

Chapter 1 : What is Crude Birth Rate? - Definition from Safeopedia

Throughout Europe, Russia and parts of Asia, particularly in Japan, birth rates were falling below replacement level. On a global level, the overall population will increase from billion in to around 9 billion in and then go into steep decline.

Fertility is below replacement level, births are being delayed – but is the situation as desperate as the media paints it? No, the data suggest. In fact, the picture is improving. And since , when it bottomed out at 1. According to the World DataBank, in the latest year for which full data – not just estimates – are available Japan, with its 1. Media like to cite declining births in absolute numbers or birth rates the number of children born per 1, population. If the pool of potential mothers is shrinking, the absolute number of children will also decrease compared to previous years. Japanese women of ages outnumber those , outnumbers , and so on. Add in the ever-increasing number of elderly living longer than almost anywhere else on the planet and birth rates drop as well. Japan is not unique. Other high-income countries also have TFRs lower than the global average and below the replacement level of 2. But as the latest data show, in the majority of them the TFR is rising. The United Nations estimates that this trend will continue and Japanese will be producing 1. This is, however, still far short of the replacement level of 2. But there is one caveat: Once the transition is complete, the theory says, TFR does not change much. But this idea has been challenged by demographer Mikko Myrskylä. If he is right, Japan, with its HDI of 0. Unfortunately, it is not possible to foresee how far this will go, as there are no historical precedents of long-term fertility rebound. The bad news is there is no cookie-cutter solution when it comes to sustaining this trend. Japan will have to find its own way. While there is no one-size-fits-all recipe for boosting fertility, current trends in European countries suggest that gender equity might be a key to higher birth rates. As opposed to gender equality, which is based on identical treatment of men and women, gender equity requires fair and just treatment of genders depending on their needs. According to Thomas Anderson and Hans-Peter Kohler, researchers from the Population Studies Center, the latter is especially important within families. Economic development leads to better access to education and employment for women, but household norms and expectations change at a much slower pace. As a result, the family-work conflict intensifies and women delay marriage and childbirth or remain childless. This is what Japan is experiencing now. According to the Ministry of Health, Labor and Welfare, the mean age for first marriages was Declining birth rates lead to a shortage of brides: Men tend to marry younger women, but each younger generation has fewer people. Also, there are more men than women in all age brackets. Thus, there are more bachelors than brides, which gives women greater bargaining power – a perfect setup for the gender revolution. Change is already in the air. This is still a lot less than the more than three hours women spend on such chores, but it indicates a shift in values from traditional to egalitarian. And egalitarian families have been shown to have more children than traditional ones – even though they have them later. Have you ever noticed that marriages and children come in waves? From being surrounded by carefree childless couples, within a couple of years it can seem as if the majority of your friends are suddenly married with kids on the horizon. Perhaps counterintuitively, marriage and childbirth decisions are affected by the environment. So if we stop repeating the mantra that Japanese are not having babies, the current fertility rebound might just speed up. Low fertility is still an important problem, but Japan is showing signs of recovery. It will take time, and political and cultural changes, but the population will stabilize. In the meantime, Japan faces a choice between growing small gracefully, turning to large-scale immigration to fill in the gaps or putting its faith in mass robotization. Good luck with that one. Foreign Agenda offers a forum for opinion on issues related to life in Japan.

Chapter 2 : Dropping birth rates threaten global economic growth - CBS News

Falling Fertility: The Impact of Declining Birth Rates. the birth rate is or lower, meaning below the birth rate has been falling more or less steadily for the last one hundred years.

Political issues[edit] Placard showing negative effects of lack of family planning and having too many children and infants Ethiopia The birth rate is an issue of concern and policy for national governments. Some including those of Italy and Malaysia seek to increase the birth rate with financial incentives or provision of support services to new mothers. Policies to increase the crude birth rate are known as pro-natalist policies, and policies to reduce the crude birth rate are known as anti-natalist policies. Measures such as improved information on birth control and its availability have achieved similar results in countries such as Iran. There has also been discussion on whether bringing women into the forefront of development initiatives will lead to a decline in birth rates. Typically, high birth rates are associated with health problems, low life expectancy, low living standards, low social status for women and low educational levels. Demographic transition theory postulates that as a country undergoes economic development and social change its population growth declines, with birth rates serving as an indicator. Family programs were discussed, and countries drafted a World Population Plan of Action. As part of the discussion, many countries accepted modern birth control methods such as the birth control pill and the condom while opposing abortion. Birth rates ranging from 10 to 20 births per 1,000 are considered low, while rates from 40 to 50 births per 1,000 are considered high. High birth rates may stress government welfare and family programs. Additional problems faced by a country with a high birth rate include educating a growing number of children, creating jobs for these children when they enter the workforce, and dealing with the environmental impact of a large population. Low birth rates may stress the government to provide adequate senior welfare systems and stress families who must support the elders themselves. There will be fewer children and a working-age population to support an aging population. Coercive population control[edit] In the 20th century, several authoritarian governments have sought either to increase or to decrease the birth rates, often through forceful intervention. This period has later been depicted in movies and documentaries such as *4 Months, 3 Weeks and 2 Days*, *Children of the Decree*. These policies temporarily increased birth rates for a few years, but this was followed by a later decline due to an increased use of illegal abortion. Given strict family-size limitations and a preference for sons, girls have become unwanted in China because they are considered as depriving the parents of the possibility of having a son. With the progress of prenatal sex-determination technologies and induced abortion, the one-child policy gradually turned into a one-son policy. Women of all economic, social, religious and educational persuasions are choosing to have fewer children as they are gaining more control over their own reproductive rights. Apart from more children living into their adult years, women are often more ambitious to take up work, education and living their own lives rather than just a life of reproduction. In Bangladesh, one of the poorest countries in the world, women are on average having two children less often than they did before, according to Australian demographer Jack Caldwell. Bangladeshi women eagerly took up contraceptives, like condoms and the pill, on offer from a foreign population agency in a study by the World Bank carried out in 1990. The study proved that family planning could be carried out and accepted practically anywhere. Caldwell also believes that agricultural improvements led to the need for less labour. Children not needed to plough the fields would be of surplus and require some education, so in turn, smaller families, and with smaller families, women are able to work and have greater ambitions. The military generals wanted the country's population doubled. The women of Burma opposed this policy, and Peter McDonald of the Australian National University argues this gave rise to a black market trade in contraception, all smuggled from neighbouring Thailand. Revolution gave way to consumerism and westernization. With TVs and cars came condoms and the pill. A generation of women expected to produce soldiers in the fight against Iraq was met by the next generation of women who had a choice to enjoy some new found luxuries. As of 2000, the birth rate of Iran is 1. Some may say this is a triumph of western values, which give women more freedoms, over an Islamic ruled state. Tunisia has dropped from 4. Brazilian women are having half the children they were 25 years ago with a rate of 2. The Vatican is having

