DOWNLOAD PDF THE FERTILITY REVOLUTION

Chapter 1 : Fertility - Wikipedia

The explanation of this "fertility revolution" is the main concern of this book. Richard A. Easterlin and Eileen M. Crimmins present and test a fertility theory that has gained increasing attention over the last decade, a "supply-demand theory" that integrates economic and sociological approaches to fertility determination.

Nor is it based on counting up the total number of children actually born over their lifetime. Instead, the TFR is based on the age-specific fertility rates of women in their "child-bearing years", which in conventional international statistical usage is ages 15â€”44 or 15â€” The TFR represents the average number of children a woman would potentially have, were she to fast-forward through all her childbearing years in a single year, under all the age-specific fertility rates for that year. In other words, this rate is the number of children a woman would have if she was subject to prevailing fertility rates at all ages from a single given year, and survives throughout all her childbearing years. Related parameters[edit] Net reproduction rate[edit] An alternative fertility measure is the net reproduction rate NRR , which measures the number of daughters a woman would have in her lifetime if she were subject to prevailing age-specific fertility and mortality rates in the given year. When the NRR is exactly one, then each generation of women is exactly reproducing itself. But the NRR is particularly relevant where the number of male babies born is very high due to gender imbalance and sex selection. This is a significant factor in world population, due to the high level of gender imbalance in the very populous nations of China and India. Total period fertility rate[edit] The TFR or TPFRâ€”total period fertility rate is a better index of fertility than the crude birth rate annual number of births per thousand population because it is independent of the age structure of the population, but it is a poorer estimate of actual completed family size than the total cohort fertility rate , which is obtained by summing the age-specific fertility rates that actually applied to each cohort as they aged through time. In particular, the TFR does not necessarily predict how many children young women now will eventually have, as their fertility rates in years to come may change from those of older women now. However, the TFR is a reasonable summary of current fertility levels. In other words, the TPFR is a misleading measure of life cycle fertility when childbearing age is changing, due to this statistical artifact. This is a significant factor in some countries, such as the Czech Republic and Spain in the s. Some measures seek to adjust for this timing effect to gain a better measure of life-cycle fertility. Log-log graph of total fertility rate TFR vs. GDP PPP per capita with population size shown as bubble area, for all countries having population greater than 2 million estimates; 30 largest countries bold. Sub-replacement fertility Replacement fertility is the total fertility rate at which women give birth to enough babies to sustain population levels. If there were no mortality in the female population from birth to the end of the childbearing years, the replacement level of TFR would be very close to 2. The replacement fertility rate is indeed only slightly above 2. However, it may take several generations for a change in the total fertility rate to be reflected in birth rate , because the age distribution must reach equilibrium. For example, a population that has recently dropped below replacement-level fertility will continue to grow, because the recent high fertility produced large numbers of young couples who would now be in their childbearing years. This phenomenon carries forward for several generations and is called population momentum , population inertia or population-lag effect. This time-lag effect is of great importance to the growth rates of human populations. Symbol radius reflect population size in country TFR net and long term population growth rate, g, are closely related. At the left side is shown the empirical relation between the two variables in a cross-section of countries with most recent y-y growth rate. Income and fertility Developed countries usually have a significantly lower fertility rate, often correlated with greater wealth, education, urbanization, or other factors. Mortality rates are low, birth control is understood and easily accessible, and costs are often deemed very high because of education, clothing, feeding, and social amenities. With wealth, contraception becomes affordable. In countries like Iran where contraception was subsidized before the economy accelerated, birth rate also rapidly declined. Further, longer periods of time spent getting higher education often mean women have children later in life. Female labor participation rate also has substantial negative impact on fertility, but not in all countries for countries in the OECD , increased female labor

