



# ESTIMATING INCREMENTAL LABOUR DEMAND FOR 2018-19

By Market Analytics Team  
National Skill Development Corporation

# Snapshot of the Study

## Objective

Estimate Incremental Labour Demand for the year 2018-19

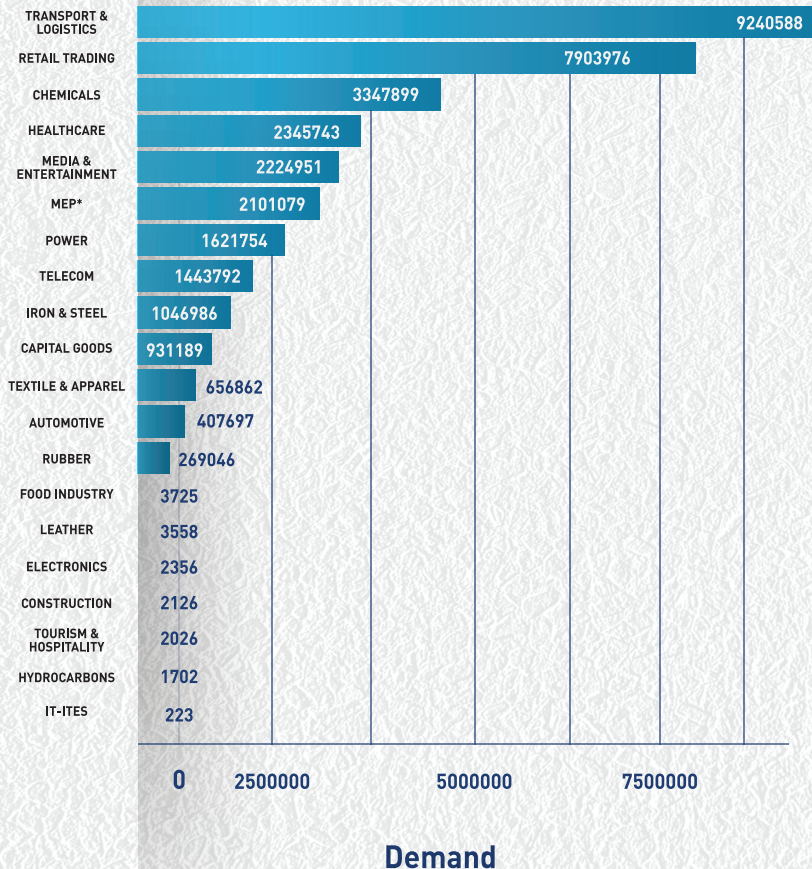
## Approach

Past data on Investments (CMIE), Bank Credits (RBI) and Employment (NSS) are modelled to predict demand for 2018-19