less influence over women in other hard-line Catholic countries also. Mexico, El Salvador, Ecuador, Nicaragua, Colombia, Venezuela and Peru have all seen significant drops in fertility in the same period, all going from over six to less than three children per woman. Forty percent of married Brazilian women are choosing to get sterilised after having children but this may be a compromise as it is only one confession of sin to the church. Some may say this is a triumph of Western values, which give women more freedoms, over a Catholic state. The country with the lowest birth rate is Monaco, at 6. 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 suggested by the influential Thomas Malthus. With a good economic outlook for Australia, Costello held the view that now was a good time to expand the population, with his famous quote that every family should have three children "one for mum, one for dad and one for the country". Phil Ruthven of the business information firm IBISWorld believes the spike in fertility was more about timing and less about monetary incentives. Generation X was now aged 25 to 45 years old. With numerous women putting pregnancies off for a few years for the sake of a career, many felt the years closing in and their biological clocks ticking. By then the baby bonus had left its legacy on Australia. France[edit] France has been successful in increasing fertility rates from the low levels seen in the late s, after a continuous fall in the birth rate. As of , Japan has the third lowest crude birth rate i. An increasing number of Japanese people are staying unmarried: National Center for Health Statistics in June All other states either remained the same or declined. Hispanics particularly affected by the recession have experienced the largest fertility decline, particularly compared to Caucasians who have less economic hardship and a smaller decline in fertility. In " the birth rate declined 5. The relatively large birth rate declines among Hispanics mirror their relatively large economic declines, in terms of jobs and wealth. Census Bureau, from to , the employment rate among Hispanics declined by 1. The unemployment rate shows a similar pattern"unemployment among Hispanics increased 2. In facts, Hispanics, who have been hit the hardest in terms of employment and wealth, have also experienced the largest fertility declines since the onset of the recession because the birth rate declines of Hispanic women is the highest while comparing to the White women. Since, the unemployment rate has been increasing, the birth rate decline has been decreasing. Research suggests that much of the fertility decline during an economic downturn is a postponement of childbearing, not a decision to have fewer or no children; people plan to "catch up" to their plans of bearing children when economic conditions improve. Younger women are more likely than older women to postpone pregnancy due to economic factors, since they have more years of fertility remaining. National Institutes of Health announced that the adolescent birth rate continues to decline. Moreover, according to the results, if all 50 states in the United States had done at least as well in their enforcement efforts as the state ranked fifth from the top, that would have led to a 20 percent reduction in out-of-wedlock births. The current US birth rates are not high enough to maintain the size of the U. Fertility factor demography Human Development Index map. Countries with a higher HDI usually have a lower birth rate, known as the fertility-income paradox. There are many factors that interact in complex ways, influencing the births rate of a population. Developed countries have a lower birth rate than underdeveloped countries see Income and fertility. Many of these factors however are not universal, and differ by region and social class. For instance, at a global level, religion is correlated with increased fertility, but in the West less so:

Historically speaking, the birth rate also fell in the early s and late s, aligning with other periods of economic struggle, before bouncing back and evening out.

