



NATIONAL RESEARCH
UNIVERSITY

Measuring direct and indirect impact of Moscow higher education system

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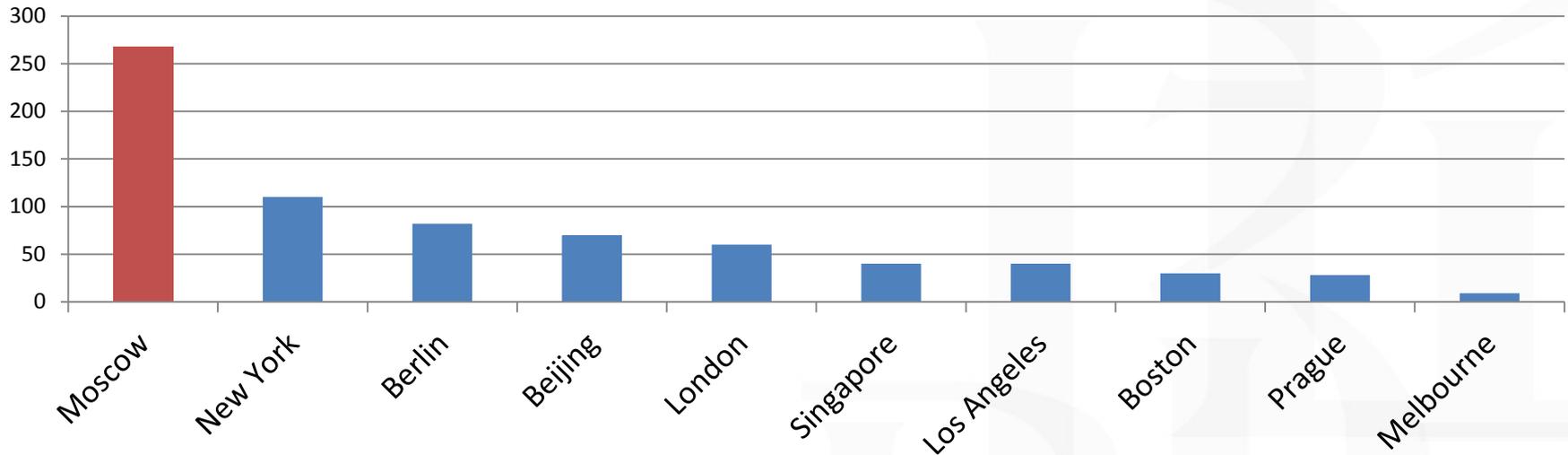
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Incredible scale of HE system in Moscow