participation has been associated with increased fertility [13]. In undeveloped countries on the other hand, families desire children for their labour and as caregivers for their parents in old age. Fertility rates are also higher due to the lack of access to contraceptives , stricter adherence to traditional religious beliefs, generally lower levels of female education , and lower rates of female employment in industry. The total fertility rate for the world has been declining very rapidly since the s. Some forecasters like Sanjeev Sanyal argue that, adjusted for gender imbalances, the effective global fertility will fall below replacement rate in the s. This will stabilize world population by , which is much sooner than the UN Population Division expects. The inverse relationship between income and fertility has been termed a demographic-economic " paradox " by the notion that greater means would enable the production of more offspring, as first suggested by demographic scholar Thomas Malthus in Politics[edit] Governments have often set population targets, to either increase or decrease the total fertility rate; or to have certain ethnic or socioeconomic groups have a lower of higher fertility rate. Often such policies have been interventionist, and abusive. Such policies were carried out against ethnic minorities in Europe and North America in the first half of the 20th century, and more recently in Latin America against the Indigenous population in the s; in Peru , President Alberto Fujimori in office from to has been accused of genocide and crimes against humanity as a result of a sterilization program put in place by his administration targeting indigenous people mainly the Quechuas and the Aymaras. Such rights are based on the concept that each person freely decides if, when, and how many children to have - not the state or church. According to the OHCHR reproductive rights "rest on the recognition of the basic rights of all couples and individuals to decide freely and responsibly the number, spacing and timing of their children and to have the information and means to do so, and the right to attain the highest standard of sexual and reproductive health. It also includes the right to make decisions concerning reproduction free of discrimination, coercion and violence, as expressed in human rights documents". The fertility rate of the total US population was just below the replacement level of about 1. However, the fertility rates of immigrants to the U. The low Eastern German value was influenced by a change to higher age at birth, with the consequence that neither older cohorts e. The total cohort fertility rate of each age cohort of woman in East German did not drop as significantly. People from countries such as Moldova, Romania, Hungary, and Bulgaria are particularly moving abroad. Singapore mitigates this through immigrant workers , but in Japan there is a serious demographic problem. In South Korea, too, a low birthrate is one of its most urgent socio-economic challenges.

Chapter 2 : The fertility revolution: a supply-demand analysis. | www.nxgvision.com

For the first time in our civilization's history, a population decline may be in sight.

Show Context Citation Context As households attain higher levels of income and wealth, they also have fewer children, either due to a quantity-quality trade-off as suggested by Becker and Lewis or due to an increase in t Lewis, Akbar Aghajanian - Demography , " Is the onset of fertility decline caused by structural socioeconomic changes, as affirmed by demand theory, or by the transmission of new ideas, as argued by ideation theory? The marital fertility decline in Iran before the Islamic Revolution provides an ideal, quasiexperimental, setting for address The marital fertility decline in Iran before the Islamic Revolution provides an ideal, quasiexperimental, setting for addressing this question. Massive economic growth started around , while big measurable ideational changes the establishment of an aggressive official Family Planning Program and large improvements in the legal status of women took place in The Iran Fertility Survey was carried out at just the right moment to separate these effects. We argue that the Iranian marital fertility decline is better described by demand theory than by ideation theory. The decline started in , just after the onset of massive economic growth, but well before the ideational changes. The decline closely paralleled the rapid growth of primary educational participation, as predicted by demand theory, and w Lewis, Akbar Aghajanian, Michael J. Kahn , " Event history analysis seems ideally suited for the analysis of World Fertility Survey WFS data, which consists of full birth histories and related information. However, it has not been much used for this purpose, and most analyses of WFS data have consisted of tabulations of standard fertility ra However, it has not been much used for this purpose, and most analyses of WFS data have consisted of tabulations of standard fertility rates, and regressions with children ever born as the dependent variable, both of which have disadvantages. We suggest that this is because event history analysis has practical drawbacks for WFS data, even though, in principle, it provides a superior analytic framework. These are the many partial dates, the computational burden of discrete-time event history analysis, the need to take account of five clocks at once age, period, cohort, time since last event, and parity , and the difficulty of interpreting the coefficients. We propose a modeling strategy for the event history analysis of WFS data which aims to overcome these problems, and we apply it to the previously unanalyzed WFS data from The incidence and severity of poverty in urban and rural Ethiopia are similar both at very high levels. In contrast, urban and rural fertility rates differ dramatically. The declining fertility rate especially in the capital city is paradoxical to economic demographers. This paper analyses the complex relationship between childbearing and poverty in urban and rural Ethiopia. We model child bearing and poverty as joint processes and use a joint simultaneous estimation technique using FIML Full Information Maximum Likelihood. In a panel probit context, we assumed non-zero correlation between the household specific random effects of our fertility and poverty equations. We have included fertility variables as endogenous regressors in the poverty equation and poverty indicator variable as an endogenous regressor in the fertility equation. Using a panel data for three comparable waves both for rural and urban Ethiopia, our analysis examines the inherent differences in the poverty and fertility relationship. Among others, child labour is a significant factor for high fertility in rural areas. Surprisingly, it is also a factor which is responsible for increasing the probability of poverty incidence at the household level. The possible implications of our results include the provision of Show Context Citation Context There is a negative though not always strong relationshipsbetween availability of family planning and observed fertility levels just as there is asnegative relationship between economic growth This paper examines the demographic trend in Korea focusing on the period since It is suggested that the change in fertility and mortality is the main driving force for the ag-ing structure of population. The continuing decline of fertility below the replacement rate is accompanied by the chan The continuing decline of fertility below the replacement rate is accompanied by the changes in the various aspects of fertility including the delay in marriage and childbearing, an increase in the childlessness and the movement toward the gender equity at birth. Introducing the concept of externality to childbearing, it is argued that the relevant policy question is not whether a government should promote childbearing but how much it should be willing to pay for the policy implementation. A simple exercise

