PHASE 3 – MARGINAL WORKERS IN TAMILNADU

• INTRODUCTION:

> ➤ A Marginal worker is the one who engaged in only economically productive work for less than 183 days in a year. In India 8.7% of workers are marginal workers.
>
> ➤ Percentage of marginal workers will reflect a less developing economy and poverty.
>
> ➤ Most of the marginal workers are the landless agricultural labours in rural areas.

• GIVEN DATA SET:

Table Code	State Code	District Co	Area Name	Total/ Rur	Age group	Worked fo	Worked fo	Worked fo	Worked fo	Worked fo	Worked fo	Industrial (	Industrial (	Industrial (	Industrial (	Industrial (	Industrial (	Industrial (	Industrial (	Industrial (	Industrial (	Industrial (	Industrial (In
B0806SC	'33	'000	State - TAI	Total	Total	1200828	589003	611825	221386	99368	122018	64235	34632	29603	907752	404844	502908	29410	16268	13142	2853	1862
B0806SC	'33	'000	State - TAI	Total	'5-14	27791	14125	13666	2447	1247	1200	1710	825	885	6398	3130	3268	190	107	83	9	9
B0806SC	'33	'000	State - TAI	Total	15-34	514340	259560	254780	92423	43892	48531	24863	12711	12152	345420	152968	192452	9430	5443	3987	1174	839
B0806SC	'33	'000	State - TAI	Total	35-59	542581	251957	290624	99202	40691	58511	29692	15927	13765	450052	192771	257281	15744	8230	7514	1436	860
B0806SC	'33	'000	State - TAI	Total	60+	115103	62833	52270	27165	13465	13700	7930	5151	2779	105325	55730	49595	4028	2470	1558	234	154
B0806SC	'33	'000	State - TAI	Total	Age not st:	1013	528	485	149	73	76	40	18	22	557	245	312	18	18	0	0	0
B0806SC	'33	'000	State - TAI	Rural	Total	966645	459738	506907	174443	73663	100780	59637	32189	27448	824698	364131	460567	19758	11033	8725	1728	1191
B0806SC	'33	'000	State - TAI	Rural	'5-14	17239	8713	8526	1977	985	992	1443	684	759	6005	2922	3083	144	80	64	6	6
B0806SC	'33	'000	State - TAI	Rural	15-34	406847	198575	208272	71974	31917	40057	22933	11766	11167	316885	138622	178263	6687	3909	2778	732	543
B0806SC	'33	'000	State - TAI	Rural	35-59	444800	199573	245227	77922	29808	48114	27799	14887	12912	406147	172178	233969	10307	5468	4839	882	567
B0806SC	'33	'000	State - TAI	Rural	60+	97011	52498	44513	22446	10902	11544	7425	4835	2590	95151	50192	44959	2608	1564	1044	108	75
B0806SC	'33	'000	State - TAI	Rural	Age not st:	748	379	369	124	51	73	37	17	20	510	217	293	12	12	0	0	0
B0806SC	'33	'000	State - TAI	Urban	Total	234183	129265	104918	46943	25705	21238	4598	2443	2155	83054	40713	42341	9652	5235	4417	1125	671
B0806SC	'33	'000	State - TAI	Urban	'5-14	10552	5412	5140	470	262	208	267	141	126	393	208	185	46	27	19	3	3
B0806SC	'33	'000	State - TAI	Urban	15-34	107493	60985	46508	20449	11975	8474	1930	945	985	28535	14346	14189	2743	1534	1209	442	296
B0806SC	'33	'000	State - TAI	Urban	35-59	97781	52384	45397	21280	10883	10397	1893	1040	853	43905	20593	23312	5437	2762	2675	554	293
B0806SC	'33	'000	State - TAI	Urban	60+	18092	10335	7757	4719	2563	2156	505	316	189	10174	5538	4636	1420	906	514	126	79
B0806SC	'33	'000	State - TAI	Urban	Age not st:	265	149	116	25	22	3	3	1	2	47	28	19	6	6	0	0	0
B0806SC	'33	'602	District - T	Total	Total	74448	39295	35153	15866	8004	7862	3066	1663	1403	42579	20345	22234	1519	1025	494	63	47

• NECESSARY STEPS TO BE FOLLOWED:

1.Import Libraries:

Start by importing the necessary libraries. Load your dataset into the Pandasdata frame. And then display the output.

PROGRAM:

```
# importing pandas module for data frame
import pandas as pd

# loading dataset and storing in train variable
train=pd.read_csv('Marginal_workers.csv')

# display top 5 data
train.head()
```

OUTPUT:

Number of Workers	Total Output	Marginal Output
1	2	
2	5	3
3	9	4
4	12	3
5	14	2
6	15	1
7	15	0
8	14	-1
9	13	-1

> ### Creating a Sample Marginal Workers Dataset

data = { 'Name': ['Alice', 'Bob', 'Charlie', 'David', 'Eve'],

'Age': [25, 30, 35, 40, 45],

'Gender': ['Female', 'Male', 'Male', 'Male', 'Female'],

'Occupation': ['Clerk', 'Driver', 'Farmer', 'Shopkeeper', 'Freelancer'],
'Hours_per_week': [15, 10, 20, 8, 12],

'Income': [1000, 800, 1200, 650, 950] }

df = pd.DataFrame(data)

> ### Basic Data Manipulation

> 1. ### Filtering Workers Who Work Less Than a Specified Number of Hours

threshold_hours = 15

marginal_workers = df[df['Hours_per_week'] < threshold_hours]
print(marginal_workers)

> 2. ### Finding Average Income of Marginal Workers

avg_income_marginal = marginal_workers['Income'].mean() print(f"Average income of marginal workers: ${avg_income_marginal}")

> 3. ### Finding the Most Common Occupation Among Marginal Workers

common_occupation = marginal_workers['Occupation'].mode().iloc[0]
print(f"The most common occupation among marginal workers is:
{common_occupation}")

4. **Grouping Marginal Workers by Occupation and Finding the Average Income**

```
grouped = marginal_workers.groupby('Occupation').mean()
print(grouped['Income'])
```

5.Exporting Data If you want to export the filtered data to a CSV file:

```
marginal_workers.to_csv('marginal_workers.csv', index=False)
```