Number of universities

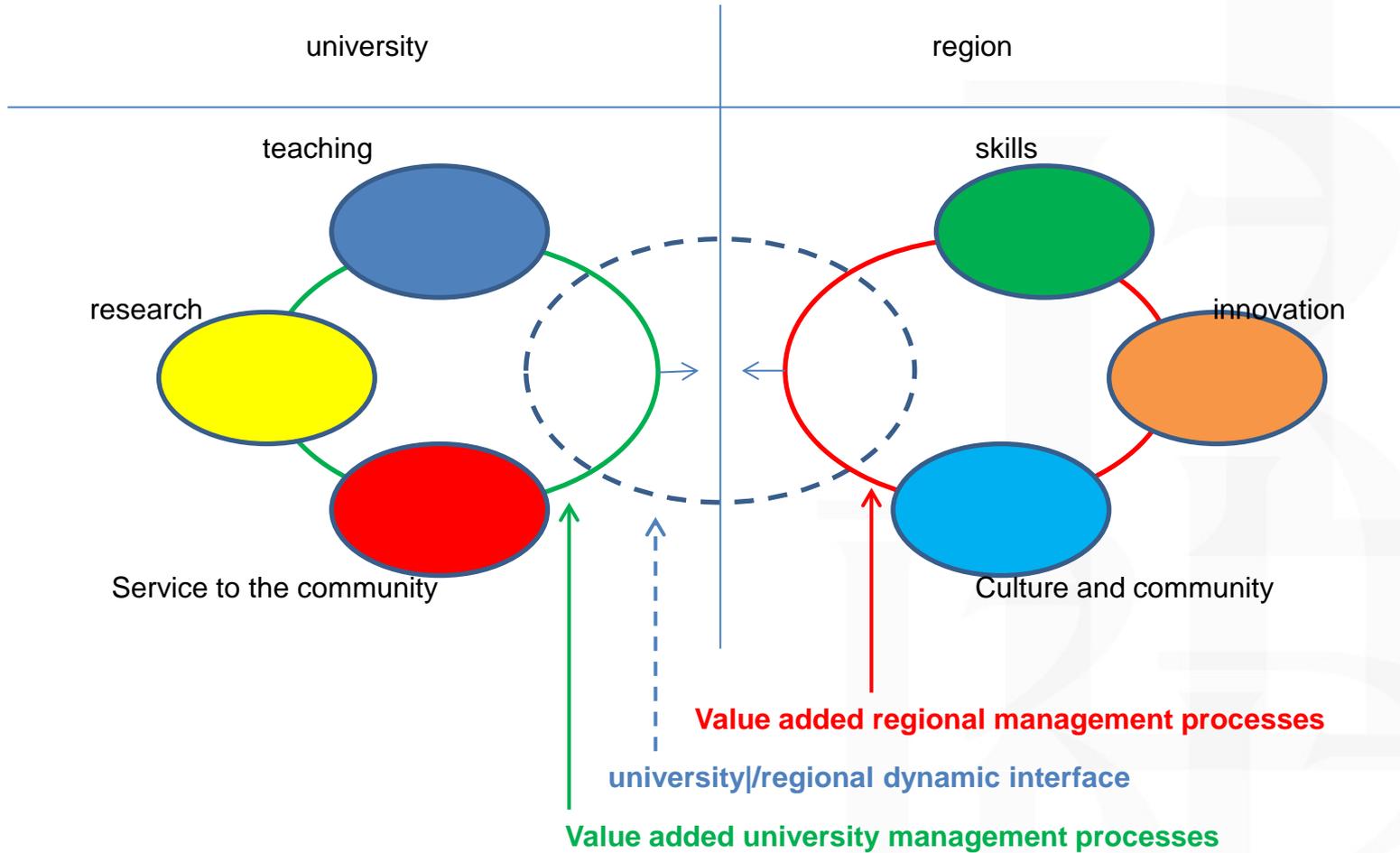


- **Quantity of students in Moscow is around 1,2 ml. st.**
- **Each fourth Russian HE institution is in Moscow**
- **Each tenth Moscow inhabitant is student**

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

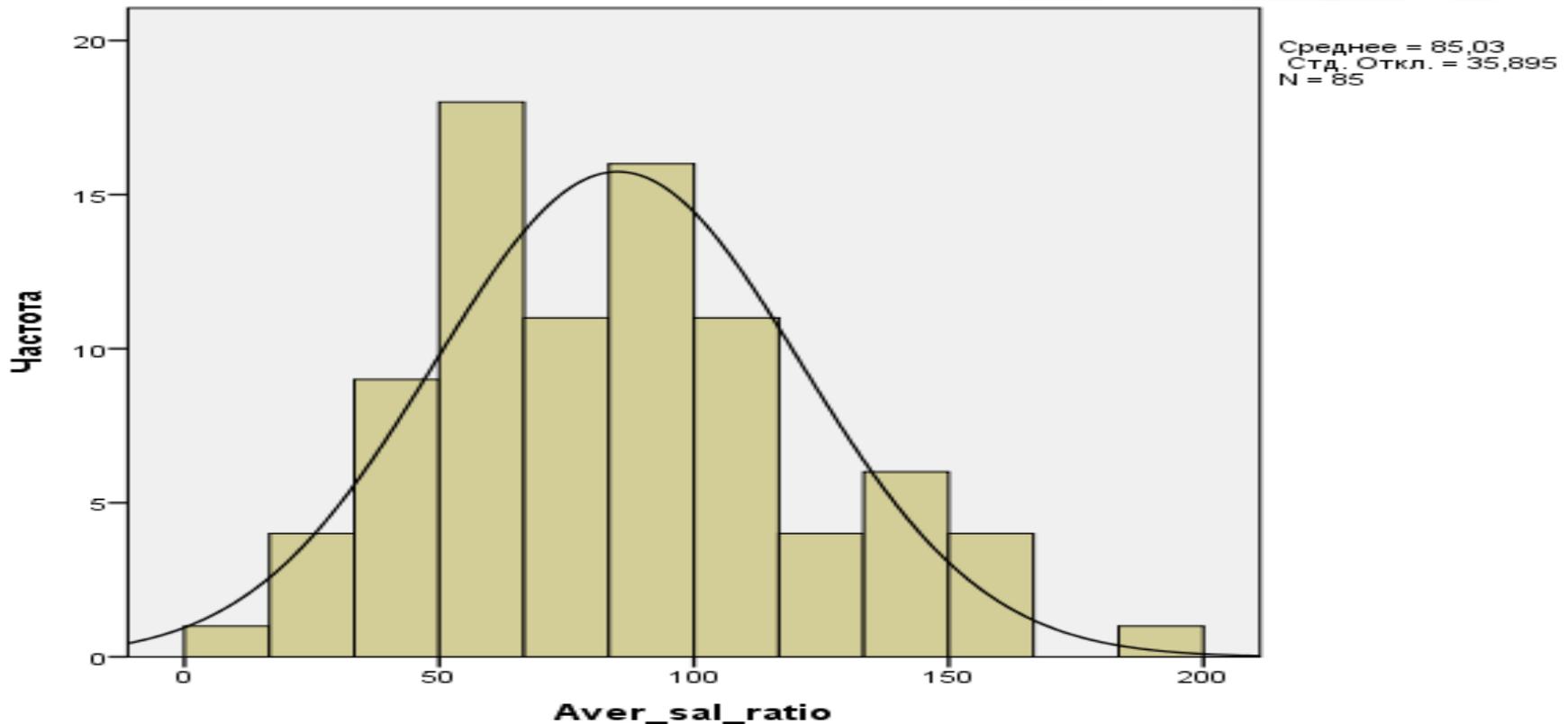
- I. Measurement of direct economic impact of Moscow HE system**
- II. Moscow higher education complex. Retrospective analysis**
- III. Measurement of indirect impact of Moscow HE system (using Geo Information System – Moscow HE atlas)**

