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Institutions and the Allocation of Talent: Evidence from Russian Regions

Strong impact of institutions on economic growth and welfare is supported by the preponderance of empirical evidence. There is also a general consensus about the mechanism linking institutions to economic outcomes: institutions affect the allocation of resources in the economy. Strong institutions protect property and contracts and reward productive activities, whereas under poor institutions unproductive activities rise in their attractiveness and draw resources away from production into redistribution. This includes the deployment of human resources, which is highly sensitive to institutional. However, rigorous empirical support of this conjecture, so far has been insufficient, and the present paper fills this gap.

We propose a theory that shows that more talented individuals are particularly sensitive in their career choices to the quality of economic and political institutions. We draw our hypotheses from an equilibrium model, in which an individual can choose between productive activities and redistribution (the latter involves both attempts of rent-seekers to encroach on producers' property rights, and protection from such attempts). An individual selects one of these activities depending on his/her talent, which is a payoff multiplier (irrespective of the chosen activity), and on idiosyncratic preference for redistribution over productive activities shaped by disposition, background, prestige, and other non-pecuniary. Novel features of the model are the inclusion of "offensive" and "defensive" activities as parts of redistribution, and the analysis of the consequences of complementarity between talent and institutional quality.

The model shows that improved protection of property rights causes more individuals to choose productive activities over redistribution. However – and this is perhaps the most important novel feature of the model – such response is uneven across the range of abilities: less talented individuals are not as sensitive to the institutional quality in their occupational choices as those with higher (but not necessarily highest) general abilities.

To test the above predictions empirically, we provide evidence that institutional quality indeed strongly affects the allocation of talent measured by the selection of fields of study by university students. We consider the enrollment in sciences, technology, engineering, and mathematics (STEM) as a proxy for the allocation of talent to productive activities, whereas excessive enrollment in law or law and public administration is viewed as evidence of attractiveness of redistribution.

To obtain such evidence, we use Russian regional data, since subnational comparative analyses are less susceptible to omitted variable bias, than cross-country studies. We employ a unique micro data set describing the choices of fields of studies by newly enrolled university students in Russian regions over 2011-2014, which contains applicants' Unified State Examination scores used as talent proxies. We show that, in accordance with what the theory predicts, the popularity of sciences and engineering among Russia's youth with higher ability increases in the quality of regional investment climate, whereas for law and public administration such link is markedly negative. Furthermore, more talented individuals (with higher State Examination scores) are more responsive in their career choices to the quality of institutions, than their less talented peers whose choices of the fields of study are to a greater extent driven by idiosyncratic preferences and other, non-institutional, factors. Various specifications of empirical models consistently support the above findings, which are therefore highly robust. We also show that cross-regional mobility of Russian university graduates weakens the impact of local (regional) institutions on the allocation of talent, which is also consistent with the predictions of the theory.

These findings shed light on the gap between private and public returns to post-secondary education in Russia, and demonstrate that without improving its institutions the country would not be able to rely on investments in human capital as a driver of economic growth. More generally, our results put the link between institutional quality and the allocation of talent on a much firmer empirical footing than has been achieved in the literature so far.