



NATIONAL RESEARCH  
UNIVERSITY

# Measuring direct and indirect impact of Moscow higher education system

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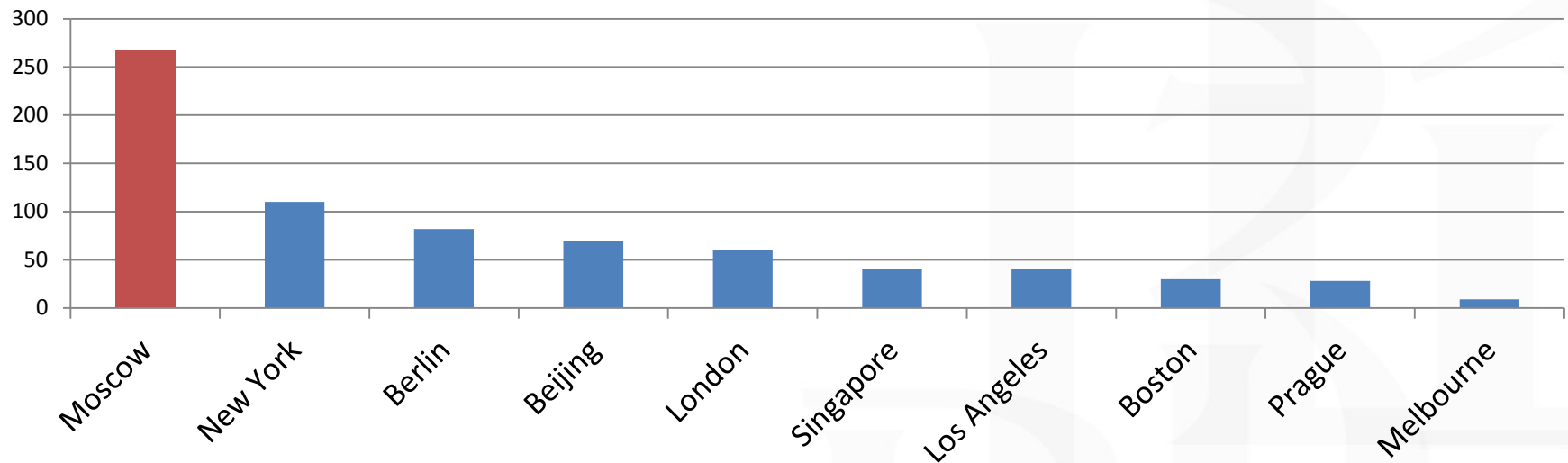
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## Incredible scale of HE system in Moscow