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



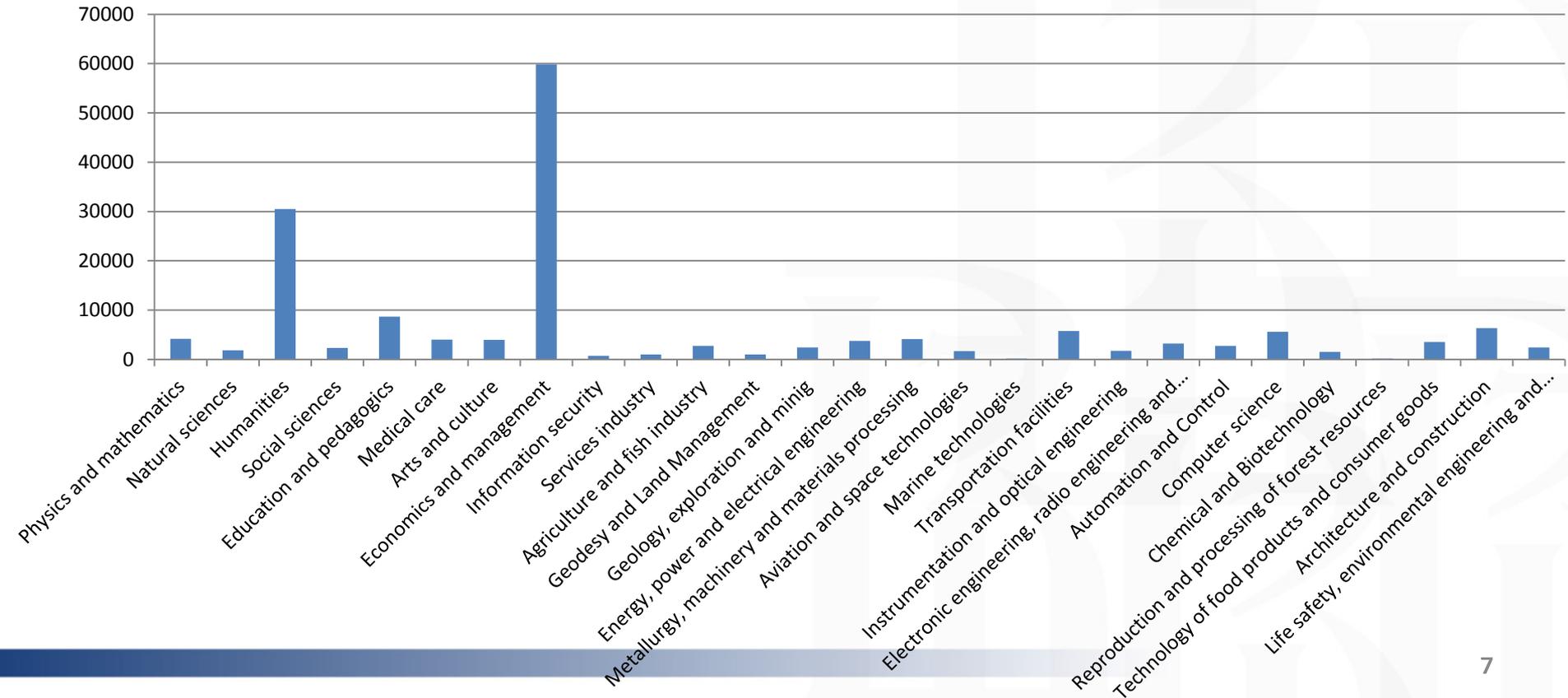
Each year, students spend
for residence in the Moscow
about 2,9 bln. \$



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

Significant mismatch between graduates having concrete specialty and market requirements

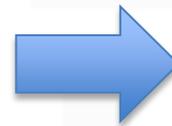
The distribution of the graduates by specialty, 2011



