

Subject: 'Suggestions for the 2021 amendments to Apprentice Act of 1961'.

Apr 30 2021, San Jose, CA, USA

To

1. Hon'ble PM of India
2. Ministry of Skill Development and Entrepreneurship
3. To whoever else it may concern,

Dear Respected Sir/Madam,

Namasthe. My sincere thanks to Central government for striving to develop India on par with developed nations. I admire the audacious dream of making India a 5 trillion dollar economy in the next few years by a number of policy reforms like National Education Policy, Startup India, Skill India etc.

Please kindly review this pdf document for suggestions regarding the 2021 amendments to the Apprentice Act of 1961. My grass-roots views are based on my 11 years of experience as a SoC(microchip) Verification Engineer in USA (mostly California) after completing my Masters in Computer Engineering in USA. My views are also influenced by my observations related to the globalization of high-tech industries.

Obviously to improve any system including India's apprenticeship programs, a data-driven rational research is required (Quantitative & Qualitative analyses). I did not research but only presenting my views and my experiences as points below which may help scholars/experts carve out their own topics of research/PhDs on the developmental policies & characteristics of sustainable apprenticeship programs for skilling as many apprentices as quickly as possible effectively and efficiently.

1. About this publication for discussion on MYGOV, is a circular issued to all universities of India at the center and state levels so that professors, scholars, other staff and students can participate and share their ideas? If not, the circular about this discussion on MYGOV may be issued by an email-list to all universities of India and a poster may be mailed for sticking on the noticeboards at all universities of India.
2. Is this invitation for discussion on MYGOV also advertised on <https://apprenticeshipindia.org/> website so that employers and candidates get to post their views on this discussion forum at MYGOV? If not, the circular about this discussion on MYGOV may be advertised on the front page of the website and also invitations may be issued by email-list to all stake-holders.
3. Is a circular of this invitation for suggestions about apprenticeship program issued to all corporations, industry bodies (like FICCI, NASSCOM, CII, ASSOCHAM, ACMA, IEEMA, IEEE etc.)? If not, the circular about this discussion on MYGOV may be issued by email-list to all stake-holders at various industry bodies and R&D institutions.
4. All apprentices must be provided with a joining-bonus or at least a loan enough to secure travel tickets, 5 pairs of work clothes and 2 pairs of casual clothes, a big travel suitcase, decent food &

rent for one month, a laptop or at least a smartphone if the employer is not able to provide them the same.

5. All apprentices will be paid only by one source. If apprentices are working for a private corporation and that private enterprise is willing to pay stipend, then Government need not pay any stipend to get that apprentice working for that private enterprise. There may be establishments who may not want to impart knowledge to apprentices, in such scenarios Government may provide full stipend not just reimbursement to establishments. For instance there may be a diamond cutter, a sweet maker or a trucking company who do not want any apprentices because the skill secrets could be used by apprentices to start their own businesses. In such scenarios where there is high-reluctance towards apprenticeship outside family circles, the departments of apprenticeship of Indian Government may get involved to pay full stipend amount on behalf of a qualified apprentice not just reimbursements under NAPS.
6. Departments related to apprentices must research to gather a list of corporations where there is a high demand for apprentices. Indian Government need not support those corporations financially by reimbursements under NAPS (1500 rupees?) for recruiting apprentices but only provide staffing, payroll and other such logistic supports. Then those funds could be diverted to entice prospective establishments into apprenticeship programs.
7. Employers (establishments) using online stipend payment method must also be offered an option for online time-sheet approvals. The apprentice will submit his time-sheet of the hours worked every week online. Then the employer will log into his online payroll account and approve that time-sheet. If apprentice is requesting any leave then that leave must also be submitted via online payroll and the employer will approve that leave via their online payroll.
8. Wherever online stipend payment methods are used, there all apprentices must be paid hourly wages which must be clocked every day or every week by using online systems. Thus, apprentices must be divided as full-time apprentices who work at least 48 hours a 6-day work-week and part-time apprentices who work less than 48 hours a 6-day work-week.
9. Wherever online systems are used, all apprentice job offer document packages with payment details, insurances, rules & regulations must be signed electronically by both employer and employee.
10. Work-related injuries and Sexual harassment policies & training must also be signed online exclusively by the employer and the apprentice employee. Wherever online systems cannot be used, both the employer and the apprentice employees must complete work-related injuries and sexual harassment policies & training materials. Then both employer and apprentice employees must sign the forms and post them back to a specific address of the departments related to apprenticeship (NSDC?) which manages the payroll. I think it is best the employer and the prospective apprentices complete the training & signing of the work-related injuries and sexual harassment policies before an interview.
11. This point is very important to apprentices because apprentices usually commit work-related mistakes early in their careers leading to work-related injuries and worse death. All apprentices incurring work related injuries or death must be given benefits by Indian Governments including but not limited to medical bills, relocation, job retraining, re-education etc. For example, in case of a work related injury resulting in limb loss, the apprentice may be helped to recover as best

