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# Globalization and the attitudes toward higher education: A policy discussion 

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We study how attitudes toward higher education may affect labor market outcomes in the context of globalization. In particular, we find that different educational attitudes are responsible for differences in the wage differential among countries, specifically, an economy that is less willing to invest in education will display a lower wage differential but will lose in terms of welfare. From a policy perspective, we show that the negative effects on welfare due to this disinclination to study can be offset by increased labor market flexibility. All things considered, policy makers ought to keep in mind that both a positive attitude toward higher education and labor market flexibility can lead to improved overall performance in this increasingly globalized world.

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## Introduction

Globalization is rapidly changing the international landscape and is bringing new and unexpected opportunities for those who are ready to grab them. However, it is also making it more difficult for some people to adjust to the changing conditions. In particular, those on the lower end of the skill ladder will find themselves in a tight spot if they are unable to move up. Education, both formal and informal, is thus an enabler of opportunities and a booster of low skilled workers' productivities that can help to make up for their globalization-related losses. Understanding people's concerns (or lack thereof) for higher education in a globalized world becomes an important political matter.

Education is a means by which workers can keep up to date with higher productivity requirements. The globalization process makes for a more demanding and competitive labor market environment, and workers, especially low skilled, are the first to experience negative effects. That is why the education decision cannot be taken lightly, as it has to do with potentially higher wages and, thus, a catching-up in terms of welfare with respect to those in the higher productivity range.

The main goal of this policy brief is to discuss the policy choices that we believe will have, in the context of globalization, a positive impact on the attitudes toward higher education and, thus, on labor market outcomes in general. In other words, highly educated people can make better decisions when adjusting to the ever-changing nature of an increasingly globalized world.

## Previous evidence

## Highly educated people can <br> make better decisions when <br> adjusting to globalization.

Recent empirical evidence shows an unambiguous and strong positive correlation between globalization and the high-to-low skill ratio in many European countries (OECD Economic Outlook, 2017; OECD World Indicators of Skills for Employment Dataset, 2017; and own calculations). The welfare implications of such a trend are straightforward, namely, a growing high-to-low skill ratio will certainly drive a larger wage gap, at least in the short run. Moreover, for the same group of European countries, the data suggest a positive relationship between the growth rate of the share of high-skill workers during 1998-2013 and the relative earnings in 2013. This implies that in places where the share of tertiary-educated workers has been increasing more rapidly, the resulting wage inequality is expected to be higher. How then to tackle the resulting wage inequality of a growing high-to-low skill ratio? Promoting education and labor market flexibility are, in our view, a powerful combination of policies (see also Agnese and Hromcová, 2016).

Our results are in line with the traditional globalization literature. For instance, countries that are more open have experienced faster productivity growth rates, with education

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playing an important role (Edwards, 1998). Moreover, an increase in the level of openness of countries is highly correlated with an increase in the returns to education but also with the skill premium (Epifani and Gancia, 2008). Furthermore, trade enhances wage inequality but it can either raise or reduce unemployment (Helpman et al., 2010).

We know that human capital accumulation, that is, the process of acquiring skills both by education and on-the-job training, remains a strong growth engine (Lucas, 1988); and we also know that countries with larger pools of skilled labor are more productive overall and better prepared to handle economic shocks. On the other hand, the factors responsible for educational decisions may be of a social nature. For instance, parents (family expectations), classmates, and teachers, can influence young peoples choice of career paths. In addition to that, the students' intentions to pursue higher education are significantly correlated to their performance at school (Malmström and Öqvist, 2016).

## Our contribution

We thus posit that the individual characteristics that lead to different educational decisions can be shaped by the social environment and government policies. In particular, societies with a different distribution of these characteristics will proceed along different trajectories in reaction to the same globalization shock. The skill upgrading resulting from the education decision will take place slowly if the views regarding higher education are polarized, or faster when they are not. Propitiating a fast and
smooth shift toward higher education depends on sensible policy-making.

Globalization and competition go hand in hand while producing serious productivity imbalances as resources are reshuffled among sectors. Skillbiased technical change (SBTC), that is, the increasing productivity gap between high and

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low skilled workers, is therefore an expected result of globalization (see Berman et al., 1994, for instance). By assuming the SBTC hypothesis we are arguing that high-skill workers are better suited to the new technological aspects offered by globalization, as pointed out earlier.

Our model suggests that an economy more willing to invest in education will gain in terms of welfare in a post-globalization context, in spite of a higher wage differential. Moreover, the resulting wage gap will be temporary and can be dealt with by improving labor market flexibility.

In particular, our model shows that a more polarized distribution of attitudes toward higher education, as measured by the PISA scores gap, will make for a smaller effect of globalization on the share of low skilled workers. In other words, the adjustment, if any, will be slow.

The results show that the skill decision adjustment to globalization will trigger changes in other variables, for instance, wages and profits, which will determine how many

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vacancies of each type will be posted. In the end, if there are many workers that stay low skilled then firms will open many low skilled vacancies, and vice versa. This situation implies better matching prospects for the low skilled and, thus, higher wages for them and a reduced wage gap. However, the economy will not get off scot-free, as the worsening matching conditions for the high skilled will, in the end, lead to lower overall welfare.