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

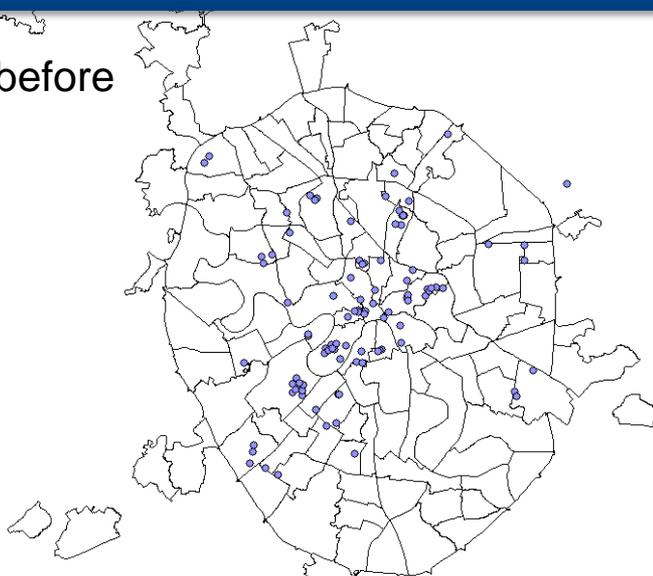


Moscow HEI system at present time

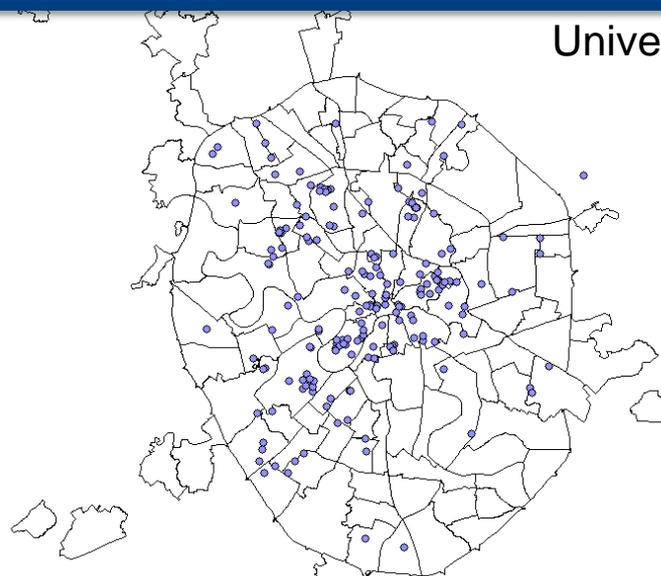
- The system of alumni distribution disappeared, but still 50% of Moscow students are non-resident
- 77% of graduates remain to work in Moscow
- Just 4 of the 109 Moscow universities are controlled by city (total budget of public universities is 10% of Moscow budget)

