



## Managing Human Capital in an Era of Change

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### Abstract

This paper explores the impact of Human capital or people assets on the economy and individual earnings especially in an era of change. Research shows human capital has a strong relationship to both economic growth and productivity. One of the major elements is education attainment is considered an impetus for strengthening human capital. In this light, investment in education is of great concern to the government. Findings have shown that an educated workforce especially with a higher degree has a far greater advantage when getting employed and stretching its earning schemes longer than does the same with only a primary education. As a matter of living, educational level has found to have positive effect on the increase of life expectancy while reducing mortality rate among men than for women. To cope with changes, human capital is regarded as a value-added investment to ensure successful economic strength and social justice.

**Keywords:** Human Capital, Transformation Era, Education and Earnings

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## การจัดการทุนมนุษย์ในยุคการเปลี่ยนแปลง

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### บทคัดย่อ

บทความวิจัยนี้มุ่งศึกษาผลกระทบของทุนมนุษย์ต่อระบบเศรษฐกิจทั้งในระดับภาพรวมและในระดับการสร้างรายได้ของบุคคลท่ามกลางกระแสการเปลี่ยนแปลง ผลการศึกษาพบความสัมพันธ์ของปัจจัยทุนมนุษย์ต่อการเติบโตทางเศรษฐกิจและการสร้างผลผลิตภาพ โดยมีการศึกษาเป็นตัวแปรสำคัญในการเสริมสร้างศักยภาพของบุคคลเพื่อให้กลายเป็นทุนมนุษย์ ด้วยเหตุนี้ การลงทุนจัดสรรงบประมาณด้านการศึกษารัฐบาลจึงจำเป็นต้องคงไว้ให้เป็นนโยบายสำคัญ เนื่องจากแรงงานที่มีการศึกษาในระดับมัธยมศึกษาตอนปลายขึ้นไปจะมีโอกาสในการสร้างรายได้ได้มากกว่าและสามารถคงอยู่ในกระแสการทำงานได้ยาวนานกว่าแรงงานที่มีวุฒิเพียงประถมศึกษา ในด้านคุณภาพการใช้ชีวิต ระดับการศึกษายังลดอัตราการเสียชีวิตในกลุ่มเพศชายมากกว่าเพศหญิง จากข้อค้นพบดังกล่าวนำไปสู่การต้องส่งเสริมให้มีการลงทุนพัฒนาทุนมนุษย์ ซึ่งเป็นแนวทางที่เพิ่มมูลค่าให้กับระบบเศรษฐกิจและความเข้มแข็งของภาคสังคม

**คำสำคัญ:** ทุนมนุษย์ ยุคการเปลี่ยนแปลง ผลกระทบการศึกษา



## 1. Introduction

Education Costs Money, but then so does Ignorance.

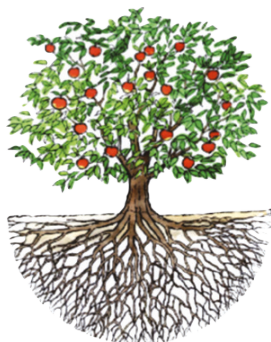
Sir Claus Moser

(Cited in Coaching Confidence, 20 October 2013)

Leif Edvinsson (2017) once asked, “when does the future start?” And the answer was 14 seconds. Within that scope, one sure way that the company can handle a swift change is through an effective use of its “Human Capital”. Edvinsson also showed a picture of upward roots tree to demonstrate the importance of nurturing the human capital’s skills and knowledge so as to act as a navigator accommodating ‘soon before’ or ‘just in time’ changes. (See Illustration 1). This research paper therefore aims at exploring the impact of educated human capital on economies, earnings, and living.

