

ALGORITHM FOR ASSESSMENT OF MARGINAL WORKERS IN TAMIL NADU

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Introduction:

The "Assessment of Marginal Workers in Tamil Nadu" project is a critical endeavour aimed at comprehensively understanding and evaluating the socio-economic conditions and labour force dynamics of marginal workers within the state of Tamil Nadu, India. Marginal workers represent a significant segment of the population who often find themselves in precarious employment situations, facing challenges related to income, job security, and access to social and economic opportunities. This project seeks to shed light on their living and working conditions, enabling informed policy decisions to improve their livelihoods.

Background:

In the vibrant and diverse state of Tamil Nadu, marginal workers constitute a significant portion of the labour force. These workers, characterized by irregular and often low-paying employment, often struggle to access essential social benefits and economic stability. Their employment may be seasonal, part-time, or informal, rendering them particularly susceptible to economic vulnerabilities and challenges in

achieving a decent standard of living. As such, gaining a comprehensive understanding of the circumstances and requirements of marginal workers is essential for the development of effective social and economic policies that can alleviate their challenges.

Project Objectives:

1. Data Collection:

The project will initiate by gathering a wealth of data from various sources, including government records, labour force surveys, and other pertinent datasets. This data will be used to construct a comprehensive dataset that reflects the characteristics of marginal workers in Tamil Nadu.

Resource: <https://tn.data.gov.in/catalog/marginal-workers-classified-age-industrial-category-and-sex-census-2011-india-and-states>

Example Datasets:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Table Cod	State Cod	District Cc	Area Nam	Total/	Rur	Age group	Worked fr	Worked fr	Worked fr	Worked fr	Worked fr	Industrial	Industrial	Industrial	Industrial	Industrial	Industrial	Industrial	Industrial	Indus
2	B0706	'33	'000	State - TAI Total	Total		4218884	2136881	2082003	723891	337268	386623	393082	220314	172768	2372446	1034184	1338262	125099	78052	47
3	B0706	'33	'000	State - TAI Total	'5-9		48238	24511	23727	2051	1021	1030	3363	1592	1771	4169	1992	2177	198	106	
4	B0706	'33	'000	State - TAI Total	'10-14		76288	39191	37097	6993	3716	3277	5072	2486	2586	13939	6974	6965	834	464	
5	B0706	'33	'000	State - TAI Total	15-19		257605	141262	116343	41938	23489	18449	17864	9336	8528	102106	51763	50343	4613	3157	1
6	B0706	'33	'000	State - TAI Total	20-24		478082	257149	220933	81036	42916	38120	33647	16930	16717	216966	98959	118007	9171	6302	2
7	B0706	'33	'000	State - TAI Total	25-29		554851	283442	271409	91694	43398	48296	43750	22289	21461	289269	121022	168247	12934	8307	4
8	B0706	'33	'000	State - TAI Total	30-34		483456	240046	243410	79385	34989	44396	41255	22446	18809	266670	109948	156722	13070	8097	4
9	B0706	'33	'000	State - TAI Total	35-39		502791	230695	272096	84066	33718	50348	44245	23087	21158	301918	115699	186219	15102	8741	6
10	B0706	'33	'000	State - TAI Total	40-49		824271	399353	424918	137834	59778	78056	81138	44992	36146	514173	215722	298451	28854	17470	11
11	B0706	'33	'000	State - TAI Total	50-59		539168	269939	269229	96980	42864	54116	61891	36183	25708	350987	153824	197163	21117	13001	8
12	B0706	'33	'000	State - TAI Total	60-69		324681	172986	151695	70594	33542	37052	41653	26939	14714	226876	109593	117283	13484	8386	5
13	B0706	'33	'000	State - TAI Total	70-79		103004	62672	40332	25242	14230	11012	15159	11133	4026	70054	39928	30126	4651	3216	1
14	B0706	'33	'000	State - TAI Total	80+		22844	13709	9135	5595	3370	2225	3722	2727	995	13875	8115	5760	983	737	
15	B0706	'33	'000	State - TAI Total	Age not st		3605	1926	1679	483	237	246	323	174	149	1444	645	799	88	68	
16	B0706	'33	'000	State - TAI Rural	Total		3009302	1443929	1565373	510909	216805	294104	359283	199440	159843	2155158	921652	1233506	81901	48169	33
17	B0706	'33	'000	State - TAI Rural	'5-9		21214	10736	10478	1512	745	767	2641	1229	1412	3856	1833	2023	141	76	
18	B0706	'33	'000	State - TAI Rural	'10-14		38241	19696	18545	5256	2699	2557	4224	2036	2188	12978	6443	6535	680	361	
19	B0706	'33	'000	State - TAI Rural	15-19		172855	93872	78983	30123	16088	14035	16009	8357	7652	95006	47607	47399	3508	2337	1
20	B0706	'33	'000	State - TAI Rural	20-24		326329	169360	156969	55556	27110	28446	30336	15223	15113	201136	90213	110923	6601	4384	2
21	B0706	'33	'000	State - TAI Rural	25-29		392510	189190	203320	64816	27703	37113	40210	20363	19847	265906	109006	156900	8801	5319	3
22	B0706	'33	'000	State - TAI Rural	30-34		343198	159863	183335	54759	21699	33060	38048	20562	17486	242787	97922	144865	8400	4820	3
23	B0706	'33	'000	State - TAI Rural	35-39		366012	155688	210324	58298	20606	37692	40864	21046	19818	273605	102508	171097	9657	5181	4

