

EWC-KIHASA Joint Conference

# Policy Responses to Low Fertility and Aging Society

edited by  
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Korea Institute for Health and Social Affairs

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## **PREFACE**

The syndrome of low fertility began in European countries from the early 20th century and thereafter has expanded to many countries in the world in the late 20th century. The Republic of Korea has experienced the unprecedentedly rapid decline since 1960. The trends of low fertility in Korea is very typical in that the fertility rate has declined too speedy and too low. The demographic transition from high fertility to low fertility had taken 50 years to 100 years among European countries. However it had been less than 25 years for Korea; the total fertility rate declined from 6.0 children per woman in 1960 to 2.08 children per woman in 1983. The total fertility rate has maintained at around 1.2 children per woman with some irregularities since 2002.

Low fertility cannot be regarded simply as a demographic phenomenon since it will accelerate labor shortage and population ageing to result in considerable socio-economic impact. As the low fertility continues, the labor size will diminish rapidly and the labor will be ageing which may weaken labor productivity. Although the base of taxation demolishes by continuation of low fertility, the size of the elderly will increase very rapidly, especially with entrance of the baby-boomers to the elderly ages. Decrease in labor force and increase in the elderly will diminish consumptions and capital stocks which in turn will slow down economic growth. Eventually, low fertility and population aging will deteriorate not only socio-economic development but also individuals' welfare in the future.

Korean Government has made diversified efforts at responding to demographic change, low fertility and population aging, through which the country's socio-economic development and people's welfare can be sustainable in the future. The Korean Institute for Health and Social Affairs (KIHASA) has made contributions to Government's policies in response to low

fertility and population aging through developing, monitoring and evaluating policies.

In doing so, KIHASA has made partnerships with important agencies and institutes overseas to exchange ideas and information, collaborate in research, establish database, etc. As a part of such efforts, KIHASA and EWC (East-West Center) held a joint international conference in Honolulu during 4th~5th July 2010, with a conference theme of "Policy Responses to Low Fertility and Aging Society". This report includes valuable articles, presented and discussed in the conference, with some editions, which will, we believe, be useful in both aspects of policy and academy.

On behalf of KIHASA, I would like to appreciate all participants in the conference, specifically Dr. Charles Morrison, President of East-West Center and his colleagues Dr. Nancy Lewis, Director of Research Program and Dr. Minja Kim Choe, Senior Fellow who made the conference very successful. I hope that our partnerships in research works for demographic as well as other fields will continue in the future.

Yongha Kim  
President, KIHASA  
October 2010

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# **Chapter I**

## Introduction



# Introduction

*Yongha Kim<sup>1)</sup>*

You may notice how dramatic a change has come about in the shape of the demographic composition of the Korean population. Within the short span of 25 years, from 1980 to 2005, there has taken place a rapid shrinkage in youth and children and a significant expansion in the aged population. And if the current trends in fertility continue, Korea will have to see its population decline from the year 2020 onwards.

Compare how long it has taken for other countries and for Korea to reach their population aged 65 and over, the rather stale modifier "unprecedented" modifies Korea's trends in population aging quite appropriately.

Until before the 1997 Asian economic crisis, Korea's total fertility rate was not as bad as it is now. It was still within the range of the OECD average of 1.6. Many commentators now see the economic crisis as something of a watershed moment for Korea on its course of fertility. Of course, people's attitude, how they feel, not to mention the decisions they make, about getting married and having children in good times, can be different from those when they are in bad times. It could mean to some extent a change in their world view, or an increased apprehension of the future. This much seems very reasonable, very much in line with what I think is the human function of being aware of risks. But the problem is that this is a widespread, largely unabated attitude that far outlasts the crisis.

Thus, the total fertility rate had declined very dramatically from 6.0 in 1960 to 1.08 in 2005, which was still struggling

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1) President, Korea Institute for Health and Social Affairs(KIHASA)

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between the rates of 1.1 and 1.2. The Korean baby-boomers, those born between 1955 and 1974, are aging rapidly out of the workforce. The time it will take for them to complete their exit of course will more or less correspond to the period during which they were born. However, given that the share of the baby-boomer generation is so huge that it takes up some one-third of the overall population. There will eventually be less number of economically active people who pay taxes to support those too old to work. Their impact on the National Pension simply cannot be overstated. They are quite irreplaceable as contributors to the pension scheme.

Population aging is found to have been affecting negatively on household consumption. Families with a household head aged 60 and over are found to spend only 65 percent as much as do their counterparts with a household head in his or her 40s. Nor is population aging of any help for savings, it seems. To be sure, when it comes to savings, there are many more factors at play that have to do with changes in the cultural as well as socio-economic environments of the country.

What we face when we are left in low-fertility situations long enough is a reduction in the economically productive population. This in turn shrinks labor supply, investment and consumption, and eventually, aggregate demand and supply. We are looking at a vicious-circle scenario here.

The gist of what we are looking at is that the older the age group, the smaller their income. The gap between the Gini coefficient for the whole population and the Gini coefficient for those aged 60 and over is more or less even over time. Also, old-age poverty is much higher in Korea at 45.1% than the OECD average of 13.3%.

One of the more salient characteristics of the relationship between population aging and employment until not long ago was that strong baby-boomers pushed up unemployment among the younger generation and made the older generation retire early. Now, as the baby-boomer generation begins to age out of the workforce, employment is more stable. But there are not

enough jobs for highly-educated young workers, women's economic participation is still not as high as we want it to be, and, more often than not, older people are not given enough opportunities to work.

Now, let me put jobs into perspective. Yes, jobs are short for everyone, yes, we could say that, but more so for older workers. Demand for jobs is particularly high among early retirees in their 40s and 50s. Also, we have a piece of pretty reliable data from 2006 on the number of those aged 60 and over who want to work. As many as 875 thousand people of that age group said they would work provided they were given opportunities. Also, in the same survey most of the older jobless said that they needed a job to make a living.

The number of one-person households is expected to be on the rise. Childless-couple households are also likely to increase. Families in Korea are getting smaller and smaller in terms of the number of their members. Consequently, intra-familial support is on the wane, and more and more elderly individuals will have to have recourse to social arrangements.

Of late, issues concerning the elderly have come to the fore. The issues of lone-elderly households and their poverty, in particular, have been brought to increasing policy attention.

Health expenditure on the elderly population has increased very rapidly to occupy at least 30% of the total health expenditure this year. Projections have health expenditure on the elderly outstripping health expenditure on all the rest by the end of this very decade.

Current projections tell us that the number of National Pension participants, those who contribute to the pension system, will decrease from 2014 on. At the same time the number of pensioners is expected to increase. How to keep the National Pension sustainable is one of the flagship issues for the government. It's an issue that is a part of the larger issue of low-fertility and population aging.

Now that I have spoken about some of the salient characteristics of low-fertility situations and population aging, let

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me move on to what we can and should do.

First, we should keep our baby-boomers in the workforce longer. This we can do by increasing retirement age. The effect of job-sharing is questionable. I do not think it's even a good short-term makeshift. We could also consider a wage-peak system.

A well-known Senegalese proverb has it that "when an old man dies, a library burns." We want to have our older workers in the workforce as long as we can, not only because that way they can be economically more viable, but also because the economy needs their experience.

Each of many of the older population is a storehouse of the valuable know-how and expertise their younger counterparts cannot replace. The elderly is highly heterogeneous, not any less so than younger generations. Increasing jobs for the elderly is important, but ensuring that they are of high quality and befit the skill and experience of older workers is more important. This is a tall order which involves a lot of work, but not unachievable.

Now we have come back to the National Pension. Helping it to regain its financial stability is of primary importance. In order for it to become financially stable, its income replacement level needs to be lowered, for example, gradually to 40% by 2028. The aim is to help it last until 2060. This will leave behind gaps in post-retirement income protection, which we suggest to fill with basic old-age pension. The income replacement level of the suggested basic old-age pension will have to be raised over time until reaching 10% in 2028.

For the Civil Servants' Pension, raises in contribution and the pensionable age, as well as cuts in the replacement level, are unavoidable. There is also a need for an across-the-board reform, not least in its premium rate. The status quo of Korea's Long-term Care Insurance is still on its way to improvement.

Now we are with the issue of what to do with the low-fertility situations. Over the last couple of decades, Koreans seem to have become increasingly risk-averse in moving on in

their life, in making decisions in their non-economic life that in many ways is interwoven with their economic life. Such a tendency is strong and visible when it comes to decisions about marriage, having children, and so on. This tendency I think is the strongest among those rather young generations who haven't experienced the dire poverty their mothers and fathers have, directly or indirectly, in the early years after the war. But, the sense of risk, the sense of economic uncertainty running deep in them is much greater than their actual experience suggest. Of course, nothing is really unrelated to the realm of the economic in the era we live in. Having children and raising them is expensive. Some 230 million Korean won, which is close to 200 thousand US dollars, is how much it takes to support a child until she grows old enough for college graduation. Many parents nowadays are very willing, not necessarily able, to support their children not only toward their college graduation but even to the point of graduate school and beyond. The need is clear and present for the government to do something, many things to help parents reduce their burden of childrearing. Support for the parents may come in a wide range of forms.

Here we have some of the ways we are considering to help increase fertility rates. Increased income deduction for education, reduced health insurance premium for those on maternity leave, favorable treatment in National Pension contribution for families with three or more children, reduced health premium for families with three or more children, favorable interest rates on housing loans for newly married couples.

In some OECD countries, including the US, the UK, Australia and Sweden, higher fertility rates are accompanied by higher women's participation in the labor force. Do economically stable families tend to have more children? It seems so, at least if the graph shown here is something to go by.

The case in Korea is starkly different, where women often face after childbirth face career break and income loss. Odds are stacked against childrearing too. These should be removed. The corporate sector needs to become more family-friendly in terms

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of child care leave and working hours. The government should increase its ceiling for subsidies for workplace child care facilities.

Publicity is regarded very important to turn the corporate sector friendly to families and childrearing. We can do many things in this and make full use of the media and other instruments of modern technology we have at our disposal. It is important to remember that no matter how good and thoughtful our policies, they stop short without communications with those they are intended for.

## **Chapter II**

### Low Fertility and Policy Measures



# Trends in Low Fertility and Policy Responses in Korea

*Lee Sam-sik<sup>1)</sup>*

The country has been focusing more and more on production of the public goods, which cannot be secured by the individuals. The public goods include national security, welfare, freedom, etc. that can be beneficiary to the descendents. Fertility is also the public goods and hence it is valuable to judge its change, i.e. high or low. However, giving a birth can not be done by the country. The individuals would determine their childbirth based on calculation on benefits and costs under the constraints of circumstances. Such individuals' decisions can be rendered not only to their family but also to the others of the society. This is a basis for which the country intervenes in the individuals' childbearing behaviors; the government is, in general, willing to implement policies aiming at making direct or indirect influences on the present population progress of fertility, marriage, mortality, and migration through socio-economic and other measures, in case that population size and structure threatens to survival and welfare of the people at present and in the future.

Because the population policy aims at preventing and minimizing the demographic and socio-economic problems to be confronted with in the future, it has the limitations of low social tension and weak participation of people. Population policy cannot be fixed in one direction. The ideology of population such as overpopulation and depopulation has long-term recursive characteristics, for which the direction of population policy

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1) Director of Low Fertility and Aging Society Research Division, KIHASA

cannot but change.

Korea has long completed the transition from high fertility to low fertility. The low fertility rate and population aging have a strong causal relationship in the Korean context. Facing low fertility and even the lowest low fertility rates today, we are called to make two-pronged efforts to raise fertility rate and prepare for an aged society. Although more or less overdue, it is the reason why a paradigm shift in the Korean society is required to wisely and effectively cope with the problems of low fertility and population aging.

This paper discusses a paradigm shift to meet the demographic changes and its future direction in Korea. To this end, it examines how fast and to what extent the fertility rate declined, and how speedy the population is to be aging. It then surveys the effect of demographic change on future economy and society as a consequence of a continued low fertility rate. The study finally discusses a paradigm shift to respond to these effects.

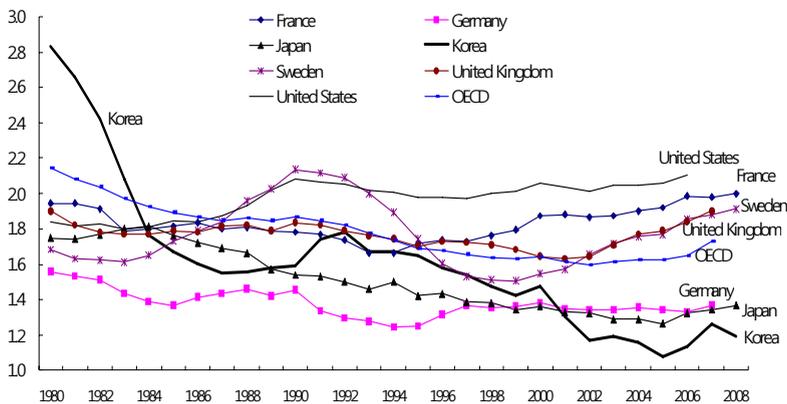
## **TRENDS IN FERTILITY**

The Korean government initiated a strong family planning program in the early 1960s when Korea's economic development began to step up. Until then, baby boom-fueled explosive population growth had been eating into the poor basis of economic growth, working as a major cause of the vicious cycle of poverty. The national family planning program, as a major means of population control policy, was adopted in 1962. This program includes the demographic target of reducing the annual population growth rate and the total fertility rate, and it was vigorously implemented as a categorical program through the successive five-year economic development plans. The strength of family planning program lied in its limited goals, the acquisition of resources and the building of an organizational process

specifically for the demographic goals. Also, commitment to family planning goals led to development of extensive linkages with other sectors such as the mass media, and private practitioners' clinics and hospitals.

As the family planning program began reaping its benefits and socio-economic changes came into being, including the increase in the standard of living in the wake of rapid economic growth and better and wider education, the traditional value on having many children began to wane. As a result, the total fertility rate (TFR) decreased from 6.0 in 1960 to the population replacement level of 2.1 in 1983 the primary objectives of the national family planning to achieve the replacement level of fertility, as targeted in 1988. Between the mid-1980s to the mid-1990s, the TFR maintained at around 1.6 with some irregularities. and accomplishing near universal contraceptive use. Since the late 1980s the government began to move away from its policy on free contraceptive distribution through government programs toward a self-paid system, administered by private and commercial sectors, such as the health insurance program.

Figure 1. Trends in total fertility rate for OECD countries



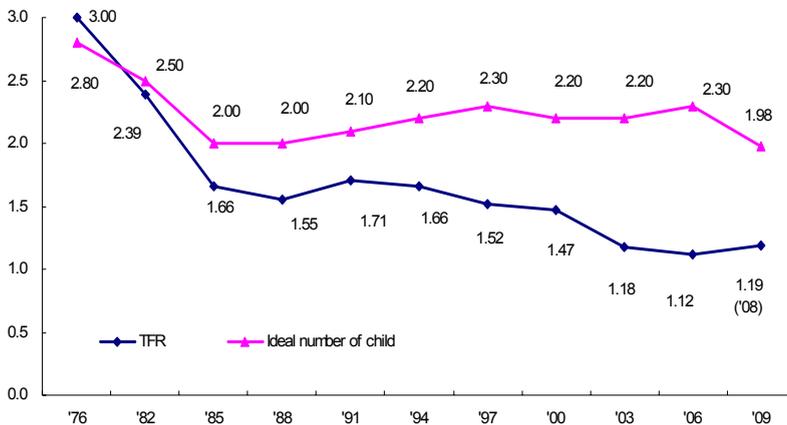
Source: OECD, OECD Fact Book, 2009; KNSO, Vital Statistics, 2009.