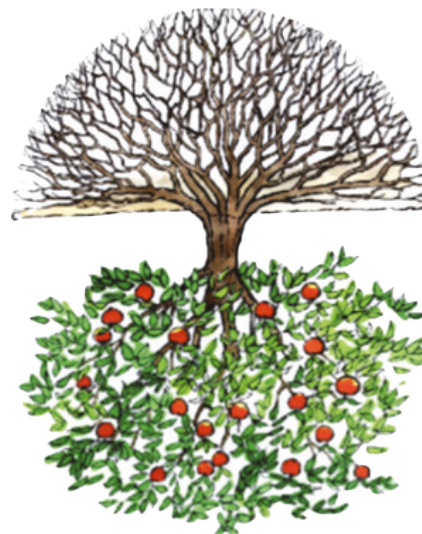
To prepare for the forthcoming the Future Center has been established to serve as platforms for collaborative innovation under the notion that “the best way to understand the future is to help create it.”. Illustration 2 demonstrates the various locations of Future Center worldwide.

**Illustration 1** Changing Mindset from Reaping the Fruits to Nurturing the Roots



**Traditional View:**

Fruits are Most Visible and Important



**Transformative View:**

Roots are Now Visible and Important



**Illustration 2** Return to Human Capital Investment in Various Ages

**Real World Future Centers**  
Always Navigating the Past, Present and the Future...

Learn about the **Look, Feel, Action and Impact** of Several Real-World Future Centers

The map shows the following locations and their corresponding future centers:

- LEF (North America)
- The Dialogues House (Europe)