Number of universities

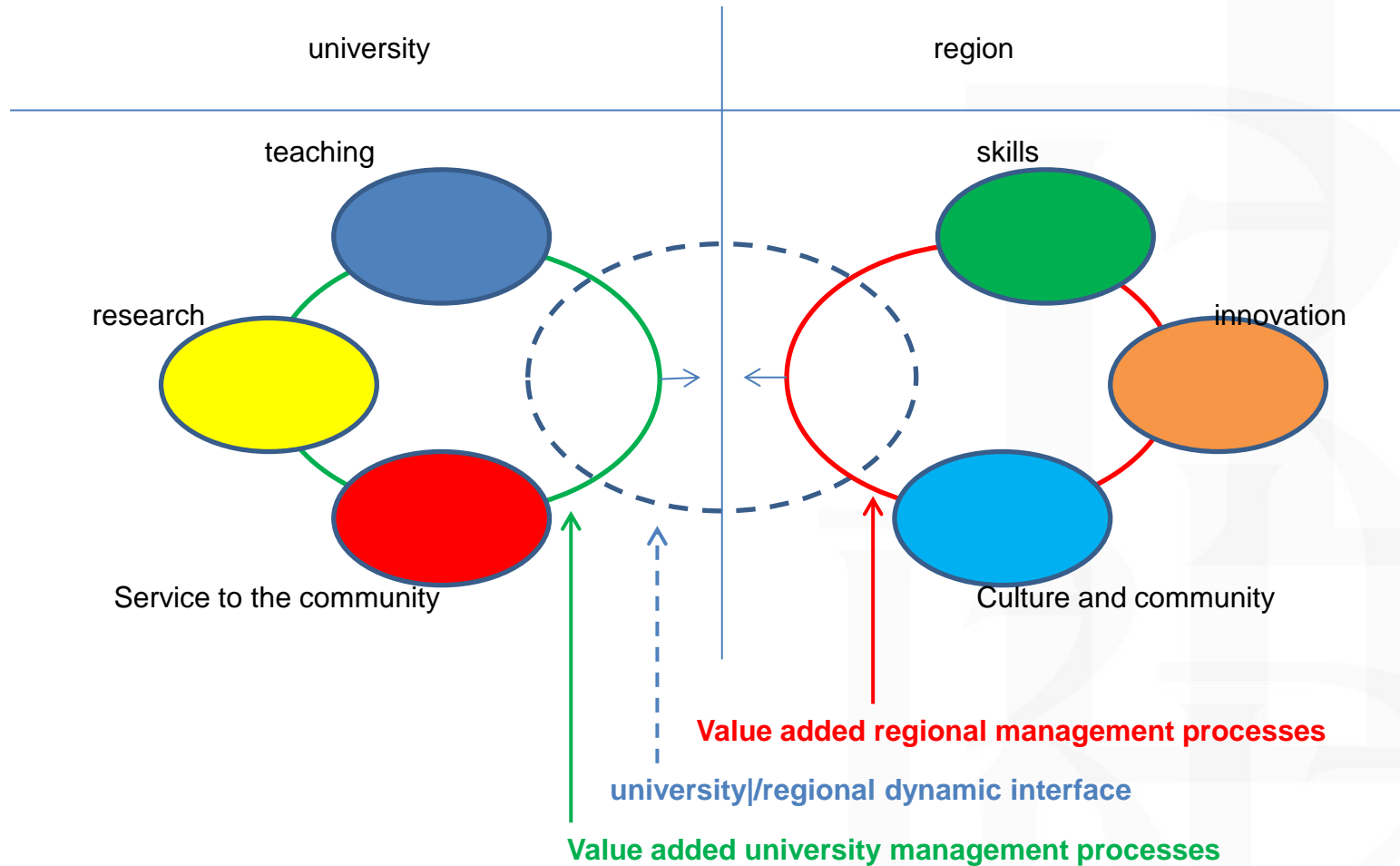


- Quantity of students in Moscow is around 1,2 ml. st.
- Each fourth Russian HE institution is in Moscow
- Each tenth Moscow inhabitant is student

### **Based on the Moscow case: what is the HE system impact on the city?**

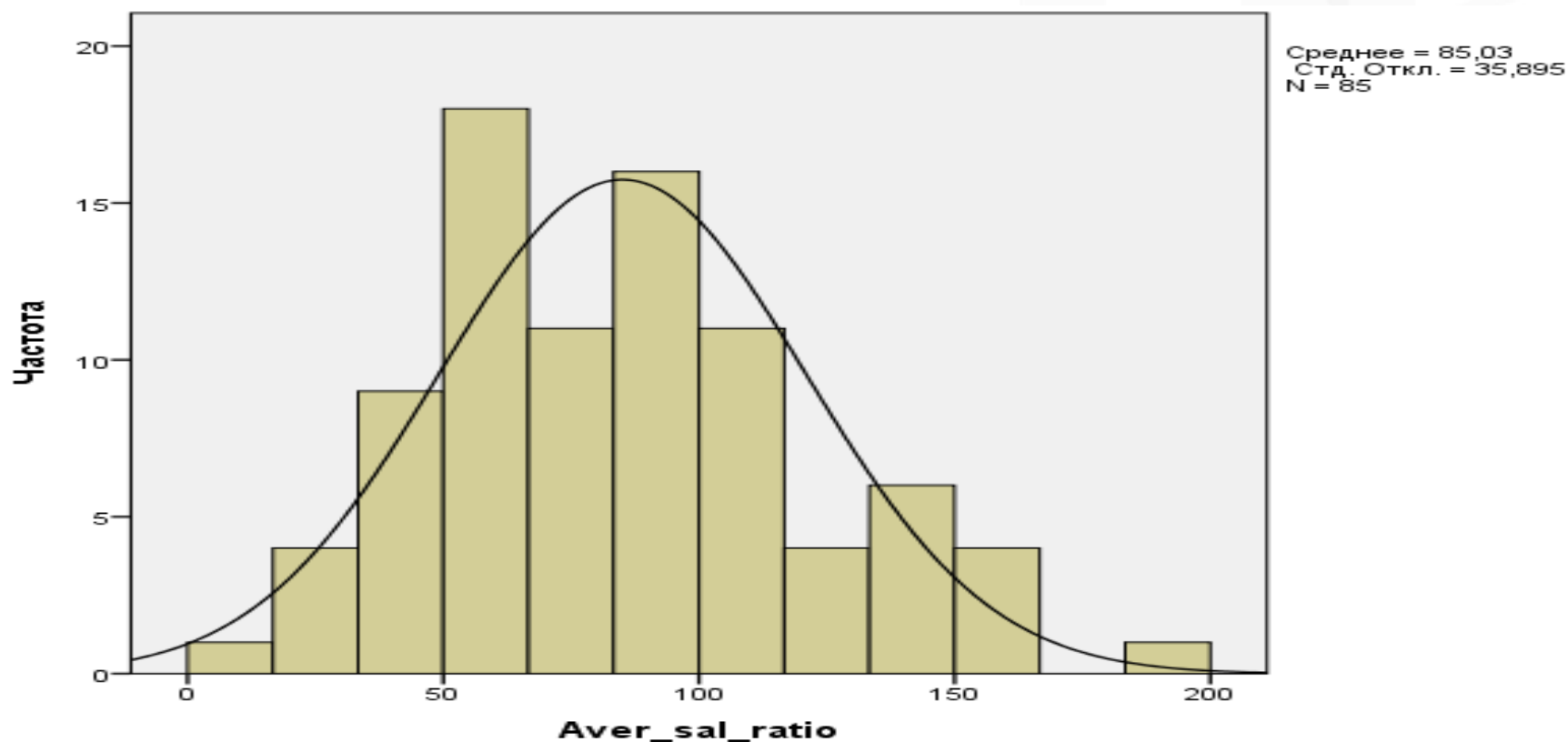
- I. Measurement of direct economic impact of Moscow HE system**
- II. Moscow higher education complex. Retrospective analysis**
- III. Measurement of indirect impact of Moscow HE system (using Geo Information System – Moscow HE atlas)**

