

ASSESSMENT OF MARGINAL WORKERS IN TAMIL NADU

Date 31-10-2023

Team ID 4498

Project Name ASSESSMENT OF MARGINAL WORKERS IN TAMIL NADU



Import depends

```
In [51]: import pandas as pd  
import numpy as np  
import xgboost as xg
```

```
In [52]: import os  
print("Current working directory:", os.getcwd())  
  
file_path = 'datafile.csv'  
if os.path.exists(file_path):  
    print("The file exists.")
```

Current working directory: C:\Users\VIJAYRAJ R
The file exists.

```
In [60]: dataset = pd.read_csv("DDW_B06SC_3300_State_TAMIL_NADU-2011.csv")
```

In [54]: dataset

Out[54]:

	Table Code	State Code	District Code	Area Name	Total/ Rural/ Urban	Age group	Worked for 3 months or more but less than 6 months	Worked for 3 months or more but less than 6 months	Worked for 3 months or more but less than 6 months	Worked for less than 3 months	...	Industrial Category - N to O - Females	Industrial Category - P to Q - Persons	Industrial Category - P to Q - Males	In C -
							Persons	Females	Males	Persons					
0	B0806SC	'33	'000	State - TAMIL NADU	Total	Total	1200828	589003	611825	221386	...	3565	11080	4019	
1	B0806SC	'33	'000	State - TAMIL NADU	Total	'5-14	27791	14125	13666	2447	...	11	122	71	
2	B0806SC	'33	'000	State - TAMIL NADU	Total	15-34	514340	259560	254780	92423	...	1754	7536	2718	
3	B0806SC	'33	'000	State - TAMIL NADU	Total	35-59	542581	251957	290624	99202	...	1619	3205	1131	
4	B0806SC	'33	'000	State - TAMIL NADU	Total	60+	115103	62833	52270	27165	...	175	211	93	
...
589	B0806SC	'33	'633	District - Tiruppur	Urban	'5-14	272	129	143	18	...	0	0	0	
590	B0806SC	'33	'633	District - Tiruppur	Urban	15-34	3285	1654	1631	473	...	20	44	15	
591	B0806SC	'33	'633	District - Tiruppur	Urban	35-59	3672	1769	1903	522	...	33	35	12	
592	B0806SC	'33	'633	District - Tiruppur	Urban	60+	696	399	297	111	...	0	3	0	
593	B0806SC	'33	'633	District - Tiruppur	Urban	Age not stated	2	1	1	0	...	0	0	0	

594 rows × 69 columns



In [55]: `dataset.head(5)`

Out[55]:

	Table Code	State Code	District Code	Area Name	Total/ Rural/ Urban	Age group	Persons	Worked for 3 months or more but less than 6 months	Worked for 3 months or more but less than 6 months	Worked for 3 months or more but less than 6 months	Worked for less than 3 months	...	Industrial Category - N to O - Females	Industrial Category - P to Q - Persons	Industrial Category - P to Q - Males	Indus Categ - P to Fem
								- Males	Females	Persons	...					
State																
0	B0806SC	`33	`000	TAMIL NADU	Total	Total	1200828	589003	611825	221386	...	3565	11080	4019	7	
1	B0806SC	`33	`000	TAMIL NADU	Total	`5-14	27791	14125	13666	2447	...	11	122	71		
2	B0806SC	`33	`000	TAMIL NADU	Total	15-34	514340	259560	254780	92423	...	1754	7536	2718	4	
3	B0806SC	`33	`000	TAMIL NADU	Total	35-59	542581	251957	290624	99202	...	1619	3205	1131	2	
4	B0806SC	`33	`000	TAMIL NADU	Total	60+	115103	62833	52270	27165	...	175	211	93		

5 rows × 69 columns



```
In [43]: dataset.columns
```

```
Out[43]: Index(['Table Code', 'State Code', 'District Code', 'Area Name',
       'Total/ Rural/ Urban', 'Age group',
       'Worked for 3 months or more but less than 6 months - Persons',
       'Worked for 3 months or more but less than 6 months - Males',
       'Worked for 3 months or more but less than 6 months - Females',
       'Worked for less than 3 months - Persons',
       'Worked for less than 3 months - Males',
       'Worked for less than 3 months - Females',
       'Industrial Category - A - Cultivators - Persons',
       'Industrial Category - A - Cultivators - Males',
       'Industrial Category - A - Cultivators - Females',
       'Industrial Category - A - Agricultural labourers - Persons',
       'Industrial Category - A - Agricultural labourers - Males',
       'Industrial Category - A - Agricultural labourers - Females',
       'Industrial Category - A - Plantation, Livestock, Forestry, Fishing, Hunting and allied activities - Persons',
       'Industrial Category - A - Plantation, Livestock, Forestry, Fishing, Hunting and allied activities - Males',
       'Industrial Category - A - Plantation, Livestock, Forestry, Fishing, Hunting and allied activities - Females',
       'Industrial Category - B - Persons', 'Industrial Category - B - Males',
       'Industrial Category - B - Females',
       'Industrial Category - C - HHI - Persons',
       'Industrial Category - C - HHI - Males',
       'Industrial Category - C - HHI - Females',
       'Industrial Category - C - Non HHI - Persons',
       'Industrial Category - C - Non HHI - Males',
       'Industrial Category - C - Non HHI - Females',
       'Industrial Category - D & E - Persons',
       'Industrial Category - D & E - Males',
       'Industrial Category - D & E - Females',
       'Industrial Category - F - Persons', 'Industrial Category - F - Males',
       'Industrial Category - F - Females',
       'Industrial Category - G - HHI - Persons',
       'Industrial Category - G - HHI - Males',
       'Industrial Category - G - HHI - Females',
       'Industrial Category - G - Non HHI - Persons',
       'Industrial Category - G - Non HHI - Males',
       'Industrial Category - G - Non HHI - Females',
       'Industrial Category - H - Persons', 'Industrial Category - H - Males',
       'Industrial Category - H - Females',
       'Industrial Category - I - Persons', 'Industrial Category - I - Males',
       'Industrial Category - I - Females',
       'Industrial Category - J - HHI - Persons',
       'Industrial Category - J - HHI - Males',
       'Industrial Category - J - HHI - Females',
       'Industrial Category - J - Non HHI - Persons',
       'Industrial Category - J - Non HHI - Males',
       'Industrial Category - J - Non HHI - Females',
       'Industrial Category - K to M - Persons',
       'Industrial Category - K to M - Males',
       'Industrial Category - K to M - Females',
       'Industrial Category - N to O - Persons',
       'Industrial Category - N to O - Males',
       'Industrial Category - N to O - Females',
       'Industrial Category - P to Q - Persons',
       'Industrial Category - P to Q - Males',
       'Industrial Category - P to Q - Females',
       'Industrial Category - R to U - HHI - Persons',
       'Industrial Category - R to U - HHI - Males',
       'Industrial Category - R to U - HHI - Females',
       'Industrial Category - R to U - Non HHI - Persons',
       'Industrial Category - R to U - Non HHI - Males',
       'Industrial Category - R to U - Non HHI - Females'],
      dtype='object')
```

```
In [56]: dataset.info()
00 Industrial Category - P to Q - Persons
594 non-null    int64
61 Industrial Category - P to Q - Males
594 non-null    int64
62 Industrial Category - P to Q - Females
594 non-null    int64
63 Industrial Category - R to U - HHI - Persons
594 non-null    int64
64 Industrial Category - R to U - HHI - Males
594 non-null    int64
65 Industrial Category - R to U - HHI - Females
594 non-null    int64
66 Industrial Category - R to U - Non HHI - Persons
594 non-null    int64
67 Industrial Category - R to U - Non HHI - Males
594 non-null    int64
68 Industrial Category - R to U - Non HHI - Females
594 non-null    int64
dtypes: int64(63), object(6)
memory usage: 320.3+ KB
```

```
In [57]: dataset.describe()
```