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As the country struggled through the financial crisis in 1997, Korea's TFR again declined rapidly below 1.2 in 2000s (especially 1.08 in 2005), the lowest in the world. As such, Korea made a sharp transition from the stage of high fertility at 6.0 to the stage of low fertility at around 1.1 in half a century. The number of children per year was over 1 million from 1960 to 1971 but decreased to below half a million since 2002.

Such continuation of extremely low fertility rate in Korea seems to be unusual in that the fertility rates of many OECD countries show a steady increasing pattern in recent years. For example, TFR of France has been steadily recovering to 2.0 in 2008 from the low of 1994 when it was 1.66. TFR for Sweden has increased to 1.91 in 2008, after reaching the lowest level of 1.50 in 1995. The TFR for USA rose to 2.1 in 2006 from the low level of 1.74 in 1976 and TFR for United Kingdom rose to 1.9 in 2007 from the low level of 1.63 in 2001. Even in Japan, which has been one of the lowest low fertility countries in the world, TFR has been recovering from 1.26 in 2005 to 1.37 in 2008. TFR for OECD member countries increased, on an average, to 1.73 in 2007 after the lowest point of 1.60 in 2000.

Figure 2. TFR and the ideal number of children in Korea



Source: KIHASA, National Fertility and Family Health Survey, Each Year.  
KIHASA, 2009 National Marriage and Fertility Dynamics. 2009.

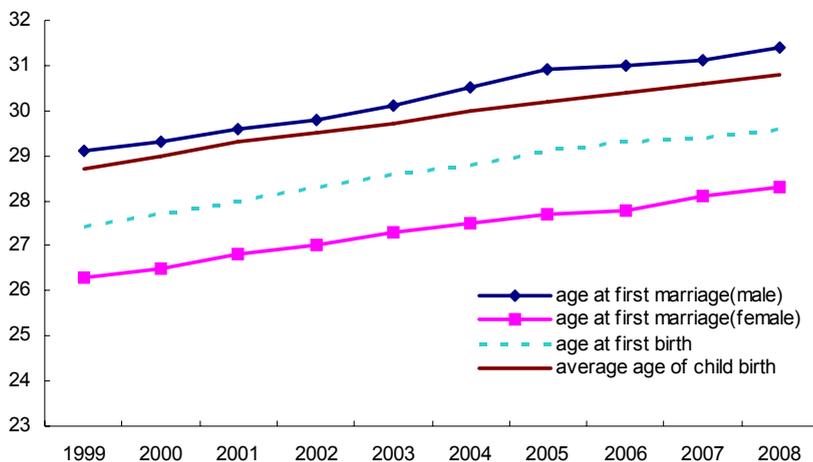
As the fertility rate in Korea decreases, the gap between TFR and the ideal number of children has increased (Figure 2). In 1976, TFR was higher than the ideal number of children. Since then, TFR has been lower than the ideal number of children with their gap widened. It is distinct that the ideal number of children decreased, for the first time, below 2.0 in 2009, for which the gap became narrowed.

## CAUSES OF LOW FERTILITY

### *Demographic Factors*

Demographers and Government never expected that Korea's TFR, after reaching the population replacement level in 1983, would fall further and stay there for a long time. In fact, even after the mid-1980s when TFR maintained at around 1.6, the Government still enhanced its antenatal policies for fear that the fertility rate might start to rise again.

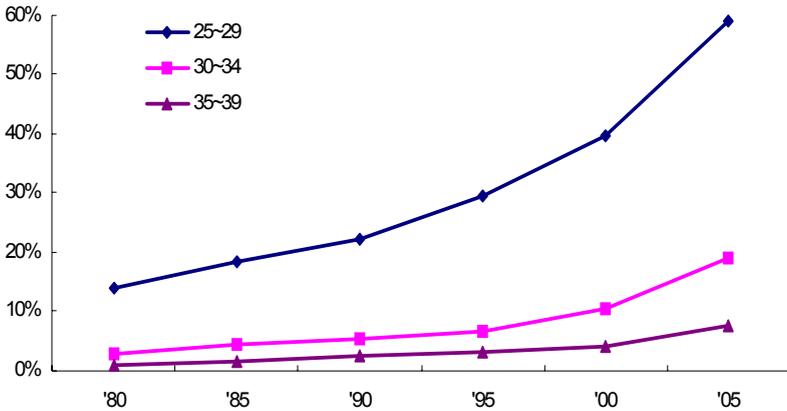
Figure 3. Age at first marriage and childbirth in Korea



Source: Annual Report on Vital Statistics on Population, National Statistical Office, Korea

One of the most important reasons behind such an unexpected dramatic decline of fertility rates is postponement of marriage and first childbirth along with socio-economic changes such as rise in female's enrollment rate at university and female labor force participation rate. The women's age at first marriage was 24.1 years in 1985 but soared-up to 28.7 years in 2009 (Figure 3), for which the proportion of unmarried women has rapidly increased, especially for the women at major childbearing age of 25-29 (Figure 4).

Figure 4. Proportion of unmarried women in Korea

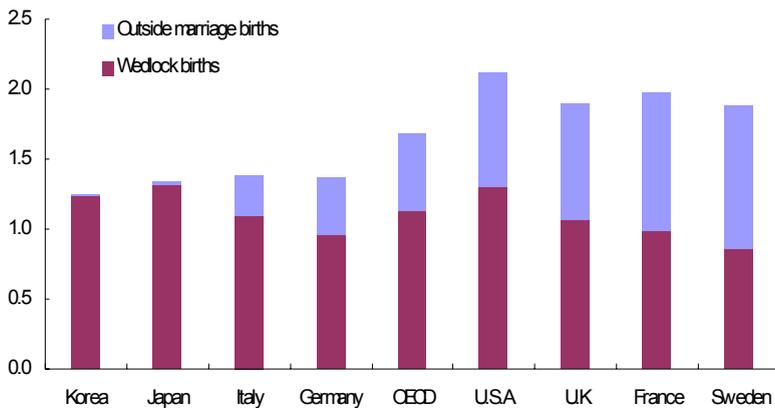


Source: Annual Report on Vital Statistics on Population, National Statistical Office, Korea

One thing that distinguishes Korea from Western countries including France and Sweden is that premarital childbirth in Korea is strongly suppressed both individually and socially. The socio-bio gap between the age at first marriage and sexual activities seems to have increased the number of premarital pregnancies. However, in Korea where ceremonial marriage is established as a strong social norm and extramarital childbearing is not socially accepted, most such pregnancies end up being artificially aborted for society's cold treatment and criticism, resulting in the low ratio of births born outside marriage, 1.8% as of 2008 (KNSO, 2009) (Figure 5). According to a 2005

survey, 42% of some 350,000 artificial abortions that took place per annum were carried out on unmarried pregnant women. Thus, the fertility rate has been rather directly affected by age at first marriage in Korea where most of childbirths came from legitimate marriages.

Figure 5. Proportion of births outside marriage, 2007



Source: OECD Family Database 2009, KNSO, Vital Statistics, 2008

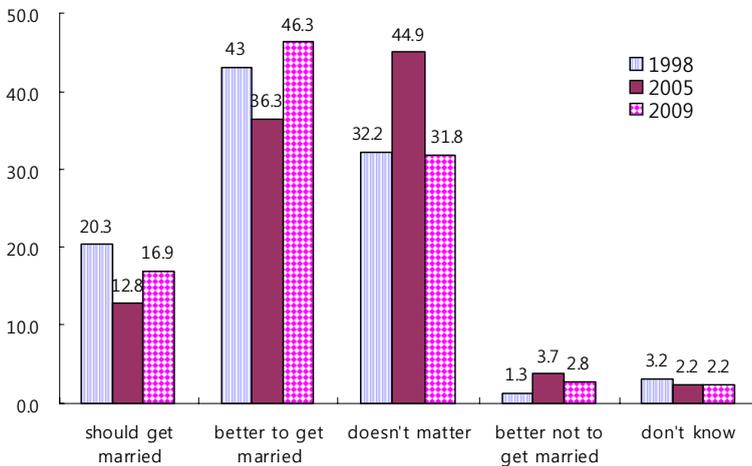
### *Cultural Factors*

The postponement of marriage and reduction in number of children are attributable to changes in value. There has been a considerable change in values on marriage and child in the Korean society; marriage and childbirth are not longer universal values as duties but become a choice. In a 1998 survey by Korea National Statistics Office (KNSO), the ratio of unmarried women polled on the value that people should get married accounted for a very low 20.3% with total affirmative responses to marriage, including those who said it is better to get married, being 63.3% (Figure 6). The 2005 survey by the Korea Institute for Health and Social Affairs (KIHASA) showed that unmarried women's attitudes on marriage turned more negative: 12.8% of the respondents said people should get married and 36.3% said

it is better to get married. Thus, 28.6% of unmarried men and 50.8% of unmarried women have a negative attitude on marriage (KIHASA, 2005).

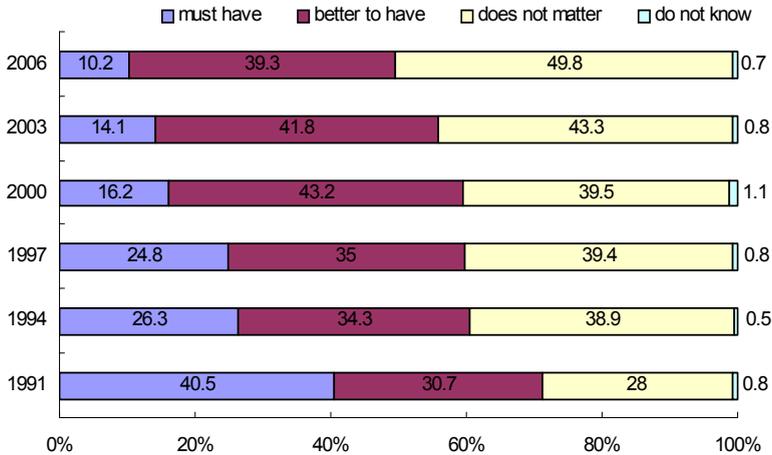
Ever-married women's attitudes on children have also changed considerably (Figure 7). The ratio of those respondents who expressed that people should have children was 40.5% in 1991. The ratio decreased to the 16.2% in 2000 and further fell as low as 10.2% in 2006. People's expectation of their children's utility in the past was mostly a means of securing the family labor force, a source of security in retirement, and a succession of the family line. As social security has developed and consciousness on blood relationships has weakened, more emphasis has been placed on children's values as agents of emotional dependence and support. The changes in the values on the qualitative utility of children have affected the quantitative value of their number, helping to firmly establish people's values favoring a small number of children in Korea.

Figure 6. Single women's attitudes on marriage in Korea



Source: KIHASA, 2005 National Survey on Marriage and Fertility Dynamics, 2005.  
KNSO, Korea's Social Indices, 1999.

Figure 7. Married women's attitudes on children in Korea



Source: KIHASA, National Fertility and Family Health Survey, Each year

### *Socio-economic Factors*

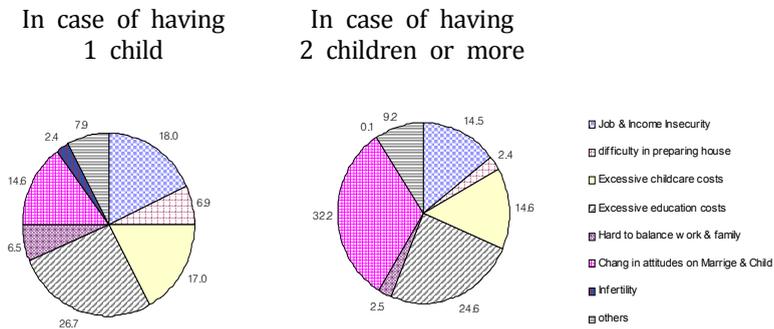
Socio-economic and individual factors that have had negative influences on fertility, include increase in uncertainty for the future due to high unemployment among young population, unstable job security, increasing economical burden of child-rearing including costs for private education of children, incompatibility between work and family, lack and low quality of infrastructure for daycare, aggravation of reproductive health, etc. These factors have also interactive impact on people's attitudes on marriage and childbirth.

The sluggish economy and increased unemployment, and job insecurity have contributed to low fertility rates. As in 1970s when oil shocks took place, fertility rates dipped with time-lags of 1~3 years after Korea was hit hard by the financial crisis in 1997 and again the international financial crisis in 2008. This is due to the fact that the impact of hard economy is delivered, through increase in instability of employment, to the family life including marriage and childbearing. The increasing instability in employment tends to have higher level of education in

response to uncertainties for the future, postponing time of marriage and childbearing.

An increase in educational costs helps lowest low fertility rates in Korea. Because of the exorbitant costs of education from preschool to university with unusually high enrollment of around 85% among high school graduates, parents often put priority on quality rather than quantity and prefer fewer children or no child. According to 2009 National Survey on Marriage and Fertility Dynamics, 9.9% of the currently married women at age 20~39 with 1 child ceased their childbirth due to burden of childrearing cost and 18.2% due to burden of education cost (Figure 8). This is partly because children are no longer taken as an investment for their parents' old age security but raising children is now regarded as an opportunity cost for time and income of couples, especially of women. Such burden of child-rearing was also associated with instability of income and housing.

Figure 8. Reason for stopping childbearing of women(20-39) in Korea, 2009

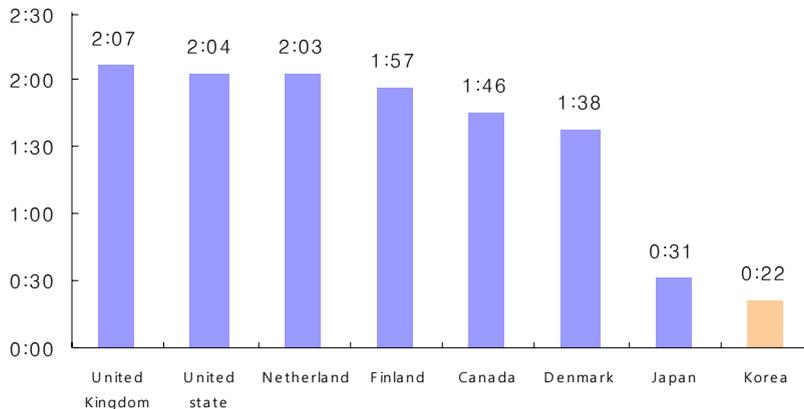


Source: KIHASA, 2005 National Survey on Marriage and Fertility Dynamics, 2005.