- The Shipyard (Europe)
- Skandia FC (Europe)
- MindLab (Europe)
- ThinkLab (Europe)
- MAD (Europe)
- Japan Future Centers (Asia)
- FC UK (Europe)
- FutureLand (Europe)
- Fujitsu Minato-Mirai I&FC (Asia)
- Telecom Italia FC (Europe)
- Pisca Be'er Sehva (Africa)
- Fuji Xerox KDI (Asia)
- FuTour Mobile FC (Africa)

Source: Future Center Alliance (2019)

## 2. Economic View on Human Capital Investment

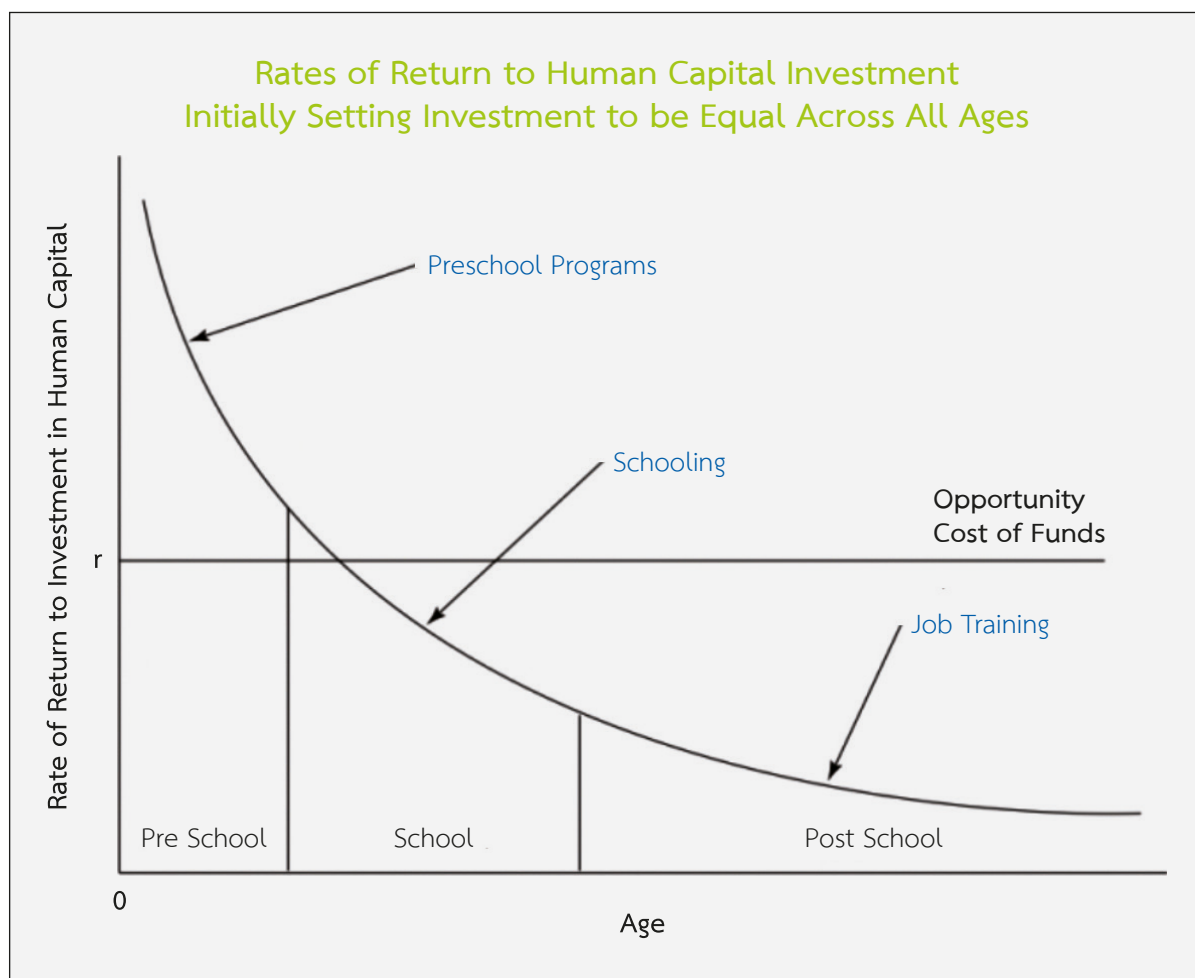
The idea that humans are a form of sound capital was first invented by the economist, Theodore Schultz, in the 1960s to reflect the value of human capacities that can be invested in using both education and training. Schultz (1960) believed human capital could lead to an improvement in both quality and productivity, as human capital has a strong relationship to an economic growth that can then be measured by how much investment is made into people's education.