Out[57]:

	Worked for 3 months or more but less than 6 months - Persons	Worked for 3 months or more but less than 6 months - Males	Worked for 3 months or more but less than 6 months - Females	Worked for less than 3 months - Persons	Worked for less than 3 months - Males	Worked for less than 3 months - Females	Industrial Category - A - Cultivators - Persons	Industrial Category - A - Cultivators - Males	Industrial Category - C - Cultivators - Persons	Industrial Category - C - Cultivators - Males	Cat - C
count	5.940000e+02	594.000000	594.000000	594.000000	594.000000	594.000000	594.000000	594.000000	594.000000	594.000000	594.000000
mean	1.617277e+04	7932.700337	8240.067340	2981.629630	1338.289562	1643.340067	865.117845	466.424242	39	39	39
std	7.607172e+04	36864.822704	39259.545337	13909.621137	6127.047670	7808.832522	4274.458077	2298.072295	197	197	197
min	0.000000e+00	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
25%	2.872500e+02	147.250000	144.000000	27.000000	14.250000	13.000000	9.000000	5.000000	3	3	3
50%	2.225500e+03	1147.000000	1076.000000	430.000000	198.500000	213.000000	69.500000	35.500000	3	3	3
75%	9.628500e+03	4770.500000	4887.500000	1775.250000	774.250000	946.500000	466.000000	244.250000	20	20	20
max	1.200828e+06	589003.000000	611825.000000	221386.000000	99368.000000	122018.000000	64235.000000	34632.000000	2960	2960	2960

8 rows × 63 columns

Prepossing the data

```
In [63]: dataset = dataset.select_dtypes(include=[np.number])
correlation_matrix = dataset.corr()
```

In [64]: `dataset.corr(numeric_only=True)`

Out[64]:

	Worked for 3 months or more but less than 6 months - Persons	Worked for 3 months or more but less than 6 months - Males	Worked for 3 months or more but less than 6 months - Females	Worked for less than 3 months - Persons	Worked for less than 3 months - Males	Worked for less than 3 months - Females	Industrial Category - A - Cultivators - Persons	Industrial Category - A - Cultivators - Males	Industrial Category - A - Cultivators - Females	Industrial Category - A - Agricultural labourers - Persons	Industrial Category - A - Agricultural labourers - Males	Industrial Category - A - Agricultural labourers - Females	Industrial Category - N to C - Females
Worked for 3 months or more but less than 6 months - Persons	1.000000	0.999263	0.999351	0.998865	0.994883	0.998631	0.987308	0.985738	0.987987	0.991821	...	0.8862	
Worked for 3 months or more but less than 6 months - Males	0.999263	1.000000	0.997232	0.999020	0.997622	0.996757	0.982657	0.981185	0.983225	0.987097	...	0.8979	
Worked for 3 months or more but less than 6 months - Females	0.999351	0.997232	1.000000	0.997381	0.990976	0.999052	0.990352	0.988691	0.991132	0.994927	...	0.8740	
Worked for less than 3 months - Persons	0.998865	0.999020	0.997381	1.000000	0.997598	0.998522	0.984360	0.983491	0.984228	0.988923	...	0.8941	
Worked for less than 3 months - Males	0.994883	0.997622	0.990976	0.997598	1.000000	0.992359	0.973140	0.972236	0.973061	0.977145	...	0.9156	
...	
Industrial Category - R to U - HHI - Males	0.987514	0.991627	0.982327	0.988538	0.993430	0.981375	0.963460	0.961010	0.965188	0.965973	...	0.9101	
Industrial Category - R to U - HHI - Females	0.983226	0.987635	0.977768	0.985253	0.991781	0.976818	0.952677	0.949565	0.955187	0.955424	...	0.9402	
Industrial Category - R to U - Non HHI - Persons	0.883359	0.898087	0.868345	0.887969	0.913979	0.864574	0.820028	0.815232	0.824646	0.819429	...	0.9620	
Industrial Category - R to U - Non HHI - Males	0.890343	0.904637	0.875727	0.893847	0.918710	0.871332	0.832068	0.827014	0.836972	0.829783	...	0.9454	
Industrial Category - R to U - Non HHI - Females	0.874011	0.889046	0.858721	0.879533	0.906405	0.855491	0.806678	0.802119	0.811038	0.807500	...	0.9722	

63 rows × 63 columns



In [58]: `cleandata=dataset.isnull().sum()`

```
In [38]: print(dataset.isna())
```