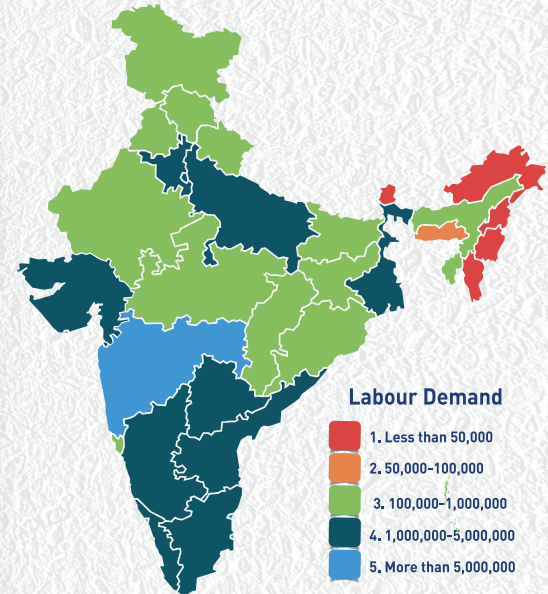
## Result

Estimated labour demand for 2018-19 in India is 2.5 crores at district level

### Labour Demand Across Sectors (2018-19)



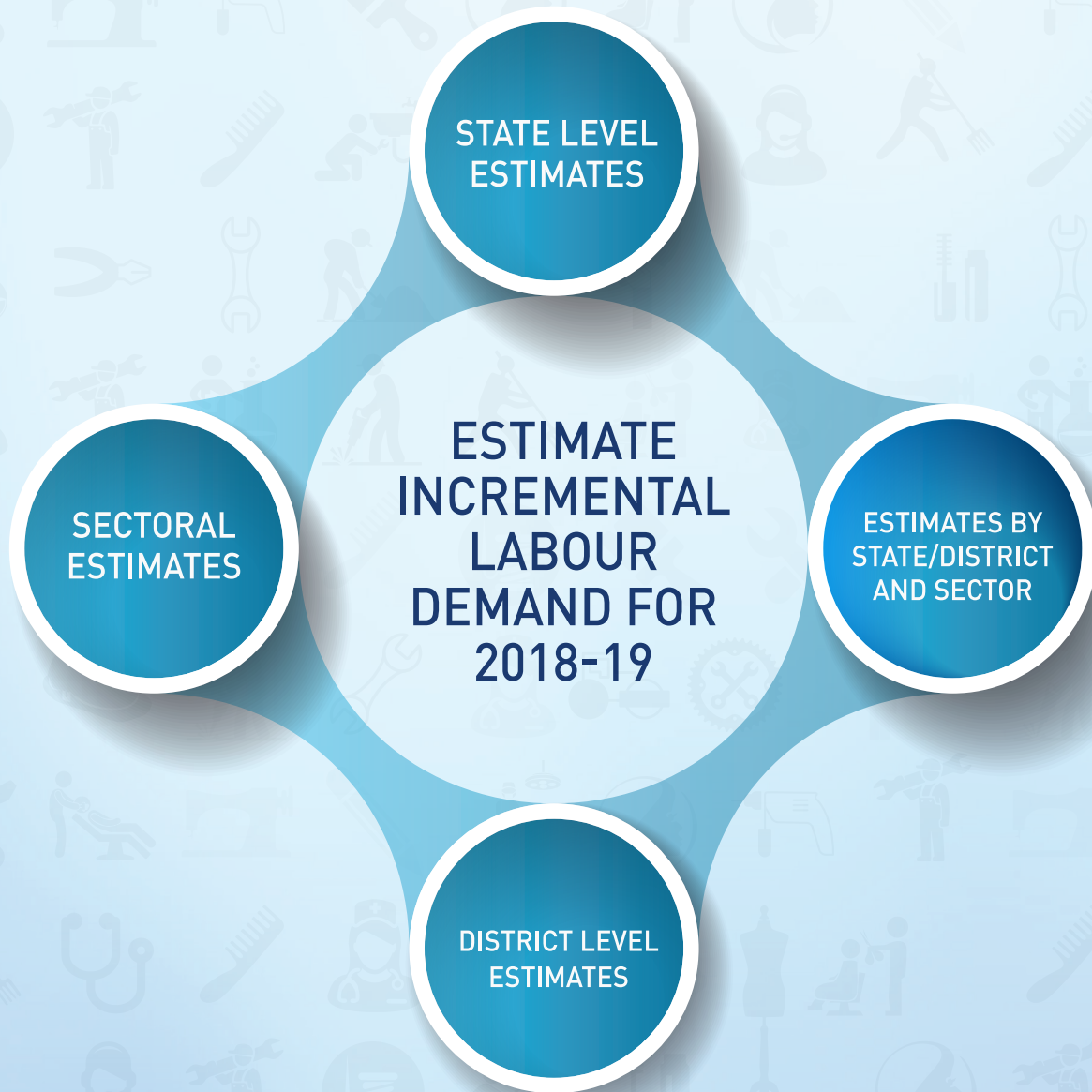
### Labour Demand Across States (2018-19)



### Top 5 Districts

- MUMBAI
- NCT OF DELHI
- BANGALORE
- MUMBAI (SUBURBAN)
- CHENNAI

# Objective



# Data Sources

## Investment (Source- CMIE)



- Captured 'completed' & 'ongoing' investments (average of previous 4 years up-to 2017)
- District and Sector level

## Bank Credit (Source- Reserve Bank of India)



- Aggregate bank credits by all scheduled commercial banks
- District level

## Employment (Source- NSS 68th Round, 2011-12)



- Number of person employed (formal and informal)
- District and sector level

# Descriptive Statistics – All India



## INVESTMENTS

- Total Number of Investments During The Past 4 Years is 8,007
- Total Amount of Investments is Rs. 1,13,23,600 Crores  
(Average Investment Per Project is Rs. 1400 Cr)
- Top States/UTs – Maharashtra, Gujarat, Andhra Pradesh, Uttar Pradesh, Odisha
- Bottom States/uts – Lakshadweep, Dadra & Nagar Haveli, Puducherry, Chandigarh, Daman & Diu