2. Data Analysis:

Subsequently, a detailed data analysis will be conducted to uncover valuable insights into the demographics, economic circumstances, and employment status of marginal workers. This analysis will encompass a deep dive into aspects such as income levels, educational backgrounds, regional distribution, and employment trends.

3. Predictive Modelling (Optional):

The project may also incorporate predictive modelling through the use of machine learning techniques to forecast critical factors impacting marginal workers. This could include predicting income levels or employment status based on the data available, thereby aiding in the identification of key determinants of their economic well-being.

4. Visualization:

To make the findings accessible and understandable, the project will create visual representations of the data and analysis results. This step is instrumental in effectively conveying the project's discoveries to a broader audience.

5. Ethical Considerations:

Throughout the course of the project, ethical principles will be diligently observed, particularly when dealing with sensitive personal data. Privacy and confidentiality will be maintained to the highest standards.

6. Policy Recommendations:

Building on the analysis and insights, the project will strive to develop well-informed policy recommendations designed to enhance the living conditions of marginal workers in Tamil Nadu. These recommendations may encompass measures to augment employment opportunities, elevate income levels, and facilitate access to critical social services.

Import Packages:

```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
```

Read Datasets:

```
fds=pd.read_csv('DDW_B06_3300_State_TAMIL_NADU-2011.csv')
```

Analyse Datasets

```
print (fds.head())
```

Output:

Table \	Code	State	Code	District	Code	Area Name	Total/	Rural/	Urban
0	B0706		`33		`000	State - TAMIL NADU			
Total									
1	B0706		`33		`000	State - TAMIL NADU			
Total									
2	B0706		`33		`000	State - TAMIL NADU			
Total									
3	B0706		`33		`000	State - TAMIL NADU			
Total									
4	B0706		`33		`000	State - TAMIL NADU			
Total									

Age group	Worked for 3 months or more but less than 6 months -	Persons
0	Total	4218884
1	`5-9	48238
2	`10-14	76288
3	15-19	257605
4	20-24	478082

