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Estonia: A Troubled Education System with Promise

Estonia is one of the world's leading educational technology centers. Estonian schools are mostly in the cloud and one hundred percent of schools use e-school solutions (Cision PR Newswire 2020). Their promotion of technology extends across the globe however due to low birth rates, a large poverty gap and language barriers for immigrants, the higher education system is problematic. I will investigate Estonia's population, economic state and the lack of access to their education system for rural citizens and possible solutions.

Estonia is a very small and recently independent country in Northern Europe, which is organized as a Parliamentary Democratic Republic. It has a president who is used as a ceremonial figurehead with no executive power. Estonia is known for being very windy due to its being located right next to the Baltic Sea (Tallinn, May 1995). Its climate can be very temperate and mild, with warm summers but very severe winters. Estonia is split up into more than two thousand islands and consists of numerous beaches, rocky terrains, and growth forests (Lembit Michelson 2021). The number of dense forests leaves only sixteen percent of all of Estonia suitable for growing crops. Compared to the eight hundred ninety-six million acres that the United States have, Estonia only has 1.3 million hectares of agricultural land that is suitable for farming. Estonia's primary agricultural commodities are grains such as wheat, barley, rye, and oats. One of its largest exports is animal products such as dairy, meat, and fish (Tallinn, May 1995). Most of these products are exported to Finland, Sweden, Latvia, or Russia (OEC 2019).

The population of Estonia is approximately 1.28 million people with more than sixty-nine percent living in urban areas (World Population Review, 2021). The capital of Estonia is Tallinn, home to approx four hundred thirty-eight thousand, five hundred people which is almost a third of the country's total population (Study in Estonia 2018). It is common for multiple families to live in large townhouses together however the average household is considered to be 2.2 people. The Estonian diet consists of rye bread, pork, potatoes, and dairy products. Like most developed countries, citizens buy these essentials at grocery stores. In Estonia healthcare is provided for everyone and treatment is equally available in all regions (Work Estonia 2018). Even though it is not free, every man, woman, or child has access to healthcare. It is ranked twenty-first in the world for healthcare (World Population Review 2021). The most common jobs in Estonian are in

the Media or Marketing Industries, with the average income at €1150 per month (Y Axis 2020). Every Estonian also has access to clean water, toilets, electricity, telephones, roads, and local markets.

Estonia has one of the strongest higher education systems among all European countries. The Estonian education system is known for having had a Technological Academic Revolution (Keystone 2013). They have modern technologies, including interactive whiteboards, robotic sets, programmable embroidery, CNC machines, and digital data loggers in most universities (Keystone 2013). It is one of the first countries in the world to hold online elections (Worksop 2017). Estonia has high prestige in education but unfortunately not every child has access to higher education. Most families can send their children to pre-primary school but a majority of students that live outside large cities in Estonia do not have access to higher education. Therefore nearly all children attend primary school but eighty percent of students that live outside major cities don't attend university (Estonica 2014). Education also has enormous social benefits. It saves lives by magnifying the effects of improved sanitation, reducing the risk of conflict, and improving food security (Qatar Foundation 2015). By increasing the amount of rural citizens' access to higher education you help to secure the country's future food security.

One of the leading reasons why Estonia has such high poverty rates is because of the gap between classes. Estonia has a high poverty rate with 2.2% of the population living in absolute poverty and 20.6% living in minor poverty in 2020 (Estonian World 2021). Most students that end up receiving a low-level education have a thirty-three percent chance of living in poverty (The Borgen Project 2017). The elderly are even more at risk with more than forty percent of individuals over sixty-five living below the poverty line (The Borgen Project 2017). One of the largest reasons for such a high poverty line is the lack of children in the country to help Estonia grow financially. Estonia has one of the lowest birth rates in Europe with only 1.66 births per woman (Data Commons 2019). Low birth rates are associated with less growth, a more rapidly aging population, and, therefore slower economic expansion. For example, there are more forty-five-year-olds in Estonia than fifteen-year-olds (Data Commons 2019). Estonia's population is expected to continuously decline, it is predicted that in 2030 there will only be 1.1 million people compared to the 1.28 million people today (World Population Review 2021). A low fertility rate means that Estonia's population will grow older and shrink which will contribute to the decline of the country's education system. A way Estonia is helping to grow its population is by promoting the bigger the family, the better and on top of individual child benefits, the state pays three hundred and thirty-five dollars a month to families with three or more children (World Economic Forum 2019).

When Estonia finally broke away from the Soviet Union in 1991 the government ended up putting reforms in place that caused an increase in the gap between the rich and the poor (OECD Better Life Index 2018). In 1992 the Estonian government established a new monetary reform, which changed how much money different countries' currency was worth and made the Russian Ruble useless. This led to the top twenty percent of the population earning almost six times as much as the bottom twenty percent (OECD Better Life Index 2018). This reform also created huge “social barriers” between the two groups and created conflict especially when segregation extended to minority ethnic and racial groups (The Borgen Project 2017). In the article “THE DEEPLY ROOTED CAUSES OF POVERTY IN ESTONIA” by Julia McCartney, stated “This in itself is not inherently negative, aside from the fact that people are living in poverty, but can lead to conflict when the segregation extends to minority ethnic and racial groups.” This big socio-economic gap directly affects the education system in Estonia in a large way. Since there is such a divide most rich are moving to certain large cities while the poor are forced to live in more rural areas where they do not have access to higher education. In 2015 Estonia ranked first in the Program for International Student Assessment however these scores only came out of private universities that wealthy students can attend. Most low-income families live on farms and don't have the money to be able to send their children to universities, which are mostly located in large cities. This leads to the uneducated having a large likelihood of living in poverty and the segregation between the two groups continuing.