# Theoretical framework



# Direct economic impact\*: Moscow HE system as employer

- In Moscow universities employed about 170,000 people of the faculty staff (about 3% of the total employment in the economy of the city)



# Direct economic impact: Moscow HE system as a student attractor

Students are the core engine of the service economy



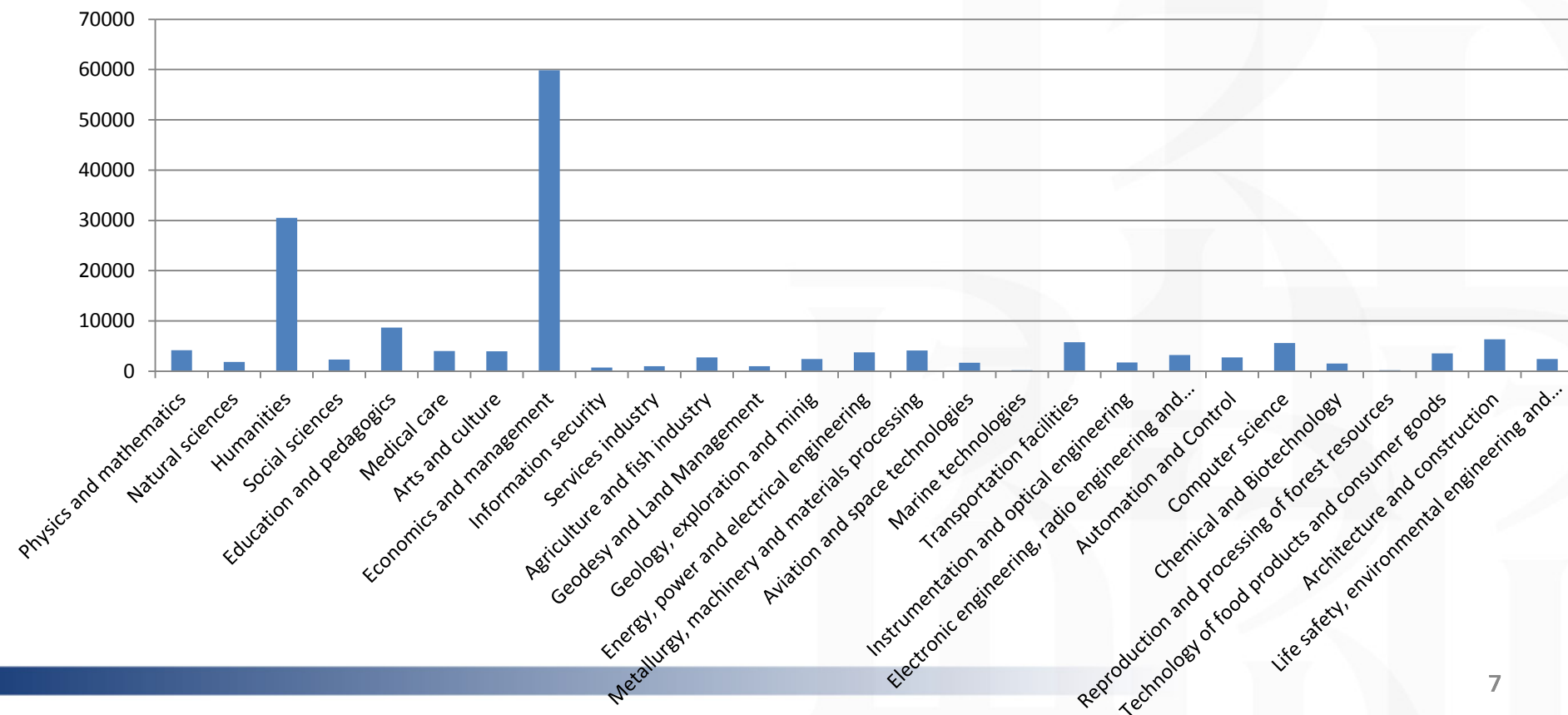
Each year, students spend  
for residence in the Moscow  
about 2,9 bln. \$



# Direct economic impact: Moscow HE system as “man power producers”

## Significant mismatch between graduates having concrete specialty and market requirements

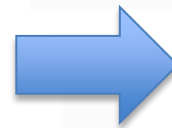
The distribution of the graduates by specialty, 2011



# Retrospective: formation of the system of higher education in Moscow

## Moscow HEI system in soviet time

- The system of alumni distribution allowed to establish in Moscow universities without local economies connections
- Moscow universities by 80% responding to national needs
- Universities were under the jurisdiction of central government