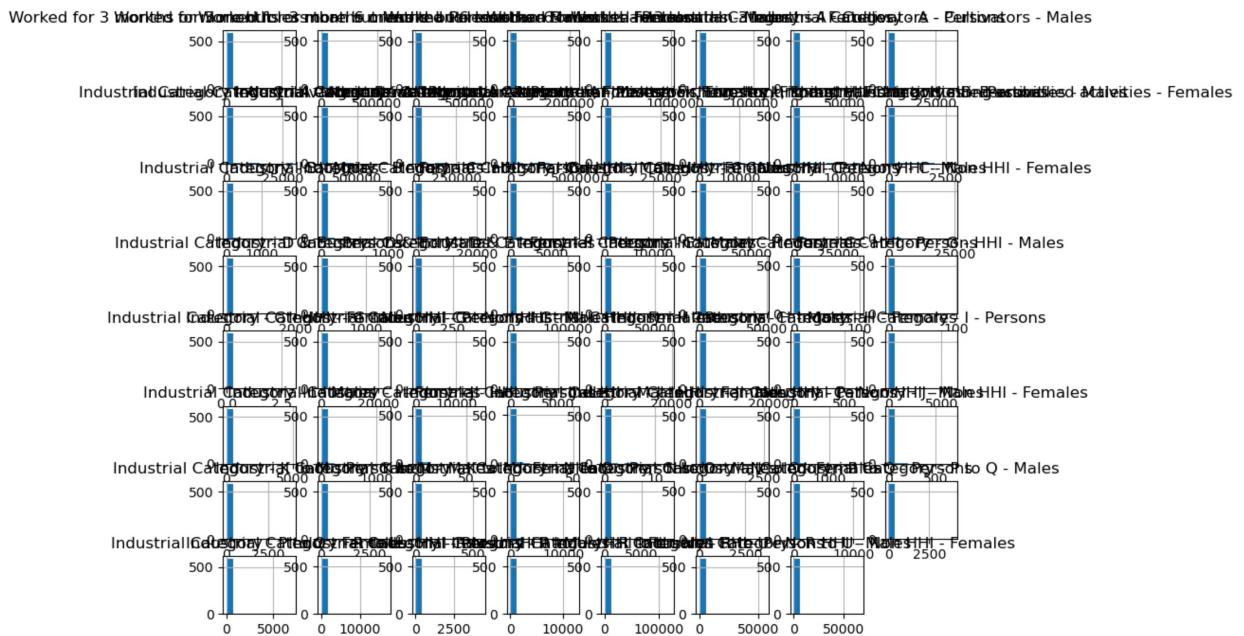
```
1                         False  
2                         False  
3                         False  
4                         False  
..                         ...  
589                         False  
590                         False  
591                         False  
592                         False  
593                         False  
  
    Worked for 3 months or more but less than 6 months - Females \\\n0                         False  
1                         False  
2                         False  
3                         False  
4                         False  
..                         ...  
589                         False  
590                         False
```

```
In [37]: cleandata
```

```
Out[37]: 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
```

```
In [41]: dataset.hist(figsize=(10,8))
```

```
Out[41]: array([[<Axes: title={'center': 'Worked for 3 months or more but less than 6 months - Persons'}>,
   <Axes: title={'center': 'Worked for 3 months or more but less than 6 months - Males'}>,
   <Axes: title={'center': 'Worked for 3 months or more but less than 6 months - Females'}>,
   <Axes: title={'center': 'Worked for less than 3 months - Persons'}>,
   <Axes: title={'center': 'Worked for less than 3 months - Males'}>,
   <Axes: title={'center': 'Worked for less than 3 months - Females'}>,
   <Axes: title={'center': 'Industrial Category - A - Cultivators - Persons'}>,
   <Axes: title={'center': 'Industrial Category - A - Cultivators - Males'}>],
  [<Axes: title={'center': 'Industrial Category - A - Cultivators - Females'}>,
   <Axes: title={'center': 'Industrial Category - A - Agricultural labourers - Persons'}>,
   <Axes: title={'center': 'Industrial Category - A - Agricultural labourers - Males'}>,
   <Axes: title={'center': 'Industrial Category - A - Agricultural labourers - Females'}>,
   <Axes: title={'center': 'Industrial Category - A - Plantation, Livestock, Forestry, Fishing, Hunting and allied activities - Persons'}>,
   <Axes: title={'center': 'Industrial Category - A - Plantation, Livestock, Forestry, Fishing, Hunting and allied activities - Males'}>,
   <Axes: title={'center': 'Industrial Category - A - Plantation, Livestock, Forestry, Fishing, Hunting and allied activities - Females'}>,
   <Axes: title={'center': 'Industrial Category - B - Persons'}>],
  [<Axes: title={'center': 'Industrial Category - B - Males'}>,
   <Axes: title={'center': 'Industrial Category - B - Females'}>,
   <Axes: title={'center': 'Industrial Category - C - HHI - Persons'}>,
   <Axes: title={'center': 'Industrial Category - C - HHI - Males'}>,
   <Axes: title={'center': 'Industrial Category - C - HHI - Females'}>,
   <Axes: title={'center': 'Industrial Category - C - Non HHI - Persons'}>,
   <Axes: title={'center': 'Industrial Category - C - Non HHI - Males'}>,
   <Axes: title={'center': 'Industrial Category - C - Non HHI - Females'}>],
  [<Axes: title={'center': 'Industrial Category - D & E - Persons'}>,
   <Axes: title={'center': 'Industrial Category - D & E - Males'}>,
   <Axes: title={'center': 'Industrial Category - D & E - Females'}>,
   <Axes: title={'center': 'Industrial Category - F - Persons'}>,
   <Axes: title={'center': 'Industrial Category - F - Males'}>,
   <Axes: title={'center': 'Industrial Category - F - Females'}>,
   <Axes: title={'center': 'Industrial Category - G - HHI - Persons'}>,
   <Axes: title={'center': 'Industrial Category - G - HHI - Males'}>],
  [<Axes: title={'center': 'Industrial Category - G - HHI - Females'}>,
   <Axes: title={'center': 'Industrial Category - G - Non HHI - Persons'}>,
   <Axes: title={'center': 'Industrial Category - G - Non HHI - Males'}>,
   <Axes: title={'center': 'Industrial Category - G - Non HHI - Females'}>,
   <Axes: title={'center': 'Industrial Category - H - Persons'}>,
   <Axes: title={'center': 'Industrial Category - H - Males'}>,
   <Axes: title={'center': 'Industrial Category - H - Females'}>,
   <Axes: title={'center': 'Industrial Category - I - Persons'}>],
  [<Axes: title={'center': 'Industrial Category - I - Males'}>,
   <Axes: title={'center': 'Industrial Category - I - Females'}>,
   <Axes: title={'center': 'Industrial Category - J - HHI - Persons'}>,
   <Axes: title={'center': 'Industrial Category - J - HHI - Males'}>,
   <Axes: title={'center': 'Industrial Category - J - HHI - Females'}>,
   <Axes: title={'center': 'Industrial Category - J - Non HHI - Persons'}>,
   <Axes: title={'center': 'Industrial Category - J - Non HHI - Males'}>,
   <Axes: title={'center': 'Industrial Category - J - Non HHI - Females'}>],
  [<Axes: title={'center': 'Industrial Category - K to M - Persons'}>,
   <Axes: title={'center': 'Industrial Category - K to M - Males'}>,
   <Axes: title={'center': 'Industrial Category - K to M - Females'}>,
   <Axes: title={'center': 'Industrial Category - N to O - Persons'}>,
   <Axes: title={'center': 'Industrial Category - N to O - Males'}>,
   <Axes: title={'center': 'Industrial Category - N to O - Females'}>,
   <Axes: title={'center': 'Industrial Category - P to Q - Persons'}>,
   <Axes: title={'center': 'Industrial Category - P to Q - Males'}>],
  [<Axes: title={'center': 'Industrial Category - P to Q - Females'}>,
   <Axes: title={'center': 'Industrial Category - R to U - HHI - Persons'}>,
   <Axes: title={'center': 'Industrial Category - R to U - HHI - Males'}>,
   <Axes: title={'center': 'Industrial Category - R to U - HHI - Females'}>,
   <Axes: title={'center': 'Industrial Category - R to U - Non HHI - Persons'}>,
   <Axes: title={'center': 'Industrial Category - R to U - Non HHI - Males'}>,
   <Axes: title={'center': 'Industrial Category - R to U - Non HHI - Females'}>,
   <Axes: title='>>> ]], dtype=object)
```



In [42]: `dataset.dtypes`

```
Out[42]: Table Code          object
State Code          object
District Code       object
Area Name           object
Total/ Rural/ Urban          object
...
Industrial Category - R to U - HHI - Males      int64
Industrial Category - R to U - HHI - Females     int64
Industrial Category - R to U - Non HHI - Persons   int64
Industrial Category - R to U - Non HHI - Males     int64
Industrial Category - R to U - Non HHI - Females   int64
Length: 69, dtype: object
```