	Worked for 3 months or more but less than 6 months - Males \
0	2136881
1	24511
2	39191
3	141262
4	257149
	Worked for 3 months or more but less than 6 months - Females \
0	2082003
1	23727
2	37097
3	116343
4	220933
	Worked for less than 3 months - Persons ... \
0	723891 ...
1	2051 ...
2	6993 ...
3	41938 ...
4	81036 ...
	Industrial Category - N to O - Females \
0	14495
1	20
2	44
3	768
4	2267
	Industrial Category - P to Q - Persons \
0	58788
1	312
2	506
3	2114
4	11529
	Industrial Category - P to Q - Males \
0	19892
1	169
2	256
3	695
4	2861
	Industrial Category - P to Q - Females \
0	38896
1	143
2	250
3	1419
4	8668
	Industrial Category - R to U - HHI - Persons \
0	89703
1	842
2	1523
3	5349
4	10653
	Industrial Category - R to U - HHI - Males \
0	21366
1	386
2	576

```

3          2065
4          2478

Industrial Category - R to U - HHI - Females \
0          68337
1          456
2          947
3          3284
4          8175

Industrial Category - R to U - Non HHI - Persons \
0          625350
1          40358
2          53900
3          89780
4          109641

Industrial Category - R to U - Non HHI - Males \
0          274811
1          20664
2          27501
3          46737
4          54832

Industrial Category - R to U - Non HHI - Females
0          350539
1          19694
2          26399
3          43043
4          54809

[5 rows x 69 columns]

```

Check the missing values and outliers:

```
print(fds.describe())
```

Output:

```

<class 'pandas.core.frame.DataFrame'>
RangeIndex: 1386 entries, 0 to 1385
Data columns (total 69 columns):
 #   Column
Non-Null Count  Dtype
---  -
0   Table Code
1386 non-null   object
1   State Code
1386 non-null   object
2   District Code
1386 non-null   object

```

3 Area Name
 1386 non-null object
 4 Total/ Rural/ Urban
 1386 non-null object
 5 Age group
 1386 non-null object
 6 Worked for 3 months or more but less than 6 months - Persons
 1386 non-null int64
 7 Worked for 3 months or more but less than 6 months - Males
 1386 non-null int64
 8 Worked for 3 months or more but less than 6 months - Females
 1386 non-null int64
 9 Worked for less than 3 months - Persons
 1386 non-null int64
 10 Worked for less than 3 months - Males
 1386 non-null int64
 11 Worked for less than 3 months - Females
 1386 non-null int64
 12 Industrial Category - A - Cultivators - Persons
 1386 non-null int64
 13 Industrial Category - A - Cultivators - Males
 1386 non-null int64
 14 Industrial Category - A - Cultivators - Females
 1386 non-null int64
 15 Industrial Category - A - Agricultural labourers - Persons
 1386 non-null int64
 16 Industrial Category - A - Agricultural labourers - Males
 1386 non-null int64
 17 Industrial Category - A - Agricultural labourers - Females
 1386 non-null int64
 18 Industrial Category - A - Plantation, Livestock, Forestry, Fishing,
 Hunting and allied activities - Persons 1386 non-null int64
 19 Industrial Category - A - Plantation, Livestock, Forestry, Fishing,
 Hunting and allied activities - Males 1386 non-null int64
 20 Industrial Category - A - Plantation, Livestock, Forestry, Fishing,
 Hunting and allied activities - Females 1386 non-null int64
 21 Industrial Category - B - Persons
 1386 non-null int64
 22 Industrial Category - B - Males
 1386 non-null int64
 23 Industrial Category - B - Females
 1386 non-null int64
 24 Industrial Category - C - HHI - Persons
 1386 non-null int64
 25 Industrial Category - C - HHI - Males
 1386 non-null int64
 26 Industrial Category - C - HHI - Females
 1386 non-null int64
 27 Industrial Category - C - Non HHI - Persons
 1386 non-null int64
 28 Industrial Category - C - Non HHI - Males
 1386 non-null int64
 29 Industrial Category - C - Non HHI - Females
 1386 non-null int64
 30 Industrial Category - D & E - Persons
 1386 non-null int64
 31 Industrial Category - D & E - Males
 1386 non-null int64
 32 Industrial Category - D & E - Females
 1386 non-null int64