as possible and then re-education and job re-training must be provided as per their post-recovery body functionality reports.

12. Apprentice programs for disabled must be researched and listed. Corporations recruiting disabled apprentices must be provided with all accessibility features or at least recommendations for the accessibility features at work-places like a ramp, standing or sitting desk, accessible toilets etc.
13. Children above certain age (say 15 years old) may be allowed to participate in their own private family businesses under the supervision of their parents or adult siblings outside school hours and on holidays. Since some apprentice programs only require education up to 5th class, this must be possible to do so for the sake of families.
14. The members of the families of managers or company owners may participate in the apprenticeship program of the same private establishment foregoing the payment of stipend or other such benefits by the Government except benefits related to work related injuries or death. In other words, government benefits must be provided to injured apprentices or families of dead apprentices even if the apprentice is working only in a family business or where their family members are their managers or have such authority as to dismiss an apprentice from work like directors, VPs or the CEO of the private enterprise or corporation.
15. Every year different trades and skills must be assessed for their demand by consultations with respective sectors and their industries. Every year few trades and skills must be brought under the ambit of apprentice act and few must be taken out of the apprentice act depending on the demand for apprentices in those sectors.
16. Every year few unorganized sectors must be brought into the organized sector so that apprenticeship programs are implemented in those sectors proactively. Departments related to apprenticeship must actively come up with policy packages for employers so they join the program to recruit youth & impart skills. What I mean to say here is that the employers may be having potential for growth but do not want to risk employing someone full-time due to various reasons. Those reasons must be found and Government must bridge those doubts/gaps for the employers so they have someone temporarily working for them as apprentice. For example, there is a big temple trust with lots of barren land which could be cultivated in a better way. However, the temple management does not have structure or funds to employ someone full-time and they are only seeking someone working for just an year or two years. Then that temple trust must be approached with policy packages to get graduates from agricultural universities experiment on that land growing different crops under the guidance of a government sponsored mentor. Another example is that there may be a marriage event company or a mango-pulp business which are seasonal. They may want to employ a rookie for just a few months. There must be a policy package for such businesses to recruit the right kind of unemployed educated talent temporarily.
17. Departments related to apprenticeship must also actively work with R&D institutions associated with corporations and non-profit NGOs in India and also outside India to come up with policy packages for employers to recruit unexperienced talent for short-term.
18. Every year a foreign country's requirements must also be collected proactively. Based on the qualifications and their requirements, apprentices must be connected with prospective

employers in other countries after international training of both apprentices and their prospective employers. In an event of termination of an international apprentice program, Indian MEA (Ministry of External Affairs) in that nation must shoulder the responsibility of safe return of candidates into India right from the date of termination including payment of any international lodging and transportation fees if the foreign company refuses or delays providing the same whatever may be the reason.