Comments Shutterstock Fertility rates are important for economic growth, cultural stability and more. Much of the world " especially most developed countries " have fallen below the "replacement" fertility rate, but whether this is cause for celebration or concern is the subject of debate. Fertility rates, whether high or low, impact economic growth, cultural stability and more. The total fertility rate " the number of babies women average over the course of their lives " can be expressed for local, state, regional, even global populations. Women need to average two babies for the population size to be stable. If the current rate dropped and immigration to the United States stopped, the country would experience population decline. Some parts of the world are far below 2. At both ends, there are potential benefits and worries. But a sharp or sustained drop over a decade or more "will certainly have long-term consequences for society," he said. Best guesses What will happen in 50 or years is speculative, the math complicated, said Philip N. Cohen, professor of sociology at University of Maryland. Very low fertility rates could lead to population declines, which could be bad for the economy. But what concerns most people is not the rate itself, but changes in the rate and how dramatic they are. Low fertility itself is not as bad as falling fertility can be. When fertility falls, a generation is smaller than the one that came before and struggles to support retirees. Still, if that new rate holds, the population can stabilize over time. Gradually declining population sizes might be ideal for the environment and stability, he noted. Gradually growing populations, on the other hand, might also be good if they generate dynamism and economic growth. Rapid contraction of the labor force could have a negative impact on an economy, on growth, consumption and on the ability of current generations to pay for entitlements for older Americans, said Brad Wilcox, director of the National Marriage Project. They may soon see their labor forces shrink. At risk is the ability to maintain their economies, pay pensions, handle health care demands and more. But fertility is one factor among many, he noted, including the importance of education and whether the infrastructure is healthy. Whether a particular fertility rate is a demographic dividend or deficit changes. A generation of children becomes a generation of workers and parents and then a generation of retirees. Germany has been strong economically, Wilcox said. On its current course, however, it will face major problems as a large workforce moves into retirement. In the late s, Stanford University professor Paul R. Any period of change when things are out of balance between generations can lead to problems or worries about problems. There are various ways to think about what a fertility rate means, he said, such as the immediate impacts of how many children a family has. With fewer children, parents put more resources into each one, he said. Some people say when the population gets smaller, society becomes less dynamic and competitive. Many parts of America are growing rapidly. But parts of the Midwest and Appalachia are losing population quickly. An area can suffer a declining tax base, Mather said. What do locals do with their changed numbers? Does having fewer children mean smaller class sizes and more investment per child? Or are classrooms slashed, classes kept large? Whether a town has too few or too many workers may prompt people to move in or out of it to find opportunity. For planning, fertility rates matter. Policy planners and officials look at fertility rates and population ages because they tell them how to prepare: No one complains, she said, about the substantial drop in the teen fertility rate. But a similar decline in the fertility rate for well-educated couples in their 30s might mean a reduction in the highly trained workforce. One of the most regular U. Baby boomers, the largest generation, are retiring or can see it in their headlights. Are there enough members of subsequent generations to support them as they receive benefits rather than wages? Who will buy the houses they try to sell as they get old? Will there be enough caregivers? A fair bit of economic growth comes just from population growth, said David Sims, economics associate professor at BYU. He said some experts believe the growth in the labor force that results from a larger population spurs innovation. More people can produce more. They can have a wider range of specialties, and a bigger pool of thinkers may increase odds of "people with spectacular ideas and spectacular and rare talents. Before modern chemical contraception, it took "some really bad shock to get

to the point of population decline. Immigration Immigration is one way countries counter sagging fertility rates. Immigrants tend to be young, and the babies they have bolster populations. Most of Europe now has fertility rates below replacement level, Sims said. Country sizes will either decline or they will attract immigrants. He suspects it will be the latter. But immigrants change the country. But it does tend to create more social stress and unrest in places like France or the United Kingdom when they have, say, a Turkish influx. You see a lot of potential for loss of social cohesion and the difficulty of continuing previous economic policies if you get to the point where you increasingly rely on immigrants who are culturally different. Those with college degrees are the ones that can afford to have kids.

Chapter 4 : Germany's Birth Rate at Record Low, Says Fertility Study - TIME

America's total fertility rate is around babies per woman, a historic low but near the replacement rate of Women need to average two babies for the population size to be stable.

Global consequences of the falling birth rate During the second half of the 20th century, fears of a population explosion led to billions of dollars being spent on population control programmes. Now there are worries that there will be too few people, not too many. Birthrates are declining despite often generous official financial incentives to procreate. During the most recent time of population growth, quality of life has improved faster than ever before in world history. There is plenty of evidence to suggest that population aging works to depress the rate of technological innovation and entrepreneurship. The fearsome spectre of a world overrun with too many people has alarmed governments, powerful foundations and United Nations agencies since the s. Billions of dollars has been spent to prevent a human population explosion. In the s the world will undergo famines. Hundreds of millions of people are going to starve to death. Throughout Europe, Russia and parts of Asia, particularly in Japan, birth rates were falling below replacement level. On a global level, the overall population will increase from 6. By , there was general consensus among demographers [those who study the characteristics of human populations, including growth] about the projected fall. The debate is about whether it will occur before and be a decline - or a freefall. Newsweek on the "Birth Dearth" The influential American magazine Newsweek 27th September, published the results of a global fact-finding survey by its team of reporters. The new threat to the planet is not too many people, but too few. Bulgaria will shrink by 38 percent, Romania by 27 percent, Estonia by 25 percent. Russia is already losing close to , people yearly. So is Western Europe and that figure could grow to as much as 3 million a year by mid-century, if not more. The average age is Chinese census data put the figure even lower at 1. With an expected median age of 44 in , China will be older on average than the United States. By or soon after, its population will peak at 1. By mid-century, China could well lose 20 to 30 percent of its population every generation. Asia Birthrates are declining despite often generous official financial incentives to procreate. Elsewhere, Cuba and many Caribbean nations , Uruguay and Brazil and Mexico are aging so rapidly that within several decades it will not only stop growing, but will have an older population than that of the United States. Mongolia, Pakistan and the Philippines. The United Nations projects that the Middle East will double in population over the next 20 years, growing from million to million by Saudi Arabia has one of the highest fertility rates in the world, 5. Fertility rates are falling faster than in developed countries, indicating that over the coming decades the Middle East will age far more rapidly than other regions of the world. Birthrates in Africa remain high, and despite the AIDS epidemic, its population is expected to keep growing. Contributing factors to demographic decline Newsweek reports that increasing female literacy and school enrolment have tended to decrease fertility, as have divorce, the worldwide trend towards later marriage and abortion. Contraceptive use has risen dramatically over the past decade. In Russia, alcoholism, poor public health and industrial pollution have affected male sperm counts and female fertility. Wealth discourages childbearing, as seen long ago in Europe and now in Asia. Sociologist Ben Wattenberg, author of "Fewer: In Italy, demographers forecast a 40 percent decline in the working-age population over the next for decades - accompanied by a commensurate drop in growth across the Continent, according to the European Commission. China is facing a major problem with its millions of elderly citizens According to the CSIS, less than one-quarter of the population is covered by retirement pensions, thus the burden of elder care is placed on what is now a generation of only children. The one-child policy has led to the so-called problem, in which each child will be potentially responsible for caring for two parents and four grandparents. Read More Here Economic development and population growth An eminent economist, the late Julian Simon, argued that population growth and economic development went hand-in-hand. As the world population has increased, each and every one of the more than 40 measures of quality of life have improved. These improvements have occurred in the more densely populated areas. Improvements in other areas related to quality of life, also increase life expectancy The most important measure of quality of life is life expectancy. Because improvements in other areas related to quality of life, also increase life expectancy. Life