"I propose to treat education as an investment in man and to treat its consequences as a form of capital. Since education becomes a part of the person receiving it, I shall refer to it as human capital. It is a form of capital if it renders a productive service of value to the economy. The principal hypothesis underlying this treatment of education is that some important increases in national income are a consequence of additions to the stock of this form of capital" (Schultz, 1960, p. 571)



In economic terms, human capital is a quantification of actual economic value for employers and for the economy, which can be recognized by investing in it. Like any other types of assets, human capital is also subjected to depreciation as is the case with unemployment and the inability to maintain skills with innovation and proper management. However, there is a certain caution as well as in that late investments do not successfully pay off, reminding a proper and just-in-time investment (Heckman & Carneiro, 2003). Illustration 3 demonstrates that late learning especially learning closer to retirement simply costs money and foregone earnings, while generating but moderate wages and less of an impact on the economy in terms of human capital.

**Illustration 3** Return to Human Capital Investment in Various Ages



Source: Heckman & Carneiro (2003, p. 93)



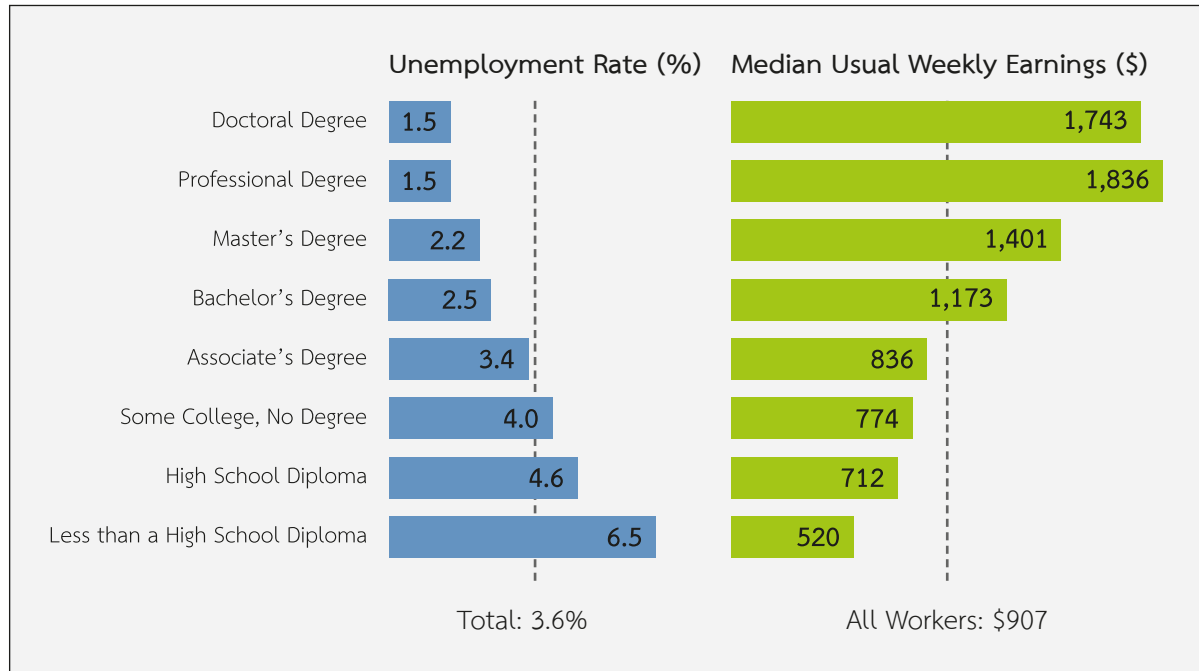
### 3. Impact of Human Capital on Economies and Earnings

Gary Becker, a 1992 Nobel Prize Laureate in Economic Sciences and a pioneer in the study of human capital, described human capital as education, training, and medical treatment as an effective means of production. Becker (1994) suggests that “schooling raises earnings and productivity mainly by providing knowledge, skills, and a way of analyzing problems.” (p. 19) According to Becker (1975), expenditures on education, training, and medical care, are regarded as investments in human capital wherein people cannot be separated from their knowledge, skills, health, or values in the way other forms of assets, such as financial and physical, can be separated. Increased human capital is essential for differentiating the income of graduates and influences the rates of economic growth. Becker further pointed out the important fact that new technological advances are of little value to countries with very few skilled workers and economic growth indeed closely depends on new knowledge as well as human capital.

The following excerpts is remarkable and intriguing from the thought of the Nobel Laureate Becker: “The outstanding economic records of Japan, Taiwan, and other Asian economies in recent decades dramatically illustrate the importance of human capital to growth. Lacking natural resources – e.g. they import practically all their sources of energy – and facing discrimination from the West, these so-called Asian Tigers grew rapidly by relying on a well-trained, educated, hard-working, and conscientious labor force. It surely is no accident, for example, that Japan’s systems of lifetime employment at large companies originated after World War II when they began to upgrade their technology rapidly partly by investing heavily in the training of employees. that makes excellent use of modern technologies. China, for example, is progressing rapidly by mainly relying on its abundant, hardworking, an ambitious population.” (Becker, 1975) And this era of 2019, the aforementioned statement has definitely proved itself right.

The economic benefits of human capital can be viewed on an individual and a national level. The economic benefits of human capital at the individual level is viewed by increased earnings against the cost of acquiring that capital, including the expensive schooling and university fees as well as money they not being earned during study years. The results of higher education end up as higher rates of employment than do the results for those who only complete secondary school. Higher earnings also suggest higher productivity, which in turn fuels economic growth.