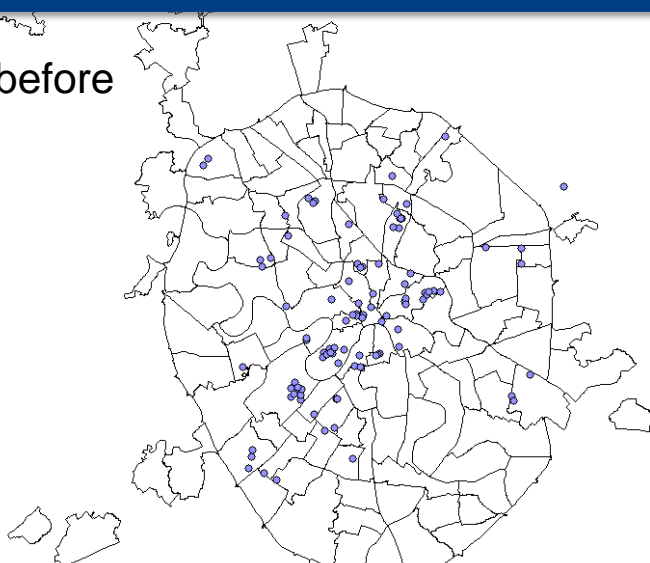
## Moscow HEI system at present time

- The system of alumni distribution disappeared, but still 50% of Moscow students are non-resident
- 77% of graduates remain to work in Moscow
- Just 4 of the 109 Moscow universities are controlled by city (total budget of public universities is 10% of Moscow budget)