19. Have more minimum stipend limits for the private sectors than public sectors to encourage youth to get into private sector on preferential basis. About ITI students being given stipends (70 percent monthly and later 30 percent), I think stipends must be paid every two weeks and gradually increased in progression to encourage participants to actually learn and perform until the end of their apprenticeship term.
20. Private investors (TPAs?) must be mobilized to make smartphone and computer apps for apprenticeship programs besides government. If there are already apps like that, they must be certified and listed on the <https://apprenticeshipindia.org> website)
21. Apprentices must be taught to use social media like LinkedIn to reach out to industry veterans, employees, HR departments to find full-time jobs. There may be other smartphone apps too which connect apprentices with mentors and prospective employers and their corporations. (All certified Apps and Social media platforms must be listed on the <https://apprenticeshipindia.org> website)
22. As part of Apprentice training, there must be online training, exams and credits for critical thinking and communication skills training (interview, work-place manners, networking, handling complaints, handling terminations, harassment, social responsibility, patriotism etc. etc.)
23. There must be comprehensive online training, exams and credits for personal hygiene, nutrition and other such basic everyday sciences for prospective apprentices. By everyday sciences I mean everything that helps with physical health, mental health, social health and career like mask wearing, dressing for work, what to do in case of an injury/women menstrual cycles, home-sickness, how to detect problematic managers and stay calm to follow proper escalation mechanisms, how to handle natural calamities like floods, earth-quakes, heat, snow etc.
24. There must be a 24/7 helpline for apprentices to even help them get medicines for their elderly family members or other such concierge services. These helplines must in turn get the help of local police stations or NCC cadets to take care of the helpless dependents far away from apprentices' work-places. The reason for such concierge service is due to temporary nature of the apprentice job. Because the apprentice job is temporary, the candidate cannot move the entire dependent family to the rental place or close to his/her work-place. Once apprentice secures full-time employment, then he/she may take their family with them to the city/location where they are employed.
25. Anonymous feedback and complaint collection mechanisms (by post, phone, online form and email) must be provided to apprentices so their grievances are handled in a fool-proof manner by appropriate authorities.
26. There must be ranking of institutions and corporations providing apprenticeship and that ranking must be on the apprentice website (<https://apprenticeshipindia.org>). Just like product

reviews on Amazon or Yelp, there must be 'star ratings' for all companies offering apprenticeship. That way, students may choose best places to start their career training. Rankings and star-ratings will also help Indian Governments and Private enterprises to rectify the issues at poorly ranked institutions and other such work-places.

27. It must be easy for corporations to recruit and terminate apprentices in a timely manner using online systems. Free online software may be provided to MSMEs to receive applications, check credentials and do back-ground check of applicants, interviews, onboarding, payroll and tax, issuing completion certificates etc. That free online software may transfer data every year to central location to collect data and perform statistical analysis on apprenticeship programs to make them better in the subsequent years.
28. Computer data collection, audit and analysis of apprenticeship programs must be setup so that every year the authorities and research scholars could analyze the data from apprenticeship programs and make necessary modifications, adjustments and improvements if any.
29. It must also be easy for apprentices to terminate or transfer their apprenticeship to another institution or a company as and when an opportunity arises by using the online systems.
30. There must be online mentorship programs besides on-location apprenticeships because not everyone will be able to get into their choicest on-site apprenticeship.
31. National Skill Qualification Framework (NSQF) must include leadership and entrepreneurial skills as a separate sixth domain. In this regard, the apprentices must also be given online guidance and tutorials on how to secure loans and logistics support to start their own businesses. For instance, there may be an apprentice working on lathe machines and he thinks he can make few products himself. How can he or she be guided to start their own MSME with logistics support? In other words, how to smoothly transition those apprentices with exceptional skills and business acumen to pursue their own enterprises. (You see Facebook, Microsoft, Google and many such companies are started by educated youth from reputed universities without much work-experience)
32. Video games and Virtual reality audio & videos at all apprentice training institutes and if possible through apprenticeship website (<https://apprenticeshipindia.org>). The video games or virtual reality shows may educate nurses, hospital workers, air-hostesses, truck-drivers, taxi drivers, mechanics, ticket-collectors, Janitors, sewage cleaners, house-workers, In home care-providers, nannys for little babies, crematorium workers, tourist guides, modeling, artists at film & TV institutes, workers at power-plants, workers at dams, workers on ships, gas-station workers, electricians, plumbers, carpenters, landscaping, construction workers in other domains, tailoring, beauticians, hair-cutters, cooks, police departments, military maintenance etc. etc.
33. There must be an online forum and a newsletter pages on the apprenticeship website(<https://apprenticeshipindia.org/>) where apprentices, mentors and other authorized personnel could share their ideas, concerns and grievances.(In this regard, implementation ideas could be taken from social media platforms like LinkedIn, Facebook etc.)
34. There must be policies and a software mechanism to automatically copy all posted apprentice jobs in India from private enterprise websites, online job websites and social media platforms like LinkedIn onto the apprenticeship website (<https://apprenticeshipindia.org/>). That will help save time for prospective apprentices and also those private enterprises. If that is not possible,

then the departments related to apprenticeship must actively invite those corporations which are not registered with apprenticeshipIndia website but posting their apprenticeship Ads elsewhere.