## BANK CREDITS

- Total Amount of Bank Credit For The Second Quarter of 2017 is Rs. 80,06,000 Cr Billions  
(Average Credit Per State is Rs. 2,22,400 Cr)
- Top States/UTs – Maharashtra, NCT of Delhi, Tamil Nadu, Karnataka, Gujarat
- Bottom States/UTs – Lakshadweep, Daman & Diu, Dadra & Nagar Haveli, Andaman & Nicobar, Sikkim

# Theoretical Framework



New investments (sector-wise) are expected to be correlated with growth in business (leading to employment) in each sector

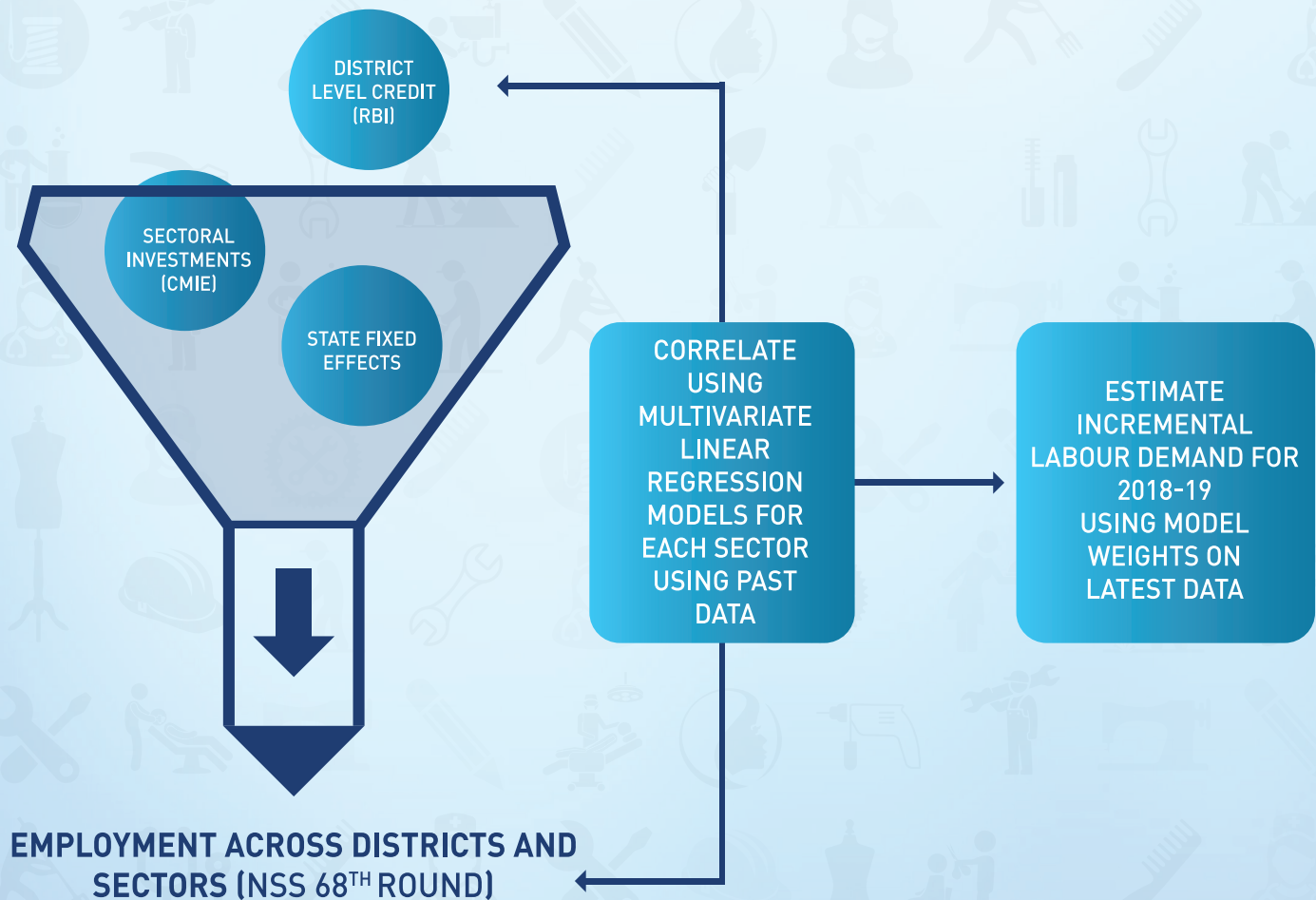


Bank credits (district-wise) are expected to be correlated to the growth in output (and thus employment) in those sectors in which the districts specialize in (e.g. districts predominantly engaged in agriculture)