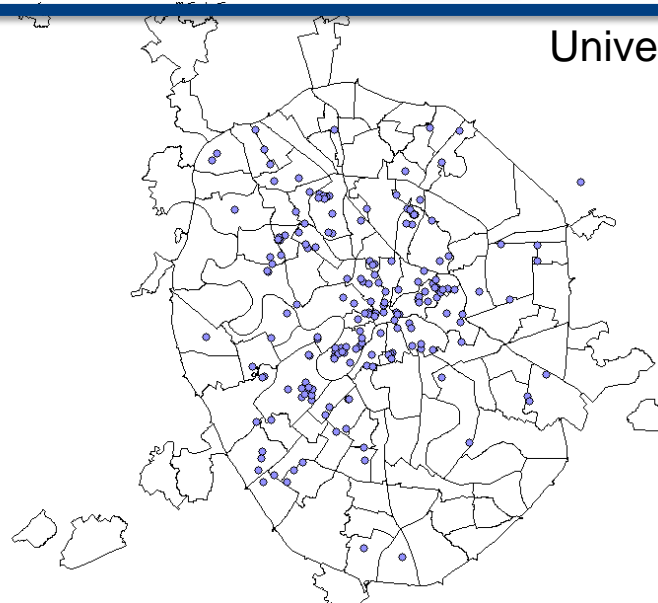


# Retrospective analysis. Formation of the system of higher education in Moscow

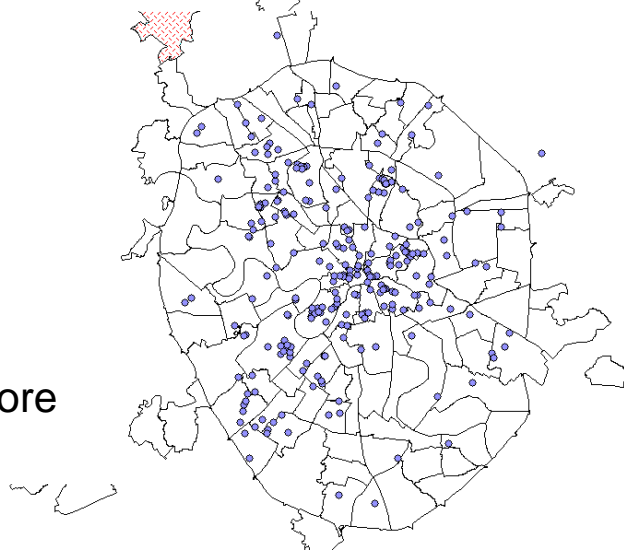
Universities before  
1920



Universities before  
1939

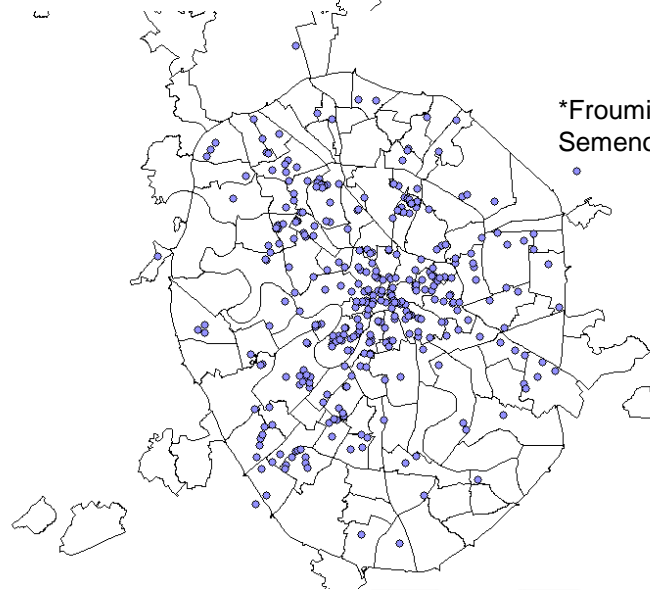