expectancy in the developing countries increased from 46 years to 61 years between and By every one of more than 40 amenities measured, the quality of life is also improving on a more global basis with more accessible consumer and household goods and appliances. Infant and child death rates have been more than halved. Average life expectancy has increased by about a third. Statistical Yearbook, world industrial productivity has improved far faster than population growth. In developing countries where most of the people live, education spending adjusted for inflation became five times greater from to This vast increase in educated people further accelerates the improvements in quality of life in most developing countries. Improvements in manufacturing productivity have made possible the more than doubling of real income, which then reduces poverty. The benefits of a young growing population Robert Sassone in his Handbook on Population, observes that older populations reflect the normal characteristics of older people. They become more security conscious, less progressive and dynamic, more rigid in their ways. In contrast, younger populations reflect the dynamism, adventurous attributes and creativity of youth. Little great art, few great books, practically no great music, few plays, few ideas, inventions or scientific theories, have come from older people. Accordingly, progress in countries with older populations is likely to slow or stop. Economic consequences of growth Certain things are necessary for what is now considered civilised living, writes Sassone. There are costs that occur when large numbers of people live relatively close together, such as in cities. But these costs are more than offset by the benefits which result from the higher population. The more people there are, the less cost there is per person. Examples of this include development of ports, airports, highways and railroads. The cost is about the same regardless of the population, but the cost per person depends on the number of people. A second major benefit comprises lower prices of items that must be transported and distributed to consumers. A simple test of this principle would be to compare gasoline prices, or the prices of similar items in city and rural areas. Parents support their children, but there is a cost for the raising of each child. Elderly people are supported by social security, their relatives, their savings, etc. The expense necessary to maintain an elderly person is substantially higher than the cost of a younger person, because older persons have more expensive needs such as medical care. On the average, the cost to maintain an old person at a middle class standard of living, is about three to four times as great as the cost to maintain a person who is under the age of Although older people are valuable for non-economic reasons, economically, a younger society spends a lesser percentage of total income supporting its non-working members. Global Implications Britain Actuaries make financial sense of the future. Should the number of British babies fall as low as current "bambini" birthrates in Italy, it would cause real problems for the finances of both the government and individuals in the UK. We are presenting our findings in order to promote discussion. Now is therefore a good time to review the current incentives and disincentives that government policy offers to families raising children. Apart from domestic popular opposition to relatively large-scale immigration, there is the problem of supply as other low birth rate countries compete for the pool of suitable immigrants. Australia In early , Tony Abbot, the Australian Minister of Health, aroused controversy by labelling the , annual abortions "a national tragedy. One for Dad, one for Mum - and one for the country. He also predicted the fertility rate would rise to 1. In Germany for example, public spending on pensions, even after accounting for a reduction in future benefits written into current law, is expected to swell from an already staggering Population aging also depresses the growth of government revenues. Population growth is a major source of economic growth. More people create more demand for the products capitalists sells, and more supply of the labour capitalists buy. Economists may be able to construct models of how economies could grow amid a shrinking population, but in the real world, it has never happened. When the size of the work force falls, economic growth can occur only if productivity increases enough to compensate. And these increases would have to be substantial to offset the impact of aging. Fewer bambinis Italy, for example, expects its working-age population to plunge 41 percent by Declining fitness among the general population makes the idea of raising the retirement age less feasible. Declining fitness brings medical problems Theoretically, raising the retirement age could help to ease the burden of unfunded old-age benefits. But declining fitness among the general population is making this tactic less feasible. In the United States for example, the dramatic increases in obesity and sedentary lifestyles are already causing disability rates to rise among the population

59 and younger. The same declines in population fitness can now be seen in many other nations, and are likely to overwhelm any public health benefits achieved through medical technology. According to the International Association for the Study of Obesity, an "alarming rise in obesity presents a pan-European epidemic. In the case of European men, the percentage who are overweight or obese, ranges from over 40 percent in France, to 70 percent in Germany. Half of all deaths in places such as Mexico, China, and the Middle East, are now caused by non-communicable diseases related to Western lifestyle. And as Western lifestyles spread throughout the developing world, so do Western ways of dying. According to the World Health Organization, half of all deaths in places such as Mexico, China, and the Middle East, are now caused by non-communicable diseases related to Western lifestyle, such as cancers and heart attacks induced by smoking and obesity. The "Private Ryan" factor Current population trends are likely to make military actions increasingly difficult for most nations. One reason will be psychological. In countries where parents have generally one or two children, every soldier becomes a "Private Ryan" - a soldier whose loss would mean overwhelming devastation to his or her family.

