

# **INTERNSHALA - ASSIGNMENT**

*Submitted By : Mohit Yadav*

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## **What is the total number of internships (including apprenticeships) that get offered in a year in India ?**

To find the total number of internships in India offered, we have to find the total no. of students studying in colleges. So, we should start from scratch :

Total population of India is : 1.3 billion = 1300 million

Since we want to find the number of internships offered so our sample should be all students studying in colleges.

Now, this population can be divided into major three age segments

1. Population with age group less than 18 years
2. Population with age group between 18 to 24 years
3. Population with age group above than 24 years

- Using the ratio and considering the average age distribution in India we are taking that percentage of age group is 35% for less than 18 years, 10 % for 18 to 24 years and 55% for the age group above 24 years.

Our sample for analysis is age group between 18 to 24 years.

**Assumptions :**

- Internships / Apprenticeships being offered to college students + some students after their graduation also offered by internships within 2 years after their graduation.
- Here we are assuming that very less no. of internships being offered after 3 years of college, so we are neglecting that group of people.
- Generally in 18 years students enter college and complete it 22, 23 years that is why they are picking this sample to find our answer.

So, our sample size is 130 million.

**Total Population of India** (1.3 billion = 1300 million)

Less than 18 years	Studying in Colleges(18 to 24 years)	More than 24 years
$.35 * 1300$	$.1 * 1300$	$.55 * 1300$
= 455 million	= 130 million	= 715 million

Now, literacy rate in india is approx 75% so, within this sample size (130 million) , The literate people who will get offer of internships will be:

$$= 0.75 * 130$$

$$= 97.5 \text{ million}$$

Now, these students (97.5 million) who are literate can be divided based on their college ranking , faculty and placements

Tier 1	Tier 2	Tier 3	Others(Include all other students)
$0.1 * 97.5$	$0.15 * 97.5$	$0.3 * 97.5$	$0.45 * 97.5$
= 9.75 million	= 14.625 million	= 29.25 million	= 43.875 million

Since there are a limited number of tier 1 and tier 2 colleges, they usually conduct some exams for their entrance. That is why the percentage of students studying in these colleges is comparatively less than tier 3 and others.

Based on real life I'm assuming that the top 10% students go to tier 1, 15% in tier 2 and 30% in tier 3 and the rest (45%) goes to others every year.

Now, since we are calculating the number of internships offered in a year so in a specific year there are students sophomore, pre final year who are getting offers of internships.

So, we have to consider them as well.

### **Assumptions :**

- Only students from Tier 1 and Tier 2 got internship offer in their 2 year of study
- Most of the students got internship offers only in their pre final year of study.
- Since, Tier 1 colleges have the best facilities so I'm assuming that 80% of eligible students got an internship offer, In Tier 2 colleges 65% of eligible students got an internship offer. This internship offer further decreases in Tier 3 (Only 30% got an internship offer) and in other 10% got an internship offer.
- Students got offered only one internship in a year

### **Number of internships offered in Tier 1 colleges :**

$$\begin{aligned} & (\text{No. of students eligible for internships}) * 80\% \\ &= (9.75 * 2) * 0.8 \\ &= 15.6 \text{ million for 18 to 24 years} \\ &\text{For one specific year it will be } \frac{1}{2} \text{ th of total that means:} \\ &= 15.6 * (\frac{1}{2}) \\ &= 2.6 \text{ million} \end{aligned}$$

### **Number of internships offered in Tier 2 colleges :**

$$\begin{aligned} & (\text{No. of eligible students}) * 65\% \\ &= (14.625 * 2) * .65 \end{aligned}$$

= 19 million for 18 to 24 years

For one specific year it will be  $\frac{1}{6}$  of total that means:

=  $19 * (\frac{1}{6})$

= 3.16 million

**No. of internships offered in Tier 3 :**

(No. of pre final year students) \* 30%

=  $29.25 * 0.3$

= 8.775 million for 18 to 24 years

For one specific year it will be  $\frac{1}{6}$ th of total that means:

=  $8.775 * (\frac{1}{6})$

= 1.462 million

**No. of internships offered in other category :**

(No. of pre final year students) \* 10%

=  $43.875 * 0.1$

= 4.3875 million for 18 to 24 years

For one specific year it will be  $(\frac{1}{6})$ th of total that means:

=  $4.3875 * (\frac{1}{6})$

= 0.731 million

Total internships/ apprenticeships being offered in a year in india is:

=  $2.6 + 3.16 + 1.462 + 0.731$

= 7.953 million