In Korea, women have increasingly participated in economic activities; the economic participation rate increased from 47.9% in 1995 to 69.0% in 2009 for the women at age 25-29 and from 47.6% to 51.9% for the women at age 30-34. However,

the social-cultural atmosphere has not been well fostered in Korea. For example, working mothers used to lack of time for childcare and housework because of long hours for work. The Korean working hours is the longest among OECD member countries, which was 2,316 hours per annum in 2007 (OECD stat, 2009). Grants of maternity leave and childcare leave are poor in sustaining household expenditures. Working mothers spent 208 minutes but her husbands spent only 32 minutes on housework and childcare in a working day. The time spent for housework and childcare was rather longer of 385 minutes for non-working mother, while their husbands spent 31 minutes similar to that for husbands with working mothers (KNSO, 2004). The family nuclearization has weakened informal childcare support network, especially for children 0-2 years old; only 27.3% of demands for care of preschool children was met by relatives including grand-parents in 2005 (KIHASA, 2005). Childcare services and facilities are inappropriate for various demands of working mothers. For example, the provision of childcare facilities met only 30% of demand as of 2005 (Lee *et al.*, 2006b).

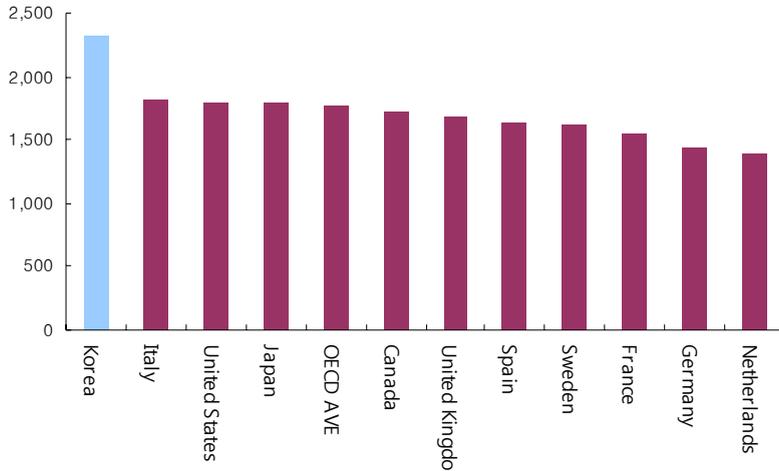
Figure 9. Males' housekeeping hours per day, 2001



Source: OECD Employment Outlook, 2009

## 22 Policy Responses to Low Fertility and Aging Society

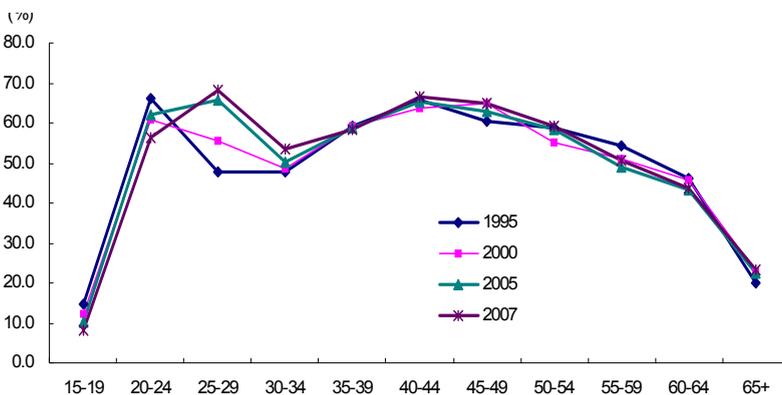
Figure 10. Working hours per year, 2007



Source: OECD Employment Outlook, 2009

Due to incompatibility between work and family, 39.3% of the working women were out of work for marriage and 47.7% for first childbirth (KIHASA, 2009). As working women quit jobs when they got married and became pregnant or raised children, the women's age-specific labor force participation rates are shaped into M-curve (Figure 11).

Figure 11. Female labor force participation rates by age in Korea



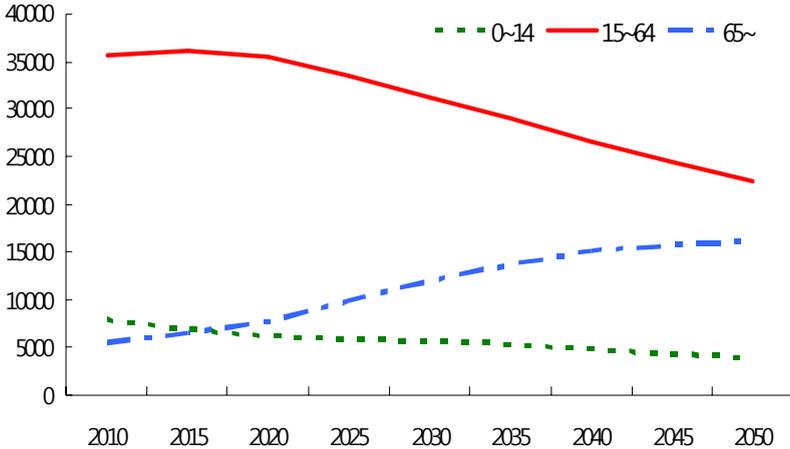
Source : KOSIS, National Statistical Office, Korea

## **IMPACT OF LOW FERTILITY**

If the recent fertility level keeps in the future, the total population will decrease, after reaching its peak of 49.3 million in 2018, to 42.3 million in 2050, or by 7 million and to 21.2 million in 2100, 43.4% of the present size of population. The absolute size of elderly population aged 65 or above will rapidly increase, especially after the baby boomers born between 1955 and 1974 are added to the elderly. The elderly population amounted to 5 million in 2008, but it will double in 2026 and triple in 2040. However, the youth population at ages of 0-14 will continue to decrease from 7.9 million in 2008 to 3.8 million in 2050. Afterwards, the elderly population will surpass the young population in 2016. As a result, population aging will be accelerated. In Korea, the proportion of elderly people to the total population is estimated to grow from 7% (ageing society) in 2000 to 14% (aged society) in 2018 and thereafter to 20% (super aged society) in 2026, taking only 26 years to advance from an ageing society to a super aged society. This speed is faster than any other countries in the world. For instance, the transition from ageing society to super aged society is predicted to take 155 years for France, 81 years for Italy, and 88 years for the United States, a slower process than in Korea. By 2050, the proportion of the elderly people to the total population is expected to reach 38%, the highest among all member countries of OECD.

The working-age population at ages of 15-64 as supporters of elderly people will rapidly dwindle after its peak of 36.2 million in 2016, owing to a reduction in the number of births. The size will decrease to 22.4 million in 2050 and 9.4 million in 2100. The decrease in the working-age population and the increase in the elderly population will work together to boost the aged dependency ratio. Standing at a still moderate 12.7 in 2005, the ratio is expected to quickly rise to correspond with the youth dependency ratio at 18.2 in 2018. If the recent low fertility phenomenon lasts for a long time, the aged dependency ratio will approach 70 by 2050.

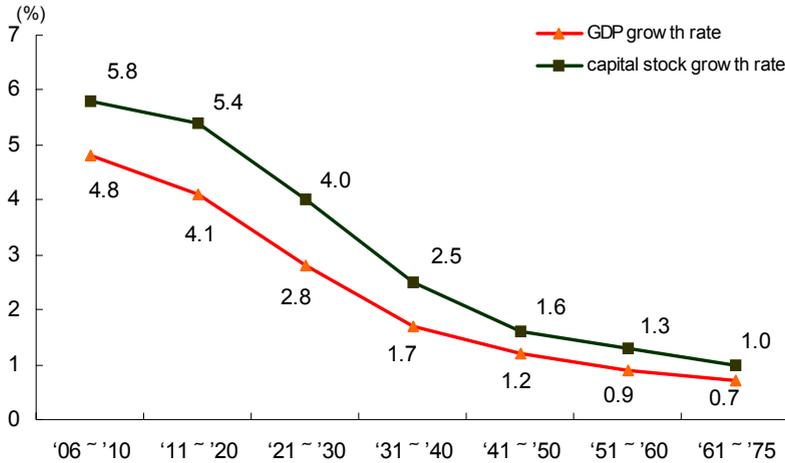
Figure 12. Proportion of population by age group in Korea,



Source : KOSIS, National Statistical Office, Korea

Fertility decline along with population aging can cause shrink in human capital, which potentially reduces labor productivity, undermining the base of the future growth engine. Working-age population will be reduced to 22.2 million (53.0% of the total population) in 2050 after a peak of 36.2 million (73.4% of the total population) in 2016, resulting in deficiency of 0.63 million labor force in 2015 and 1.52 million in 2020. Labor force decline will develop along with labor force aging the ratio of the elderly aged over 55 to working-age population will increase from 12.2% in 2000 to 23.3% in 2020 and to 28.9% in 2040, increasing the mean age of working-age population from 39.2 years in 2008 to 44.1 in 2040. As a result, the labor productivity growth rate is projected to slow to 1.1% in the 2040s from 1.8% in 2000s (KDI, 2004). Economic vigor will dissipate while the country suffers from labor force shortage and aging, and labor productivity decline.

Figure 13. Capital stock and GDP growth rate in Korea



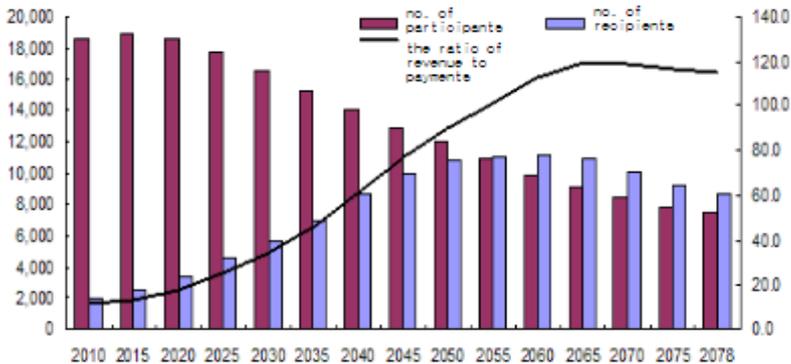
As the savings rate declines due to low fertility and populating aging, capital stock growth rate is also expected to plunge from 5.8% in the period of 2006 to 2010 to 1.6% in the period of 2041 to 2050. The real GDP growth will slow from the annual average of 4.8% in the period of 2006 to 2010 to 1.2% in the period of 2041 to 2050 (KDI, 2007).

With limited social security provision and public infrastructure, there is a limit for Korean society to socialize most responsibility to care for the elderly. Meanwhile, contributions to public pension are expected to decrease as the number of pension participants will decrease due to low fertility, while pension recipients will dramatically increase as the population ages fast, generating a worry about depleting pension fund in the future (National Pension Financing Projection Committee, 2008). This is because pension participants will decrease to 7.5million in 2078, reaching the peak at 18.9 million in 2014, while pension recipients will begin to decrease after hitting 11.1 million in 2059 at its apex. As such, in 2055 the number of national pension participants(10.9 million) will be smaller than the number of elderly pension recipients(11.0 million), and this will result in net loss starting from 2044 (expenditure will

exceed total revenue). In 2060, the fund will completely deplete. In 2060, huge amount of government subsidy or dramatic increase of contribution rates will be inevitable as the revenue will constitute only 39% of total expenditure. The contribution rates will be around 12.5% to 17.5% (current rate is 9%), increasing the financial burden of the people.

Not only will the size of the elderly population, but the elderly who are in need of medical care (especially those aged 75 or above) increase significantly that there will be a substantial increase in health insurance expenditure. Continuing phenomenon of low fertility and speedy population aging will widen the gap between the number of the insured and the number of the covered population from 8.72 million in 2011 to 1.071 million in 2030. The growth rates of the number of the covered and the insured of the health insurance between 2011 and 2030 will be -1.19% and -14.77% respectively, levying a heavy burden on individuals as the number of the insured decreases way faster than the number of the covered does.

Figure 14. Pension participants and recipients, 2010-2078



Source: National pension financing projection committee, 2008

Financial risk of the health insurance will increase as the expenditure exceeds the revenue. The health insurance deficit is expected to steeply increase from 9,300 billion won in 2011 to 37,000 billion won in 2030, and by 2030 the accumulated deficit

will be in the amount of 318,000 billion won, increasing the ratio of insurance revenue to insurance benefit payments from 1.36 to 1.61 in the same period. It is unavoidable to raise the current premium of 5.08% matched by both employer and employee to 8% (supposing 3% increase of medical fees) annually up to 2017 to achieve the years' balance (Kim *et al*, 2007).

Social security fund will deplete very fast and the next generations will have to contribute 30 to 40% of their income apart from income tax to reduce the deficit of the public pension and health insurance. Low fertility and population aging will increase tax burden as well as the burden imposed on the people by increasing social expenditure while reducing working-age population (Choi, 2005). Tax burden rate needs to be raised by about 4 to 5% point (or 20 to 25%) from now by 2050 and the rate of the burden imposed on the people by 6 to 7% point (or 22 to 26%) in the same period. Fiscal deficit factors other than public pension and health insurance expenditures will expand to about 5% of GDP by 2050. Based on the actual revenue and expenditure in 2009, by 2050 it will be required to raise tax burden rate or reduce expenditures by the size of 10% of GDP (fiscal deficit) (Choi, 2005).

## **PRO-NATAL POLICY MEASURES AND THEIR PROPRIETY**

### *Structure of Policy Response*

In order to deal with the new challenges of rapid fertility decline, it became apparent that Korea would have to shift its population policy directions in a way that best reflected the changing socio-economic and demographic conditions currently being witnessed and forecast for the immediate future. For this purpose, the Basic Law on Low Fertility and Aged Society was promulgated in 2005 and the Presidential Committee on Ageing

Society and Population Policy was established was established in 2006. The government enforced the First Basic Planning for Low Fertility and Aged Society (2006-2010) in 2006.

The First Basic Plan aimed on the one hand at fostering environments in favor of childbirth and childrearing and, on the other hand at establishing the base for improving quality of life in the aged society. The former was oriented to recover fertility and the latter was oriented to prepare for the aged society. This paper is focused on the former policy designed for raising fertility.

In efforts at fostering environments appropriate for childbirth and childrearing, the First Basic Plan adopted three strategies such as strengthening the society's responsibility for childbearing and childrearing, fostering the family friendly and gender equal society, and making children's growth environments safe and healthy.

The 1st strategy has been implemented to strengthen social responsibility for childbirth and childrearing through 1-1) attenuating the economical burden of childrearing 1-2) expanding diversified and high quality daycare infra 1-3) expand support for pregnancy and childbirth care.

The 2nd strategy has been implemented to increase compatibility between work and life, and foster family-friendly culture and society through 2-1) strengthening protection of maternity; 2-2) fostering family-friendly culture in workplace; and 2-3) reinforcing school and social education and fostering family culture.

The 3rd strategy has been implemented to bring-up future generations healthy through 3-1) fostering safe environments for children and the youth 3-2) establishing social support system for healthy growth of children and the youth and 3-3) supporting for poor children's self-support and self-reliance.

The 1st strategy and the 2nd strategy are rather directly oriented to increase fertility but the 3rd strategy is indirectly related to the fertility recovery. Hence, the analysis is focused on the 1st and 2nd strategies. The First Basic Plan has been rather concentrated on the first strategy of strengthening social responsibility for childbirth and childrearing, especially on support for daycare costs of the families and establishment of daycare.