Chapter 5 : Infant mortality - Wikipedia

As Japan enters the 21st century, the main problem its economy faces is a shortage of workers, a result of an aging population and a falling birth rate. Few countries have such an enormous birth rate and death rate.

Classification[edit] Infant mortality rate IMR is the number of deaths per 1,000 live births of children under one year of age. The rate for a given region is the number of children dying under one year of age, divided by the number of live births during the year, multiplied by 1,000. Perinatal mortality is late fetal death 22 weeks gestation to birth, or death of a newborn up to one week postpartum. Neonatal death is often attributed to inadequate access to basic medical care, during pregnancy and after delivery. The major contributors to postneonatal death are malnutrition, infectious disease, troubled pregnancy, Sudden Infant Death Syndrome and problems with the home environment. In the United States, a primary determinant of infant mortality risk is infant birth weight with lower birth weights increasing the risk of infant mortality. The determinants of low birth weight include socio-economic, psychological, behavioral and environmental factors. Congenital malformations[edit] Congenital malformations are birth defects that babies are born with, such as cleft lip and palate, Down syndrome, and heart defects. Often times, this occurs when the mother consumes alcohol, but it can also be a cause of genetics or have an unknown cause. Malnutrition and infectious diseases were the main cause of death in more undeveloped countries. These birth defects mostly had to do with heart and central nervous system. In the 19th century, there was a decrease in the number of infant deaths from heart diseases. As compared with normal-birth-weight infants, those with low weight at birth are almost 40 times more likely to die in the neonatal period; for infants with very low weight at birth the relative risk of neonatal death is almost 100 times greater. LBW may be the leading cause of infant deaths, and it is greatly preventable. Although it is preventable, the solutions may not be the easiest but effective programs to help prevent LBW are a combination of health care, education, environment, mental modification and public policy, influencing a culture supporting lifestyle. Reasons for this include teenage pregnancy, increase in pregnant mothers over the age of thirty-five, increase in the use of in-vitro fertilization which increases the risk of multiple births, obesity and diabetes. Also, women who do not have access to health care are less likely to visit a doctor, therefore increasing their risk of delivering prematurely. Sudden infant death syndrome Sudden infant death syndrome SIDS is a syndrome where an infant dies in their sleep with no reason behind it. Even with a complete autopsy, no one has been able to figure out what causes this disease. This disease is more common in Western countries. Scientists have also discovered three causes within a model they created called, the contemporary triple risk model. This model states that three conditions such as the mother smoking while pregnant, the age of the infant, and stress referring to conditions such as overheating, prone sleeping, co-sleeping, and head covering. Malnutrition in children Malnutrition or undernutrition is defined as inadequate intake of nourishment, such as proteins and vitamins, which adversely affects the growth, energy and development of people all over the world. It is estimated that about 3.5 billion children suffering from malnutrition face adverse physical effects such as stunting, wasting, or being overweight. In Africa the number of stunted children has risen, while Asia holds the most children under 5 suffering from wasting. Micronutrient deficiency such as iron has been linked to children with anemia, fatigue, and poor brain development. The mother may not be aware of the infection, or she may have an untreated pelvic inflammatory disease or sexually transmitted disease. These bacteria can move up the vaginal canal into the amniotic sac surrounding the baby. Maternal blood-borne infection is another route of bacterial infection from mother to baby. Neonatal infection is also more likely with the premature rupture of the membranes PROM of the amniotic sac. Measles is the fifth-largest cause of childhood mortality. Water contaminated with various pathogens houses a host of parasitic and microbial infections. Infectious disease and parasites are carried via water pollution from animal wastes. For example, the inaccessibility of clean water exacerbates poor sanitation conditions. Short-term and long-term effects of ambient air pollution are associated with an increased mortality rate, including infant mortality. Air pollution is consistently associated with post neonatal mortality due to respiratory effects and sudden infant death syndrome. Specifically, air pollution is highly