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

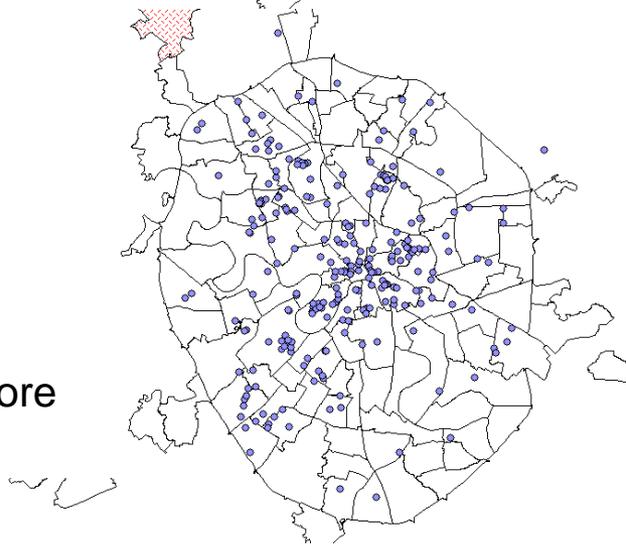
Universities before 1920



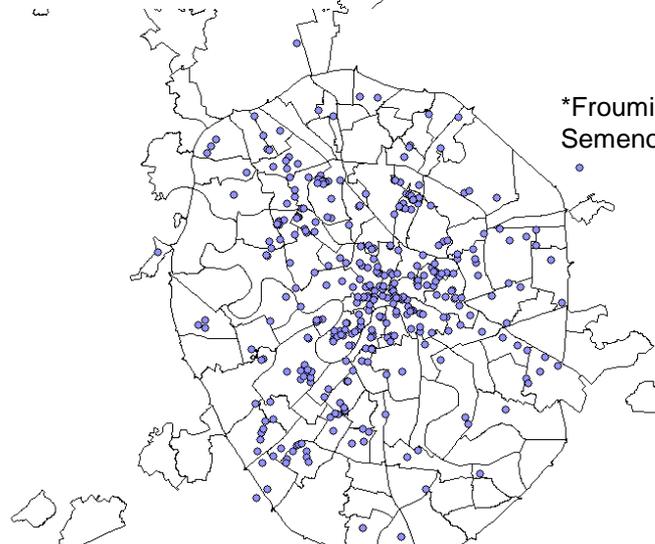
Universities before 1939



Universities before 1990