In addition to earnings, education can have a significant impact on human capital far beyond one would expect. On average, OECD (2017) reports the gap in life expectancy between high and low-educated people is 8 years for men and 5 years for women at age 25 years, and 3.5 years for men and 2.5 years for women at age 65. As higher education does seem to be costly, the OECD data show that graduates can expect far greater lifetime earnings than can those without a degree. The lifetime benefit of getting a degree is the greatest in Ireland (Tozer, J, December/January 2017). (See Illustration 4)

**Illustration 4** Unemployment Rates and Earnings by Educational Attainment

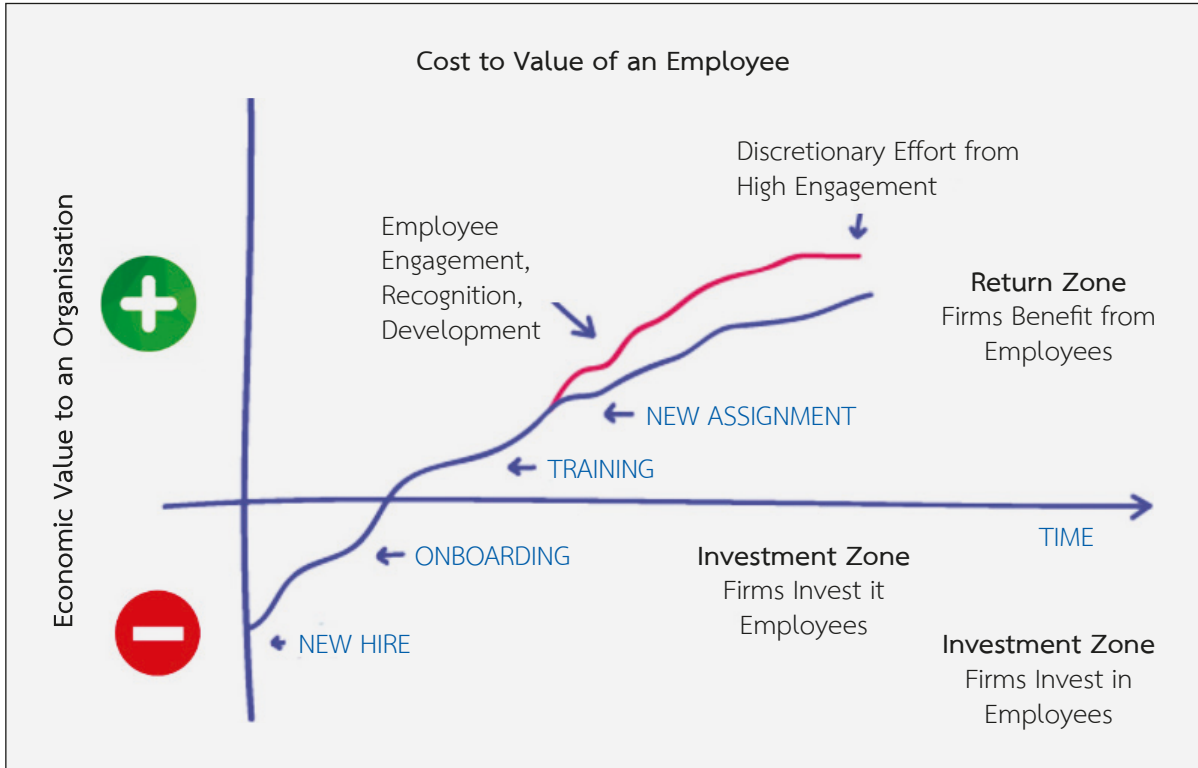
Data are for persons age 25 and over. Earnings are for full = Time wage and salary worker  
 Source: U.S. Bureau of Labour Statistics (2017)

#### 4. Human Capital and Workforce

According to Pettinger (2017), at the individual level, human capital is the skills and abilities of individual workers. At an economic level, this aggregate human capital is determined by national education standards. Pettinger further noted that there are four ways to increase human capital. First is the specialization and division of labour, which allows workers to concentrate on specific tasks while increasing their skill specializations. Second is the improvement of literacy and numeracy through an effective education system that enables creativity rather than only rote memory. Third is the increase of direct vocational training skills that emphasize skilled professional fields, such as mechanical, electrical, construction and health care. Fourth is the enhancement of infrastructure and self-employment that enables greater use of human capital. Good transportation, digital communication, and IoT (the Internet of Things that include a network of physical devices, vehicles, home appliances, and other items embedded with electronics and software) are considered important for effective human capital management in developing economies. Illustration 5 demonstrates cost to value of an employee and the return zones for both parties.