associated with SIDS in the United States during the post-neonatal stage. Women who are exposed to greater air pollution on a daily basis who are pregnant should be closely watched by their doctors, as well as after the baby is born. Babies who live in areas with less air pollution have a greater chance of living until their first birthday. As expected, babies who live in environments with more air pollution are at greater risk for infant mortality. Areas that have higher air pollution also have a greater chance of having a higher population density, higher crime rates and lower income levels, all of which can lead to higher infant mortality rates. Carbon monoxide is a colorless, odorless gas that does great harm especially to infants because of their immature respiratory system. According to the American Journal of Public Health, "in , more than 42 Americans died of second hand smoke-attributable diseases, including more than 41 adults and nearly infants In synthesis of this research, it has been observed that "African American infant mortality remains elevated due to the social arrangements that exist between groups and the lifelong experiences responding to the resultant power dynamics of these arrangements. Parker Dominguez at the University of Southern California has made some headway in determining the reasoning behind this, claiming black women are more prone to psychological stress than other women of different races in the United States. Stress is a lead factor in inducing labor in pregnant women, and therefore high levels of stress during pregnancy could lead to premature births that have the potential to be fatal for the infant. Trauma in early development has extreme impact over the course of a lifetime and is a significant contributor to infant mortality. Developing organs are fragile. When an infant is shaken, beaten, strangled, or raped the impact is exponentially more destructive than when the same abuse occurs in a fully developed body. Studies estimate that 1&e2"2 per , U. Unfortunately, it is reasonable to assume that these statistics under represent actual mortality. The younger an infant is, the more dangerous the maltreatment. They discovered that lower incomes tend to correlate with higher infant mortality. Differences between races were also apparent. A recent study by The Economist showed that economic slowdowns reduce the amount of air pollution, which results in a lower infant mortality rate. Disparities due to socioeconomic factors have been exacerbated by advances in medical technology. Developed countries, most notably the United States, have seen a divergence between those living in poverty who cannot afford medical advanced resources, leading to an increased chance of infant mortality, and others. Having a war taking place where a woman is planning on having a baby is not only stressful on the mother and foetus, but also has several detrimental effects. However, many other significant factors influence infant mortality rates in war-torn areas. Health care systems in developing countries in the midst of war often collapse. Attaining basic medical supplies and care becomes increasingly difficult. Preventable diseases can quickly become epidemic given the medical conditions during war. Transport of aid becomes significantly more difficult in times of war. In most situations the average weight of a population will drop substantially. During the Yugoslav Wars in Bosnia the number of premature babies born increased and the average birth weight decreased. Women who become pregnant as a result of war rape face even more significant challenges in bearing a healthy child. Studies suggest that women who experience sexual violence before or during pregnancy are more likely to experience infant death in their children. Many women who became pregnant by rape in Bosnia were isolated from their hometowns making life after childbirth exponentially more difficult. This tells us that not only is it extremely necessary for every child to get these vaccines to prevent serious diseases, but there is no reason to believe that if your child does receive an immunization that it will have any effect on their risk of SIDS. Developing nations with democratic governments tend to be more responsive to public opinion, social movements , and special interest groups for issues like infant mortality. In contrast, non-democratic governments are more interested in corporate issues and less so in health issues. Democratic status effects the dependency a nation has towards its economic state via export, investments from multinational corporations and international lending institutions. A collective cooperation between economic countries plays a role in development policies in the poorer, peripheral, countries of the world. There are circumstances where a number of developing countries to breed a culture where situations of infant mortality such as favoring male babies over female babies are the norm. Cultural influences and lifestyle habits in the United States can account for some deaths in infants throughout the years. According to the Journal of the American Medical Association "the post neonatal mortality risk 28 to days was highest among continental

Puerto Ricans" compared to babies of the non-Hispanic race. Examples of this include teenage pregnancy, obesity, diabetes and smoking. All are possible causes of premature births, which constitute the second highest cause of infant mortality. The difference between male and female infant mortality rates have been dependent on environmental, social, and economic conditions. More specifically, males are biologically more vulnerable to infections and conditions associated with prematurity and development. Before , the reasons for male infant mortality were due to infections, and chronic degenerative diseases. However, since , certain cultures emphasizing males has led to a decrease in the infant mortality gap between males and females. Also, medical advances have resulted in a growing number of male infants surviving at higher rates than females due to the initial high infant mortality rate of males. Males, biologically, have lower chances of surviving infancy in comparison to female babies. As infant mortality rates saw a decrease on a global scale, the gender most affected by infant mortality changed from males experiences a biological disadvantage, to females facing a societal disadvantage. Heterogeneous level is a strong predictor in explaining infant mortality. Births spaced at least three years apart from one another are associated with the lowest rate of mortality. The longer the interval between births, the lower the risk for having any birthing complications, and infant, childhood and maternal mortality. Also, women who are already small in stature tend to deliver smaller than average babies, perpetuating a cycle of being underweight. Improvements such as better sanitation practices have proven to be effective in reducing public health outbreaks and rates of disease among mothers and children. Education campaigns, disseminating knowledge among urban and rural regions, and better access to education attainment prove to be an effective strategy to reduce infant and mother mortality rates. Current efforts from NGOs and governments are focused developing human resources, strengthening health information systems, health services delivery, etc. Improvements in such areas have increased regional health systems and aided in efforts to reduce mortality rates. Governments can reduce the mortality rates by addressing the combined need for education such as universal primary education , nutrition, and access to basic maternal and infant health services. A policy focus has the potential to aid those most at risk for infant and childhood mortality allows rural, poor and migrant populations. Improving hygiene can prevent infant mortality. It is important that women of reproductive age adopt healthy behaviors in everyday life, such as taking folic acid, maintaining a healthy diet and weight, being physically active, avoiding tobacco use, and avoiding excessive alcohol and drug use. If women follow some of the above guidelines, later complications can be prevented to help decrease the infant mortality rates.

Chapter 6 : Birth rate - Wikipedia

The crude birth rate and crude death rate are both measured by the rate of births or deaths respectively among a population of 1, The CBR and CDR are determined by taking the total number of births or deaths in a population and dividing both values by a number to obtain the rate per 1,