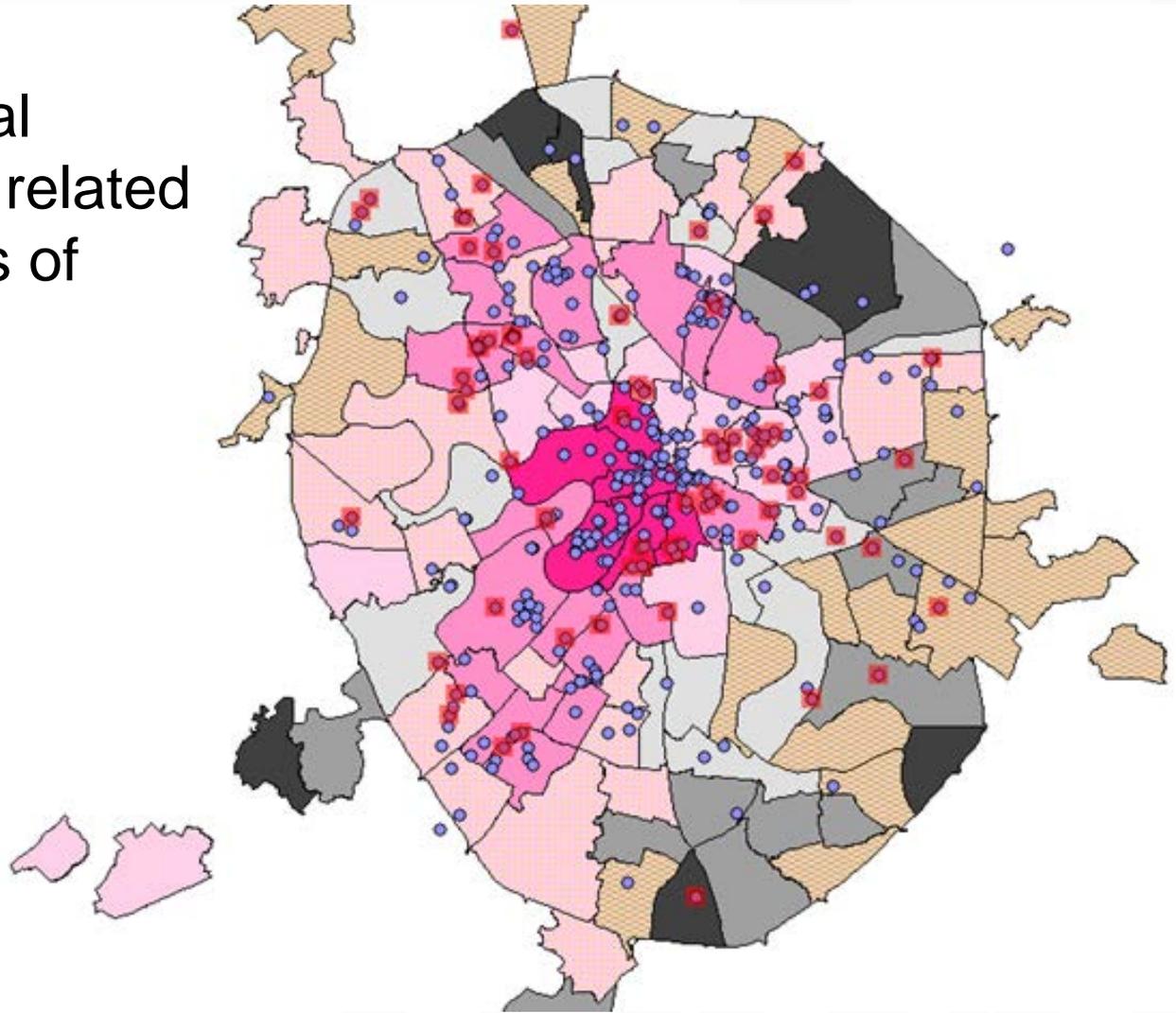
*Froumin, Kuzminov, Semenov 2013



Universities today

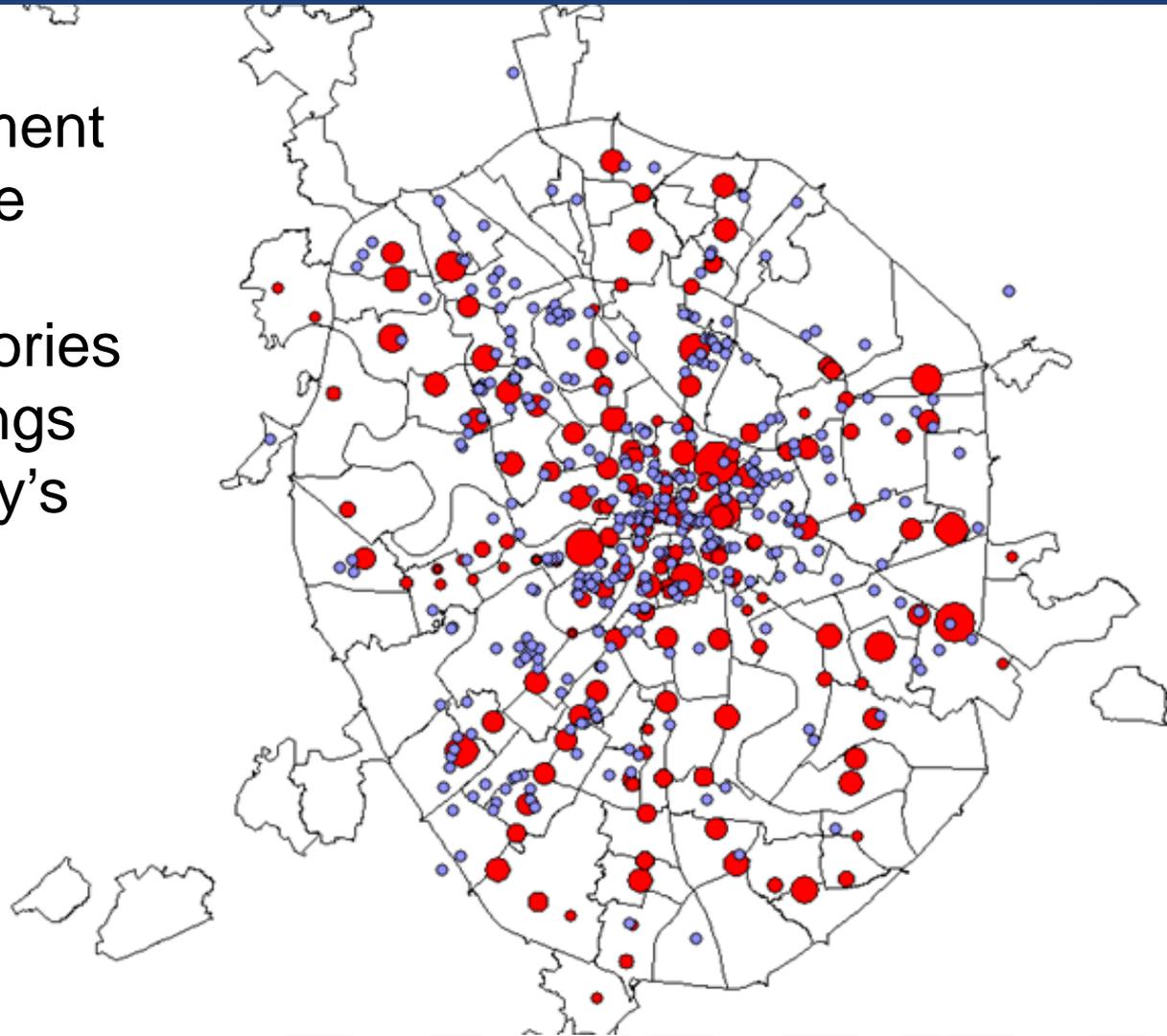
Measurement of indirect impact of Moscow HE system. Moscow functional zones map