In spite of a possible slow adjustment because of polarized views regarding higher education levels, we unambiguously see that globalization is welfare improving for the economy as a whole yet low skilled workers are generally worse off. This is consistent with the idea that economies tend to adjust to the globalization process eventually, and what is more, that societies with a more flexible predisposition to education can achieve better welfare results.

We turn now to discuss our results more in detail. We calibrate our model for Germany for the period 1998-2013 and try to assess the effects of globalization and the role of educational attitudes. We choose Germany because, first, its skill distribution of the labor force is close to the EU average (and median) in the initial year, and second and more important, it is an important player in the international scene.

## Changes in educational attitudes

Several EU countries in our sample show a very similar share of low skilled workers to that of Germany in 1998 (the initial year of our analysis), but then their 2013 values (the final year) are suggestive of very different patterns.

Let us take France and Ireland as benchmarks, for instance-the former being a relatively equal-sized EU country in terms of population and GDP per capita, the latter being the EU country where skill upgrading expanded the most with the exception of Luxembourg. In particular, the shares of below-tertiary education in 2013 were 64\% in France and 55\% in Ireland, compared to $71 \%$ in Germany.

Our results suggest that if Germany had shown the educational attitudes which are intrinsically consistent with a larger share of high-skill workers, as the values observed for France, then relative wages would have been $0.5 \%$ higher and welfare would have been $1 \%$ higher. Moreover, if the German economy had reduced the share of low-skill workers to the much lower Irish value, then relative wages and welfare would have been $1.2 \%$ and $2.5 \%$ higher, respectively.

What lies at the root of these differences, we contend, are the different views and attitudes toward higher education. In particular, for our exercise here, had the degree of polarization of educational attitudes been lower in Germany, then the overall welfare would have been higher.

## Changes in labor market conditions

In general, labor market flexibility can improve welfare results (see Jung and Mercenier, 2014, or Agnese and Hromcová, 2016). Our second policy experiment shows how to offset the effect of a higher polarization in the attitudes toward higher education by reducing the vacancy cost and thus making it easier on employers to hire new employees.

Lowering the cost of the vacancy means that it becomes relatively less expensive for firms to hire-bringing the unemployment rate down

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and raising wages up for both types of workers. Producing the same welfare results as above would imply cutting down the vacancy cost by $3 \%$ and a 9\%, respectively. Arguably, such a rollback will bring the welfare levels to those corresponding to a less polarized economy while, at the same time, will help reducing the existing wage inequality.

## Policy Implications

The results from the research suggest that sensible policy-making requires some finetuning between education-related measures and labor market flexibility.

For the former, we posit that such measures ought to be designed as to awaken awareness regarding the benefits of higher education. For instance, by improving its accessibility through merit-based scholarships or through a broader exchange between companies and universitiesthese measures will certainly make for a lower polarization of the attitudes regarding education as a whole.

Increased labor flexibility, on the other hand, not only will provide the much-needed context to remain competitive in the world economy, but will eventually help workers achieve higher levels of employability and, thus, higher levels of productivity and wages.


#### Abstract

A word of warning must be offered at this point however. The coordination of these two policies or some other substitutes will require careful sequencing. In particular, it is to expect certain coordination between the two as to avoid the well-known short-run adverse effects of flexibility in the context of rapid globalization. In other words, implementing these policies sequentially, such as first, improved access to education, and second, increased labor market flexibility, will help toward a smooth transition to a new "equilibrium" for all parties involved, but especially for low skilled workers.


## Conclusions

The world is changing fast, and with it the skill requirements of growing and competitive firms. With respect to policy-making, we believe our two-pronged proposal is not only consistent with the dynamics of international markets, but more importantly, with the need to develop a better understanding of the advantages offered by education and specialization.

Failing to understand this changing reality by not addressing the empowering nature of higher education and the ameliorating character of labor market flexibility, will result in unnecessary costs for society.

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## References:

1. Agnese, Pablo and Hromcová, Jana, 2016. Low-skill Offshoring and Welfare Compensation Policies, Economic Modelling 52, 408-426.
2. Berman, Eli, Bound, John, and Griliches, Zvi, 1994. Changes in the Demand for Skilled Labor within U.S. Manufacturing: Evidence from the Annual Survey of Manufacturers, The Quarterly Journal of Economics 109, 367--397.
3. Edwards, Sebastian, 1998. Openness, Productivity and Growth: What Do We Really Know?, The Economic Journal 108, 383-398.
4. Epifani, Paolo, and Gancia, Gino, 2008. The Skill Bias of World Trade, The Economic Journal 118, 927-960.
5. Helpman, Elhanan, Itskhoki, Oleg, and Redding, Stephen, 2010. Inequality and Unemployment in a Global Economy, Econometrica 78, 1239--1283.
6. Jung, Jaewon and Mercenier, Jean, 2014. On modeling task, skill and technology upgrading effects of globalization with heterogeneous labor, Economic Modelling 39, 49--62.
7. Lucas, Robert E., Jr., 1988. On the Mechanics of Economic Development, Journal of Monetary Economics 22, 3--42.
8. Malmström, Malin and Öqvist, Anna, 2016. Students' Attitudes and Intentions Toward Higher Education as Determinants for Grade Performance, International Journal of School and Educational Psychology 6, 23-24.
9. OECD Employment Outlook 2017.
10. OECD World Indicators of Skills for Employment Dataset, 2017