The Estonian government can close the poverty gap by implementing progressive taxation which would benefit all of its citizens. This simply means that high-income families will have to pay more taxes than impoverished families. This is a simple fix many South American and African countries have used to try to minimize the poverty gap (LibreTexts 2020). The progressive income taxation could give Estonia a more equitable income distribution, higher revenues, less financial and economic volatility and faster growth. The money could be used to build schools in rural areas or to create infrastructure such as public transportation. As noted in the Daily Capital article Progressive Tax: Definition & Advantages “...because progressive taxes lower the tax burden on citizens who can least afford to pay taxes. At the same time, they permit citizens who possess the most resources-and hence, can afford to pay a higher tax amount-paying for more of the government services we all use.” If Estonia was to implement this simple taxation system it would benefit not only the impoverished, but the country as a whole. It would help the low-income families by giving them an opportunity to get higher education, but it would also benefit the future workforce of Estonia.

About one-third of primary school children in Estonia are immigrants from Russia (The Atlantic 2016). This creates a huge language barrier between native Estonians and immigrant Russians. Russian children end up falling behind and most of them end up going to the vocational education system, which is widely viewed as a dumping ground for students who cannot make it

into the academic curriculum (Education Week 2015). One solution many African countries that have had the same problem have done, is they have two schools for different languages. Estonia could have one school for the students that speak Estonian and one for the students that speak Russian. This would help both the Estonian students and the Russian students and might have a positive impact on the overall education system. Having the native language, Estonian as a “Second Language” curriculum for Russian immigrants in the primary schools as done in the United States is another solution to this problem. American ESL programs are designed to give students special attention while learning and practicing English so they can integrate the language into a regular classroom (Very Well Family 2020). Second Language programs would help immigrants to acclimate and be able to function at a higher level within the Estonian school system.

Having more universities, not in larger cities but spreading them out to give more of Estonia's future students from rural areas and lower incomes a chance to have higher education is a solution to equality in gaining access. Currently, fourteen out of twenty-four large universities in Estonia are in the capital, Tallinn (Study in Estonia 2018). Maps of all of the colleges in Estonia show you that there are only pockets of places in all of Estonia that have universities. On a map of the United States, you have colleges in every corner of the country. Even if you were to look at a less developed country in Europe like Ukraine, the universities are much more spread out compared to just having them in major cities. Since the 2012/2013 academic year, higher education is free of charge in Estonia for those studying full-time and in Estonian (Republic of Estonia, Ministry of Education and Research). If Estonia makes it easier for more rural students to have access to higher education, more students will be able to go to university which would change the poverty rate for the entire country.

A large amount of capital would be needed to make changes like incorporating second language curriculums, separate schools for different languages, free higher education, and universities in rural areas. Estonia could help fund the changes necessary to build a stronger education system through NGO open grants. NGO stands for Non-Governmental Organization, it is a non-profit group that serves a social or political goal such as humanitarian causes or the environment (Candid Learning 2021). This is a way for some developing countries to be able to positively affect their country without taxing their people. Some of the money gained can be used as an incentive to recruit effective teachers to the schools. Having quality educators reliably present in schools creates a superior education which in turn positively affects the overall health of the nation. Part time teachers with less accreditation allows flexibility for the employee and although they may not possess the required license they can make a positive impact within school systems. School based management eliminates costly administrative salaries and by giving educators decision making authority it has been proven to “...have reduced teacher absenteeism, increased

teacher work hours, increased homework assignments and improved parent-teacher relationships.” as noted in Emiliana Vegas’s “Teacher Labor Markets in Developing Countries.”

The transition of Estonia to a Democratic Republic led some families to limit the number of children they have. Estonians are living longer and the cost of the universal health care system creates a heavy burden on the current labor force. The distribution of monetary child benefits to the family for each child birthed would help the country to expand their population. Most Western European countries have what's called a “universal child benefit, or a basic income going only to families with children.” (Vox 2016). Economical assistance reduces child poverty and therefore its implementation will help citizens to be able to have more children. This will benefit the society as a whole as these children grow and become productive parts of the community. Programs that give money to families with children in turn help those children later in life with things like test scores, health and becoming part of the workforce for the county. If Estonia applied a monetary child benefits system at a greater scale they could increase their population.

The major problems found in my investigation are a large poverty gap, limited access to higher education, language barriers from a great number of Russian immigrants and low birth rates. Solutions to these problems are the implementation of a progressive tax, universities outside the cities that offer free higher education, second language curriculum in primary schools and/or separate schools for different languages within the country and monetary child benefits. Enactment of these goals would lead to more Estonians finding it easier to receive higher education and help to improve the country's poverty rate ensuring food security.

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