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



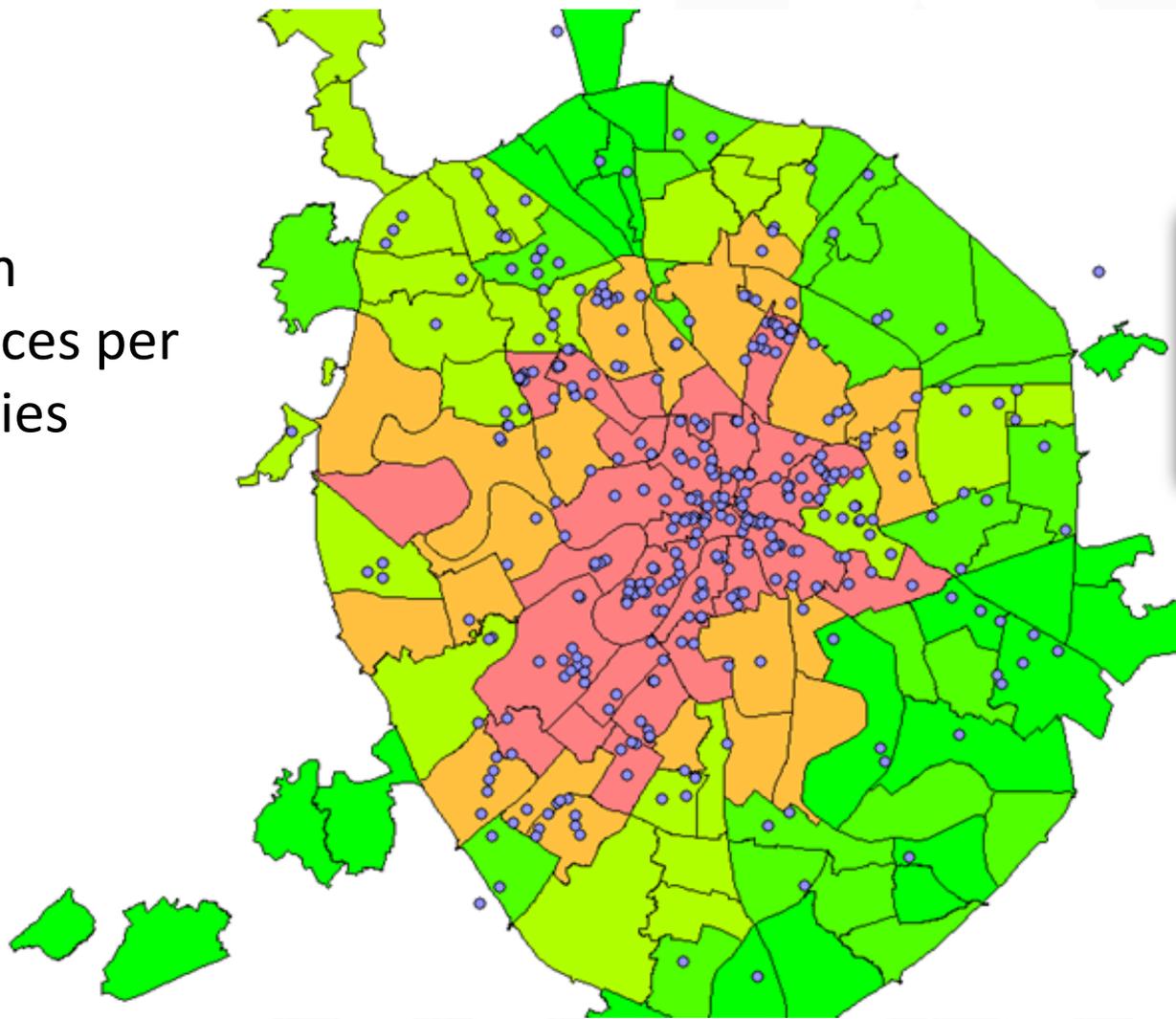
Measurement of indirect impact of Moscow HE system. The pressure on the city transport system