**Table 1. Pro-natal policy measures in First Basic Planning for Low Fertility and Aged Society (2006-2010)**

Area	Major Policy Measures
<b>1. Strengthen social responsibility for childbirth and childrearing</b>	
1.1. attenuate economical burden of childrearing	<ul style="list-style-type: none"> <li>- support for daycare and education for preschool children</li> <li>- support for after-school nursery for elementary children</li> <li>- provide tax benefits in favor of families with many children</li> <li>- provide birth credit in national pension scheme</li> <li>- provide purchase rights of apartment units &amp; housing loans</li> </ul>
1.2. expand diversified and high quality daycare infra	<ul style="list-style-type: none"> <li>- increase public and workplace daycare facilities</li> <li>- subsidize private daycare facilities to improve quality of services</li> <li>- expand prolonged, all-day, and part-time daycare services</li> </ul>
1.3. expand support for pregnancy and childbirth	<ul style="list-style-type: none"> <li>- support for pre- and post-natal care</li> <li>- support for infertile couples</li> <li>- dispatch caregivers for postnatal care</li> <li>- improve reproductive health (i.e. prevent induced abortion)</li> </ul>
<b>2. Increase compatibility between work &amp; life, and foster family-friendly culture and society</b>	
2.1. strengthen protection of maternity	<ul style="list-style-type: none"> <li>- subsidize maternity leave grants for small-medium establishments</li> <li>- activate childcare leave and work-pattern flexibility</li> </ul>
2.2. foster family-friendly culture in workplace	<ul style="list-style-type: none"> <li>- expand family-friendly enterpriser accreditation</li> <li>- develop and propagate family-friendly programs</li> <li>- adopt family nurse leave</li> <li>- support for women' back to job after child-birth &amp; -rearing</li> </ul>
2.3. reinforce school and social education and foster family culture	<ul style="list-style-type: none"> <li>- strengthen school education for enhancing family values</li> <li>- strengthen social education for enhancing family values</li> <li>- improve education and counseling for family life</li> <li>- support for family leisure and culture</li> <li>- foster family-friendly community environments</li> </ul>
<b>3. Bring-up future generations healthy</b>	
3.1. foster safe environments for children and the youth	<ul style="list-style-type: none"> <li>- establish social infra to prevent accidents</li> <li>- strengthen protection system from children abuse and abandonment</li> <li>- strengthen measures to prevent and eradicate violence in school</li> </ul>
3.2. establish social support system for healthy growth	<ul style="list-style-type: none"> <li>- strengthen community's functions for protecting children/youth after school</li> <li>- support for child development</li> <li>- protect children and the youth from harmful environments</li> <li>- strengthen health management function of school</li> </ul>
3.3. support for poor children's self-support & self-reliance	<ul style="list-style-type: none"> <li>- activate dream start project</li> <li>- expand child development account</li> </ul>

### *Characteristics and Limitations*

The First Basic Plan is composed of 80 policy measures according to the 2010 Action Plan for Low Fertility and Aged Society. The background and/or characteristics of the policy measures can be classified into four types as follows; 1) measures which are newly adopted for fertility increase, 2) measures which existed before the Plan and were included with some revisions(i. e. expansion of the targets, increase in payment, etc.) intended to fertility increase, 3) measures which existed before the Basic Plan and were included with a few revisions not intended to fertility increase(i. e. according to change in price), 4) measures which existed before the Basic Plan and are not directly related to fertility increase.

Table 2. Policy measures of strategy 1 by type

		Strategy 1		
		attenuate economical burden of childrearing	expand diversified and high quality daycare infra	expand support for pregnancy and childbirth
Back-ground	Type 1	-rearing allowance -support for costs of after-school nursery for elementary children -decrease private education cost -provide birth credit in national pension scheme	-subsidize private daycare facilities to improve quality of services -expand prolonged, all-day, and part-time daycare services	-support for infertile couples -dispatch caregivers for postnatal care
	Type 2	-support for costs of daycare and education for preschool children -provide tax benefits for families with many children -provide rights of apartment units and housing loans	-increase public and workplace daycare facilities	support for pre- and post-natal care
	Type3	improvement of health insurance premium system	-	improve reproductive health(prevent induced abortion, etc.)
	Type4	-	-	-

Policy measures belonging to strategy 1 and strategy 2 are classifiable into type 1 to type 3. Most of measures in strategy 3 may be classified into type 4, since they existed before the Basic Plan to establish social safety network for children and the youth. Therefore, this paper is to review policy measures in the strategy 1 and the strategy 2.

Among policy measures to attenuate economical burden of childrearing in the strategy 1, support for daycare costs for children under 5 years old is provided differently by children's age and income of household (Table 3). Daycare cost is free for children aged 5 years. When two children in a family are using daycare facilities, one of them is free of daycare cost. Both cases are applied only to those households with 70% of average income or less. 100,000 Korean currency of wons (1 USD is equivalent to around 1,200 wons as of July 2010) of rearing allowance is monthly provided for children aged 0 or 1 year who do not use daycare facilities.

Table 3. Monthly support for daycare costs for children under 5 years

	Household income (% of average income)			
	50% or under	50~60%	60~70%	above 70%
% of criterion unit	100%	60%	30%	-
basic childcare benefit for children in private daycare facilities	350 thousand wons for children aged 0 year, 169 thousand wons for children 1 year, 112 thousand wons for children aged 2 years			

Note : criterion unit is 383,000 wons for 0 year old children, 337,000 wons for 1 year old children, 278,000 wons for 2 years old children, 191,000 wons for 3 years old children, 172,000 wons for 4 years old children.

Even though the daycare cost support system has been improved in coverage, its coverage is still limited and the level of benefits is low. In addition, the daycare cost has continued to increase, exceeding the benefits. Therefore, the factors which cause additional costs for daycare should be eliminated with

increase in governmental support.

Support for after-daycare and after-school is made by support for equipment and operation costs of the facilities, and provision of free after-school program(around 300 thousands per year) for students at low income classes, However, the participation rate in after-school was 51.3% as of 2009 and the support is quite insufficient for replacing additional private education costs.

The birth credit is provides in national pension scheme. Those couples who have two children or more are considered to pay pension premium for minimum 12 months and maximum 60 months. The tax benefit system is also applied in favor of families with many children through basic deduction (1500 thousand won), expansion of deduction amount for education (maximum 3000 thousand won for high school students or lower and 9000 thousand won for university students), medicare (900 thousand won), etc. However, difference in income tax ratio between 1 person household and 4 person household is only 1.2% point, lower compared with 5.5% of OECD countries on an average.

Government provides 5% of total public houses, 3% of total private houses, and 105 of national rental housing for the houseless families with three unmarried children or more. Such families can also be benefited to take a loan of 5000 thousand won at interest rate of 0.5% for renting houses, However, only the low income classes are to be given such housing provisions and the amount of loan is small compared with the price of rental.

The public daycare facilities account for only 5.4% as of 2009, even though their demand is high. The daycare facilities for children under three are insufficient. The increase rate of daycare facilities at work were 20% per annum between 2006 and 2008 but only 28.9% of works with such obligations appeared to provide their own daycare facilities in 2009. Government also make efforts to expand diversified daycare services such as time prolonged daycare services and all day care through subsidizing child-minders, dispatch child care to

home, etc. especially for dual income couples. Around 95% of kindergartens provides all day care as of 2009.

Government provides 300 thousand wons for diagnoses of the pregnant as of 2010 and the health insurance covers all costs for natural childbirth. The infertile couples at low income classes are supported half of the costs for three times surgeries of tube baby or artificial insemination.

Strategy 2 is to increase compatibility between work and life, and foster family-friendly culture and society. The policy measures in strategy2 can be classified by type of background as in Table 4.

Table 4. Policy measures of strategy 2 by type

		Strategy 2		
		strengthen protection of maternity	foster family-friendly culture in workplace	reinforce school and social education and foster family culture
Back-ground	Type 1	-	<ul style="list-style-type: none"> <li>- expand family-friendly enterprise accreditation</li> <li>- develop and propagate family-friendly programs</li> <li>- adopt family nurse leave</li> <li>- support for women' back to job after childbirth and childrearing</li> </ul>	<ul style="list-style-type: none"> <li>- strengthen school &amp; socia education for enhancing family values</li> <li>- improve education and counseling for family life</li> <li>- support for family leisure and culture</li> <li>- foster family friendly community environments</li> </ul>
	Type 2	<ul style="list-style-type: none"> <li>- subsidize maternity leave grants for small-medium establishments</li> <li>- activate childcare leave</li> <li>- work-pattern flexibility</li> </ul>	-	-
	Type 3		-	-
	Type 4	-	-	

Among policy measures to strengthen protection of maternity, paid maternity leave was provided for 90 days as of 2001 which was extended from 60 days. The wage during whole period of 90 days of maternity leave is paid by unemployment insurance for small-medium establishments. From 2006 the maternity leave was applied to abortion and stillbirth, for which 30~90 day leave was provided with wages. 3 day leave was provided for the partner of the women in 2008.

The childcare leave with payment of 200 thousand won was enacted in 2001; its payment from unemployment insurance increased to 300 thousand won in 2002, 400 thousand won in 2006, and 500 thousand won in 2007. However, the ratio of female childcare leavers to maternity leavers is still low although it increased from 26.0% in 2005 to 42.5% in 2008 (Ministry of Labor, Employment White paper, 2009). Specially the male childcare leavers was only 1.2% of all childcare leavers. Above all things, there have been blind spots in maternity and child leave system where 70% of the temporary and self employed workers are excluded. The replacement levels of income for leavers and manpower for companies are very low, which cause both workers (especially male) and companies to avoid leaves: the fixed amount payment of 500 thousand won during childcare leave accounts for only 24% of the average wage as of 2008. Although flexible types of work have been adopted in public sector, they are not much applicable for the private sector.

Efforts to foster family-friendly culture in workplace include fostering family-friendly culture in workplace, expanding family-friendly enterpriser accreditation, developing and propagating family-friendly programs, adopting family nurse leaves, and supporting for women' back to job after childbirth and childrearing. The family-friendly enterprise accreditation system was enforced in 2008; according to this system, 14 enterprises in 2008 and 20 enterprises in 2009 were accredited. However, its expansion is prevented by complex processing of accreditation and poor incentives for the accredited enterprises.

To help women back to job after childbirth and childrearing, government provides 600 thousand won for the first 6 months and 300 thousand won for the second 6 months per worker as a grant for the enterprises which employ newly women after childbirth. The enterprises which continue to employ temporary female workers after pregnancy and childbirth are also provided between 400 and 600 thousand won during 6 months per worker as a grant. However, only 20 workers from the former system and 222 workers from the latter system received such benefits in 2009.

As people's attitudes on marriage and childbirth has become negative, government reinforce school and social education for enhancing family values and makes efforts to foster family friendly culture and society. Contents of textbooks at primary, middle, and high schools have been revised and have trained school teachers on population problems.

## **CONCLUSION**

In summary, the policy measures that the government has applied to check the rapid fertility decline to the lowest level in the world and raise the fertility rates can be evaluated as not well fitted for Korea in several aspects.

Firstly, there exist large blind spots for some policy measures. For example, many of the policy measures in strategy 1 to lessen the burdens of childrearing are confined to the low and vulnerable classes since they are characterized of social welfare policies and/or have limited budgets. The policy measures for work-life balancing exclude temporary workers and the self-employed.

Secondly, some of the policy measures have weak relations with fertility, neither directly nor indirectly. Such weak relations can be easily found in the policy measures of type 3, although they are very important in rearing up children and the youth healthy and safely which are rather associated with qualitative

aspects of population.

Thirdly, some of the policy measures in type 1 and type 2 are poor in amount of grants or quality of services. Such levels of policy measures are not sufficient for parents' childcare, compatibility between work and life, etc.

Fourthly, a high proportion of policy measures are concentrated into daycare in their budget. On the other hand, some policy measures, especially for work-life balance, are less invested in their budget.

Fifthly, there exist lack of participation from the private sector in fostering the children and family friendly society and thereby raising fertility rates. The roles of enterprises are of great importance in increasing compatibility between work and life and thereby fertility rates because the Korean society is characterized by working long hours with sacrifices of childcare and the other family affairs. However, the enterprises have passive attitudes on their roles in fostering family friendly work environments. It is also problematic that discrimination on women in marriage and childbirth and childrearing is prevalent in work environments.

Lastly, policy measures to encourage fathers to participate in childcare and housework are poor and/or not working very well. It needs to mention that fathers are not accustomed to roles in childcare and housework and work environments are not favorable for their participation in.

The heavy burdens of childrearing, incompatibility between work and life, unfavorable environments for childrearing and family, etc. continue to be causes lowering fertility rates in Korea. To what extent the causes are eliminated, the level of fertility rate will be determined. It is desirable that those policy measures with some deficiencies and/or impropriety should be revised and/or reinforced in the Second Basic Plan on Low fertility and Aged Society (2011~2015). Above all things, the efforts to eliminate causes or obstacles making childrearing difficult and thereby lowering fertility rates should be distributed among family, society and government in appropriate ways.

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# Preferences for Wife's Employment in Japan

## : Patterns, Determinants, and Policy Implications

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### INTRODUCTION

The rapid increase in paid employment among Japanese women is well known. Although working on family farms or in family businesses was common historically, employment outside the home differs dramatically in terms of its compatibility with domestic role expectations. As the former declined, the proportion of women 25-29 in paid employment increased rapidly (Brinton, 1993): from 45 to 72 percent between 1970 and 2005 (National Institute of Population and Social Security Research, 2008: 99). For men age 25-29, the rate declined slightly from 98% in 1970 to 88% in 2005. While employment is

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lower among married than among unmarried women (86% among unmarried and 48% among married in 2005, National Institute of Population and Social Security Research, 2008: 105), it is considerably higher than commonly supposed—one-third even among mothers of preschool children, and half of these are employed full-time (Japan Ministry of Labour 1999, Choe, *et al.*, 2004).

Female employment grew with the expansion of the postwar economy, even if the jobs available for married women were heavily constrained to *paato*, employment that provides only hourly wages without fringe benefits. These trends seem very likely to continue in light of the recovery of the Japanese economy and the labor shortages in one of the world's most rapidly aging society—perhaps with an increasing incorporation of women into regular employment roles (Brinton, 2001). With limited immigration and an increasing ratio of dependent elderly to employed persons, the well-educated female population may be the primary resource for future growth in the number of workers. Indeed, the need for wives' employment has likely increased as men's jobs become less secure in contrast to historical expectations of permanent employment (Yuji, 2005). At the same time, consumption aspirations are increasing (Schor, 1991, 1998), as both cause and consequence of wives' employment, even as many wives work simply in order to meet family needs.

The difficult challenges of balancing work and family life are surely not unique to Japan (Blossfield, 1995; Spain and Bianchi, 1996; Jacobs and Gerson, 2004; Reynolds, 2005; MacInnes, 2004, Clarkberg and Moen, 2001), and vary considerably across countries with differences in social policies (MacInnes, 2004 Gornick and Meyers, 2004). Nonetheless, this balancing is especially difficult for Japanese women. The implications of employment for Japanese wives are set in the context of traditional role obligations that extend back at least since the adoption of the *ie* system in the Imperial Civil Code of 1896 (Taeuber, 1958; Lebra, 1984; Fukutake, 1989). Well-defined hierarchal relations among family members supported strong

male dominance and a gender division of labor that placed heavy obligations on women for household maintenance and childrearing. These domestic obligations have very likely become even heavier in the postwar period with the growth of the intense psychological and time demands placed on mothers for the education of their children—reflected in after-school programs and other measures to prepare children for entrance exams (Tsuya and Choe, 2004; Hirao, 2007). While men spend many hours in employment, they provide little assistance with domestic and childrearing chores (Tsuya *et al.*, 2005).