Universities before  
1990



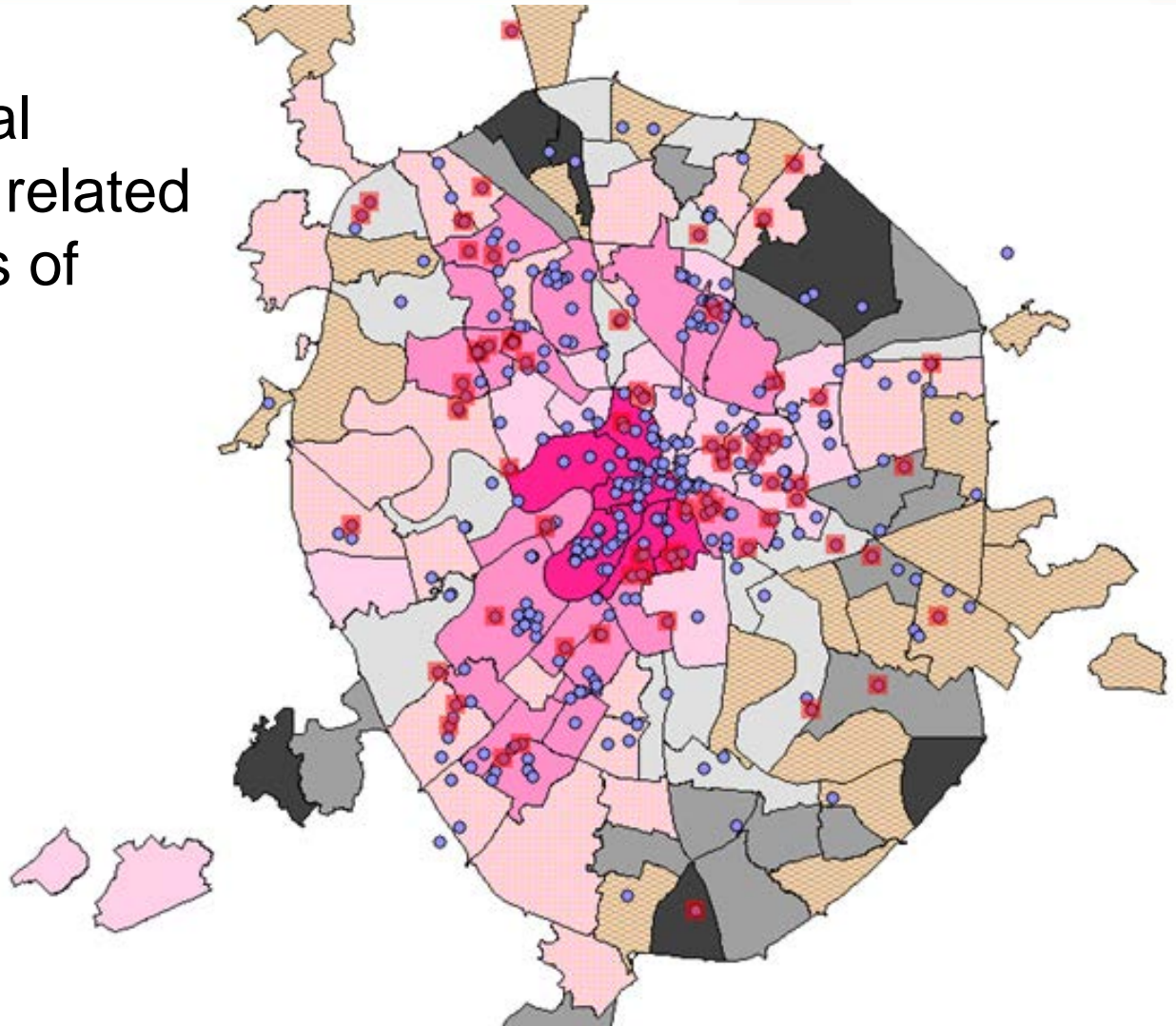
\*Froumin, Kuzminov,  
Semenov 2013

Universities  
today



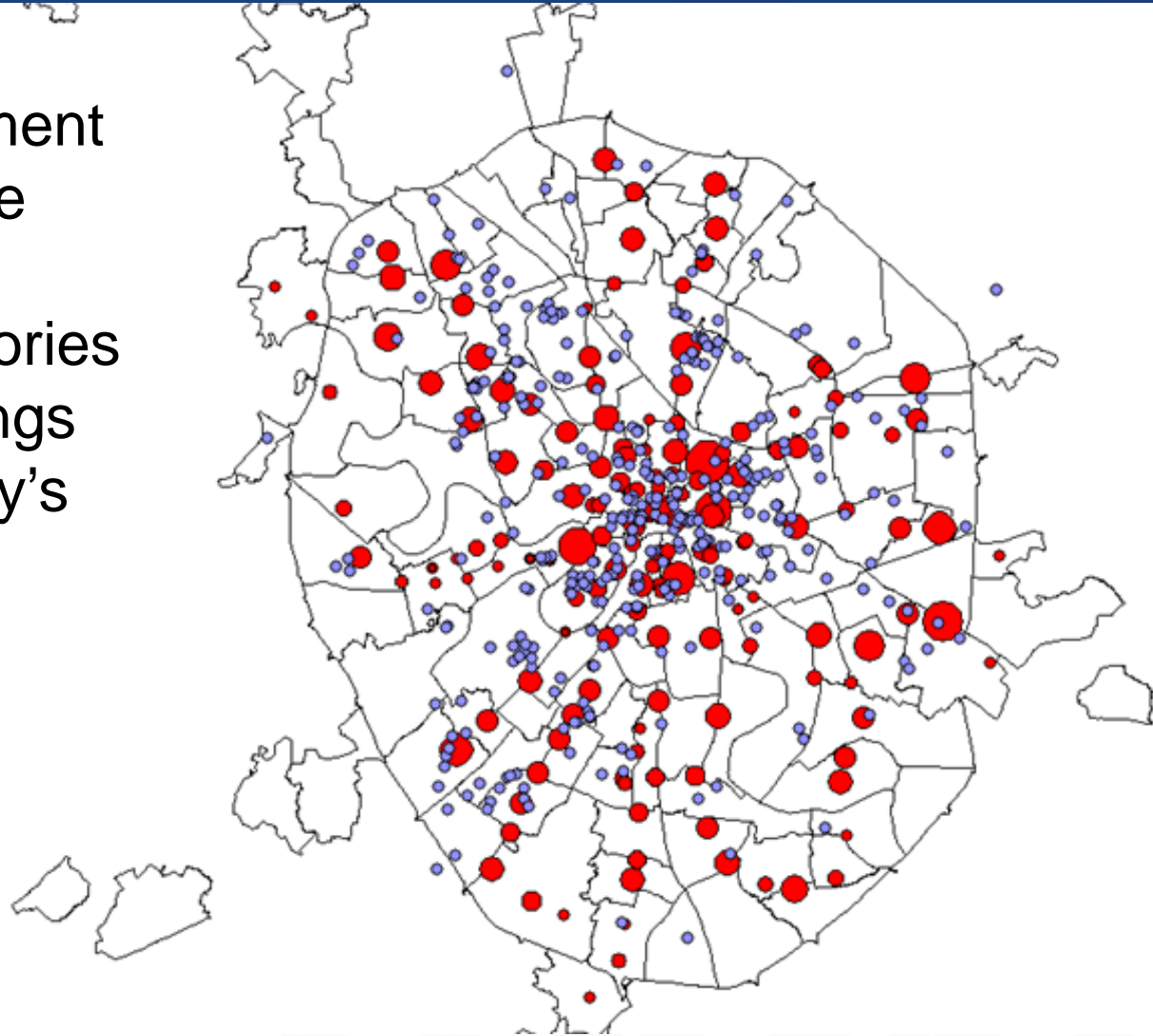
# Measurement of indirect impact of Moscow HE system. Moscow