But the layoffs that swept over the U. It also sent birth rates tumbling around the world as couples found themselves too short of money or too fearful about their finances to have children. For an overcrowded planet, this is good news. For the economy, not so good. We tend to think economic growth comes from working harder and smarter. But economists attribute up to a third of it to more people joining the workforce each year than leaving it. The result is more producing, earning and spending. Now this secret fuel of the economy, rarely missing and little noticed, is running out. All else equal, wage growth will be slower. Studies have shown that births drop when unemployment rises, such as during the Great Depression of the s. Birth rates have fallen the most in some regions that were hardest hit by the financial crisis. The trend emerges as a key gauge of future economic health - the growth in the pool of potential workers, ages - is signaling trouble ahead. This labor pool had expanded for decades, thanks to the vast generation of baby boomers. Now the boomers are retiring, and there are barely enough new workers to replace them, let alone add to their numbers. Growth in the working-age population has halted in developed countries overall. Even in France and the United Kingdom, with relatively healthy birth rates, growth in the labor pool has slowed dramatically. In Japan, Germany and Italy, the labor pool is shrinking. A girl sings a song at a park in Tokyo on March 2, Children aged between 0 and years-old account for just Births did begin rising in many countries in the new millennium. But then the financial crisis struck. Stocks and home values plummeted, blowing a hole in household finances, and tens of millions of people lost jobs. Many couples delayed having children or decided to have none at all. The United Nations forecasts that women in those countries will have an average 1. Demographers say the fertility rate needs to reach 2. The effects on economies, personal wealth and living standards are far reaching: Economic growth of 3 percent a year in developed countries, the average over four decades, had been considered a natural rate of expansion, sure to return once damage from the global downturn faded. The Congressional Budget Office has estimated that the U. Not enough new workers. Slower economic growth will limit wage gains and make it difficult for middle-class families to raise their living standards, and for those in poverty to escape it. One measure of living standards is already signaling trouble: Gross domestic product per capita - the value of goods and services a country produces per person - fell 1 percent in the five biggest developed countries from the start of through , according to the World Bank. Slower economic growth means companies will generate lower profits, thereby weighing down stock prices. And the share of people in the population at the age when they tend to invest in stocks and homes is set to fall, too. All else equal, that implies stagnant or lower values. Homes are the biggest source of wealth for most middle-class families. Births might pick up again, of course. In France, where the government provides big subsidies and tax breaks for children, birth rates are back where they were in the early s. In other countries, women who put off having children in the recession might play catch up soon, as they did after World War II. Demographers note that women were having children later in life even before the crisis, and so births are likely to rise anyway. But even a snapback in births to pre-recession levels will leave families much smaller than they were decades ago, a shift that has already affected industries and economies around the world. In Japan, sales of adult diapers will exceed sales of baby diapers this year, according to Euromonitor International, a marketing research firm. By , the country is projected to have the second-largest population of older people among developed countries, at 39 million. Park Hyun-kyung, a year-old hospital administrator in Daegu, South Korea, says she would like to have three children, just like her parents. But she and her husband have decided to stick to one, if they have any. In China, where the working-age population is set to shrink next year, the government is relaxing a policy that had limited many families to one child. It might not help much. Chinese are choosing to stick to one on their own. Lei Qiang, a logistics manager in Shanghai with a 2-year-old daughter, has ruled out another child. An elderly woman carries boxes for recycling as she walks

past a billboard advertisement in Hong Kong on March 17, One in three people in the city is expected to be 65 years old or above by , threatening to curb economic growth in the major financial hub, the Hong Kong government has warned. Their numbers as a share of the total population in many countries is falling. Economists like to see this share of total population rise, because it means more people are earning money, expanding the tax base and paying for schools for the young and pensions and health care for the old. In , there were 22 people age 65 and older for every working-age adults in the U. By , that ratio is expected to climb to 35 older people per workers. Now the proportion is also dropping in the United States, France and the United Kingdom, according to investment firm Research Affiliates, using data from the United Nations. Economists say it is rare for the number of working-age people as a share of the total population to fall in so many major countries at the same time. The six countries with declining proportions of working-age people now, plus China, accounted for 60 percent of global economic output in , according to Haver Analytics, a research firm. The drops are small, a few tenths of a percentage point each year off proportions of working-age people, which had peaked in developed countries at But Research Affiliates expects the working-age share of total population to fall steadily for several decades, slowing economies each year, until they bottom at about 50 percent in or so. A country can compensate for this demographic drag on economic growth by encouraging people to work longer or to use technologies to increase output. But most economists doubt that such changes are forthcoming or would be enough. He says economic growth of 3 percent is unlikely on a "sustained basis" even for the United States, which is blessed with a flow of immigrants, albeit a slowing one, to soften the blow. Productivity in the U. Output per hour, a gauge of how much workers produce, grew only 0. The research firm foresees productivity growing less than 1 percent in Payrolls rose as the oldest baby boomers started working in the mids - then kept rising as those born later took jobs. Retirees were relatively few because most workers were young. And many women joined the workforce for the first time. It was an unusual confluence of beneficial demographic shifts, and perhaps unrepeatable. But economic growth in developed countries will "tumble" to no more than a tepid 1. And Arnott says economic growth per capita, a rough gauge of living standards, may "swing negative. From , GDP per capita rose an average 2. Since then, it has grown less than 1 percent a year. Arnott thinks the demographic drag is going to worsen, subtracting roughly a percentage point from the annual rate in the next few decades. That suggests living standards barely growing, or even falling. Others note that smaller families are associated with some social benefits for societies. Births have plunged in countries where education has improved, the middle class has expanded and women have gained more freedom and rights. Still, even optimists see the world at a delicate crossroads. Reiner Klingholz, head of the Berlin Institute for Population and Development, says societies are unsure of their goals now that easy economic expansion is over. In aging societies, the big fear is that paying for benefits for the swelling number of retirees will weigh on economic growth. But even if benefits were fully funded, more retirees would practically guarantee slower growth for three reasons. That, in turn, cuts demand and slows growth. A third reason is less obvious: Productivity of workers, or output per hour, tends to peak as they reach their mids. And the increases in productivity as they near that age tend to be small. And with economic growth, only the change in productivity from year to year counts, not the level. And older workers past their peak productivity, by definition, subtract from growth. Births have sprung back after plunging in previous economic crises, like the Great Depression. When the economy recovered and they could afford more children, they had them. This time might be different. Lower unemployment rates would help. As hiring has picked up in the U. Countries can better educate and train their existing workers, attract more immigrants and encourage people to work past retirement age. But many economists think demographic headwinds are just too strong to expect a jump in growth. The best hope is an unexpected innovation leading to a burst of efficiency in the workplace. This material may not be published, broadcast, rewritten, or redistributed. The Associated Press contributed to this report.