In []:

```
In [48]: import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt

def visualize_correlation(dataset):

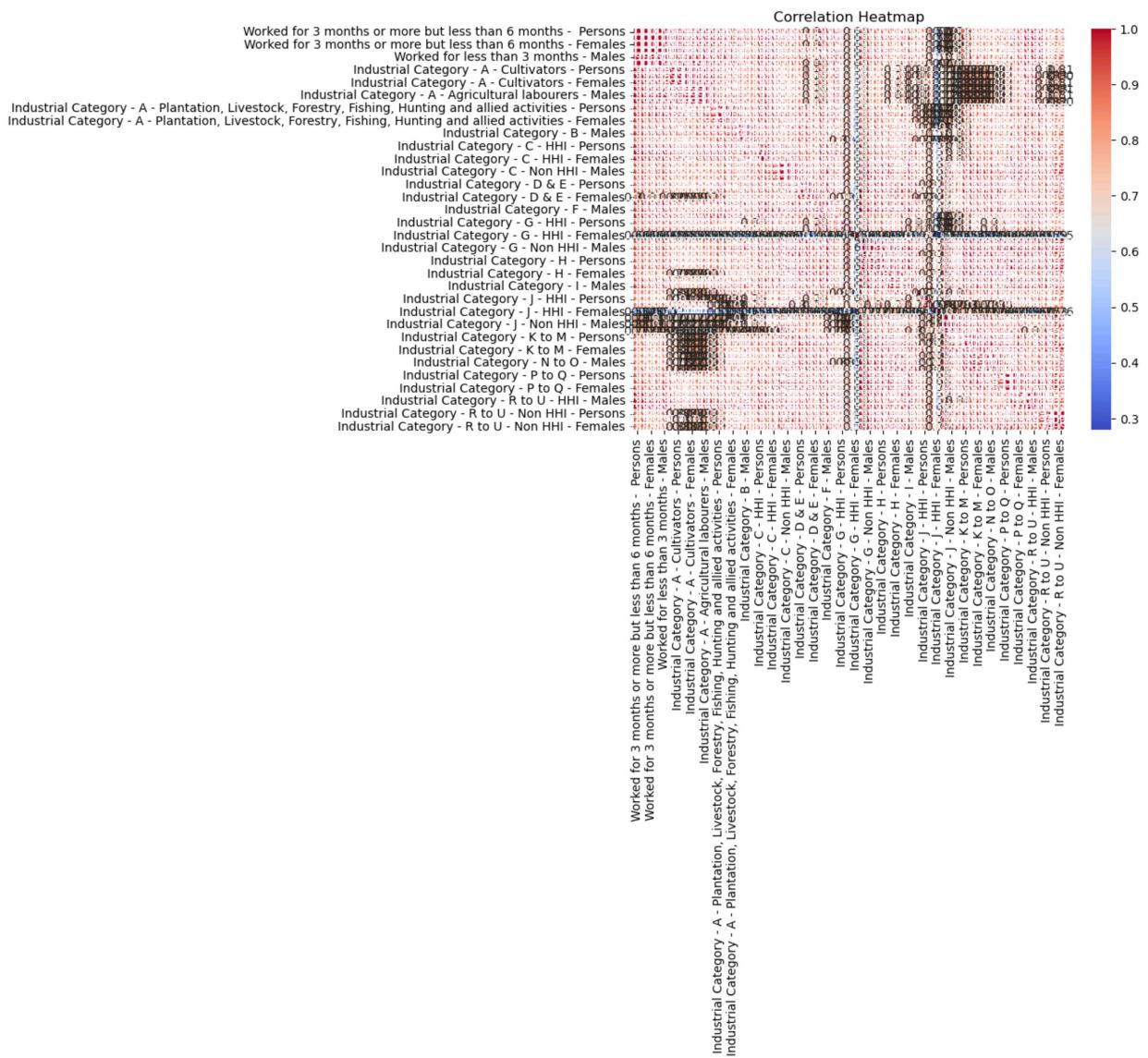
    numeric_columns = dataset.select_dtypes(include='number')

    correlation_matrix = numeric_columns.corr()

    plt.figure(figsize=(8, 6))
    sns.heatmap(correlation_matrix, annot=True, cmap='coolwarm', fmt='.2f')
    plt.title('Correlation Heatmap')
    plt.show()

your_dataset = pd.DataFrame(dataset)

visualize_correlation(your_dataset)
```