Are wives and mothers employed out of economic necessity when they would rather remain full-time housekeepers or work only a few hours a week? Given traditional roles and their dependence on their wives' home services, are Japanese men opposed to their wives' being employed, especially full-time? Surely we expect variability within the population, especially among women (Hakim, 2003), and knowledge of this variation is essential.

Surprisingly, virtually nothing is known about employment preferences in Japan<sup>5</sup>). While there is a literature on employment preferences across a number of European countries (Stier and Lewin-Epstein, 2003 Sousa-Posa and Henneberger, 2002), as well as the U.S. (Clarkberg and Moen, 2001 Jacobs and Gerson, 2004) and Australia (Reynolds and Aletraris, 2006), these analyses address a different topic. They are concerned with the discrepancy between actual and preferred work hours, i.e. whether fewer or more hours are desired; and the survey questions are specifically about this comparison<sup>6</sup>). The focus is most often on whether such discrepancies are structured by

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<sup>5</sup>) Minor exceptions are a descriptive table for 1994 comparing Japan, Korea and the U.S. in Tsuya and Bumpass (1998), and means for the U.S., including retired couples in the base, in an analysis addressing the disparity between desired and actual work hours (Clarkberg and Moen, 2001).

<sup>6</sup>) Jacobs and Gerson (2004) analyze data from the 1997 Changing Workforce survey that include measures of preferred hours. These are presented briefly before the analysis turns to the discrepancy between desired and actual hours. This analysis is based on employed women and men of all marital statuses.

preferences or by the labor market, as well as on relevant social policies.

The major part of present analysis examines the *number* of employment hours preferred, and is the first to include husbands' orientations towards their wives' employment. In this study, we document preferences of both husbands and wives for differing levels of wives' employment, and factors associated with these preferences. Our findings are consistent with our argument that employment has become institutionalized as a preferred, even expected, aspect of a wife's role. We also examine factors associated with the discrepancy between preferred and actual hours of work among married women. Results from these analyses are discussed with implications on policies that would help families balance work and family life.

## **DATA AND MEASURES**

This study uses the 2000 National Survey on Family and Economic Conditions (NSFEC). Details of the survey can be found in Rindfuss *et al.* (2004). The focus here is on 2,443 currently married women and men aged 20-49 and their spouses. Sample weights are used for estimated actual and preferred employment hours because younger individuals (age 20-39) were selected at twice the rate of those aged 40-49, and to adjust for different rates of responses by sex, age, and place of residence.

In the 2000 NSFEC respondents were asked to provide reports for themselves and their spouses on objective information, including such basic socio-demographic characteristics as age, education, and hours of employment. To measure life-course and family constraint variables, we include age of youngest child, coresidence with parents/parents-in-law, and wives' age. Age of youngest child is coded into three categories: under age 7, age 7-17, and no child under age 18. Coresidence with parents is indexed by a dichotomous variable indicating whether or not couples live with at least one parent or parent-in-law. Though

decreasing in recent decades (Ogawa and Retherford, 1997), the proportion of married women and men aged 20-49 living with at least one parent or parent-in-law is still sizable: 31 percent in 2000. Age of wives is a categorical variable: under30, 30-34, 35-39, 40-44, and 45 or older. Because wives' age and husbands' age are highly correlated (.88), we do not include both in the analysis.

The education of each spouse is measured by a categorical variable: less than senior high school, senior high school, some college, and four-year college or higher. The category of "some college" includes junior college and two kinds of schools for advanced occupational training (*kōtō-senmon-gakko* and post-high-school *senshū-gakko*)<sup>7</sup>). We also look at employment hours of wives and husbands. The multivariate analysis, however, includes only husband's hours because of the expected simultaneity of wives' actual and preferred work hours. Employment hours were measured with six categories: 0, 1-15, 16-34, 35-41, 42-48, 49-59, and 60 or more. We group these categories differently by gender as appropriate to the distributions of wives' and husbands' employment. Finally, to the extent that household economic need determines a wife's actual and preferred employment, husband's income is a critical variable. We have collapsed this variable into four categories: less than 4 million, 4-5.99 million, 6-7.99 million, and 8 million or more Japanese yen a year<sup>8</sup>).

Our central measure, preferred hours for wife's employment, is based on two questions which were asked of all respondents. For wives' preferences we used responses to the question: "If

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7) *Kōtō-senmon-gakko* is equivalent to junior college in which students study for 5 years after completing junior high school, specializing mostly in various sub-fields of engineering. *Kōtō-senmon-gakko* are all public, i.e., funded by the national or municipal governments. Post-high-school *senshū-gakko* refers to various educational facilities that mainly train individuals who have high school education for such white-collar jobs as accounting/bookkeeping and computer applications. They are almost all private.

8) The exchange rate was 109 Japanese yen per US \$1.00 during the first half of 2000.

you could work just the number of hours in paid employment that you would like, how many hours per week would that be? (Even if you are not working, please make sure to answer.)" For the preferences of husbands, we used responses to the parallel question: "If your spouse could work just the number of hours in paid employment that you would like, how many hours per week would that be? If you are not married answer according to how you think you would feel if you were married."<sup>9</sup>) The response categories were the same as those reported above for actual employment hours, with an additional category "uncertain." Cases responding "uncertain" are deleted from these analyses (none of the wives and 16% of husbands). These questions seem quite unambiguous in the issue they pose, but, of course, answers can be contingent on an array of assumed—and unspecified—hypothetical circumstances. That they capture much of our construct of interest is indicated in how well responses are structured in ways consistent with theoretical expectations; and that they are not simply rationalizations of current behavior is reflected in the substantial discrepancy between these measures and wives' actual hours of employment.

Binary logistic regression is used to predict three separate dependent variables. These are preferences: 1) that the wife stay home and not work, 2) that she work less than 16 hours (including zero hours), and 3) that she work 35 hours or more. The first variable obviously refers to full-time homemakers and the second designates an employment commitment that may not significantly compete with family obligations. The third is a preference for essentially full-time work. Ninety percent of those who indicated "full-time" as their current employment status selected "35 hours or more" to describe their actual hours of employment. For the analyses of the disjuncture between preferred and actual hours of work, we use logistic regressions for two dependent variables: working less than preferred hours and working more than preferred hours.

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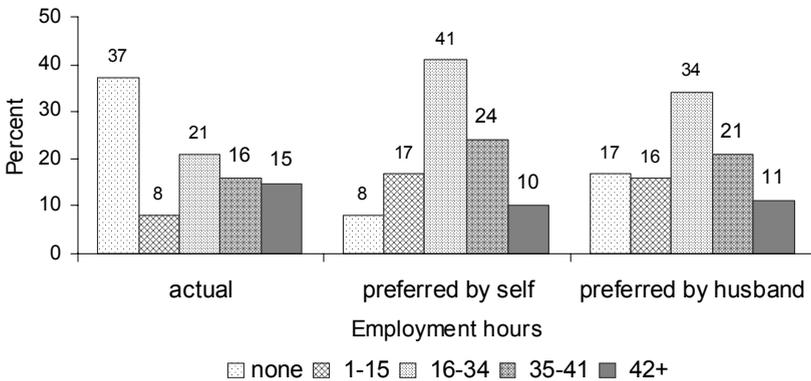
<sup>9</sup>) The last sentence directed to unmarried persons is much more hypothetical, difficult for respondents, and obviously not relevant to this analysis.

## ANALYSIS

### *Observed Distributions*

We begin by examining three dimensions of wives' hours of employment: actual hours, hours preferred by husbands and wives, and comparisons between actual and desired work hours. Looking first at the distributions of these variables in Figure 1, several patterns stand out. Consistent with current levels of wives' employment, slightly less than two-fifths of Japanese wives aged 20-49 are full-time homemakers. Even so, this proportion contrasts starkly with the preferences of wives--and perhaps even more surprisingly--of their husbands. Fewer than 10 percent of the wives say that they do not want to be employed, and only one-sixth of husbands prefer that their wives be full-time homemakers. These figures are about one-fifth and one-half, respectively, of the proportion of wives who are not employed.

Figure 1. Wives' employment hours per week: actual, preferred by wives, and preferred by husbands



Combining two categories of full-time employment (35-41 and 42+), slightly less than a third of wives are employed 35 or

more hours, and about one third of both men and women state this as their preference. About one in seven wives, or a little more than one in four employed wives are working 42 hours or more a week, and about one in ten wives and husbands prefer such long hours of work for wives. Finally, relatively few husbands and wives think that the lowest levels of employment hours (1-15) are desirable. The model preference is 16-34 hours a week, substantial but less than full-time employment, for both wives and husbands. This is especially so for wives, two-fifths say that they would prefer to work this number of hours.

The above discussion relates to average values reported by men and women. What proportions of women prefer to be working about the number of hours they actually are? While some might expect a bias towards the rationalization of current behavior by reporting consistent preferences, numerous studies across an array of countries report that substantial proportions want to work either more or fewer hours than they actually are (e.g., Reynolds, 2005; MacInnes, 2004, Clarkberg and Moen, 2001). We find this for Japanese wives as well. Indeed, as we would expect, the discrepancy between actual and preferred hours is larger in the comparison for individuals than it appears in the average figures.

In Table 1, we see that almost all full-time homemakers would like to be employed: 9 out of 10. Of those in the low employment category of 1-15 hours, almost half would prefer to work more, and only 7 percent would rather be a housewife. Not surprisingly, the proportion wishing to work fewer hours increases as the actual number of hours employed increases. Nonetheless, two-thirds of wives employed full-time want to work full time. Over all categories of employment hours, about a third are in the same category of preferred hours as they are currently working, with twice as many preferring to work more than to work less. Husbands are more likely than wives to prefer that their wife work fewer hours than she does. Nonetheless, two-thirds of husbands want their wife to work at least as many, or more, hours than she is. Thus, among wives,

the "balancing of work and family" is tilted toward family obligations despite preferences for more employment, and this may well be salient when employed single women think about marriage.

Table 1. Wife's hours of employment compared to the number of hours she prefers, and to the number of hours her husband prefers for her

Wife's actual employment hours per week	Preferred hours are (%)			Total	Number of cases
	Fewer	Same	More		
Wife's preferred hours					
None	0	11	89	100	495
1 to 15	7	47	46	100	108
16 to 34	19	61	21	100	264
35 to 41	44	49	7	100	212
42 or more	79	19	2	100	200
Total	25	33	42	100	1,279
Husband's preferred hours for wife					
None	0	29	71	100	360
1 to 15	14	49	37	100	69
16 to 34	28	58	14	100	172
35 to 41	47	42	11	100	143
42 or more	81	18	1	100	155
Total	29	37	35	100	899

Note: The category "42 or more" includes "42-48," "49-59," and "60 hours or more." Therefore it is possible for someone who works "42-48" hours to prefer longer hours such as "49-59" or "60 or hours or more."

### *Multivariate Analysis*

We turn now to an examination of how various factors are associated with preferences for the wife 1) not to be employed, 2) to either be a full-time homemaker or work only a few hours, and 3) to work full-time<sup>10</sup>). Table 2 reports the

<sup>10</sup>) Some of the variables are potentially endogenous. We have run models which sequentially, and then jointly, drop coresidence, presence and ages of children, husband's income, and husband's work hours. These models do not significantly change the results with the exception of one, readily interpretable, difference.

coefficients and significance levels from the binary logistic regressions. Because it is difficult to grasp substantive implications from these results, we will focus the discussion on estimated proportions simulated from the logistic regressions. In general, we will discuss these predicted percentages as differences net of the other variables without referring to this each time. These estimates generally differ by only a few percentage points from those observed in the unadjusted data.

Because of the important substantive implications of the differences between our classifications of preferred hours, differences within each are discussed sequentially. We begin, however, by noting the absence of age effects across all three outcomes. Because of the M shape in women's age-specific employment rates associated with childbearing in Japan (National Institute of Population and Social Security Research 2008: 99), we would expect preferences for wives' employment to be lower among younger wives and among the husbands of younger wives. Taking the presence of children into account, however, younger persons might be more favorable towards wives' employment if there has been social change in this regard spearheaded by the younger generation. Nonetheless, we see that there is no consistent pattern across age categories and that none of the coefficients are significant. Either there has been no change over time, which is unlikely, or change has occurred rather evenly across all cohorts. The difficulties following the bursting of the economic bubble in the early 1990s (Cargill, Hutchison and Ito 1997: 91-116 Cotis 2003 Yoshitomi 2004) might have contributed to such a trend as a period effect.

*Preferences that Wife not be Employed:* We saw earlier that very few Japanese women prefer to be full-time homemakers, and that surprisingly few husbands want their wives to stay

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Husband's education has a significant effect on the latter two preference outcomes that is mediated through his income: i.e. there is a significant effect without, but not with, income in the model.

home. Two variables show clear relationships with preferences for a wife to remain out of the labor force: whether the couple lives with a parent, and husband's income (Table 2). When they are living with a parent, both husbands and wives are less likely to want the wife to be a full-time homemaker. The proportions predicted from the regression model are presented in Table 3: comparing those not coresiding with those living with a parent these proportions are 5vs. 9 percent among wives, and 12 vs. 20 among husbands. These differences are quite large and may well reflect potential additional help from coresident mothers/mothers-in-law for housework and childcare that make it possible for wives to enter the labor force. In addition, employment may be seen by many wives, and their husbands, as a way to minimize conflict inherent in sharing a household with a parent, usually the husband's mother (Kumagai and Kato, 2007).

Turning to income, wives' preferences for remaining at home do not depend on how much money their husband makes. While we will see systematic differences within levels of employment, economic factors do not appear to affect wives' desire to have the roles and social interactions out of the household that employment provides. On the other hand, there is a sharp divide between husbands in the upper and lower half of the income distribution, with twice as many of the former wanting their wives not to be employed (Table 3). That having been said, even in these highest income categories, only 30 percent of husband's want their wife to stay home—70 percent would rather that she be employed. (One category of husband's employment, 42-48 hours, is significant among wives, but this deviation is not readily interpretable and the effect of husband's employment hours will be seen more clearly in the later variables.)

Table 2. Estimated binary logistic regression coefficients on preferring "zero" hours per week for wives reported by wives and husbands

Covariate	Wives	Husbands
Wife's age (ref: 45-49)		
Under 30	-0.18	0.63
30-34	-0.23	0.43
35-39	-0.62	0.56
40-44	-0.28	-0.13
Coresidence with parents/in-law (ref: no)		
Yes	-0.54*	-0.60**
Age of youngest child (ref: none under 18)		
Preschool	0.34	0.50
School age	0.30	0.44
Wife's education (ref: Senior high)		
<Senior high	0.08	0.11
Some college	0.19	0.08
4-year college	0.10	-0.14
Husband's education (ref: Senior high)		
<Senior high	0.27	-0.05
Some college	-0.43	0.35
4-year college	0.17	-0.28
Husband's work hours per week (35-41)		
Less than 35	-0.23	0.58
42-48	-0.89*	-0.25
49-59	-0.36	0.11
60+	-0.46	0.10
Husband's annual income in Japanese yen (ref: <4 million)		
4 to 5.99 million	-0.41	0.11
6 to 7.99 million	-0.11	0.87**
8 million or more	0.04	1.05**

Notes: Each column shows results from separate binary logistic regression model.