35. All placement centers of all universities of India at the center and state-levels must register with (<https://apprenticeshipindia.org/>).
36. All abbreviations and definitions used by the departments related to apprenticeship must be tabulated and placed in a glossary webpage on (<https://apprenticeshipindia.org/>). For example, I had difficulty finding the full form of the abbreviation NSQC, TCI etc.
37. Laws related to Work-related injuries are not part of 'personal injuries' in many developed nations including USA, Japan, China etc. Therefore, when referring to work-related injuries, they must be called 'work-related injuries' and not 'personal injuries at work'. I think it is best Ministry of Skill Development, Ministry of Law and Justice, Ministry of Labour and employment and other concerned ministries come together to define again 'Work-related injuries' and 'personal injuries' for the sake of improving Justice and 21st century Jurisprudence in India. How can India expect to be called a Sovereign republic trying to become a world leader with a pre-independence law called '**Workmen's Compensation Act of 1923**'?
38. All audits by apprenticeship inspectors from the departments of apprenticeship must be done by using online systems even when apprenticeship inspectors are onsite. All checks related to apprentice act following, feedback from apprentices, work-facilities etc. must be done by using online system even when apprenticeship inspectors or advisors are onsite.
39. The duties of the Apprenticeship Advisor will be to mentor the apprentice to learn skills as much as possible and also guide the corporations to create & maintain sustainable apprentice jobs. Basically Apprenticeship Advisor will directly involve himself in all NSQF related activities and will only advise all legal matters like payments, harassment, crime, work-related injuries and other disputes to the Human Resources (HR) departments at the NSDC or other related departments of Apprenticeship at the Ministry of Skill Development. Apprenticeship Advisor must not perform any such duties as a Human Resources (HR) department but only advise them when asked by the HR department about the apprentice under the guidance of Apprenticeship Advisor.
40. All PhDs and research papers on apprenticeship produced at universities of India and around the world must be collected by the Departments related to apprenticeship at the Central Government Ministry of Skill Development from time to time (say every 2 years) to incorporate or amend any policies related to apprenticeship. For that the Departments related to apprenticeship at the Central Government Ministry of Skill Development may sponsor specified number of PhDs or other such post-graduate studies at India's premier universities like IIMs, IITs, IISc, AIIMs etc.

Since it is in my own personal interest that India becomes a prosperous nation with more than 15 trillion dollar economy soon, I presented my suggestions, as the points above, for 2021 amendments to Apprentice Act of 1961. Most of my suggestions above are about 'Apprenticeship in the era of Digital Governance of 21st century.'

If there is one fundamental disruption that must happen in India even now then that is drastically increasing the number of universities in India and also the quality of research based education in those universities. If 10 lakhs of engineers and doctors graduating are not enough to progress the nation satisfactorily, then that number must be doubled to 20 lakhs as soon as possible by doubling the number of IITs, IIMs, AIIMs and other multi-disciplinary universities in India to create a glut of engineers so that even USA or other developed nations cannot absorb all that talent. For those who can't pursue post-graduate studies at Universities, there must be vocational colleges & trade schools teaching them 21st century job skills so they either provide their services or start their own trades.

All youth in the nation must be galvanized/baptized by the apprenticeship programs so they all understand what is meant by a knowledge-based economy and its implications on globalization whether they are able to have sustainable careers on par with their education or not. The same amount of metals in kitchen utensils gives less profit than a car or a smartphone. The difference is knowledge used to make a car, a micro-chip or a smartphone or other such high-tech product. Thus one fundamental step towards industrializing India (including semiconductors & latest vaccines) is by building many more universities in STEM fields and also improving the R&D quality in at least some of them to world standards. For those who can't pursue post-graduate studies at Universities, there must be vocational colleges & trade schools teaching them 21st century job skills so they either provide their services or start their own trades.

Which is better for a nation? Unemployed uneducated or Unemployed skilled work-force? Unemployed graduate, post-graduates and other skilled youth are the least worry to a nation and majority will ultimately strive to be entrepreneurs, start non-profits, join civil services, armed forces, become politicians, go to foreign countries etc., thus ensuring India will also develop in Fourth Industrial Revolution on par with at least East Asia if not Europe or nations of European Settlers. Therefore, apprenticeship programs must also have online training courses for prospective apprenticeship seeking candidates who cannot all get an on-site apprenticeship.

What I wrote is from/related to my own research and experiences. Please kindly forgive me if I said or asked for anything inconvenient, incorrect & wrong. Due to time constraints, please kindly forgive my English mistakes too.

Satyameva Jayathe!
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