**Illustration 5** Perceived Costs and benefits between Employers and Employees



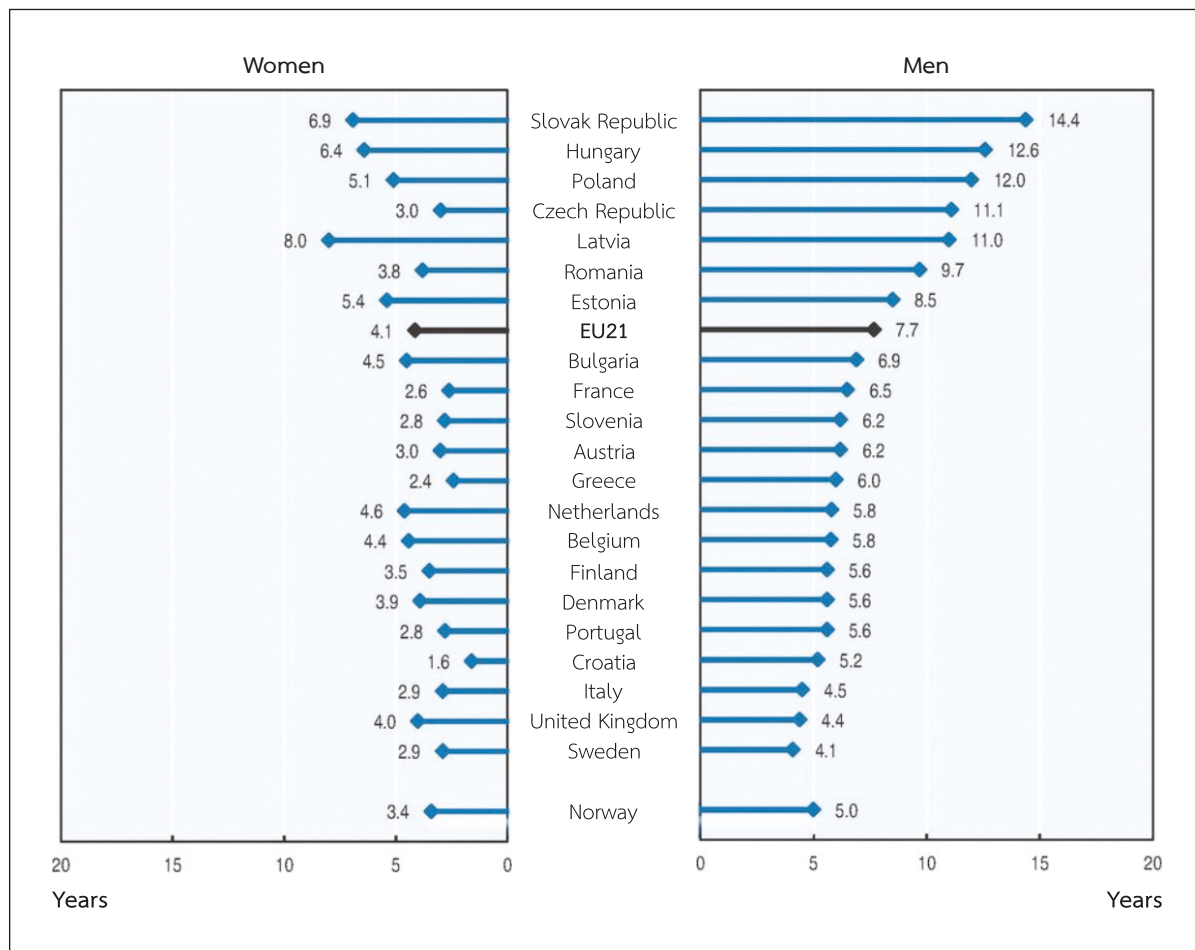
Source: St-Aubin, N. (16 May 2018). *Everything you've ever wanted to know about employee turnover*