\* indicates  $p < 0.05$ ; \*\* indicates  $p < 0.01$ ; \*\*\* indicates  $p < 0.001$ .

Table 3. Simulated percentages preferring wife to be employed "zero" hours per week from logistic regression models reported in Table 2

Covariate	Wives	Husbands
Coresidence with parents/in-law		
Yes	5	12
No	9	20
Husband's work hours per week		
Less than 35	9	
35-41	11	
42-48	5	
49-59	8	
60+	8	
Husband's annual income in Japanese Yen		
<4 million		14
4 to 5.99 million		15
6 to 7.99 million		27
8 million or more		30

Note: Simulation was done only when one or more of the dummy variables associated with the covariate are statistically significant.

*Preferences for Wife to Work Fewer Than 16 Hours:* There may be considerably less conflict between employment and other role obligations for wives who work only a few hours a week than for those who work longer hours. We have seen that relatively few husbands or wives want the wife to be a full-time homemaker. Nonetheless, one-quarter of wives, and one-third of husbands, prefer that she either remain home or work fewer than 16 hours. This is a preference that facilitates a primary emphasis on wives' domestic roles, and there is more systematic variation in this variable (Table 4) than when housework was considered alone: in particular, relationships with coresidence, presence of children, and husband's income.

Table 4. Estimated binary logistic regression coefficients on preferring "less than 16" hours per week for wives reported by wives and husbands

Covariate	Wives	Husbands
Wife's age (ref: 45-49)		
Under 30	-0.01	0.53
30-34	-0.14	0.63
35-39	-0.17	0.51
40-44	-0.28	0.26
Coresidence with parents/in-law(ref: no)		
Yes	-0.61***	-0.64***
Age of youngest child (ref: none under 18)		
Preschool	0.60**	0.81***
School age	0.26	0.55*
Wife's education (ref: Senior high)		
<Senior high	0.45	0.74
Some college	0.11	0.00
4-year college	-0.05	-0.46
Husband's education (ref: Senior high)		
<Senior high	0.02	-0.43
Some college	-0.02	0.68**
4-year college	0.30	0.29
Husband's work hours per week (35-41)		
Less than 35	0.50	1.23***
42-48	-0.53*	-0.26
49-59	-0.47*	-0.33
60+	-0.64**	-0.38
Husband's annual income in Japanese yen (ref: <4 million)		
4 to 5.99 million	0.17	0.14
6 to 7.99 million	0.58**	0.87***
8 million or more	1.07***	1.02***

Notes: Each column shows results from separate binary logistic regression model.

\* indicates  $p < 0.05$ ; \*\* indicates  $p < 0.01$ ; \*\*\* indicates  $p < 0.001$ .

The effects of family circumstances are seen clearly in Table 5. When a couple lives with parents, both wives and husbands are less likely to want the wife to work only a little or not at all: the contrast is between predicted percentages of 29 and 19 among wives, and 37 and 25 among husbands. Again, assistance from a coresident mother-in-law or mother likely reduces some of the domestic pressure on a wife, and/or employment may be seen as a strategy to minimize intergenerational conflict at home.

Table 5. Simulated percentages preferring wife to be employed "less than 16" hours per week from logistic regression models reported in Table 2

Covariate	Wives	Husbands
Coresidence with parents/in-law		
Yes	19	25
No	29	37
Age of youngest child		
Preschool	30	38
School age	24	33
None under 18	20	23
Husband's education		
<Senior high		23
Senior high		31
Some college		45
4-year college		36
Husband's work hours per week		
Less than 35	44	64
35-41	33	37
42-48	23	32
49-59	24	31
60+	21	30
Husband's annual income in Japanese Yen		
<4 million	20	27
4 to 5.99 million	23	30
6 to 7.99 million	30	45
8 million or more	41	49

Note: Simulation was done only when one or more of the dummy variables associated with the covariate are statistically significant.

Also, as we would expect, this preference for little or no employment is strongly related to the presence and ages of children. In particular, the contrast between those with preschool children and those with no children under 18 is large and statistically significant. It is notable that this is true among both husbands and wives with the largest difference among husbands. Net of other factors, the predicted value for this measure among husbands is 38 percent if they have preschool children compared to 23 percent if there are no preschool or school-age children. Clearly, the balancing of work and family is strongly affected by family contexts. But, we must note, once again, that a large majority want the wife to work more than 15 hours per week even if they are not living with parents, and even if they have preschool children.

The education variables show much weaker effects in Table 4 than we might have expected. Higher education among wives represents greater human capital that increases their value in the labor force, and, among both wives and husbands, those with more education have been more exposed to less traditional values. Consequently, it would seem likely that education would be negatively associated with preferences for the wife to stay home or work little. We have treated high school graduates as the omitted category rather than those without a high school education because the latter are a small and unusual group in contemporary Japan<sup>11</sup>). In contrast to high school graduates, we find a significant coefficient only for husbands who attended a junior college or trade school (which as noted is a non-academic educational category), and husband's in this category are more likely to want their wives not to work more than 15 hours per week (predicted values of 45 percent compared to 31 percent

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<sup>11</sup>) Those who do not have high school education are mostly those with junior high school education, which is the level of compulsory education in Japan. Providing that around 97 percent of junior high school graduates advancing onto high school in Japan in recent years (Monbu-kagaku sho 2006: 36), however, high school education has become de facto compulsory education.

among high school graduates and 36 percent among college graduates). There is not an obvious explanation for this deviation, though it is possible that this type of schooling is more common among males with more traditional gender-role attitudes in general. None of the coefficients for wives' are statistically significant.

Turning to husband's hours of employment, the preference for a wife to be employed only a little or not at all is highest when the husband works less than a 35-hour week. This is true among both husbands and wives, but there is a difference in the pattern of the significant coefficients. Among husbands, the only statistically significant difference (in contrast to working 35-41 hours) is the high proportion among those who themselves work less than 35 hours a week. Since the ages of these husbands are generally not old enough for regular retirement, it is plausible that above average wealth (not measured) may make it possible for some husbands to spend less time in paid employment and want their wives to do so as well. In any event, only about 4 percent of husbands work this few hours. Among wives, on the other hand, the difference appears among those whose husbands work more than 41 hours a week.

Differences by husband's income are very large, nearly linear, and highly significant among both wives and husbands. In Table 5, the predicted proportion wanting the wife to stay at home or be employed very little is twice as large in the highest income group compared to the lowest (41 compared to 20 percent among wives, and 49 compared to 27 percent among males). As we would surely expect, economic concerns play an important role in affecting the orientations of both husbands and wives towards wives' employment. That having been said, it is essential to keep in mind that, even among the highest income group, only one half of husbands and two-fifth of wives want the wife to work few hours or remain a full-time housekeeper.

*Preferences for Wives to Work 35 Hours or More:* We noted at the beginning that higher proportions than we might expect want the wife to hold a full-time job in paid employment (about

one-third). While such employment may often be an extension of paato, without the fringe benefits usually associated with regular employment, it nonetheless represents a large time obligation adding to the already heavy burden of a wife's domestic role, and making the balancing of work and family all the more difficult.

In this balancing, we would surely expect family factors to affect who wants to be employed full-time, and this is what we see among wives in Table 6 and in Table 7. Wives who live with parents are much more likely to want to work 35 hours or more (predicted values of 44 vs. 28 percent). The potential role of help with household tasks and childcare associated with coresidence that we have noted above can be especially important if a wife is to work full-time. Economies of scale and reduced living expenses associated with shared households would be expected to have the opposite effect, however. It is surprising that husbands' preferences for wives' full-time work are not significantly related to living with parents, even though we did see such a relationship with respect to preferences for wives to be employed little or not at all. We would have expected that husbands might be particularly favorable to their wives taking on a heavy employment obligation under circumstance in which the household consequences might have less direct impact on them.

Table 6. Estimated binary logistic regression coefficients on preferring "35 or more" hours per week for wives reported by wives and husbands

Covariate	Wives	Husbands
Wife's age (ref: 45-49)		
Under 30	-0.13	-0.28
30-34	-0.08	-0.32
35-39	-0.17	-0.23
40-44	-0.32	-0.43
Coresidence with parents/in-law(ref: no)		
Yes	0.73***	0.33
Age of youngest child (ref: none under 18)		
Preschool	-0.75***	-0.78***
School age	-0.50**	-0.09
Wife's education (ref: Senior high)		
<Senior high	-0.48	-0.16
Some college	0.08	0.04
4-year college	0.23	0.66*
Husband's education (ref: Senior high)		
<Senior high	-0.11	0.37
Some college	-0.27	-0.15
4-year college	-0.29	-0.11
Husband's work hours per week (35-41)		
Less than 35	-0.57	-0.88*
42-48	-0.09	-0.35
49-59	0.37	-0.20
60+	0.57*	0.39
Husband's annual income in Japanese yen (ref: <4 million)		
4 to 5.99 million	-0.29	-0.18
6 to 7.99 million	-0.64**	-0.86***
8 million or more	-1.13***	-1.05***

Notes: Each column shows results from separate binary logistic regression model.

\* indicates  $p < 0.05$ ; \*\* indicates  $p < 0.01$ ; \*\*\* indicates  $p < 0.001$ .

Table 7. Simulated percentages preferring wife to be employed "35 or more" hours per week from logistic regression models reported in Table 2

Covariate	Wives	Husbands
Coresidence with parents/in-law		
Yes	44	
No	28	
Age of youngest child		
Preschool	28	25
School age	33	39
None under 18	44	41
Wife's education		
<Senior high		28
Senior high		31
Some college		32
4-year college		46
Husband's work hours per week		
Less than 35	20	19
35-41	30	36
42-48	28	29
49-59	38	31
60+	42	44
Husband's annual income in Japanese Yen		
<4 million	41	40
4 to 5.99 million	34	36
6 to 7.99 million	27	23
8 million or more	19	20

Note: Simulation was done only when one or more of the dummy variables associated with the covariate are statistically significant.

As expected, the presence of non-adult children reduces preferences for wives' full-time employment, especially when there are preschool children, and this is true among both husbands and wives. The predicted differences are large: for example, the contrast between wives with preschool children and those without is 44 compared with 28 percent. Even so, the estimated proportion wanting the mother to work full-time is about a quarter among both the mothers and fathers of preschool children and among those whose oldest child is in school, this proportion is about a third among mothers and two-fifths among fathers.

As shown above, we found only one significant coefficient for education on preferences for lower levels of employment, and that one was not readily interpretable. Here, we find only one educational category with a statistically significant effect on preferences for full-time employment. Net of other factors in our models, husbands of university graduates are more likely to want their wives to work full-time: the predicted levels are 46 percent compared to 31 percent among husbands of high school graduates. Perhaps, many of these husbands would like to see their college-educated wives take advantage of their investment in human capital, and augment family income in the process. Overall, however, there is surprisingly little evidence for a relationship between the education of either spouse and orientations towards wives' employment.

Though the patterns across categories of husband's hours of employment differ somewhat between husbands and wives, both spouses are least likely to want the wife to work full-time when the husband works less than 35 hours a week, and most likely to want her to do so when he works 60 or more hours a week (Table 7). We know that actual hours of wives' employment are associated positively with actual hours of husbands' employment (Choe, *et al.* 2004). In addition to possible wealth effects at the lowest level of employment (noted earlier), perhaps consumption aspirations also contribute to this association, motivating both spouses to commit more time to the labor force. Local labor markets are likely to play a role in this as well.

Finally, we once again see a strong relationship between husband's income and the preferences of both spouses for wife's employment. Perhaps most importantly, this is so for full-time employment (Table 7). The differences across income categories are systematic and the coefficients are highly significant. The predicted percentages wanting the wife to work full-time are twice as high among those in the lowest income category compared to the highest (about two fifths and one-fifth, respectively). The obvious and straightforward explanation is

that economic need is a primary reason for wanting a wife to work full-time. Contributing to this relationship as well, however, are likely the associated non-economic costs of this employment. Among women, the burdens of a double shift are likely to seem less desirable if economic circumstances permit a lower time commitment in the labor market. Among husbands, it is also plausible that the balancing of work and family reduces the services she is able to contribute to her traditional tasks if she works long hours, and that this is an outcome Japanese husbands prefer to avoid to the extent that they can afford to do so. Nonetheless, it is impressive that one-fifth of both husbands and wives with the highest levels of husbands' income still want the wife to work full-time.

*Working More or Fewer Hours than Preferred:* Working either more or fewer hours than preferred among wives are indicators of the difficulty in combining and work and family life and institutional constraints on employment. Wives who are working fewer hours than preferred are likely to be those who compromised work hours because of other obligations such as childcare and management of household chores. Wives are working more hours than preferred are likely to be those whose employment opportunities are constrained to those with long working hours or those who have to work for reasons other than their preference including economic conditions of the family. Policies and programs that would reduce both sides of these difficulties are desirable. Two binary logistic regression models are estimated to estimate factors associated with working more hours than preferred (second column of Table 8) and to estimate factors associated with working fewer hours than preferred (third column of Table 8). Predicted probabilities based on these models are shown in Table 9.

Table 8. Estimated binary logistic regression coefficients: one model on whether women are working more hours than preferred hours and one model on whether women are working fewer hours than preferred hours

Covariate	Working more hours than preferred	Working fewer hours than preferred
Age of women (ref: 45-49)		
Under 30	-0.69*	0.60*
30 -34	-0.24	0.23
35-39	0.08	0.39
40-44	0.07	-0.05
Coresidence with parents/in-law (ref: no)		
Yes	0.29	-0.43**
Age of youngest child (ref: none under 18)		
Preschool	-1.24***	1.32***
School age	-0.26	0.11
Wife's education (ref: senior high)		
<Senior high	-0.17	0.20
Some college	0.41*	-0.04
4-year college	1.17***	-0.58*
Husband's education (ref: senior high)		
<Senior high	0.23	0.22
Some college	0.04	0.08
4-year college	-0.08	0.12
Husband's work hours per week (ref: 35-41)		
Less than 35	-0.18	1.14***
42-48	0.13	0.37
49-59	0.27	0.38
60+	0.05	0.49*
Husband's annual income (ref: <4 million)		
4 to 5.99 million	-0.31	0.55**
6 to 7.99 million	-0.67*	0.44*
8 million or more	-1.25***	1.03***

Notes: Each column shows results from separate binary logistic regression model.

\* indicates  $p < 0.05$ ; \*\* indicates  $p < 0.01$ ; \*\*\* indicates  $p < 0.001$ .

Table 9. Simulated percentages of women working more than preferred hours and less than preferred hours, estimated from logistic regression models reported in Table 4

Covariate	Working more than preferred	Working less than preferred
Age of women		
Under 30	15	54
30 -34	22	45
35-39	27	49
40-44	27	39
45-49	25	40
Coresidence with parents/in-law		
Yes		40
No		49
Age of youngest child		
Preschool	14	62
School age	29	34
None under 18	34	32
Wife's education		
<Senior high	17	52
Senior high	19	47
Some college	26	47
4-year college	41	35
Husband's work hours per week		
Less than 35	20	62
35-41	30	38
42-48	28	46
49-59	38	46
60+	42	48
Husband's income		
<4 million	41	38
4 to 5.99 million	34	49
6 to 7.99 million	27	47
8 million or more	19	59

Note: Simulation was done only when one or more of the dummy variables associated with the covariate are statistically significant.