Change in employment is related to change in investments and credit

# Approach – Estimation



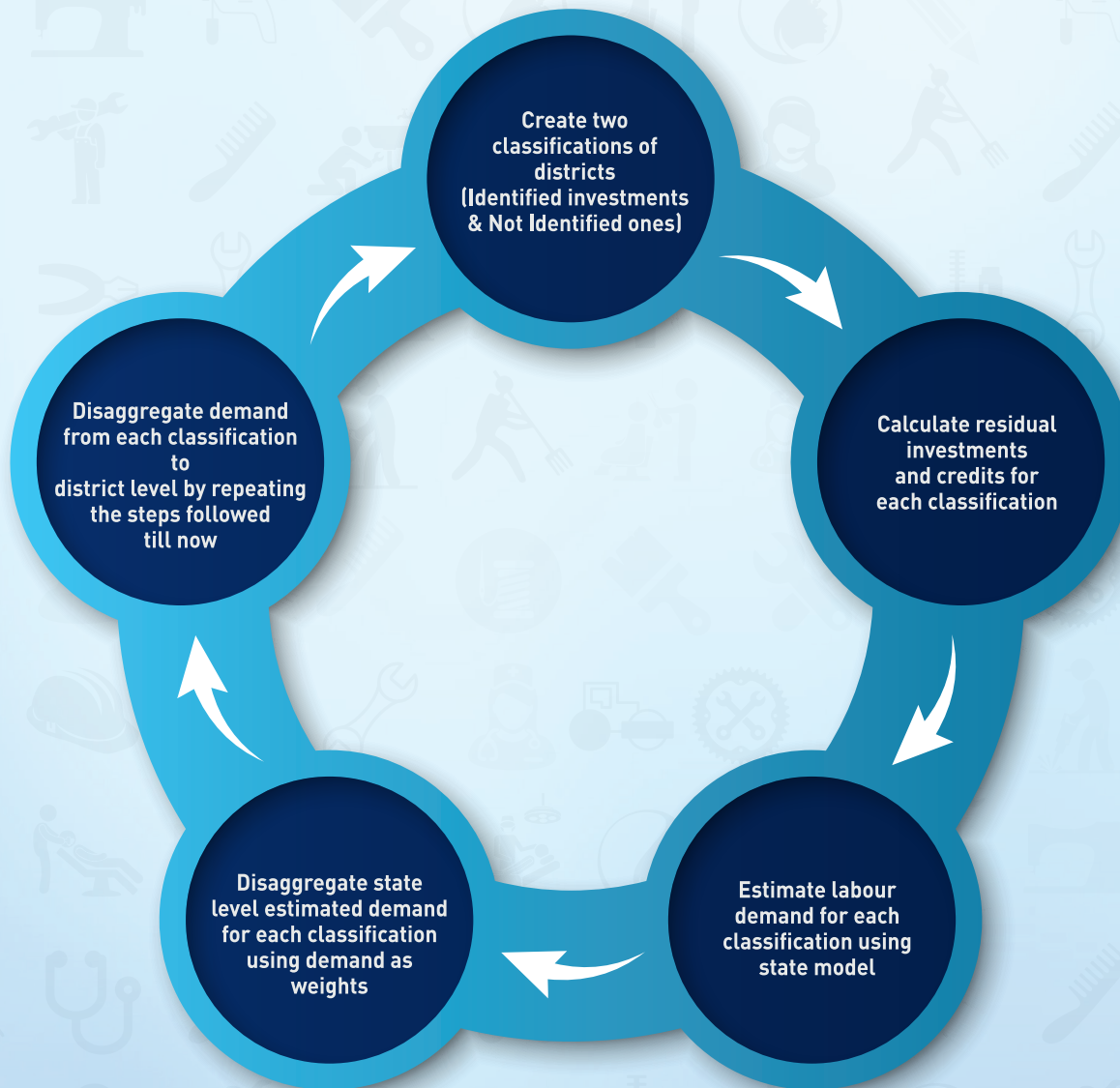
## Activities Under The Assignment

- ★ Map sectors across all data sources (CMIE, RBI and NSS) to Sector Skill Councils
- ★ Calculate district level employment across mapped sectors from NSS 68th round (2011-12) using population weights to convert sample numbers to population estimates
- ★ Process investment and credit data at district level for time periods before 2011
- ★ Test multinomial linear regression models using employment as dependent variable, and investment and credit as independent variables (controlling for state level fixed effects)
- ★ Test each sector separately as the conversion rate of investment and credit to employment may differ across sectors