functional zones map

Location of technical universities are not related to industrial districts of Moscow



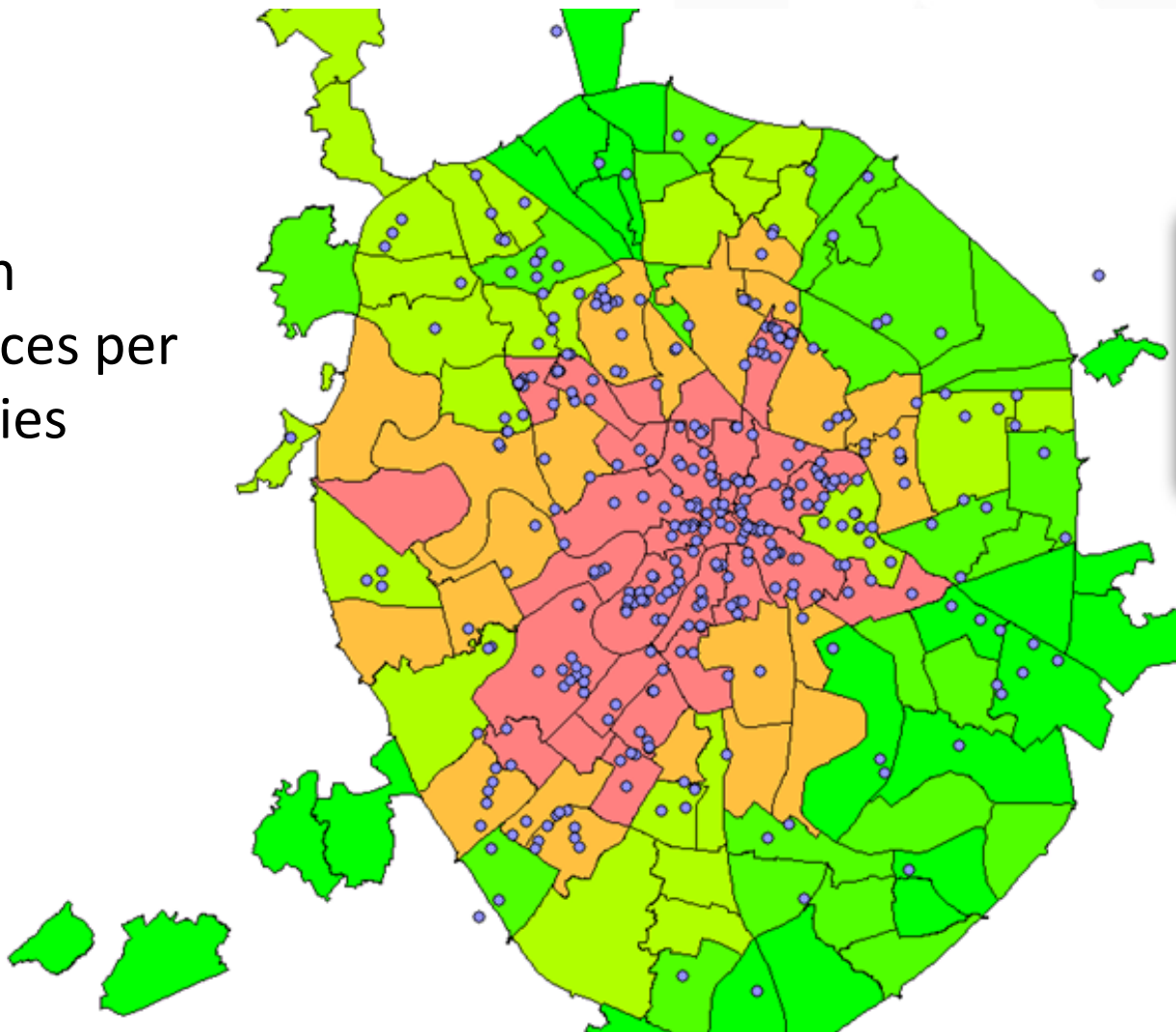
# Measurement of indirect impact of Moscow HE system. The pressure on the city transport system