Wives of age 35 and older are more likely to work more hours than preferred and wives under 30 are more likely to work fewer hours than preferred. Compared to older wives, those under age 30 are 10 percent less likely to work more hours than preferred and 15 percent more likely to work fewer hours than preferred, a large proportion not working at all. On one hand, substantial proportion of wives are working work more hours than they prefer, making it difficult to combine work and family life. On the other hand, nearly half of all wives and more than half of very young wives are working fewer hours than they prefer (mostly by not working at all). This pattern suggests that Japanese wives' preference for working hours does not match what is commonly available to them: either work very long hours or not employed.

Results on coresidence with parents and the age of youngest child suggest strongly that childcare arrangements continue to be a strong factor associated with work hours. Wives with no children under age 18 are equally likely to work either more than preferred hours or fewer than preferred hours. But wives with preschool children are half as likely to work more than preferred hours and twice as likely to work fewer hours than preferred hours. It is especially notable that nearly two-thirds of Japanese wives with preschool children are working fewer hours than preferred. When satisfactory childcare arrangements are available and employer attitudes are supportive, these women are likely to work longer hours.

Whether a Japanese wife works more or fewer hours than she prefers does not depend on husband's education. However, wife's education has a strong effect on the discrepancy between preferred and actual work hours. It is surprising that nearly half of Japanese wives with 4-year of college or more education are working more hours than preferred. Figure 2 showing distributions of actual and preferred employment hours among wives with 4-year of college or more education reveals some underlying causes. The figure shows that nearly one third of these women prefer to work, but not full time, indicating strong

desire to combine work and family life. The actual employment hours, however, are concentrated on zero (38%) and full time (36%), and a large majority of full time workers are working 42 hours or more per week. Apparently, the conditions of employments available to college educated women, reflected in actual employment hours, do not match these women's preferred employment hours. The employers seem to prefer either all or nothing when it comes to working hours of women with highest level of education but these women prefer to work part-time.

Figure 2. Actual and preferred employment hours per week among wives with 4-year of college or more education



It is interesting to note that wives of men who are working very few hours a week (less than 18 hours) are working fewer hours than they preferred. This may be a result of some external factors. Family factors such as ill health of some members may limit work hours of both husbands and wives. Large family asset may result in only a few hours of work for both husbands and wives. At the community level, high unemployment rate may result in few employment hours for husbands and wives. The pattern on husband's income is not surprising. Wife is working more hours than preferred when

husband's income is low and is working less than preferred hours when husband's income is high. Japanese wives' employment continues to be affected strongly by family's economic conditions.

## CONCLUSION

Because institutionalized marriage roles in Japan come as a tightly bundled "package" (Rindfuss, *et al.* 2004), the balancing of work and family by wives must be accomplished with little room for the reduction of family obligations in the bargain. The tension created by this 'all or nothing' characteristic of marriage is reflected in the fact that a book became a best seller by celebrating the freedom and financial independence of women who remain single and childless: *Makeinu no Tōboe* (Howlings of a Loser) by Sakai Junko (2003).

In order to better understand the evolving place of wives' employment in Japanese families, we have examined the preferences of both husbands and wives towards the number of hours a wife should be employed. Rather than treating preferred hours as a continuous variable, we have focused on three substantively meaningful classifications: whether the wife should be a full-time homemaker, whether she should only be employed for less than 16 hours or not work at all, and whether she should be employed full-time (35 or more hours a week). As the employment of Japanese wives has reached high levels, so also have preferences for her to be employed. This is not circular, since many are employed when they would prefer to be full-time homemakers, while others want to work even though they are not. Indeed, while 37 percent of wives are not employed, only 9 percent of wives and 17 percent of husbands state this as their preference. Forty-two percent of wives reported that they preferred to work more than their current hours of employment.

At the same time, however, preferences for wife's employment are clearly structured by family and economic circumstances in ways that are consistent with theoretical expectations. Wives coresiding with parents/parents-in-law, compared with those who are not, are more likely to want to be employed, and more likely to want to work full-time. Having children under age 18, particularly preschool children, is associated with a higher preference for the wife to be a full-time homemaker or be employed only a few hours, and with a lower preference for her to work 35 or more hours. That these are the expected patterns is important, but so too is the remaining high preference for wives' employment, net of other factors, estimated for those in family circumstances where this is more difficult: those without the help of a coresident mother-in-law/mother, and those with young children.

Husband's income is a major conditioning factor as well, and this relationship is stronger than that with coresidence or the presence of children. The differences by income are very large with respect to both preferences for the full-time homemaker role and for the full-time employed role. Clearly family economic need is a major reason that wives want to be employed, though as we have seen, many in the highest income category (and even more in the next highest) want the wife to work. We must recognize, however, that "economic need" extends to far more than life's basic necessities, through aspirations for children, to more general consumption aspirations.

In conclusion, Japanese husbands and wives of reproductive ages have strong preferences for wives to be employed. Given the already heavy burdens that are part of the traditional domestic role of wives, these preferences create major challenges in the balancing of work and family. It is possible, however, that the most profound effects of this difficult balancing of work and family may operate through the anticipation of this task by the unmarried--especially by young unmarried women. The incorporation of employment into the expected marriage package for women, given the persistence of

traditional domestic role expectations and unequal gender relations at home, makes this role all the more difficult. It seems likely that this added weight of the "marriage package" makes some, perhaps many, all the more reluctant to pick it up: contributing to other factors delaying marriage and having children.

*Policy Implications:* Japan, as one of the world's most rapidly aging society with limited immigration, will face growing need of women's labor force participation. At family level, increasing uncertainty of husband's lifetime employment and increasing consumption aspirations are likely to result in increased demand of wives' employment. With these conditions, the first policy implication coming out this study is that the current employment practices are not in congruence with the Japanese wives' preferences. Wives prefer to work substantial hours a week but not too many (16-34 hours), most likely to be able to balance work and family obligations without. But actual employment hours, reflecting the current employment opportunities, show "all or nothing" pattern: more than one third are not working at all and nearly one third are working 35 hours or more a week. As a result, about a quarter of wives work more hours than they prefer and nearly half of wives are working fewer hours than they prefer, with a large proportion of them not working at all. Increase in employment opportunities for wives with 15-34 work hours per week with generous benefits is highly desirable.

Working more than preferred hours is most common among wives with highest level of education (4-year of college or more). The need for increase in part-time employment opportunities for wives with high level of education (4-year of college or more) is especially acute.

The childcare need continues to affect wives' employment and employment hours strongly. It is important that adequate childcare provisions become available to all mothers with preschool children in order to fully utilize potential labor force participation of wives. It is equally important that the

employment conditions and social institutions enable husbands to share childcare and household chores.

The finding about the effect of husband's income on preference for work hours and on the discrepancy between actual and preferred hours of employment may be due to the income tax system and pension system which may be interpreted as penalizing high level of earnings of wives (Akabayashi, 2006). Careful analyses of potential impact of income tax and pension system on employment hours of wives can provide policy relevant information.

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## **Chapter III**

### Population Aging and Income Security



# Ageing and Health Security Policy in Korea

*Duk Sunwoo<sup>1)</sup>*

## INTRODUCTION

Among the current social policies in Korean society low fertility and ageing of population can be pointed out as hot issues. Especially, the radical decrease in TFR has been continued since the middle of the 1990's and its trend caused the speed of ageing to be faster, accompanied with the continuous extension of life span also.

Korean society has entered into 'the ageing society' since 2000, being 7.2% of total population for older persons aged 65 and over. The speed of population ageing is expected to be very fast. Korean government, therefore, started to review in earnest the various social policies to make preparations for the rapid ageing society from 2001, establishing 'the counterplan committee for health and social welfare for the elderly' as an affiliated organization of the Prime Minister Office. In 2005, 'the Basic Act to Prepare for Low Fertility and Population Ageing' was legislated and also, 'the Committee to Prepare for Low Fertility and Population Ageing' was established as an organization under direct control of the President on the basis of the above mentioned act. The first general plans to prepare

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for low fertility and population ageing, so-called Sae-Lo-Ma-Ji plan, were formulated to carry out from 2006 until 2010.

The phenomena of low fertility and population ageing have a serious effect on financial stabilization of social security programs including pension and health insurance, etc (OECD, 1999). Simultaneously, a new social risk such as dependency in performing activities of daily livings appeared due to those phenomena (WHO, 2000). In the case of Korea, the financial status of health insurance program to burden medical treatment expenses mainly became unstable owing to increase in medical expenditures for the elderly. Especially, as many elderly persons in need of long-term care stayed in hospitals despite of having no need of medical treatments because of shortage of nursing homes, it would be said that those unnecessary costs gave rise to increase in medical expenditures for the elderly.

Therefore, improvements of health insurance program, for example, such as a modification of payment method and so on are being discussed, and the public long-term care insurance program for the elderly was introduced in July of 2008. Besides, health promotion programs including non-smoking, moderation in drink, exercise and nutrition have been implemented centering around public health centers since 1995, when National Health Promotion Act was legislated. Also, the specialized exercise and nutrition programs for elderly people started to be developed and expanded from 2006.

According to the future population estimation data published by National Statistical Office, the rapid increase in oldest-old persons aged 75 and over who have high demands of health and long-term care and the decrease in labor force population who are main financial supporters for social security programs are expected. Therefore, if the practical reforms of current programs can't be carried out, the financial un-stabilization of health and long-term care insurance schemes will be serious gradually.

This paper aims to review and find out major contents and problems of the current Korea's health and long-term care

programs for older persons, and to suggest the future policy issues to be implemented. Those issues, however, will be suggested at the basis of financial stabilization to maintain the sustainability of programs.

## **POPULATION AGEING AND HEALTH PROBLEMS IN KOREA**

### *Changes in Demographic and Family Structures*

In 2010 the proportions of elderly people aged 65 & over and 'oldest old' persons aged 80 & over are expected to reach 11.0 % and 1.9 % of the total population respectively, according to the future estimated population data published by the National Statistical Office in November 2006 (see Table 1). Aged dependency ratio (15~64/older people aged 65 and over) in 2020 will reach 4.6, representing a half of 2000 year (9.9) (see Figure 1). This phenomenon suggests that the social burden by working age groups (15~64) for elderly people become twice during the same periods. Besides, in 2016 the number of elderly people aged 65 and over is expected to exceed younger people aged 0~14 because of the continuous low fertility.

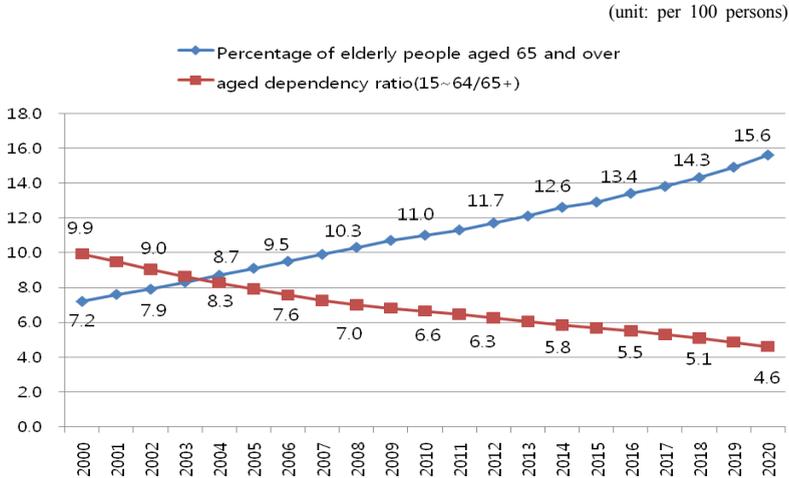
Table 1. Changes in the number of older persons

Year	Total population (1,000 persons)	Elderly people (1,000 persons)		
		65+	70+	80+
2000	47,008	3,395 ( 7.2)	2,014 (4.3)	483 (1.0)
2005	48,138	4,367 ( 9.1)	2,684 ( 5.6)	676 (1.4)
2010	48,875	5,357 (11.0)	3,546 ( 7.3)	952 (1.9)
2015	49,277	6,381 (12.9)	4,309 ( 8.7)	1,350 (2.7)
2020	49,326	7,701 (15.6)	5,120 (10.4)	1,783 (3.6)
2025	49,108	9,768 (19.9)	6,220 (12.7)	2,153 (4.4)
2030	48,635	11,811 (24.3)	8,019 (16.5)	2,581 (5.3)

Note: The statistics in parenthesis represent in proportion of total population.

Source: National Statistical Office (2006).

Figure 1. Changes in aged dependency ratio



Source: National Statistical Office (2006).

According to the same future estimated population data, the rate of population ageing in Korea is estimated to be faster by far than that of any other industrialized country. That is to say, it will take only 18 years for the total population share of people aged 65 and over to double, from 7 to 14 per cent; this may be compared with Japan (24 years), Germany (40 years), the United Kingdom (47 years), and Sweden (85 years) (UN, 1996). In view of the rapid increase in the number of older persons, especially the ‘oldest old’, largely frail in both physical and cognitive functions, health and long term care expenditures caused by them may appear to be a burden to the stabilization of social security programs.

According to *Population & Housing Census* data published by National Statistical Office, the proportions of the elderly population living alone or in couples increased from 8.9 and 16.9 per cent in 1990 to 18.1 and 33.0 per cent in 2005 respectively (see Table 2). This phenomenon suggested that an elder care system should be established to provide assistance for older people with no family caregivers as soon as possible.

Table 2. Changes in the composition of elderly households

Category	(unit: %)		
	1990	2000	2005
Total	100.0	100.0	100.0
One generation	16.9	28.7	33.0
Two generations	23.4	23.9	24.9
Three generations and over	49.6	30.8	23.4
Single	8.9	16.2	18.1
Non-relative households	1.2	0.4	0.5

Source: National Statistical Office, Population & Housing Census, each year.

### *Health Status of Older Persons*

It can be explained that population ageing has resulted from the extension of life span and the decrease in mortality also in Korea. Life expectancies at birth for males and females in Korea reached 76.5 years and 83.3 years respectively, and life expectancies at age 65 years also reached 16.6 and 21.0 years respectively in 2008 (see Table 3). Probabilities to survive at age 65 years for males and females born in 2008 are 83.4% and 92.9% respectively, and in the case of a person aged 80 years those are 48.4% and 71.9%. Besides, the survival probabilities at age 80 years are 58.1% for males and 77.4% females in the case of a person aged 65.