33	Industrial Category - F - Persons
1386	non-null int64
34	Industrial Category - F - Males
1386	non-null int64
35	Industrial Category - F - Females
1386	non-null int64
36	Industrial Category - G - HHI - Persons
1386	non-null int64
37	Industrial Category - G - HHI - Males
1386	non-null int64
38	Industrial Category - G - HHI - Females
1386	non-null int64
39	Industrial Category - G - Non HHI - Persons
1386	non-null int64
40	Industrial Category - G - Non HHI - Males
1386	non-null int64
41	Industrial Category - G - Non HHI - Females
1386	non-null int64
42	Industrial Category - H - Persons
1386	non-null int64
43	Industrial Category - H - Males
1386	non-null int64
44	Industrial Category - H - Females
1386	non-null int64
45	Industrial Category - I - Persons
1386	non-null int64
46	Industrial Category - I - Males
1386	non-null int64
47	Industrial Category - I - Females
1386	non-null int64
48	Industrial Category - J - HHI - Persons
1386	non-null int64
49	Industrial Category - J - HHI - Males
1386	non-null int64
50	Industrial Category - J - HHI - Females
1386	non-null int64
51	Industrial Category - J - Non HHI - Persons
1386	non-null int64
52	Industrial Category - J - Non HHI - Males
1386	non-null int64
53	Industrial Category - J - Non HHI - Females
1386	non-null int64
54	Industrial Category - K to M - Persons
1386	non-null int64
55	Industrial Category - K to M - Males
1386	non-null int64
56	Industrial Category - K to M - Females
1386	non-null int64
57	Industrial Category - N to O - Persons
1386	non-null int64
58	Industrial Category - N to O - Males
1386	non-null int64
59	Industrial Category - N to O - Females
1386	non-null int64
60	Industrial Category - P to Q - Persons
1386	non-null int64
61	Industrial Category - P to Q - Males
1386	non-null int64
62	Industrial Category - P to Q - Females
1386	non-null int64


```

63 Industrial Category - R to U - HHI - Persons
1386 non-null int64
64 Industrial Category - R to U - HHI - Males
1386 non-null int64
65 Industrial Category - R to U - HHI - Females
1386 non-null int64
66 Industrial Category - R to U - Non HHI - Persons
1386 non-null int64
67 Industrial Category - R to U - Non HHI - Males
1386 non-null int64
68 Industrial Category - R to U - Non HHI - Females
1386 non-null int64
dtypes: int64(63), object(6)
memory usage: 747.3+ KB
None

```

```
print(fds.describe())
```

Output:

```

Worked for 3 months or more but less than 6 months - Persons \
count 1.386000e+03
mean 2.435142e+04
std 1.530754e+05
min 0.000000e+00
25% 8.372500e+02
50% 3.985000e+03
75% 1.251725e+04
max 4.218884e+06

Worked for 3 months or more but less than 6 months - Males \
count 1.386000e+03
mean 1.233409e+04
std 7.669251e+04
min 0.000000e+00
25% 4.637500e+02
50% 2.047500e+03
75% 6.273000e+03
max 2.136881e+06

Worked for 3 months or more but less than 6 months - Females \
count 1.386000e+03
mean 1.201733e+04
std 7.656262e+04
min 0.000000e+00
25% 3.792500e+02
50% 1.812000e+03
75% 6.255500e+03
max 2.082003e+06

Worked for less than 3 months - Persons \
count 1386.000000
mean 4178.303030
std 26234.919027
min 0.000000
25% 123.000000

```

50%	650.500000
75%	2071.750000
max	723891.000000

	Worked for less than 3 months - Males \
count	1386.000000
mean	1946.712843
std	12024.992364
min	0.000000
25%	71.000000
50%	315.500000
75%	955.250000
max	337268.000000

	Worked for less than 3 months - Females \
count	1386.000000
mean	2231.590188
std	14281.201871
min	0.000000
25%	51.250000
50%	337.500000
75%	1091.250000
max	386623.000000

	Industrial Category - A - Cultivators - Persons \
count	1386.000000
mean	2268.871573
std	15445.653849
min	0.000000
25%	56.000000
50%	215.500000
75%	1068.000000
max	393082.000000

	Industrial Category - A - Cultivators - Males \
count	1386.000000
mean	1271.653680
std	8627.700716
min	0.000000
25%	32.000000
50%	129.500000
75%	584.250000
max	220314.000000

	Industrial Category - A - Cultivators - Females \
count	1386.000000
mean	997.217893
std	6827.658762
min	0.000000
25%	21.000000
50%	88.500000
75%	491.500000
max	172768.000000

	Industrial Category - A - Agricultural labourers - Persons ... \	
count	1.386000e+03	...
mean	1.369377e+04	...
std	9.330282e+04	...
min	0.000000e+00	...
25%	2.135000e+02	...
50%	1.282000e+03	...