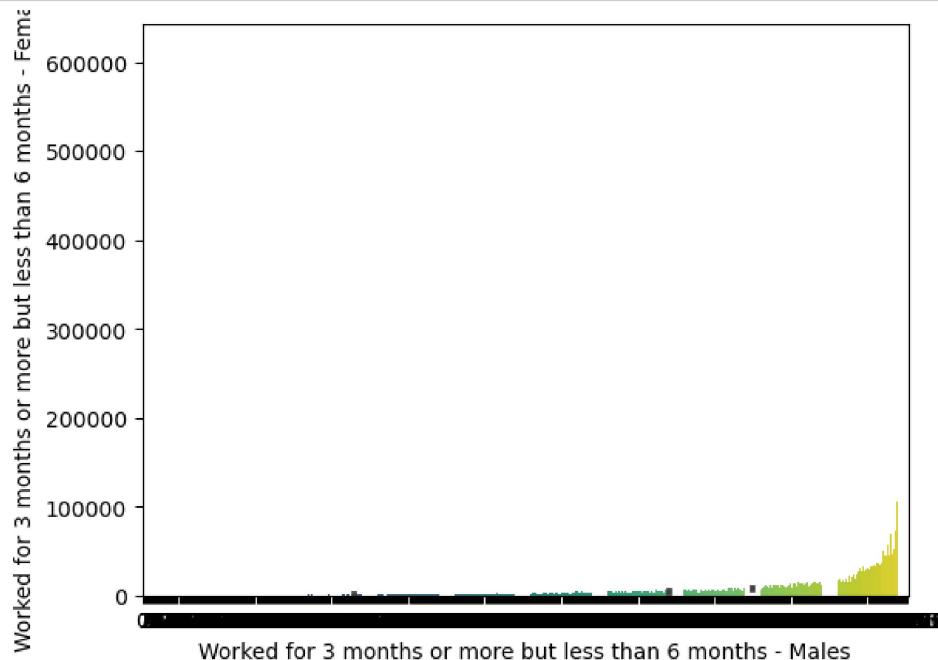
```
In [ ]: dataset.shape
```

```
In [50]: import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt

dataset = pd.read_csv("DDW_B06SC_3300_State_TAMIL_NADU-2011.csv")

X = dataset['Worked for 3 months or more but less than 6 months - Males']
Y = dataset['Worked for 3 months or more but less than 6 months - Females']

sns.barplot(x=X, y=Y, data=dataset, palette='viridis')
plt.show()
```



```
In [*]: plt.figure(figsize=(12,8))
sns.pairplot(dataset)
```

```
In [*]: import seaborn as sns
sns.histplot(dataset, x='Worked for 3 months or more but less than 6 months - People', bins=50, color='r')
```

```
In [ ]:
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 594 entries, 0 to 593
Data columns (total 69 columns):
 #   Column          Non-Null Count  Dtype  
--- 
 0   Table Code      594 non-null    object 
 1   State Code      594 non-null    object 
 2   District Code   594 non-null    object 
 3   Area Name       594 non-null    object 
 4   Total/ Rural/ Urban 594 non-null    object 
 5   Age group       594 non-null    object 
 6   Worked for 3 months or more but less than 6 months - Persons 594 non-null    int64  
 7   Worked for 3 months or more but less than 6 months - Males   594 non-null    int64  
 8   Worked for 3 months or more but less than 6 months - Females 594 non-null    int64  
 9   Worked for less than 3 months - Persons   594 non-null    int64  
 10  Worked for less than 3 months - Males     594 non-null    int64  
 11  Worked for less than 3 months - Females  594 non-null    int64
```

```
12 Industrial Category - A - Cultivators - Persons
594 non-null    int64
13 Industrial Category - A - Cultivators - Males
594 non-null    int64
14 Industrial Category - A - Cultivators - Females
594 non-null    int64
15 Industrial Category - A - Agricultural labourers - Persons
594 non-null    int64
16 Industrial Category - A - Agricultural labourers - Males
594 non-null    int64
17 Industrial Category - A - Agricultural labourers - Females
594 non-null    int64
18 Industrial Category - A - Plantation, Livestock, Forestry, Fishing, Hunting
and allied activities - Persons 594 non-null    int64
19 Industrial Category - A - Plantation, Livestock, Forestry, Fishing, Hunting
and allied activities - Males 594 non-null    int64
20 Industrial Category - A - Plantation, Livestock, Forestry, Fishing, Hunting
and allied activities - Females 594 non-null    int64
21 Industrial Category - B - Persons
594 non-null    int64
22 Industrial Category - B - Males
594 non-null    int64
23 Industrial Category - B - Females
594 non-null    int64
24 Industrial Category - C - HHI - Persons
594 non-null    int64
25 Industrial Category - C - HHI - Males
594 non-null    int64
26 Industrial Category - C - HHI - Females
594 non-null    int64
27 Industrial Category - C - Non HHI - Persons
594 non-null    int64
28 Industrial Category - C - Non HHI - Males
594 non-null    int64
29 Industrial Category - C - Non HHI - Females
594 non-null    int64
30 Industrial Category - D & E - Persons
594 non-null    int64
31 Industrial Category - D & E - Males
594 non-null    int64
32 Industrial Category - D & E - Females
594 non-null    int64
33 Industrial Category - F - Persons
594 non-null    int64
34 Industrial Category - F - Males
594 non-null    int64
35 Industrial Category - F - Females
594 non-null    int64
```

```
36 Industrial Category - G - HHI - Persons
594 non-null    int64
37 Industrial Category - G - HHI - Males
594 non-null    int64
38 Industrial Category - G - HHI - Females
594 non-null    int64
39 Industrial Category - G - Non HHI - Persons
594 non-null    int64
40 Industrial Category - G - Non HHI - Males
594 non-null    int64
41 Industrial Category - G - Non HHI - Females
594 non-null    int64
42 Industrial Category - H - Persons
594 non-null    int64
43 Industrial Category - H - Males
594 non-null    int64
44 Industrial Category - H - Females
594 non-null    int64
45 Industrial Category - I - Persons
594 non-null    int64
46 Industrial Category - I - Males
594 non-null    int64
47 Industrial Category - I - Females
594 non-null    int64
48 Industrial Category - J - HHI - Persons
594 non-null    int64
49 Industrial Category - J - HHI - Males
594 non-null    int64
50 Industrial Category - J - HHI - Females
594 non-null    int64
51 Industrial Category - J - Non HHI - Persons
594 non-null    int64
52 Industrial Category - J - Non HHI - Males
594 non-null    int64
53 Industrial Category - J - Non HHI - Females
594 non-null    int64
54 Industrial Category - K to M - Persons
594 non-null    int64
55 Industrial Category - K to M - Males
594 non-null    int64
56 Industrial Category - K to M - Females
594 non-null    int64
57 Industrial Category - N to O - Persons
594 non-null    int64
58 Industrial Category - N to O - Males
594 non-null    int64
59 Industrial Category - N to O - Females
594 non-null    int64
```

```
60 Industrial Category - P to Q - Persons
594 non-null    int64
61 Industrial Category - P to Q - Males
594 non-null    int64
62 Industrial Category - P to Q - Females
594 non-null    int64
63 Industrial Category - R to U - HHI - Persons
594 non-null    int64
64 Industrial Category - R to U - HHI - Males
594 non-null    int64
65 Industrial Category - R to U - HHI - Females
594 non-null    int64
66 Industrial Category - R to U - Non HHI - Persons
594 non-null    int64
67 Industrial Category - R to U - Non HHI - Males
594 non-null    int64
68 Industrial Category - R to U - Non HHI - Females
594 non-null    int64
dtypes: int64(63), object(6)
memory usage: 320.3+ KB
```

```
[1]: import pandas as pd

# Create a pandas DataFrame from your dataset
data = {
    'Industrial Category - A - Cultivators - Persons': [64235, 190],
    'Industrial Category - A - Cultivators - Males': [34632, 107],
    'Industrial Category - A - Cultivators - Females': [29603, 83],
    'Industrial Category - A - Agricultural labourers - Persons': [907752, ↵2853],
    'Industrial Category - A - Agricultural labourers - Males': [404844, 1862],
    'Industrial Category - A - Agricultural labourers - Females': [502908, 991],
    'Industrial Category - A - Plantation, Livestock, Forestry, Fishing, ↵Hunting and allied activities - Persons': [29410, 3],
    'Industrial Category - A - Plantation, Livestock, Forestry, Fishing, ↵Hunting and allied activities - Males': [16268, 3],
    'Industrial Category - A - Plantation, Livestock, Forestry, Fishing, ↵Hunting and allied activities - Females': [13142, 0],
}
df = pd.DataFrame(data)

[1]: Industrial Category - A - Cultivators - Persons \
0                               64235
1                               190

[1]: Industrial Category - A - Cultivators - Males \
0                               34632
1                               107

[1]: Industrial Category - A - Cultivators - Females \
0                               29603
1                               83

[1]: Industrial Category - A - Agricultural labourers - Persons \
0                               907752
1                               2853
```

```

Industrial Category - A - Agricultural labourers - Males \
0 404844
1 1862

Industrial Category - A - Agricultural labourers - Females \
0 502908
1 991

Industrial Category - A - Plantation, Livestock, Forestry, Fishing, Hunting
and allied activities - Persons \
0 29410
1 3

Industrial Category - A - Plantation, Livestock, Forestry, Fishing, Hunting
and allied activities - Males \
0 16268
1 3

Industrial Category - A - Plantation, Livestock, Forestry, Fishing, Hunting
and allied activities - Females
0 13142
1 0