## 5. Human Capital and Life Quality

Inequalities in life expectancy by education level are generally larger among men than they are among women. (See Illustration 6). For instance, on average across EU countries, 30-year-old men with less than an upper secondary education can expect to live about 7.7 fewer years than those with a tertiary education (a university degree or the equivalent), that figure falls to 4.1 years in the 30-year-old women group. The gap in mortality rate for low-educated men (25-64 years) is higher than those with higher education – indeed an almost four-fold difference. A substantial part of the education gap in mortality is due to a higher smoking rates and excessive alcohol consumption among people with a lower level of education.



**Illustration 6** Gap in Life Expectancy at Age 30 between People with the Lowest and highest Level of Education, 2016 (or Nearest Year)



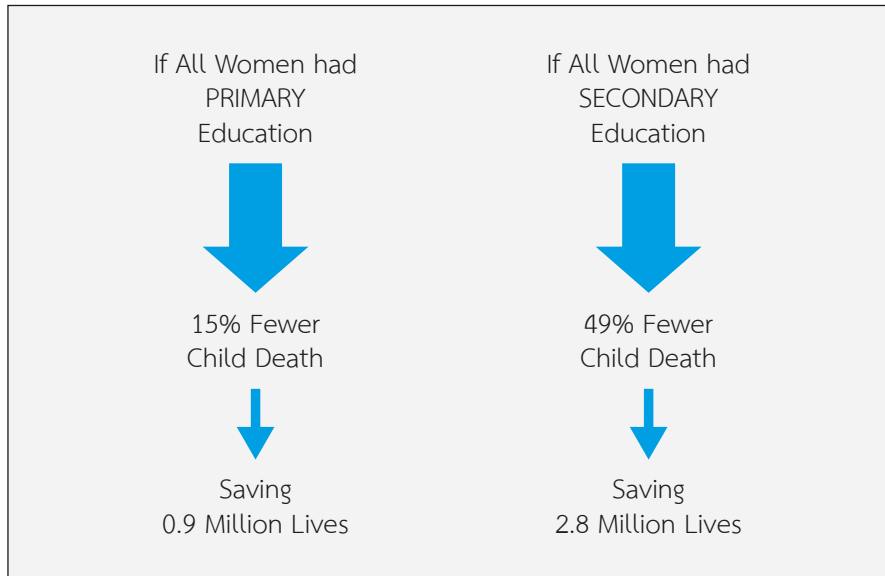
Note: Data refer to 2012 for France and Austria and to 2011 for Latvia, Belgium and the United Kingdom (England). EU average is unweighted.

Source: *Health at a Glance: Europe 2018, OECD, 2018 (p. 87)*

A study by UNESCO (2014) reported that education contributed to life quality especially for girls and young women regarding child death rate, young age marriage and pregnancy. (See Illustration 7, 8)