Unbalanced arrangement of universities over the urban districts and remoteness of dormitories from education buildings lead to overload of city's transport system



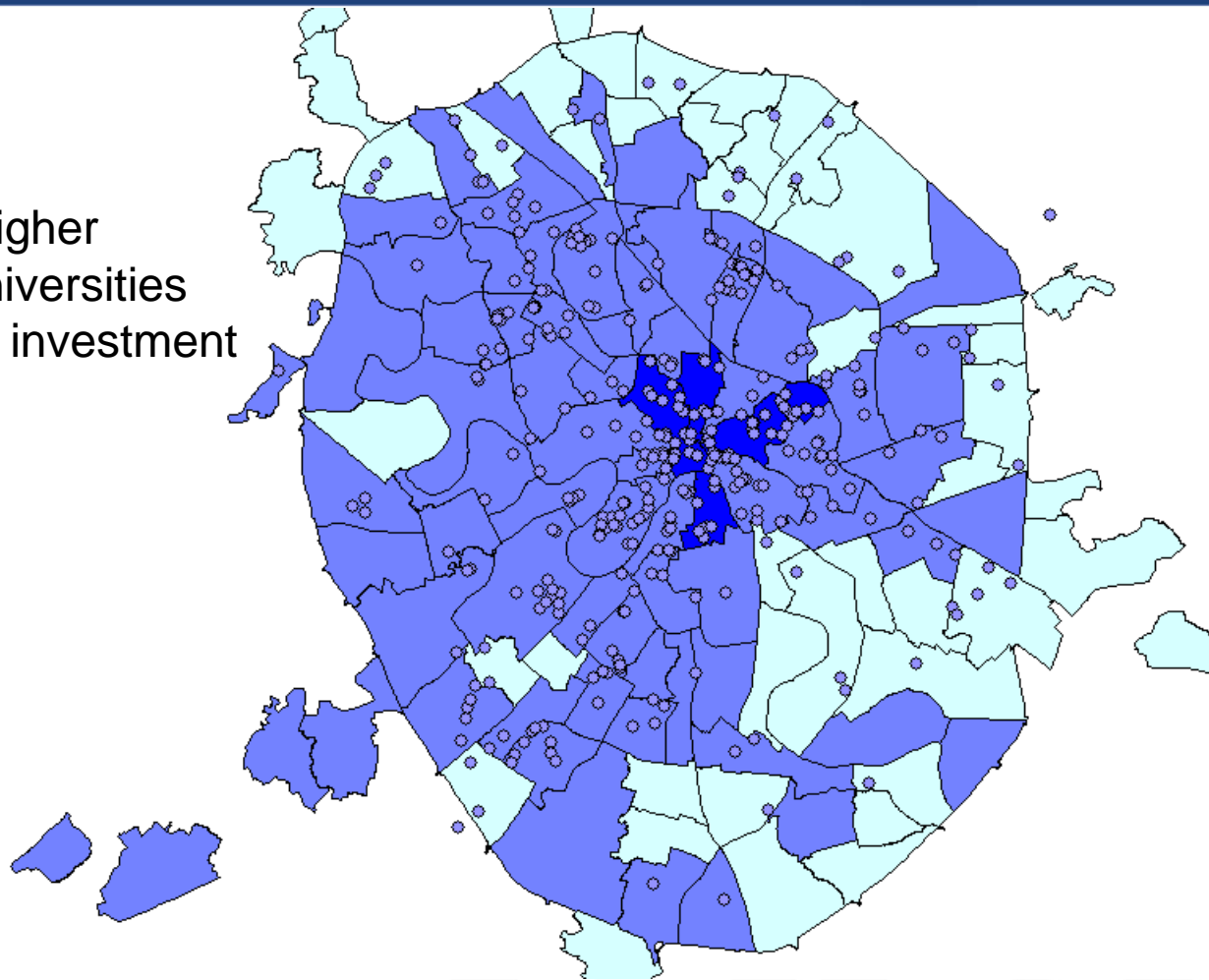
## Indirect impact

The strong correlation  
between property prices per  
districts and universities  
location



## Indirect impact. Investment in capital

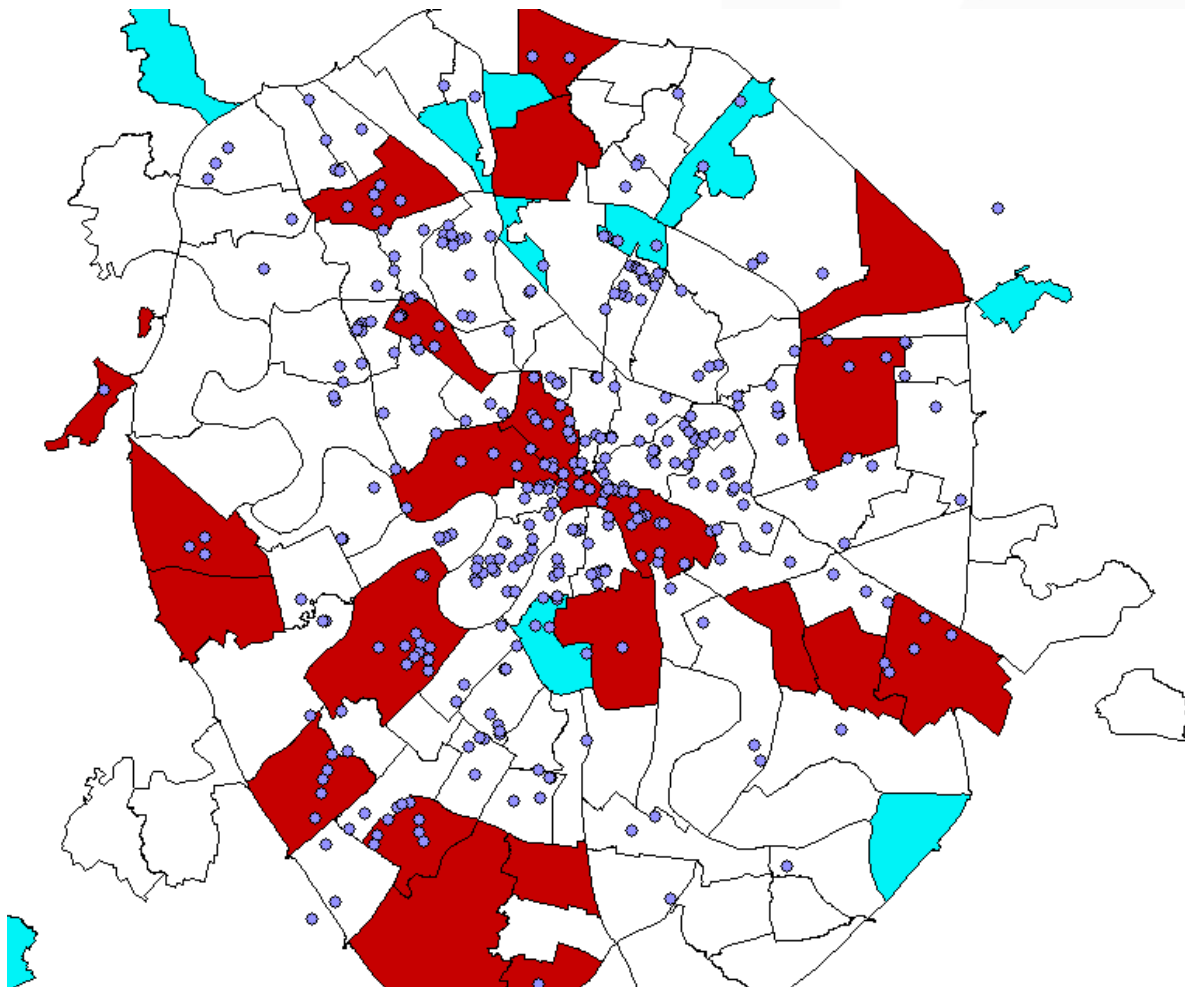
The districts with higher concentration of universities have higher rate of investment in capital





## Indirect impact. Criminality level

Where is no link between universities location and criminality level



## Main conclusions

- **Mismatching between graduates specialty and market requirements**
- **Weak capacity for direct link (joint projects, research, etc.)**
- **Unbalanced arrangement of universities**



**It is necessary to redirect the system of higher education in Moscow to meet the needs of the city**