```

```
[3]: data = {
    'Age group': ['Total', '5-14'],
    'Worked for 3 months or more but less than 6 months - Persons': [1200828, 27791],
    'Worked for 3 months or more but less than 6 months - Males': [589003, 14125],
    'Worked for 3 months or more but less than 6 months - Females': [611825, 13666],
}

df = pd.DataFrame(data)
df
```

```
[3]: Age group  Worked for 3 months or more but less than 6 months - Persons \
0      Total                 1200828
1      5-14                  27791

Worked for 3 months or more but less than 6 months - Males \
0 589003
1 14125

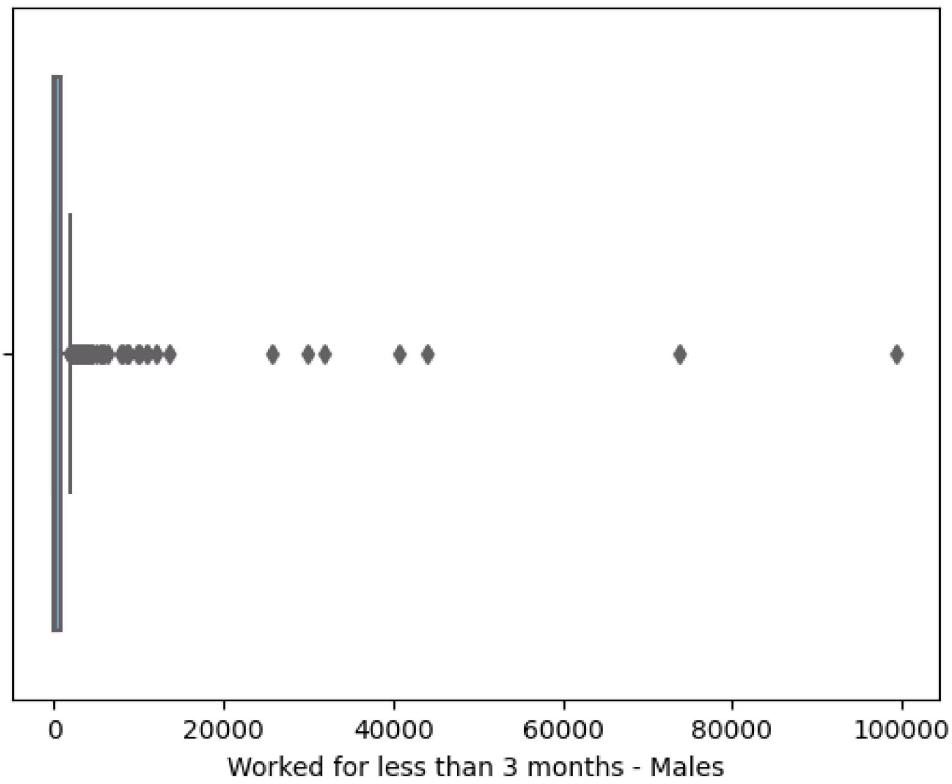
Worked for 3 months or more but less than 6 months - Females
0 611825
```

25%	0.000000
50%	20.000000
75%	97.500000
max	12567.000000
Industrial Category - R to U - Non HHI - Persons \	
count	594.000000
mean	1644.282828
std	7325.241597
min	0.000000
25%	64.500000
50%	263.500000
75%	994.000000
max	122088.000000
Industrial Category - R to U - Non HHI - Males \	
count	594.000000
mean	751.528620
std	3352.811737
min	0.000000
25%	34.000000
50%	123.000000
75%	447.750000
max	55801.000000
Industrial Category - R to U - Non HHI - Females	
count	594.000000
mean	892.754209
std	3988.125301
min	0.000000
25%	30.500000
50%	135.000000
75%	500.000000
max	66287.000000

[8 rows x 63 columns]

```
[9]: sns.boxplot(dataset, x='Worked for less than 3 months - Males',
    palette='Blues')
```

```
[9]: <Axes: xlabel='Worked for less than 3 months - Males'>
```



```
[11]: dataset.hist(figsize=(155,100))
```

```
[11]: array([[<Axes: title={'center': 'Worked for 3 months or more but less than 6 months - Persons'}>,
   <Axes: title={'center': 'Worked for 3 months or more but less than 6 months - Males'}>,
   <Axes: title={'center': 'Worked for 3 months or more but less than 6 months - Females'}>,
   <Axes: title={'center': 'Worked for less than 3 months - Persons'}>,
   <Axes: title={'center': 'Worked for less than 3 months - Males'}>,
   <Axes: title={'center': 'Worked for less than 3 months - Females'}>,
   <Axes: title={'center': 'Industrial Category - A - Cultivators - Persons'}>,
   <Axes: title={'center': 'Industrial Category - A - Cultivators - Males'}>,
   [<Axes: title={'center': 'Industrial Category - A - Cultivators - Females'}>,
    <Axes: title={'center': 'Industrial Category - A - Agricultural labourers - Persons'}>,
    <Axes: title={'center': 'Industrial Category - A - Agricultural labourers - Males'}>,
```

10/31/23, 11:27 PM

New dashboard 2

Tab 1

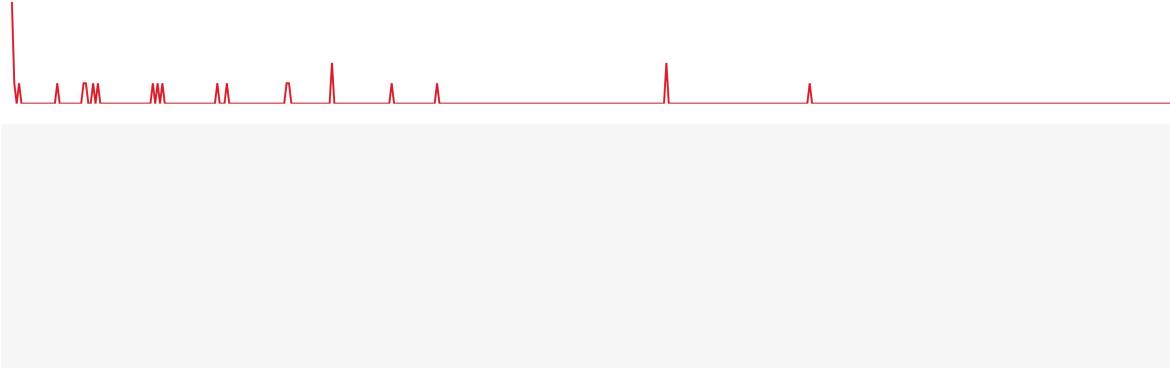
Worked for 3 months or more but less than 6 months - Persons compared to Age group for Worked for 3 months or more but less than 6 months - Males

6 ↓

Age group

9.61M (-100%)

Worked for 3 months or more but less than 6 months - Persons



10/31/23, 11:27 PM

New dashboard 2

Age group by Worked for 3 months or more but less than 6 months - Persons, Worked for 3 months or more but less than 6 months - Persons, Worked for less than 3 months - Persons, Industrial Category - A - Plantation, Livestock, Forestry, Fishing, Hunting and allied activities - Persons, Industrial Category - G - HHI - Persons and Industrial Category - N to O - Persons colored by State Code