## Activities Under The Assignment

- ★ Select models using varying stringency levels (w.r.t. adjusted R-square, R-square, significance of F-statistic, significance of investment/credit coefficients)
- ★ Estimate the models and apply the weights derived on latest data for investments and credit

# District Level Disaggregation

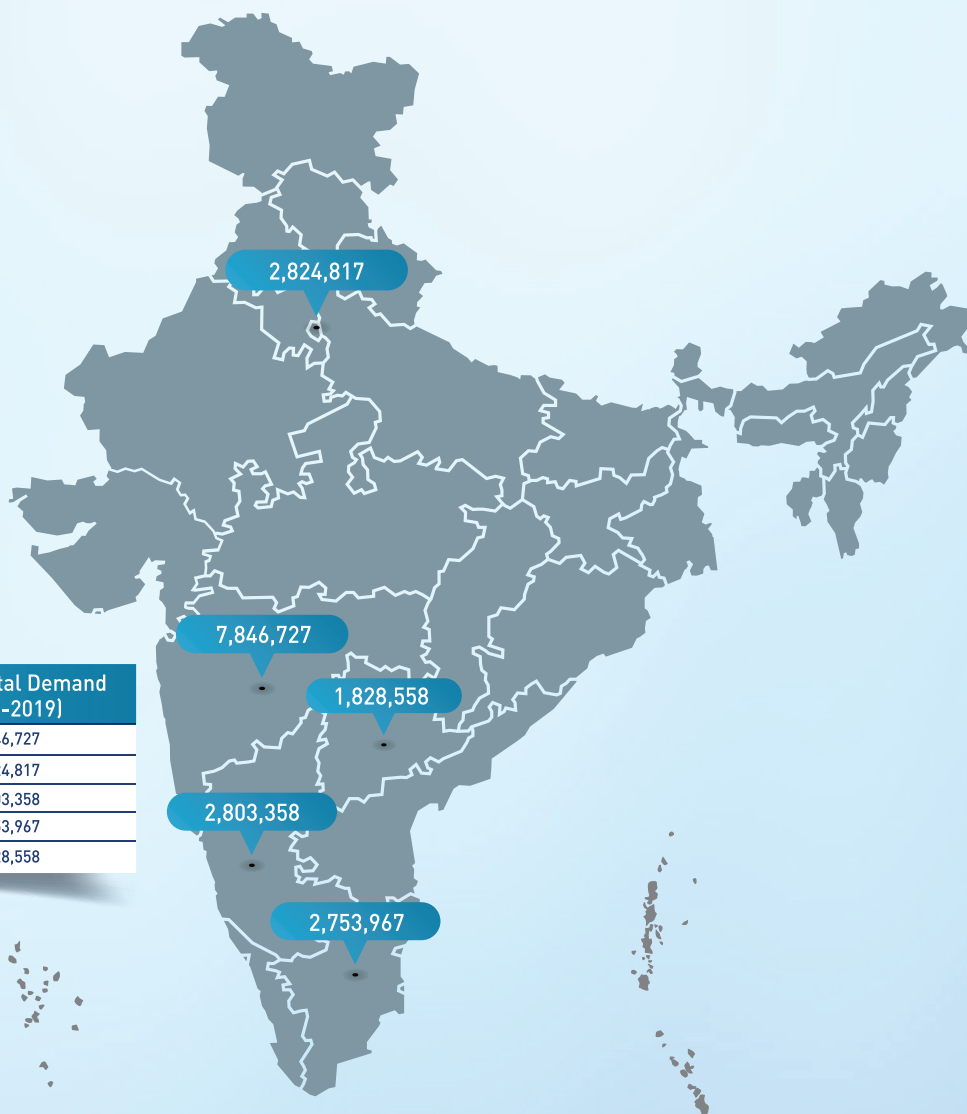


# Results - Total Incremental Demand



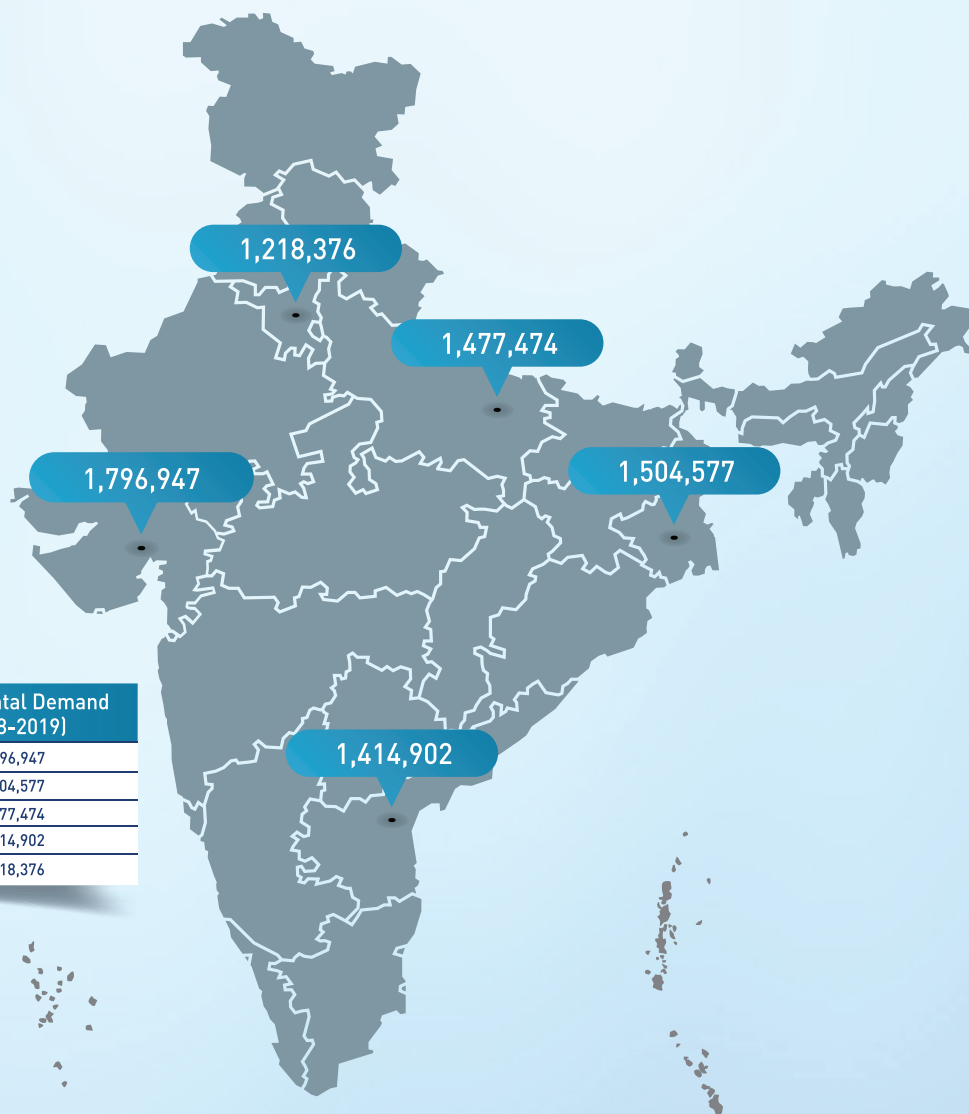
IT IS ESTIMATED THAT THE  
INCREMENTAL DEMAND FOR  
LABOUR IN INDIA FOR THE  
YEAR 2018-19 IS ABOUT  
**2.5 CRORE**  
AT DISTRICT LEVEL

# Results - Top States








Rank	State	Incremental Demand (2018-2019)
1	MAHARASHTRA	7,846,727
2	NCT OF DELHI	2,824,817
3	KARNATAKA	2,803,358
4	TAMIL NADU	2,753,967
5	TELANGANA	1,828,558

# Results - Top States








Rank	State	Incremental Demand (2018-2019)
6	GUJARAT	1,796,947
7	WEST BENGAL	1,504,577
8	UTTAR PRADESH	1,477,474
9	ANDHRA PRADESH	1,414,902
10	HARYANA	1,218,376






# Results - Top Sectors

Rank	Sector	Incremental Demand (2018-2019)
01	 TRANSPORT & LOGISTICS	9,240,588
02	 RETAIL TRADING	7,903,976
03	 CHEMICALS	3,347,899
04	 HEALTHCARE	2,345,743
05	 MEDIA & ENTERTAINMENT	2,224,951






# Results - Top Sectors

Rank	Sector	Incremental Demand (2018-2019)
06	 MANAGEMENT & ENTREPRENEURSHIP AND PROFESSIONAL	2,101,079
07	 POWER	1,621,754
08	 TELECOM	1,443,792
09	 IRON & STEEL	1,046,986
10	 CAPITAL GOODS	9,31,189

