 1976 only. **Hence, comparing individuals that were considered SC before 1976 to those that became SC in 1976 allows for measuring the specific effect of affirmative action policies on its beneficiaries.**

MAIN RESULTS

Using survey data from 1999, for the states of Andhra Pradesh, Bihar, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Rajasthan, Uttar Pradesh, Tamil Nadu, West Bengal³, I compare the cohorts above primary school age in 1977⁴ to those still at school age at that time to measure the impact of the access to the SC status on schooling decisions within each of those states. Comparing individuals that became SC in 1976 due to the removal of area restrictions within states to those from the same state that were SC before neutralizes any other factor than the access to the SC status that could be driving the evolution of schooling.

The study shows that the access to the SC status did lead to an increase in the educational attainment of its beneficiaries, but that this increase was unevenly distributed. Indeed, in line with the evolution shown in Figure 1, while males saw their schooling level increase (mainly through completing primary education and starting – but not completing - secondary schooling), access to affirmative action programs seems to have had no impact on female students. On average, males exposed to the programs stayed close to 0.8 years longer in school but females educational attainment was not affected (Table 1 reproduces the main results of the paper). For girls, the access to reservation policies did not seem to be translated into increased schooling completion.

Table 1: Effect of accessing to SC status in 1977, when young enough to benefit (10 years old or lower)

	Literacy	Schooling	Primary Completion	Some Secondary	Secondary Completion	Years of Schooling
	(1)	(2)	(3)	(4)	(5)	(6)
Males	0.06 (0.04)	0.05 (0.04)	0.09** (0.04)	0.10*** (0.03)	0.01 (0.04)	0.78*** (0.24)
Females	-0.04 (0.05)	-0.04 (0.05)	-0.02 (0.04)	0.03 (0.04)	0.02 (0.04)	-0.06 (0.31)

Source: Cassan (2014).
Standard errors two way clustered at the caste and district level in parenthesis.
* significant at 10%
** significant at 5%
*** significant at 1%
All regressions are within household, and include district trends and state-cohort FE. Population aged 14+ (columns 1 to 3) or 18+ (columns 4 to 6) at time of the survey and born after 1950

IMPLICATIONS

This study contributes to a finer understanding of the impact of the Indian affirmative action programs. **It gives the first quantitative evidence pointing to the heterogeneous effect of the “reservations” programs for educational attainment in the 1970’s.** Indeed, if the male SC population seems to have been able to take advantage of “reservations” policies, these seem to have had no impact on females. In conclusion, while reservation policies have been able to obtain some success in reducing the schooling gap between the SC and the general population, they have failed in reaching those that cumulate both caste and gender discriminations in spite of the existence of gender specific measures.

3. More than 98% of the increase in the SC population of 1976 originated from those states.
4. The year in which the reform was effectively put in place

References

Cassan, Guilhem. “Affirmative Action, Education and Gender: Evidence from India”.
2014 Working Paper CEPREMAP