suggests that the largest part of the externalities to childbearing are generated through the national defense and the intergenerational transfer. Population by Hans-peter Kohler " Challenge Paper on "Population Growth" While the majority of the population is now estimated to live in regions with below replacement fertility, high fertility, poor reproductive health outcomes and relatively rapid population growth remain an important concern International and national spending devoted to family planning, however, has declined significantly in recent years. Recent research has brought about a revision in the understanding of the interactions between population growth and economic development, as well as the effects of family planning programs in terms of reduced fertility, improved reproductive health outcomes and other life-cycle and intergenerational consequences. This paper discusses recent evidence about the benefits of family planning programs and the interactions between population growth and developments, and it attempts Show Context Citation Context They interpret conscious fertility control within marriage as an innovation and focus on the diffusion or acceptance of this behavior. We focus in this review of fertility theories and the causes of f

Chapter 3 : Total fertility rate - Wikipedia

Fertility Revolution. likes. Fertility Revolution provides hope, inspiration, strength, and fertility resources on your road to parenthood.

Every year seems to bring advances in this branch of gynaecology. These new insights into how an endometrium the lining of the womb chooses an embryo may open new avenues to develop treatments. The technique already has ethical critics, and a team of scientists at the University of Sheffield, the University of Sussex and Monash University in Australia has warned that mixing DNA could lead to damaging side-effects for the baby, not least in its learning, behaviour and fertility in adulthood. Britain is set to be the first country to use three-person IVF as early as next year. Ministers are drawing up legislation in the face of condemnation from members of the Council of Europe, including eight MPs and peers, who liken the treatment to eugenics. IVA, by comparison, is a more straightforward development. Women naturally have hundreds of thousands of primordial follicles, each containing one immature egg. Usually, only one follicle develops to maturity each month and releases an egg into the fallopian tube for possible fertilisation. However, one in women go through early menopause, also known as POI primary ovarian insufficiency , meaning they can no longer produce eggs or support a pregnancy. Until now, their hopes for motherhood lay in egg donation, surrogacy or adoption. But, in , Prof Aaron Hsueh, professor of obstetrics and gynaecology at Stanford, found that blocking a protein called PTEN in mouse and human ovaries was enough to stir dormant follicles into producing mature eggs. The procedure involves removing an ovary or piece of ovarian tissue, which is treated to stimulate follicle growth. When large enough, the eggs are collected as in any IVF procedure, fertilised and allowed to develop until big enough to re-implant. Hormone therapy for the mother supports the pregnancy to term. The couple and I hugged each other in tears. I hope IVA will be able to help patients with primary ovarian insufficiency throughout the world. Best of all, the patient can just get up and walk away painlessly when it is finished. At this stage, it is too early to say whether it is clinically applicable for treatment of patients. There has been huge improvement in success rates using frozen eggs thanks to the introduction of vitrification â€” or fast-freezing â€” techniques. Could it benefit women who have passed through menopause in their early fifties? Prof Hsueh is emphatic: The IVA procedure does not correct for age-related increases in genetic defects, it only allows the possibility of getting more oocytes [immature eggs]. Older would-be mothers may have to wait a little longer for the next breakthrough in the great fertility revolution.

Chapter 4 : CiteSeerX â€" Citation Query The Fertility Revolution

Once use of fertility control has spread to 50% of married women years of age, a fertility decline can be expected. By raising the supply of children and lowering demand, socioeconomic modernization is both increasing motivation for fertility control and lowering the costs of fertility regulation.