75%	6.713750e+03	...
max	2.372446e+06	...

	Industrial Category - N to O - Females \
count	1386.000000
mean	83.665224
std	543.170274
min	0.000000
25%	0.000000
50%	6.000000
75%	29.000000
max	14495.000000

	Industrial Category - P to Q - Persons \
count	1386.000000
mean	339.324675
std	2114.109688
min	0.000000
25%	5.000000
50%	44.000000
75%	166.000000
max	58788.000000

	Industrial Category - P to Q - Males \
count	1386.000000
mean	114.816739
std	710.763665
min	0.000000
25%	0.000000
50%	18.000000
75%	60.000000
max	19892.000000

	Industrial Category - P to Q - Females \
count	1386.000000
mean	224.507937
std	1405.839106
min	0.000000
25%	0.000000
50%	26.000000
75%	112.000000
max	38896.000000

	Industrial Category - R to U - HHI - Persons \
count	1386.000000
mean	517.766234
std	3177.844267
min	0.000000
25%	18.000000
50%	80.000000
75%	243.500000
max	89703.000000

	Industrial Category - R to U - HHI - Males \
count	1386.000000
mean	123.324675
std	756.489766
min	0.000000
25%	6.000000
50%	21.000000
75%	62.000000

max 21366.000000

Industrial Category - R to U - HHI - Females \

count	1386.000000
mean	394.441558
std	2425.750623
min	0.000000
25%	11.000000
50%	57.500000
75%	187.000000
max	68337.000000

Industrial Category - R to U - Non HHI - Persons \

count	1386.000000
mean	3609.523810
std	22377.933258
min	0.000000
25%	208.500000
50%	593.000000
75%	1548.000000
max	625350.000000

Industrial Category - R to U - Non HHI - Males \

count	1386.000000
mean	1586.210678
std	9787.231574
min	0.000000
25%	96.000000
50%	260.000000
75%	695.750000
max	274811.000000

Industrial Category - R to U - Non HHI - Females

count	1386.000000
mean	2023.313131
std	12641.139629
min	0.000000
25%	104.000000
50%	317.500000
75%	820.000000
max	350539.000000

[8 rows x 63 columns]

In our data set there is no missing values but in Age group column we have outliers so we need to handle that values by using drop() function

```
16]: import pandas as pd

df = pd.read_csv('DDW_B06_3300_State_TAMIL_NADU-2011.csv')

df = df.drop(df[df['Age group'] == 'Total'].index)

df = df.drop(df[(df['Age group'] == 'Age not stated')].index)
df = df.drop(df[df['Age group'] == '80+'].index)
df = df.drop(df[df['Age group'] == '5-9'].index)
df = df.drop(df[df['Age group'] == '10-14'].index)
print(df)
```

Output:

Table Code	State Code	District Code	Area Name \
3	B0706	`33	`000 State - TAMIL NADU
4	B0706	`33	`000 State - TAMIL NADU
5	B0706	`33	`000 State - TAMIL NADU
6	B0706	`33	`000 State - TAMIL NADU
7	B0706	`33	`000 State - TAMIL NADU
...
1379	B0706	`33	`633 District - Tiruppur
1380	B0706	`33	`633 District - Tiruppur
1381	B0706	`33	`633 District - Tiruppur
1382	B0706	`33	`633 District - Tiruppur
1383	B0706	`33	`633 District - Tiruppur

	Total/ Rural/ Urban	Age group \
3	Total	15-19
4	Total	20-24
5	Total	25-29
6	Total	30-34
7	Total	35-39
...
1379	Urban	35-39
1380	Urban	40-49
1381	Urban	50-59
1382	Urban	60-69
1383	Urban	70-79