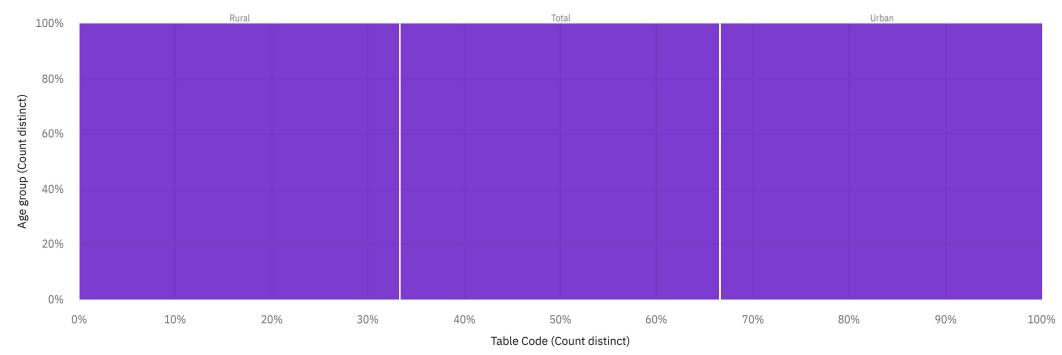
State Code
● 33



10/31/23, 11:27 PM

New dashboard 2

Age group and Table Code for Total/ Rural/ Urban

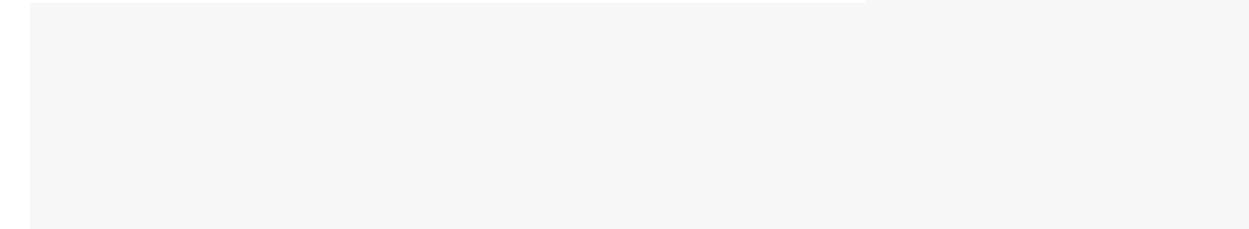
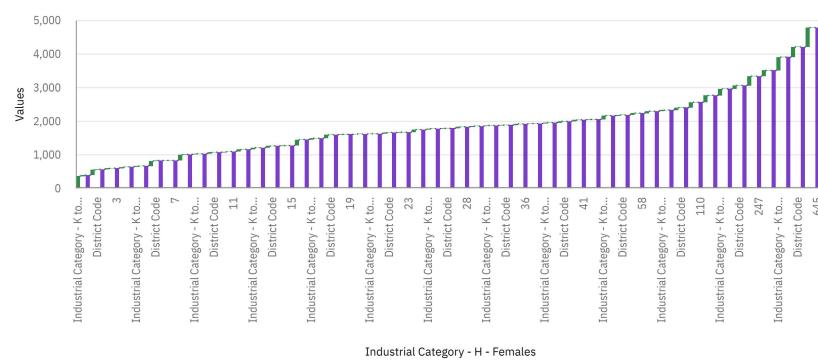


10/31/23, 11:27 PM

New dashboard 2

Industrial Category - K to M - Females and District Code for Industrial Category - H - Females

Column values
● Increase ● Decrease ● Total

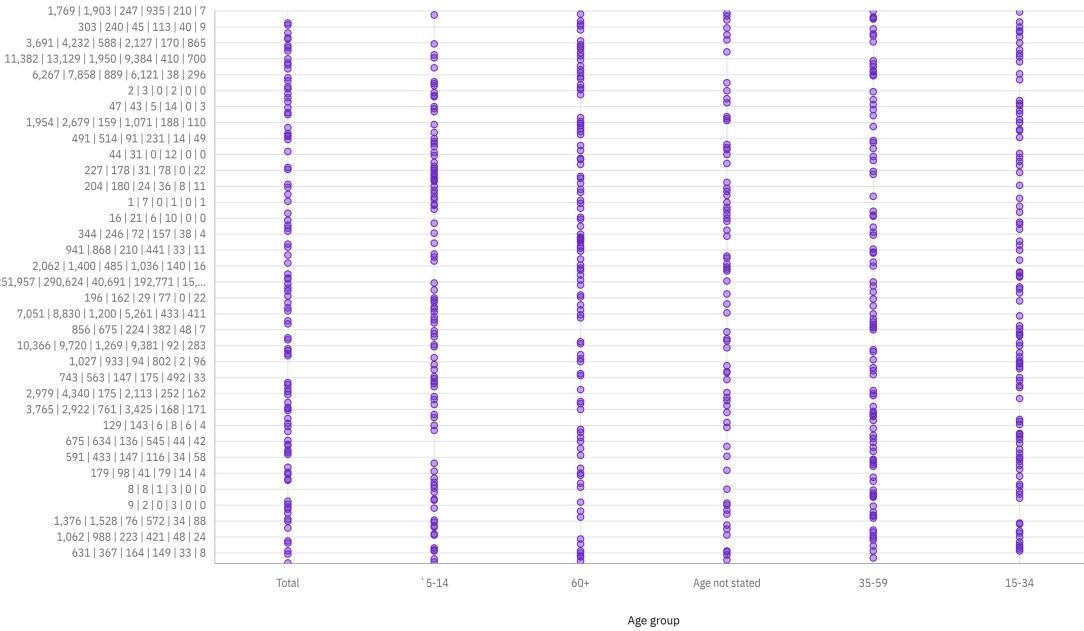


10/31/23, 11:27 PM

New dashboard 2

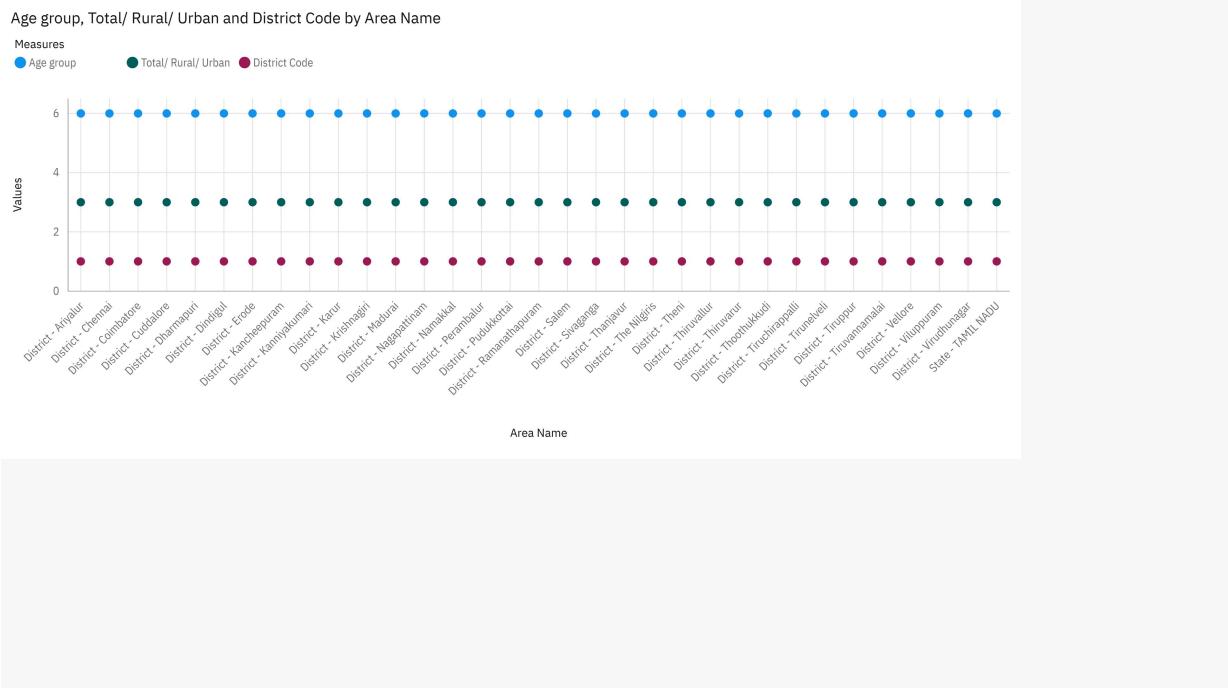
Click to edit title

Worked for 3 months or more but less than 6 months - Males (Sum) - Worked for 3 months or more but less than 6 months - Females (Sum)



