An old saying goes, “Educate a boy and you educate one person; educate a girl and you educate a nation.” Whether you believe this or not, there is one thing that is indisputable: women are key to reducing population growth and to effective development.

Female education not only benefits individual girls and women, but also positively impacts all aspects of community and national life. Studies have uncovered several compelling benefits to educating women, including:

- Lower fertility rates and the reduction of child and maternal mortality;
- Improvement of child nutrition and health;
- Enhancement of women’s domestic role and political participation;
- Increasing women’s labor force participation rates and earnings; and
- Creating intergenerational education benefits.¹

The impact of education on fertility is staggering and impressive. According to the World Bank, it is estimated that one year of female schooling reduces fertility by 10 percent. Further studies show that women who have completed primary school have fewer children than those with no education. The effect is particularly pronounced for secondary schooling. Female secondary education is associated with higher age at marriage, lower fertility and child mortality, good maternal care, and reduced vulnerability to HIV/AIDS.²

Nowhere is the impact of female education more pronounced than in the Indian state of Kerala. Kerala, a state in southwestern India, leads the country in women’s education. It ranks first in the country with an overall literacy rate of 94 percent and female literacy over 92 percent. In India as a whole, female literacy stands at just 65 percent.³

Valuing women

Much of the success in female education in Kerala has been attributed to the historical value of women in Keralite society. From medieval times until the 20th century, Kerala was a matrilineal society, where women enjoyed rights and freedoms not found in the rest of India.⁴ Kerala’s record of educational expansion goes back in history to the public policies of some of the early rulers who encouraged female education. Throughout Keralite history, women have been involved at high levels of society in the arts and scholarship. It is this value of women and their growth and development that is believed to have fueled the high literacy level.
The matriarchal system in Kerala is a unique social heritage that allows Keralite women to enjoy a better status than their counterparts elsewhere in India. In traditional Keralite culture, women can inherit land and wield some political power—a sharp contrast with other parts of India. Keralite women also have certain decision-making powers unavailable to women in some other parts of India, such as the power to choose their own mate. The age of marriage for women in Kerala is higher than the national average. In 2014, the mean age of marriage for women was 23.8 in Kerala, as compared to 22.3 for the whole country. This delay in marriage helps to reduce the number of children a woman could potentially have in her lifetime by reducing the amount of time that she is at risk of becoming pregnant.

**The strongest link**

Education has been linked to many benefits, but none stronger than to lower fertility rates. Kerala achieved below replacement level fertility two decades ahead of the all-India target year of 2011. The total fertility rate declined from a high of 5.6 children per woman in the period 1951-1961 to a low of 1.6 in 2015, well below the replacement level fertility of 2.05, and significantly below the national fertility rate of 2.4. This steep decline in fertility rates is attributable to free family planning facilities set up at all levels of the health services system. Family planning services were made more successful against the backdrop of a highly literate and educated population. Over half of the couples in Kerala are protected by some modern family planning methods.

![Male & Female Literacy Rates in Kerala, India](chart)

**Minimizing mortality**

Another important corollary to female education observed in Kerala is improved infant and child mortality rates. In conjunction with lower fertility rates, Kerala also has the lowest infant mortality rate among Indian states. The infant mortality rate (IMR) in Kerala declined from a rate of 66 per 1,000 live births in the 1960s to 6 per 1,000 in 2015-16, a stark contrast to India’s rate (41 per 1,000) that same year.

Lower infant and child mortality is the most consistently observed effect of female education on any demographic factor. This relationship is almost universally observed across countries and across cultures. Most studies show that a woman’s education has a stronger effect on child survival than does the household’s economic status or her husband’s characteristics. It is believed that the relationship between a woman’s education and infant and child mortality is her enhanced awareness of good health practices, greater confidence [about dealing with medical professionals], and greater ability to make decisions about her children’s well-being.
Smaller families

There is evidence that education enhances women’s economic and social self-reliance, so that educated women are less likely to want large numbers of children, or sons, to provide them economic support in old age or to legitimize their positions in their husband’s families. However, simple literacy alone is not enough to influence family size. Studies are finding that there is a minimum threshold of education (more than 5 or 6 years) that must be achieved before there are significant improvements in female autonomy (or decision-making power) that will impact family size, particularly in highly gender-stratified societies like India.

Some general hypotheses on the impact of education on fertility are:

1. Education raises the opportunity cost of women’s time and opens up other opportunities for women (jobs outside the home) that conflict with repeated child rearing.\(^1^0\)

2. Educated women may be more receptive to family planning campaigns. According to the National Family Health Survey (2005-2006), 52 percent of illiterate women in India use any form of family planning, compared with over 60 percent of women who have completed high school education.\(^1^1\)

3. Female education may assist in achieving the planned number of births, especially by facilitating knowledge of and access to contraception and by enhancing women’s bargaining power within the family.\(^1^2\)

Progress for Kerala

The trend toward more female empowerment and smaller families also appears to translate to greater progress for the entire state of Kerala. In 2017, India’s Institute for Competitiveness, in collaboration with Social Progress Imperative, released the “2017 Social Progress Index: States of India.” The Index analyzes social progress of 28 Indian states and one Union Territory (Delhi) for the period 2005–2016 by applying their Social Progress Index framework. Unlike economic indices, the SPI assessed the states on meeting Basic Human Needs (nutrition, medical care, sanitation, shelter and personal safety), Foundations of Wellbeing (education, communication and environmental quality), and Opportunity (personal rights and freedoms, as well as access to higher education). Kerala came out on top. The Index authors attribute Kerala’s success for implementing “systematic state investments in social sectors like education and health over a long period of time.”\(^1^3\)
Making the case

Kerala is not a utopian society. However, it does make a great case for highlighting the importance and benefits of women’s education, bolstered by the availability of family planning services and facilities. With such activities, the state of Kerala has transformed from one of the fastest growing populations in India to the one with the slowest population growth rate (below replacement level) and some of the best development and demographic indicators in all of India in terms of social development. The Kerala case is indicative of the benefits that can be achieved in stemming rapid population growth by valuing women and promoting their education.