	Worked for 3 months or more but less than 6 months - Persons \
3	257605
4	478082
5	554851
6	483456
7	502791
...	...
1379	5043
1380	8225
1381	4965
1382	2827
1383	920

Worked for 3 months or more but less than 6 months - Males \

3	141262
4	257149
5	283442
6	240046
7	230695
...	...
1379	2455
1380	4269
1381	2800
1382	1590
1383	581

Worked for 3 months or more but less than 6 months - Females \

3	116343
4	220933
5	271409
6	243410
7	272096
...	...
1379	2588
1380	3956
1381	2165
1382	1237
1383	339

Worked for less than 3 months - Persons ... \

3	41938	...
4	81036	...
5	91694	...
6	79385	...
7	84066	...
...
1379	813	...
1380	1323	...
1381	901	...
1382	578	...
1383	204	...

Industrial Category - N to O - Females \

3	768
4	2267
5	2285
6	2034
7	2032
...	...
1379	37
1380	47
1381	25
1382	7
1383	2

Industrial Category - P to Q - Persons \

3	2114
4	11529
5	12528
6	8540
7	6614
...	...
1379	106
1380	89
1381	111

1382	21
1383	6

	Industrial Category - P to Q - Males \
3	695
4	2861
5	4506
6	3168
7	2117
...	...
1379	30
1380	17
1381	51
1382	6
1383	6

	Industrial Category - P to Q - Females \
3	1419
4	8668
5	8022
6	5372
7	4497
...	...
1379	76
1380	72
1381	60
1382	15
1383	0

	Industrial Category - R to U - HHI - Persons \
3	5349
4	10653
5	12713
6	10524
7	10648
...	...
1379	80
1380	187
1381	119
1382	71
1383	22

	Industrial Category - R to U - HHI - Males \
3	2065
4	2478
5	2745
6	2074
7	1864
...	...
1379	8
1380	24
1381	26
1382	24
1383	9

	Industrial Category - R to U - HHI - Females \
3	3284
4	8175
5	9968
6	8450
7	8784

...	...
1379	72
1380	163
1381	93
1382	47
1383	13

	Industrial Category - R to U - Non HHI - Persons \
3	89780
4	109641
5	80299
6	50655
7	42115

...	...
1379	631
1380	1157
1381	857
1382	668
1383	319

	Industrial Category - R to U - Non HHI - Males \
3	46737
4	54832
5	34058
6	17485
7	12686

...	...
1379	168
1380	294
1381	257
1382	274
1383	168

	Industrial Category - R to U - Non HHI - Females
3	43043
4	54809
5	46241
6	33170
7	29429

...	...
1379	463
1380	863
1381	600
1382	394
1383	151

[891 rows x 69 columns]


```
fds.shape
```

Output:

```
[17]: (1386, 69)
```

```
[26]: fds.isnull().sum()
```

Output:

```
Table Code      0
State Code      0
District Code   0
Area Name       0
Total/ Rural/ Urban  0
..
Industrial Category - R to U - HHI - Males  0
Industrial Category - R to U - HHI - Females  0
Industrial Category - R to U - Non HHI - Persons  0
Industrial Category - R to U - Non HHI - Males  0
Industrial Category - R to U - Non HHI - Females  0
Length: 69, dtype: int64
```

```
[18]: fds.tail
```

Output:

```
<bound method NDFrame.tail of
Area Name \
0      B0706      `33      `000  State - TAMIL NADU
1      B0706      `33      `000  State - TAMIL NADU
2      B0706      `33      `000  State - TAMIL NADU
3      B0706      `33      `000  State - TAMIL NADU
4      B0706      `33      `000  State - TAMIL NADU
...      ...      ...      ...
1381    B0706      `33      `633  District - Tiruppur
1382    B0706      `33      `633  District - Tiruppur
1383    B0706      `33      `633  District - Tiruppur
1384    B0706      `33      `633  District - Tiruppur
1385    B0706      `33      `633  District - Tiruppur

      Total/ Rural/ Urban      Age group \
0      Total      Total
1      Total      `5-9
2      Total      `10-14
3      Total      15-19
4      Total      20-24
```