10/31/23, 11:27 PM

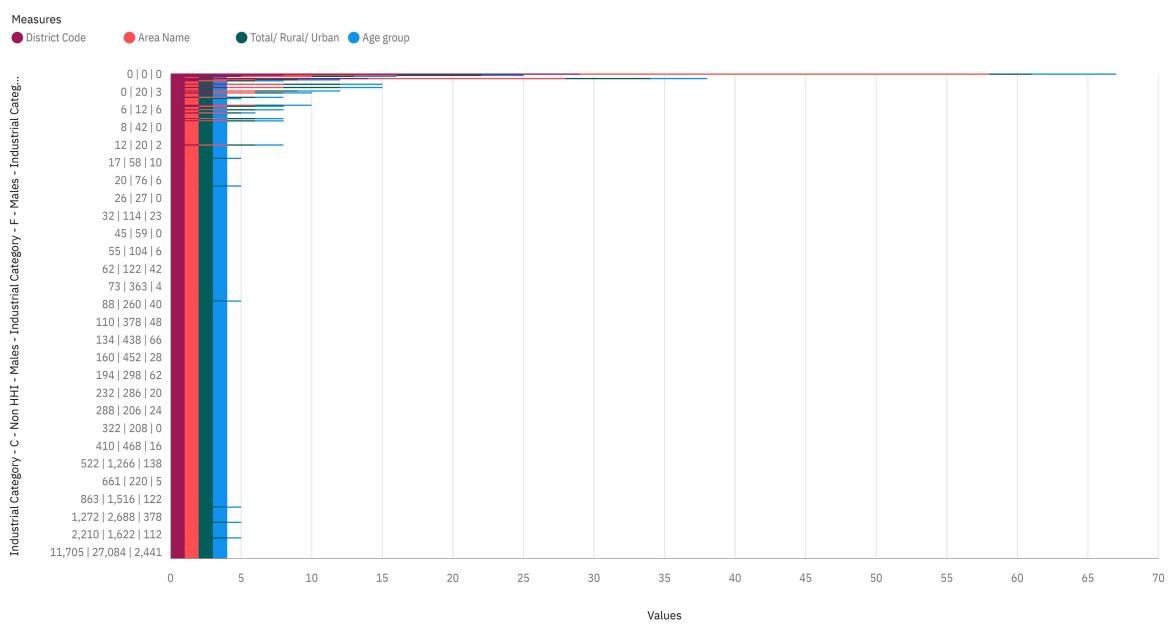
New dashboard 2



10/31/23, 11:27 PM

New dashboard 2

District Code, Area Name, Total/ Rural/ Urban and Age group by Industrial Category - C - Non HHI - Males, Industrial Category - F - Males and Industrial Category - I - Persons

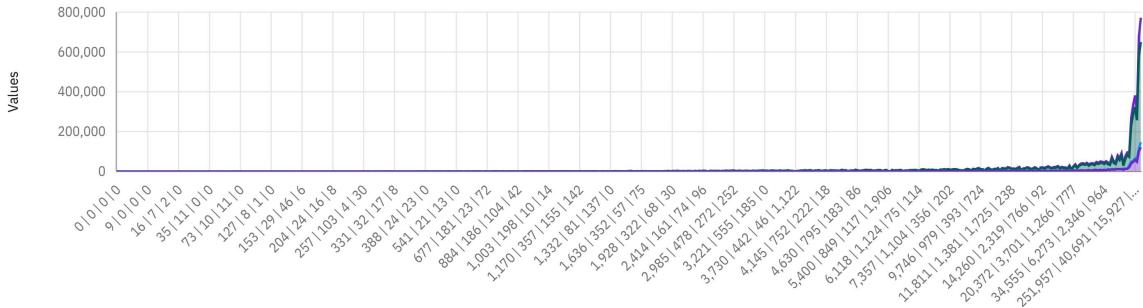


Tab 1

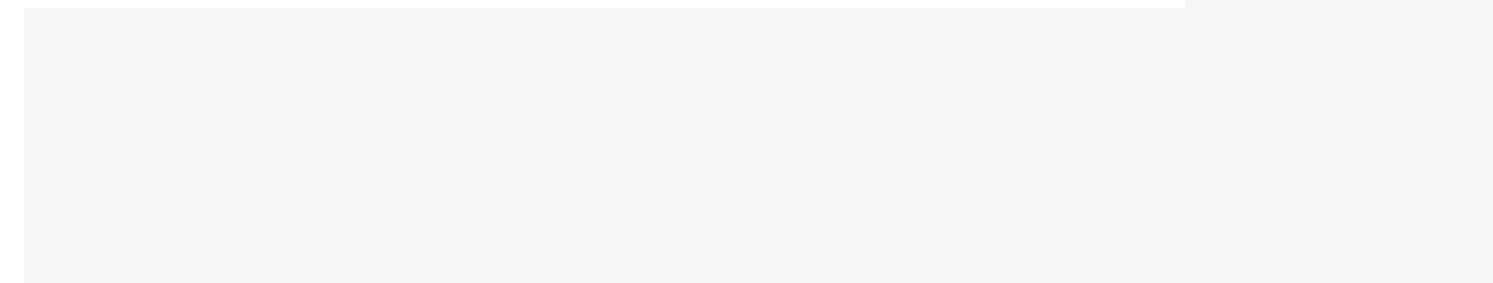
Worked for less than 3 months - Females, Industrial Category - C - Non HHI - Females, Industrial Category - A - Agricultural labourers - Females and Worked for less than 3 months - Females by Worked for 3 months or more but less than 6 months - Males, Worked for less than 3 months - Males, Industrial Category - A - Cultivators - Males, Industrial Category - A - Plantation, Livestock, Forestry, Fishing and Hunting and allied activities - Males

Measures

Worked for less than 3 months - Females, Industrial Category - C - Non HHI - Females, Industrial Category - A - Agricultural labourers - Females and Worked for less than 3 months - Females by Worked for 3 months or more but less than 6 months - Males, Worked for less than 3 months - Males, Industrial Category - A - Cultivators - Males, Industrial Category - A - Plantation, Livestock, Forestry, Fishing and Hunting and allied activities - Males



Worked for 3 months or more but less than 6 months - Males - Worked for less than 3 months - Males - Industrial Category - A - Cultivators - Males - Industrial Categ...



Tab 2