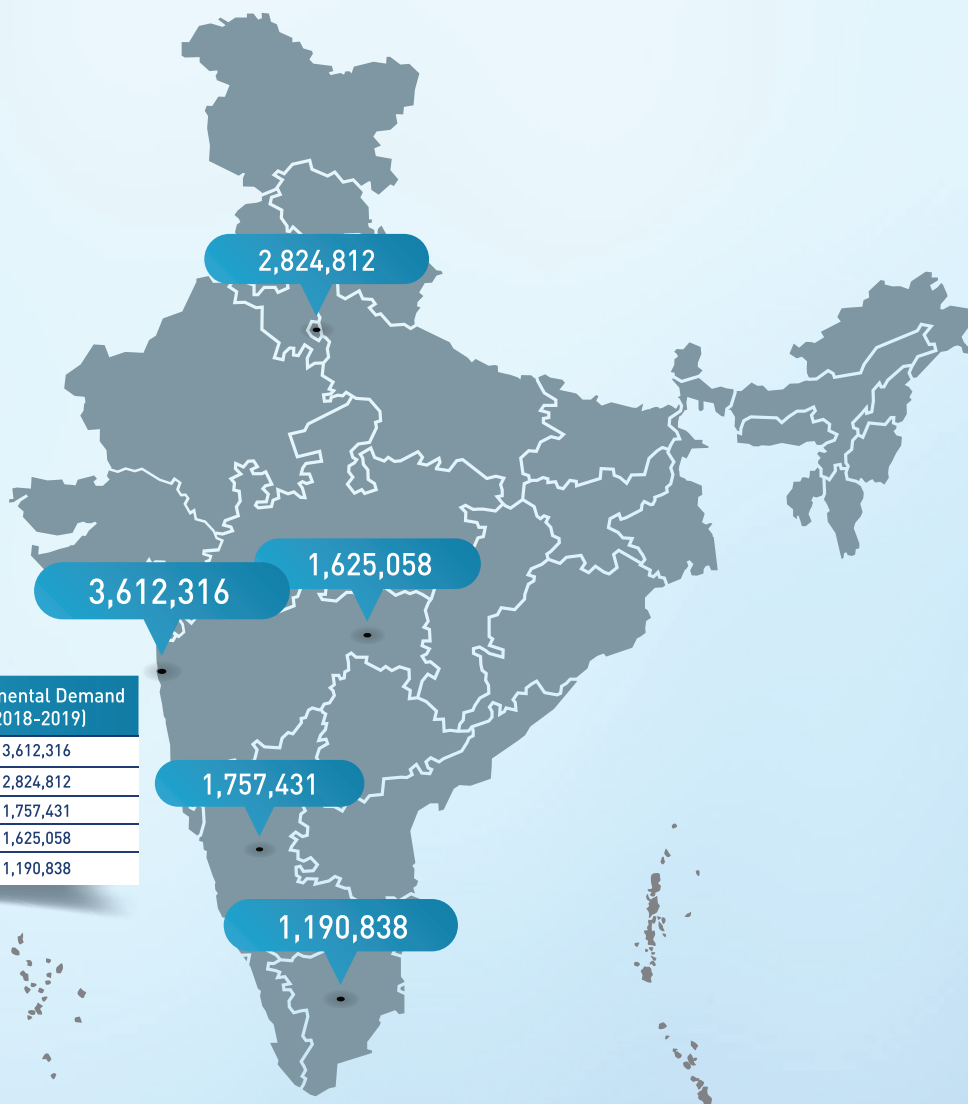
## Highest Demand Across State and Sector

Rank	State	Sector	Incremental Demand (2018-19)
1	MAHARASHTRA	 TRANSPORT & LOGISTICS	2,661,276
2	MAHARASHTRA	 RETAIL TRADING	2,282,907
3	NCT OF DELHI	 TRANSPORT & LOGISTICS	1,084,962
4	NCT OF DELHI	 RETAIL TRADING	930,707
5	TAMIL NADU	 TRANSPORT & LOGISTICS	855,167

## Highest Demand Across State and Sector

Rank	State	Sector	Incremental Demand (2018-19)
6	KARNATAKA	 MANAGEMENT & ENTREPRENEURSHIP & PROFESSIONSL	766,537
7	TAMILNADU	 RETAIL TRADING	733,583
8	MAHARASHTRA	 HEALTHCARE	677,405
9	MAHARASHTRA	 MEDIA & ENTERTAINMENT	645,945
10	KARNATAKA	 TRANSPORT & LOGISTICS	626,109