**Illustration 7** Reduction in Deaths in Low and Lower Middle-Income Countries



Source: UNESCO (2014). *Teaching and learning: Achieving quality for all.*

**Illustration 8** Learning Lessens Early Marriages and Births

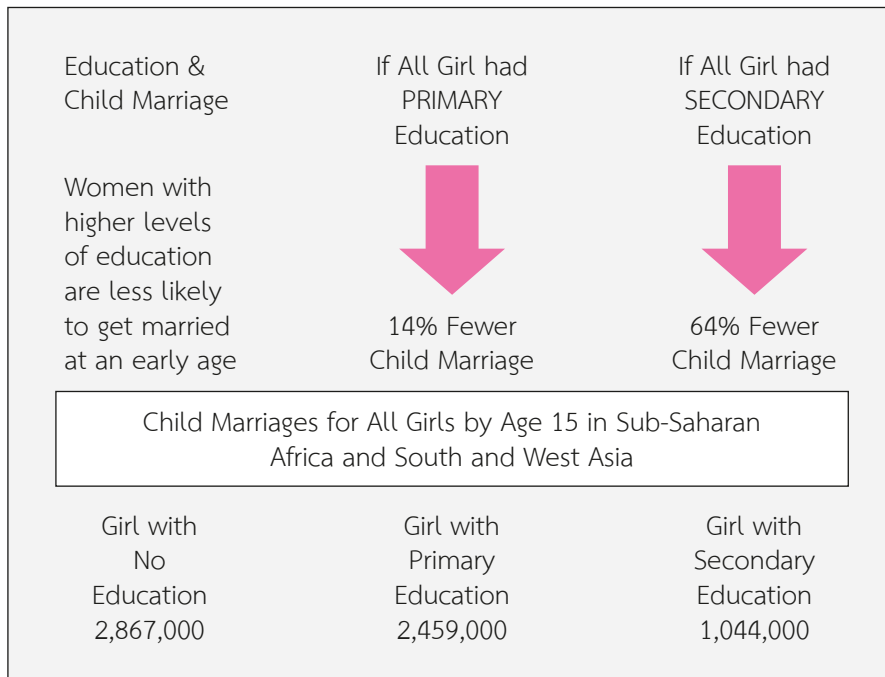
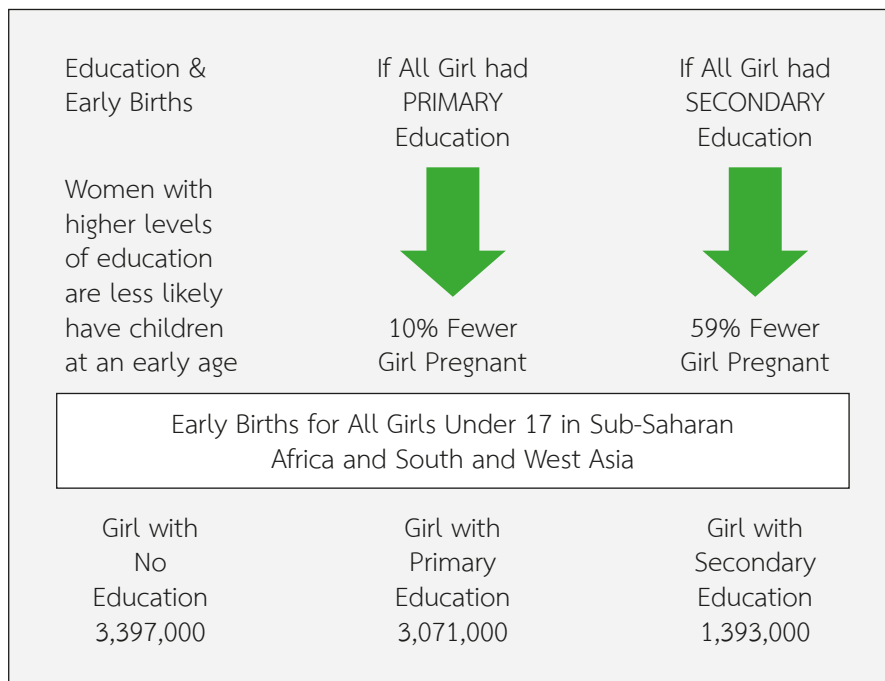




Illustration 8 Learning Lessens Early Marriages and Births (Continued)



Source: UNESCO (2014). Teaching and learning: Achieving quality for all.

## 6. Conclusion

Education should and always will be a top national agenda for any nations. Amidst the disruptive technological challenges and business transformation that are becoming the pressing factors of survival, the most competitive countries in the future will be those that successfully manage their human capital as key sources of their advantage. Focusing on human capital development through education help solving social issues at root causes. Despite the hypocrisy of making education falls into the criticism of a mere ‘sheep skin’ for the elite and economic well-offs, investment in education always and will reap the best return for all and so forth aligned with what Benjamin Franklin once stated in The Way to Wealth that “An investment in knowledge pays the best interest.”



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