Chapter 7 : Massive Fall In Germany's Birth Rate

Summary: The issue of declining birth rates. The most common factors of declining birth rates are an increase in the unmarried population and a decrease in the number of children in families.

Absence of four incentive factors in conventional countermeasures against declining birth rates "Low birth-rate" is recognized when the total fertility rate TFR falls far below 2. The government finally started to address this issue in , but has failed to find effective measures to stop declining birth rates up to the present. Therefore, it should be considered that these measures are not "sufficient" or "appropriate. This action was taken based on the findings from research conducted after the "1. The Ministry of Internal Affairs and Communications compiled an assessment report on the Angel Plan initiatives in In fact, the TFR further dropped over the next 20 years, from 1. Based on the above facts, the measures are insufficient due to the absence of the following: With respect to the factors 1 and 4 , it is considered that the government was not comfortable implementing policies with such target figures and campaigns that reflect the wartime slogan "umeyo fuyaseyo give birth and multiply. The following seven factors were hypothetically considered to be the typical causes of declining birth rates: Unmarried population rate by age Source: National population census The above factors are surely the causes of declining birth rates, but the factors 2 , 3 and 6 are major factors, in particular. These two factors have been the major causes of declining birth rates. Number of children in families Source: The increase in the unmarried population is caused by employment instability among men, that is, an increase in non-regular employment factor 3. The survey data reveals that male workers in their late 20s whose annual salary is less than three million yen tend to stay single their whole life, which indicates that there are many people who do not marry due to economic reasons including employment instability. In addition, although there are young people who still adhere to the traditional family values in which the husband works, and the wife stays at home, they cannot find the right partner. This mismatch is another factor that increases the number of unmarried people factor 2. Reasons for staying single Men and women aged Source: In other words, nowadays those who do not aspire to getting married cannot marry easily. Survey data also shows that those whose annual salary is less than three million yen are not easily motivated to marry. In addition, when asked why they have stayed single, the majority answered that they "cannot find the right partner" Figure 3. Next, I will discuss the causes of declining birth rates in married couples. The ideal number of children for married couples is 2. The data indicates that families consider economic reasons to be the most important factor when they decide whether to have a third child or not. With respect to the four incentive factors to counter the issue of declining birth rates as discussed in the previous chapter, the lack of "Extended targets of government policies" and "Measures to reduce financial burden in typical families and improve youth employment" can be explained as follows. Reasons for not having the ideal number of children Source: Necessity of paradigm conversion to counter declining birth rates Based on the above data, it is considered necessary to change the paradigm in which declining birth rates are seen to be caused by insufficient support to help parents manage both work and child-rearing, such as the establishment of day-care centers and the childcare leave system, while the number of parents in particular, mothers who desire to continue working during the period of child birth and child-rearing is increasing. The new paradigm would ascribe declining birth rates to changes in the employment environment of young people and difficulties in childbirth and child-rearing of typical families. Based on such a paradigm conversion, in addition to currently targeting "working married couples full-time in the metropolitan areas," it is necessary to expand the scope of countermeasures by targeting "unmarried young people in particular, those who cannot have employment opportunities " and "typical families including those with housewives doing part-time jobs who make up the majority of the child-rearing generation. Working status of mothers upon the birth of their first child Source: What is required to stop the birth rate decline? To ensure that these countermeasures against falling birth rates are successful, it is necessary to first address the most serious causal factor that is identified based on data analysis. The Japanese government should tackle the issues of youth employment the trend of unmarried population and financial support for married couples, in particular, typical families, to help them

have the ideal number of children. Some countries successfully countered the birth rate decline by implementing various initiatives to increase the birth rate. Such initiatives include legal support for unmarried couples living together, childcare subsidies in cash and in-kind, and enhanced childcare services. In such countries, the ideal number of children and the actual number of children in families are almost the same, indicating that families feel easy to have the desired number of children. Japan should learn from the initiatives taken overseas and start addressing this issue, starting with the most serious causal factor. To achieve this, I believe that it is important to first set a target figure for birth rate recovery. The specific target should be "fertility above replacement level at 2. The replacement level is the fertility rate necessary to maintain the number of parent generations and the number of child generations at the same level. By setting a specific target figure, it becomes easier to analyze the impact of each causal factor that affects the declining birth rates and formulate effective countermeasures. After implementing measures, verification should be conducted based on the PDCA cycle. The specific target figure will help us identify and estimate costs, and hence, it becomes easier to obtain budgets. It is also necessary to establish "principles" along with the target figure. Setting a target figure for the fertility rate and implementing measures for the causal factors of declining birth rates, such as the increase in the unmarried population and the decrease in the number of children in families are urgently required. By comparing the target figure with the actual figure, we will be able to formulate more effective measures, so as to encourage and help people who desire to marry and have a baby. Profile Shigeki Matsuda Ph. Specializes in countermeasures against birth rate decline, childcare support, and family theories. Born in , Professor Matsuda graduated from Hitotsubashi University sociology. He obtained a doctoral degree in sociology from Keio University Graduate School.

Chapter 8 : Global consequences of the falling birth rate | The Life Resources Charitable Trust

The implications of a decline in the birth rate can hit a country in later years, meaning that the workforce in the future could have insufficient people with certain skills and this, in turn, could hit the economy (lower labor supply, for example, can trigger an increase in wages.).

Chapter 9 : Infant Mortality | Maternal and Infant Health | Reproductive Health | CDC

The infant mortality rate is the number of infant deaths for every 1, live births. In addition to giving us key information about maternal and infant health, the infant mortality rate is an important marker of the overall health of a society.