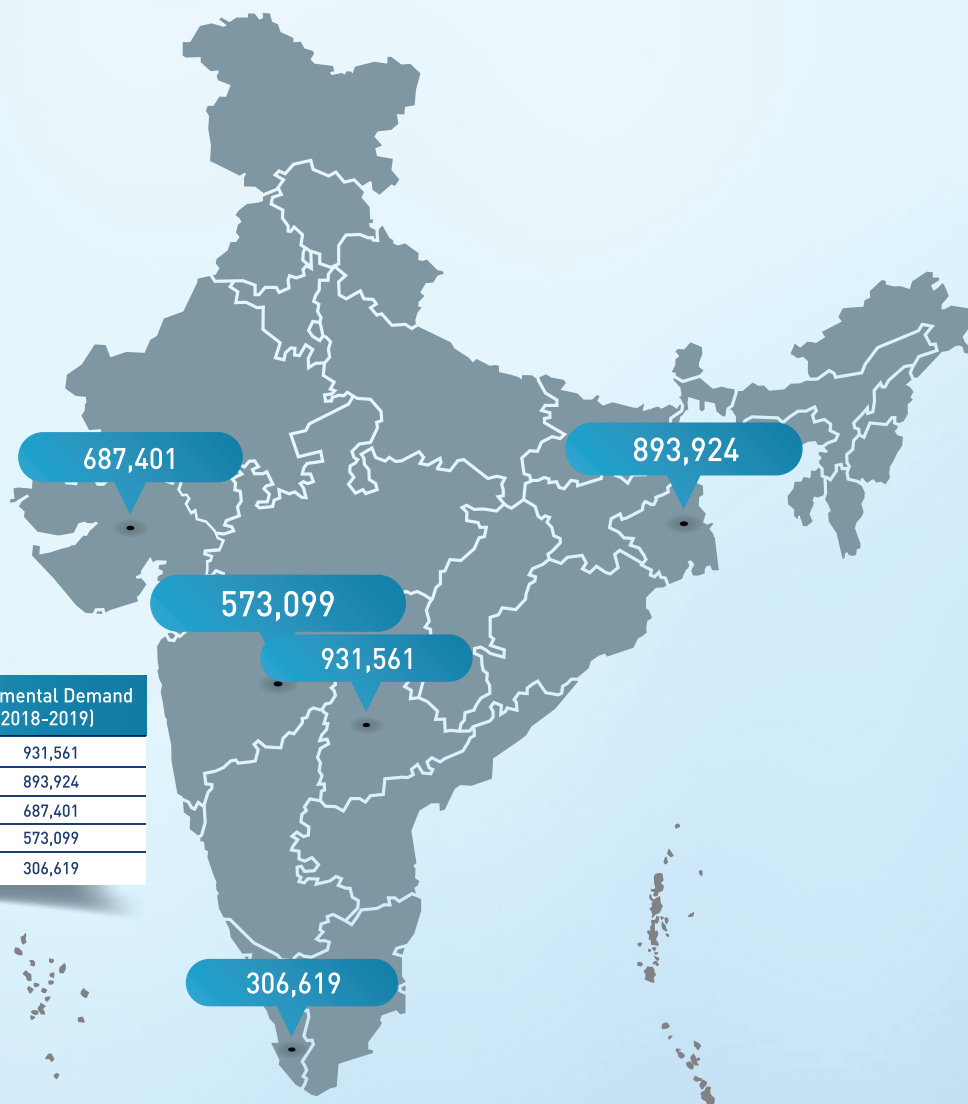
# Results - Top Districts



Rank	State	Districts	Incremental Demand (2018-2019)
1	MAHARASHTRA	MUMBAI	3,612,316
2	NCT OF DELHI	NCT OF DELHI	2,824,812
3	KARNATAKA	BANGALORE	1,757,431
4	MAHARASHTRA	MUMBAI (SUBURBAN)	1,625,058
5	TAMIL NADU	CHENNAI	1,190,838

Please Note: The district level estimates are an underestimate

# Results - Top Districts



Rank	State	Districts	Incremental Demand (2018-2019)
6	TELANGANA	HYDERABAD	931,561
7	WEST BENGAL	KOLKATA	893,924
8	GUJARAT	AHMADABAD	687,401
9	MAHARASHTRA	PUNE	573,099
10	KERALA	ERNAKULAM	306,619



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