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



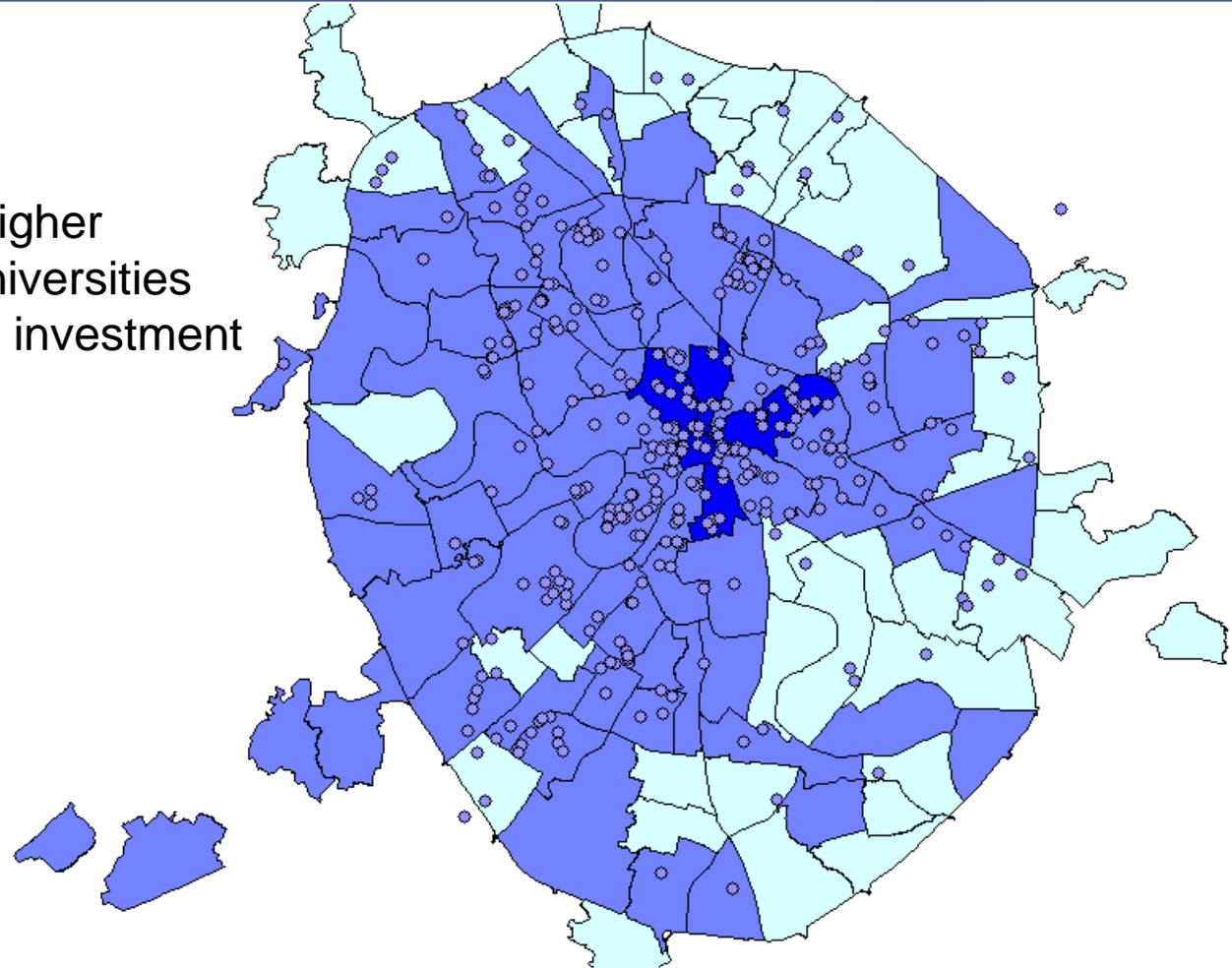
Indirect impact

The strong correlation between property prices per districts and universities location



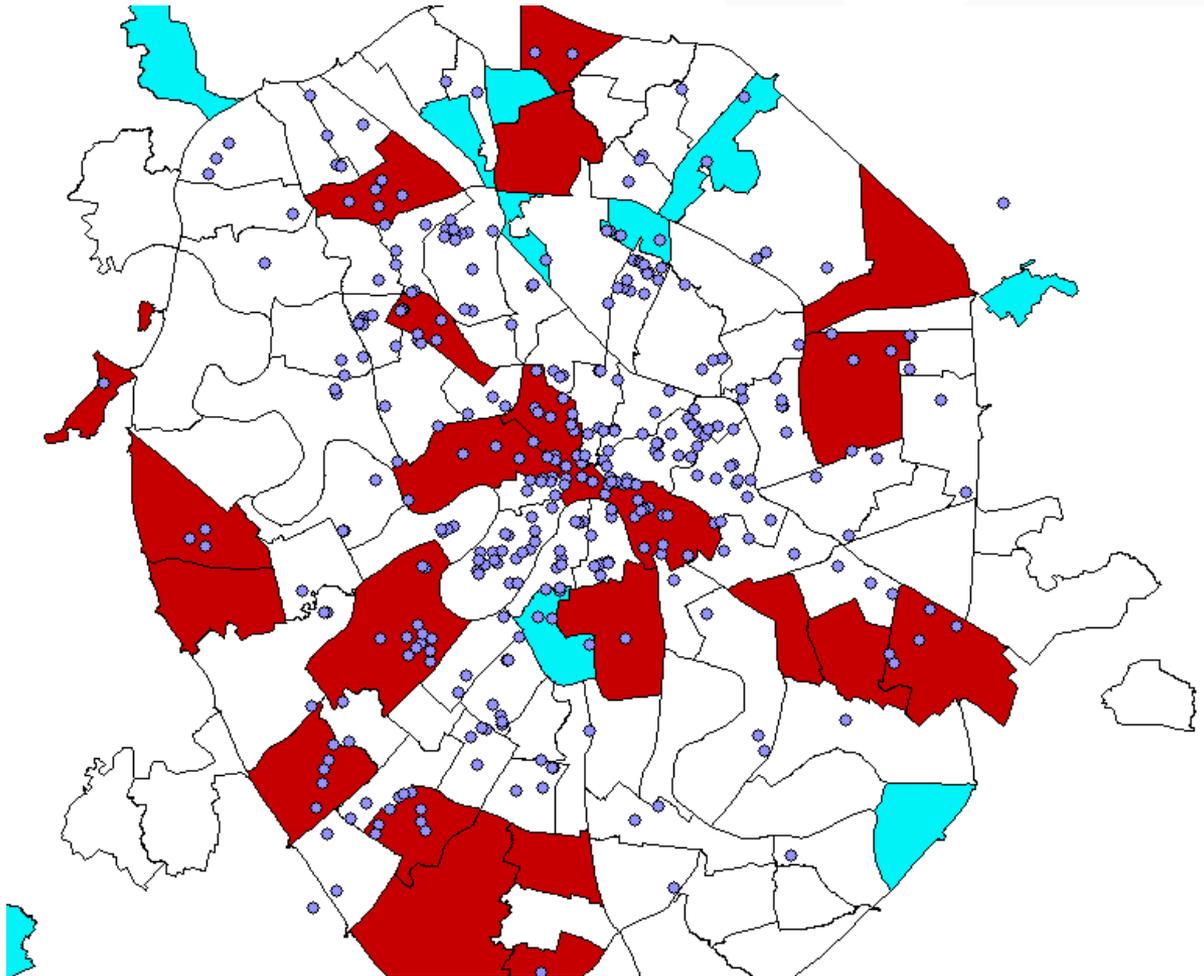
Indirect impact. Investment in capital

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