Pinterest A microscopic view of a colony of induced pluripotent stem cells iPSCs. While all our other cells contain two copies of all our genes, packaged on to 46 molecular fibres called chromosomes, eggs and sperm have only one copy: When an egg and sperm merge in fertilisation, the full complement of 46 is then restored. So to produce viable germ cells from stem cells, the cells have to undergo a special process called meiosis that halves their number of chromosomes. But last month, a group at Kyoto University in Japan led by Mitinori Saitou reported a big step forward. They have cajoled human PGCs on to the next stage of development, called oogonia cells. It now remains to advance these further to the form called oocytes, which are ready to begin meiosis and become genuine egg cells. To develop into oogonia, the PGCs need to receive chemical signals from tissues in the ovaries. The Japanese group supplied those signals by culturing the iPSCs alongside cells taken from mouse ovaries. Despite being of a different species, the ovarian cells were able to supply the right prompts. And two years ago they showed that they could carry out the entire reproductive cycle in vitro. They then harvested the embryonic stem cells and turned them into PGCs for a new cycle. Healthy mice with same-sex parents born for first time Read more Whether all this can work for human cells is another matter. Stem cell biologist Werner Neuhausser of Harvard University in Cambridge, Massachusetts, doubts that the mouse ovarian cells will be capable of guiding human oogonia cells all the way to bona fide eggs, although he admits that no one really knows. In , Saitou and his colleagues reported that they had used the same strategy to make artificial mouse sperm from the skin cells of adult mice. They first reprogrammed the cells into iPSCs, induced them to become PGCs and then transplanted them into the testes of mice to complete their development into sperm. The researchers used some of this sperm to fertilise mouse eggs, which developed into apparently healthy mouse pups. Mitinori Saitou of Kyoto University. In , a Chinese team claimed to have made artificial mouse sperm wholly in vitro and used it to fertilise eggs, transferring them into female mice for gestation. But some other scientists working in the field remain sceptical of those claims, which have not been repeated. This can be done ever more cheaply and quickly for embryos and is currently permitted in the UK for identifying those carrying certain genetic disease mutations. He foresees a day when IVF clients are presented with lists of characteristics for dozens, perhaps hundreds, of their embryos: Given that option of choice, Greely suspects that IVF might eventually become the default method of human reproduction. Crispr has already been used on human embryos for research purposes, although there remain questions about how safe it is.

Chapter 5 : The Fertility Doctor

The Fertility Revolution, recent article from Health Today Malaysia Magazine June A pioneer in Malaysia's fertility treatment offers his insight on two revolutionaryadvances that made a big difference in bringing hope to many couples who are unable to conceive naturally.

In , Aaron Hsueh of Stanford University in California developed a technique that can induce the ovaries of infertile women to make eggs. IVA, or in vitro activation, seems to offer hope in the most impossible cases: Women who have early menopause. The Japanese-American team behind IVA announced last week they have pioneered a technique that can find, like a needle in a haystack, primordial cells in the ovaries of women who experience menopause in their early 30s. These cells, which researchers from Stanford University in California and St. Further case work is ongoing. Truly no stone is being left unturned in the great fertility revolution. Every year seems to bring advances in this branch of gynecology. Three-person IVF, developed at the University of Newcastle, England, can create embryos from the genetic material of two women and one man to prevent life-threatening disorders. But Britain is set to be the first country to use three-person IVF as early as next year. Ministers are drawing up legislation in the face of condemnation from members of the Council of Europe, including eight MPs and peers, who liken the treatment to eugenics. IVA, by comparison, is a more straightforward development. Women naturally have hundreds of thousands of primordial follicles, each containing one immature egg. Usually, only one follicle develops to maturity each month and releases an egg into the Fallopian tube for possible fertilization. However, one in women goes through early menopause, also known as POI primary ovarian insufficiency , meaning they can no longer produce eggs. Until now, their hopes for motherhood lay in egg donation, surrogacy or adoption. But in , Stanford gynecology professor Aaron Hsueh found that blocking a protein called PTEN in mouse and human ovaries was enough to stir dormant follicles into producing mature eggs. Interestingly, a similar needle-in-a-haystack procedure is already being carried out in men classified as infertile and who produce no sperm at all. Louis, who pioneered the ovarian-transplant techniques used in IVA. The procedure is successful even in men who have been unable to ejaculate a single sperm normally or have a genetic disorder that would confer infertility. Best of all, the patient can just get up and walk away painlessly when it is finished. At this stage, it is too early to say whether it is clinically applicable for treatment of patients.

Chapter 6 : The great fertility revolution

IVA and the great fertility revolution Last week, a woman who suffered an early menopause gave birth. We report on the new frontiers of making babies.

Chapter 7 : A New French Revolution Is Brewing in Fertility | Fast Forward | OZY

The Fertility Revolution Has Only Just Begun A new study has isolated stem cells in human ovaries that could be developed into mature eggs, or ova. This discovery "opens the door for development.

Chapter 8 : The Fertility Revolution

WordPress is an award-winning web software, used by millions of webmasters worldwide for building their website or blog. SiteGround is proud to host this particular WordPress installation and provide users with multiple resources to facilitate the management of their WP websites.

Chapter 9 : The Fertility Revolution: A Supply-Demand Analysis, Easterlin, Crimmins

Green Revolution technologies were developed and promoted to boost food supplies and foster development, both of

which were expected to create "breathing space" for achieving demographic transitions in developing countries through lowered human fertility.