A new Constitution amendment provides 10% reservation to individuals from economically weaker sections (EWS) in the general category for government jobs and educational institutions in India. This law raises several implementation questions. Under the law, EWS applicants may even find it harder to obtain positions. These problems can be addressed using the science of matching theory.

Boston, where we are based, faced similar implementation challenges with its school assignment system. Like India, thousands of school assignments in Boston are made using a matching process with a system of reserves. In part due to our interaction with Boston officials, the city moved to a scientifically sound implementation of their policies. Boston’s experience holds important lessons for India.

Unreserved to reserved

Until now, India’s main reserve-eligible groups have been Scheduled Castes, Scheduled Tribes, and Other Backward Classes. In job and university assignments, there is a widespread tradition of first assigning a reserved category applicant to an unreserved position if he or she qualifies on the basis of merit alone. When unreserved positions are exhausted, a reserved category applicant may then be considered for a reserved position. A meritorious reserved candidate (MRC) is a reserved category applicant, who is tentatively assigned to an unreserved position.

When the assignment involves multiple types of jobs or universities, the existence of MRCs raises two important questions. One, can an MRC move to a reserve position for a more preferred job or university place if he or she is tentatively holding a less preferred unreserved position? Two, if such movement is allowed, what happens to the newly vacated seat?

A 2004 Supreme Court decision in Anurag Patel v. U.P. Public Service Commission mandates that an MRC is entitled to move or “migrate” to the more preferred assignment. A 2010 Supreme Court decision in Union of India v. Ramesh Ram & Ors answers the second question for the case of public sector job assignments. It specifies that the newly vacated position is to be given to a candidate from the general category, who is not eligible for any reservation. That is, even if there is a more deserving reserved category applicant — say, another MRC who received a less preferred position — the newly available unreserved position can go to a potentially lower-scoring applicant from the general category. Therefore, one unintended consequence of this judgment is that the cut-off score for reserved category candidates can be higher than the cut-off score for the general category.

At present, a small fraction of unreserved positions are tentatively assigned to reserved category applicants. This means that the number of meritorious reserved candidates is relatively modest compared to the number of unreserved positions. But with the new EWS reservation amendment, a large fraction of general category applicants are expected to qualify as economically weak. This means that a large share of unreserved positions will be tentatively assigned to the EWS category. As a result, there will be many more meritorious reserved candidates. And the positions they vacate due to migration are to be offered to the general category candidates who do not qualify for EWS reservation due to Ramesh Ram. This may result in a reduction in the number of positions offered to those in the EWS category.

For example, under the system used by the Union Public Service Commission to allocate the most sought-after government jobs in India, such as in the Indian Administrative Service, a non-EWS applicant from the general category would take newly vacated positions following migration, increasing their overall share. In all likelihood, the cut-off scores will be higher for EWS candidates than for non-EWS general category applicants, meaning it’s harder for the poor to qualify than the rich. Creating such a large reserved category results in a big challenge to the implementation of Ramesh Ram, or any system based on the idea of a meritorious reserved candidate.

Horizontal or vertical?

Another implementation challenge with the new amendment is that the new law does not explicitly state whether the new EWS reservation is horizontal or vertical. This is despite the clear distinction made in the landmark judgment in Indra Sawhney v. Union of India (1992).

A horizontal reservation is a ‘minimum guarantee’, which only binds when there are not enough EWS applicants who receive a position on the basis of their merit score alone; if so, the bottom-ranked general category selections are knocked out by the top-ranked unselected EWS candidates. With a large number expected to qualify for EWS, the 10% minimum guarantee will already be achieved essentially in all applications. This means the policy, if applied horizontally, will virtually have no effect.

A vertical reservation, on the other hand, is an ‘over and beyond’ reservation. This means that if an applicant obtains a position on the basis of his or her merit score without the benefit of the reservation, it does not reduce the number of reserved positions. This important distinction appears not to have been a part of discussions leading up to the passage of the law. A government memo suggests that the new EWS reservation might be vertical, but it is important that this issue be clarified.

We have seen first-hand how challenging these notions can be in practice. Boston originally had a neighbourhood reserve for half of each school’s seats. Officials were not clear whether this neighbourhood reserve is a minimum guarantee or an over-and-beyond allotment. When the Mayor advocated for increasing neighbourhood reserves, there was a great deal of confusion and anger about the underlying policy. Our research showed that Boston had effectively negated the neighbourhood reservation, by applying a horizontal implementation. The original intention of Boston’s policy, however, was to have an over-and-beyond neighbourhood reserve, as in the vertical implementation. Transparency about these issues brought about an entirely new system.

These issues can be resolved using a well-designed assignment mechanism and transparent rules about processing of reserves. Our experience in Boston generated academic literature which has gone on to influence assignment practice throughout the U.S. Our research shows how it is possible to adapt these mechanisms for India and satisfactorily implement reservation policies, as they are envisioned in Indra Sawhney.

Lack of clarity on implementation opens up possibilities to distort or even manipulate outcomes, undermining policy goals. It can confuse the public and keep university or job assignments in limbo for years as courts process legal challenges. India’s new EWS reservation policy is heading in this direction unless these implementation issues are addressed head-on.

Parag A. Pathak is a professor of economics at the Massachusetts Institute of Technology, U.S. Tayfun Sönmez is a professor of economics at Boston College, U.S.