...
1381	Urban	50-59
1382	Urban	60-69
1383	Urban	70-79
1384	Urban	80+
1385	Urban	Age not stated

	Worked for 3 months or more but less than 6 months - Persons \
0	4218884
1	48238
2	76288
3	257605
4	478082

...	...
1381	4965
1382	2827
1383	920
1384	191
1385	31

	Worked for 3 months or more but less than 6 months - Males \
0	2136881
1	24511
2	39191
3	141262
4	257149

...	...
1381	2800
1382	1590
1383	581
1384	104
1385	23

	Worked for 3 months or more but less than 6 months - Females \
0	2082003
1	23727
2	37097
3	116343
4	220933

...	...
1381	2165
1382	1237
1383	339
1384	87
1385	8

	Worked for less than 3 months - Persons ... \
0	723891 ...
1	2051 ...
2	6993 ...
3	41938 ...
4	81036 ...

...
1381	901	...
1382	578	...
1383	204	...
1384	47	...
1385	9	...

	Industrial Category - N to O - Females \
0	14495

1	20
2	44
3	768
4	2267
...	...
1381	25
1382	7
1383	2
1384	0
1385	0

	Industrial Category - P to Q - Persons \
0	58788
1	312
2	506
3	2114
4	11529
...	...
1381	111
1382	21
1383	6
1384	2
1385	0

	Industrial Category - P to Q - Males \
0	19892
1	169
2	256
3	695
4	2861
...	...
1381	51
1382	6
1383	6
1384	0
1385	0

	Industrial Category - P to Q - Females \
0	38896
1	143
2	250
3	1419
4	8668
...	...
1381	60
1382	15
1383	0
1384	2
1385	0

	Industrial Category - R to U - HHI - Persons \
0	89703
1	842
2	1523
3	5349
4	10653
...	...
1381	119
1382	71
1383	22
1384	13

1385 3

Industrial Category - R to U - HHI - Males \

0	21366
1	386
2	576
3	2065
4	2478
...	...
1381	26
1382	24
1383	9
1384	3
1385	0

Industrial Category - R to U - HHI - Females \

0	68337
1	456
2	947
3	3284
4	8175
...	...
1381	93
1382	47
1383	13
1384	10
1385	3

Industrial Category - R to U - Non HHI - Persons \

0	625350
1	40358
2	53900
3	89780
4	109641
...	...
1381	857
1382	668
1383	319
1384	72
1385	12

Industrial Category - R to U - Non HHI - Males \

0	274811
1	20664
2	27501
3	46737
4	54832
...	...
1381	257
1382	274
1383	168
1384	30
1385	9

Industrial Category - R to U - Non HHI - Females

0	350539
1	19694
2	26399
3	43043
4	54809
...	...

1381
1382
1383
1384
1385

600
394
151
42
3

[1386 rows x 69 columns]>

Expected Outcomes:

The "Assessment of Marginal Workers in Tamil Nadu" project aspires to provide a comprehensive and profound understanding of the challenges and opportunities faced by marginal workers in the state. The project's findings are anticipated to offer valuable insights for policymakers, researchers, and organizations with an interest in labour and social welfare in the region. By pinpointing the specific needs and vulnerabilities of this group, the project seeks to contribute to the development of more effective policies and interventions, ultimately leading to the enhancement of their socio-economic conditions.

Conclusion:

In conclusion, the "Assessment of Marginal Workers in Tamil Nadu" project is an essential and socially responsible endeavour with the potential to bring about significant positive changes in the lives of marginal workers within the state. By meticulously scrutinizing their characteristics, income levels, and employment conditions, the project intends to lay a solid foundation for informed decision-making and the formulation of policies that aim to elevate the well-being and prospects of this vulnerable segment of the labour force. It is a project of considerable significance and commitment, dedicated to the betterment of those who form the backbone of the state's labour force.