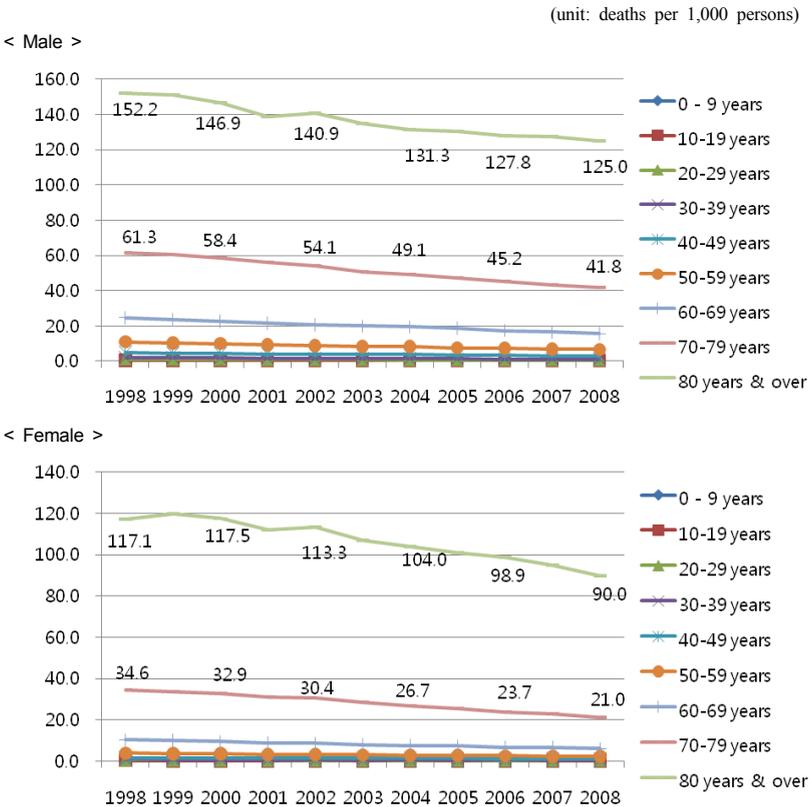
Table 3. Changes in life expectancy at birth and at age 65

Year	At birth			Age 65 years		
	Average	Males	Females	Average	Males	Females
1990	71.28	67.29	75.51	14.48	12.39	16.29
2000	76.02	72.25	79.60	16.60	14.34	18.18
2002	77.02	73.40	80.45	17.11	14.88	18.72
2004	78.04	74.51	81.35	17.75	15.46	19.43
2006	79.18	75.74	82.36	18.41	16.08	20.13
2008	80.08	76.54	83.29	19.15	16.60	21.02

Source: National Statistical Office, 2008 Life Table, 2008.

In the case of changes in age-specific death rate it can be seen that the death rate of elderly people decreased remarkably during the past ten years (1998–2008) in comparison with that of younger people. Especially the death rate of oldest-old people aged 80 and over was improved remarkably in both sexes in comparison with that of other elderly people (see Figure 2). By the above-mentioned results it can be suggested that nowadays the increases in life expectancy in Korea resulted from the decline in mortality of the elderly, although in the past life expectancy was increased by the combination of rapid declines in infant and maternal mortality largely.

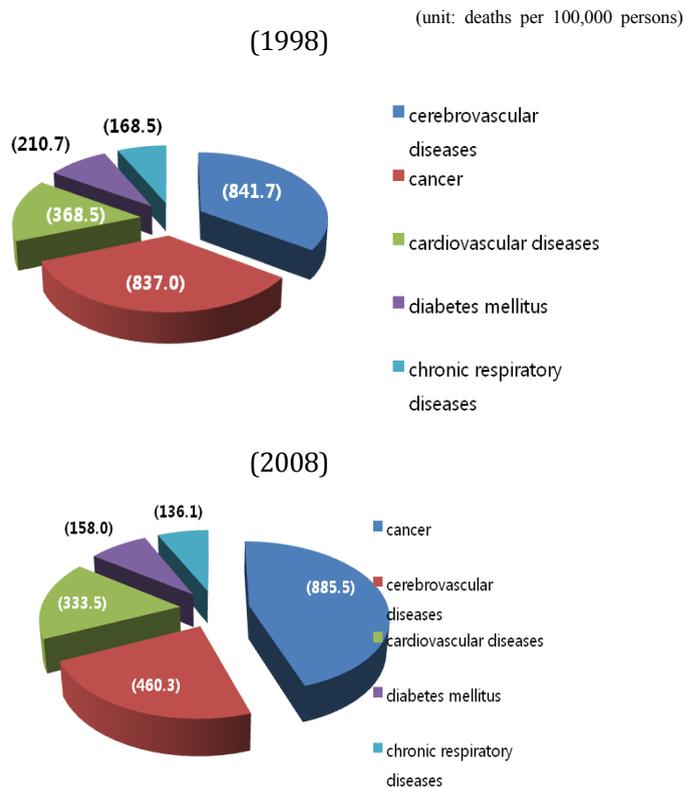
Figure 2. Changes in age specific death rate by sex and age group



Source: National Statistical Office, Annual Report on the cause of death statistic, 2009.

In the case of older Korean aged 65 and over, cerebrovascular diseases (841.7 per 100,000 persons), cancer (837.0), cardiovascular diseases (368.5), diabetes mellitus (210.7) and chronic respiratory diseases (168.5) were major causes of death in 1998 (see Figure 3). That is to say, the disease responsible for the largest percentage was cerebrovascular diseases. Cancer, however, becomes the first leading cause of death in 2008. Especially, while deaths by cerebrovascular diseases have decreased to a half during the past 10 years, those by cancer have increased continuously.

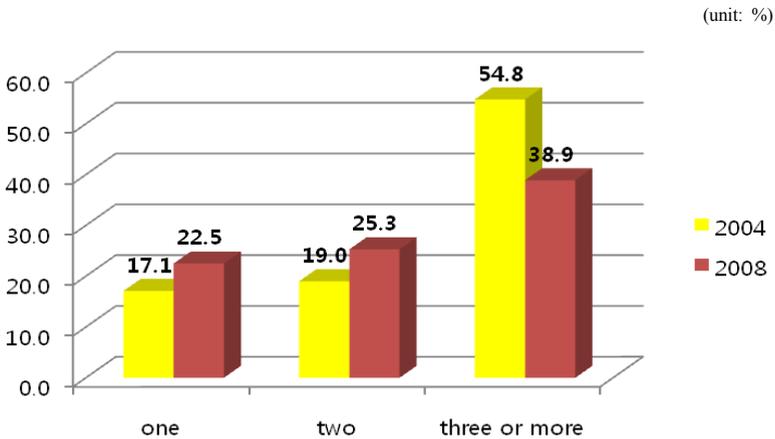
Figure 3. Changes in death rates by the major cause of death for the elderly



Source: National Statistical Office, Annual Report on the cause of death statistic, 2009.

According to the 2008 Survey of Living Profile of Older Persons conducted by Kyemyung University which was sponsored by Ministry of Health and Welfare, 84.9% of elderly people aged 65 and over living in private households reported that they had at least one chronic disease which was diagnosed by a doctor. Also, the same survey revealed that the major doctor-diagnosed chronic diseases with the highest prevalence were hypertensive diseases (47.3%), arthritis/rheumatism (37.2%), non arthritis back problems (23.4%) and diabetes mellitus (16.4%). By the above-mentioned survey data the percentage of elderly people with one self-reported chronic disease was 22.5% and with two diseases, 25.3% and with three or more diseases, 38.9% respectively (see Figure 4). Among the results elderly people with three or more self-reported chronic diseases in the 2008 survey were decreased in comparison with the 2004 survey (54.8%). 84.5% of elderly people with at least one chronic disease reported to have experienced restriction in performing every daily living.

Figure 4. Changes in co-morbidity for the elderly

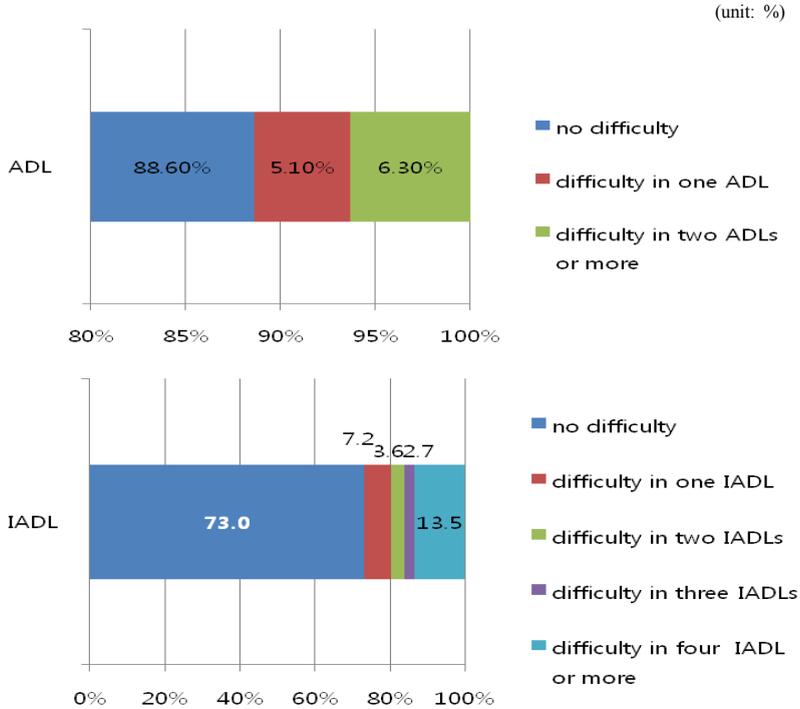


Source: KIHASA & MOHW, the 2004 Survey of Living Profile & Welfare Needs of Older Persons, 2004; Kyemyung Univ. & MOHW, the 2008 Survey of Living Profile of Older Persons, 2008.

The number of elderly people with dementia continues to increase in Korea as the number of the oldest-old increases. Dementia is known to be characterized initially by the development of difficulties with every day tasks of daily living, by changes in personality and by a later progression to the loss of the capacity to act independently (Gibson, *et al.*, 1999). Prevalence of dementia in Korea in 2010 is estimated to be 8.76% of total older persons aged 65 and over, amounting to 8.39 % for males and 9.02% for females.

According to the above mentioned *the 2008 Survey of Living Profile of Older Persons*, 88.6% of elderly people didn't have a difficulty in any ADL. The proportion of elderly people with a difficulty in only one ADL was 5.1%, and 6.3% of whom reported having difficulties in two ADLs or more. In the case of IADL, among 10 items 73.0% of elderly people didn't have a difficulty in any IADL, and 13.5% of whom reported having difficulties in four IADLs or more (see Figure 5). ADL category includes bathing, washing, dressing, eating, using toilet, getting out of bed & leaving the bedroom and continence, and IADL category includes managing money, using telephone, transportation, preparing meals, doing laundry, short trips on foot, shopping, housework, grooming and taking medication (Won, *et al.*, 2002). Elderly people in need of long-term care services can be said to be persons with a long-standing limiting condition in basic activities of daily living or instrumental activities of daily living. Therefore, by understanding the size of older persons with a difficulty in ADL the proportion of beneficiaries of social long-term care insurance can be estimated.

Figure 5. Dependency levels among older Koreans, 2008



Source: Kyemyung Univ. & MOHW, the 2008 Survey of Living Profile of Older Persons, 2008.

## CURRENT CONTENTS AND MAJOR ISSUES OF HEALTH AND LONG-TERM CARE POLICY

The health security system in Korea pursues to promote people's health and to improve social security by providing necessary health care services for disease, injury, birth and death, etc. In Korea, there are a National Health Insurance (NHI) program for middle- and upper-income brackets and a Medical Aid program for low-income households as the health security system. The NHI program of Korea covers the whole population as a compulsory social insurance system. Its main sources of finance are contributions from the insured and government

subsidy. The Medical Aid program is a public assistance scheme to secure the minimum livelihood of low-income households and to assist with self-help by providing medical services. Besides, Long-term care insurance program of Korea was introduced to Korea in July 2008 to alleviate financial burdens on family caregivers. The program is designed to meet the care needs of Korean elderly with difficulties in performing activities of daily living (ADL) due to geriatric diseases mainly.

## **HEALTH CARE POLICY FOR THE ELDERLY**

### *National Health Security Scheme*

All Korean citizens living in Korea can receive medical care services through National Health Insurance (NHI) scheme which includes employees, the self-employed and dependents of the insured, and through Medical Aid scheme irrespective of age. In 2008, the total number of persons covered by NHI reached over 48 million, or about 96.3% of the total population (see Table 4). The remaining 3.7%, or 1.8 million, who are indigent or belong to low-income brackets, are covered by the Medical Aid program, a Korean public assistance program.

Table 4. Population coverage, 2008

(unit: persons)

Classification		Coverage	(%)
Total		50,001,057	100.0
NHI	Subtotal	48,159,718	96.3(100.0)
	Employee Insured	30,416,577	59.2( 63.2)
	Self Employed Insured	17,743,141	37.1( 36.8)
Medical Aid		1,841,339	3.7

Source: NHIC

In Korea health insurance started as a medical insurance program for companies with more than 500 employees in 1977. The coverage was expanded to companies with more than 300 employees, and public officials and private school employees in 1979, and all the self-employed living in rural and urban areas were insured in 1989, who become insured in fact through the pilot project for the self-employed medical insurance in three rural areas in 1981. However, the three types of health insurance programs which had covered private employees, public officials & private school employees and the self employed respectively were integrated into a single program in 1998. Therefore, Unlike US or Japan, Korea does not have a special elderly medical insurance scheme. They enter into health insurance program as the insured or dependents of the insured.

The payment of contributions is the responsibility of employers and all members of households (see Table 5). In the case of any failure of payment, the insurer (NHIC) could carry out coercive collection in accordance with the relevant provisions of the law. The contribution of employees is based on salary of the insured. And the current contribution rate of employees is 5.33% on an average in 2010. The contribution of employees is borne by both the employee and the employer. For the self-employed, contributions are basically calculated on the basis of income. The contributions are calculated by using a formula in which the insured persons' properties, income, motor vehicles and so on are taken into consideration. 50% of contribution can be reduced for the insured in islands or remote rural areas, 22% for the other insured in rural areas, 10~30% for the insured who have a low income. For the insured who have a family member aged 65 or over and the disabled, the maximum reduction rate for contribution is 30%. The Korean government subsidizes approximately 14% of the total annual projected revenue raised through NHI contributions from the insured (see Table 6). The NHIC gets further financial support from the Health Promotion Fund at 6% of the total annual projected revenue.

Table 5. Imposition and payment contribution

	Employee insured		Self employed insured
Monthly Contribution	Average Monthly Wage x Contribution Rate(5.33%, 2010)		Contribution Points x Value Per Point (156.2won, 2010)
Responsibility of Payment	Corporate employees - employee 50% - employer 50%	Government employees - employee 50% - employer 50%	Members of household
		Private school employees - employee 50% - owner of private school 30% - government 20%	
Collection	Deducted from salary		Monthly billing, individual payment
Due date	By the 10th day of follow month (every month)		

Table 6. Government subsidy for NHI

(unit: billions won)

Classification	2003	2004	2005	2006	2007	2008
Total	2,779	2,857	2,770	2,870	2,704	3,002
Surcharge on Tobacco	345	626	925	966	968	1,024

Source: NHIC

Insurance benefits consist of two types: health care benefit and cash benefit. Health care benefits are provided by medical care facilities in case of diseases, injuries and so on, including diagnosis, laboratory tests, drugs, medical materials, treatments, surgery, preventive care, rehabilitation, hospitalization, nursing, transportation and health check-up service. In the case of cancer program the treatment costs are co-shared by insurer (80% of total costs) and beneficiary (20%) and the beneficiaries can receive free of charge stomach, colon, breast, and liver cancer screening and pap-test. Persons who receive medical care treatments should pay certain portions of medical care costs as co-payments. In order to curtail overuse of health care services,

and to lessen the concentration of medical services in large general hospitals, the co payments for outpatient and inpatient services have been set differently according to the level and type of medical care facilities. When the total amount of medical care costs of one year to be paid by the insured exceeds 2~4 million won in accordance with income in the same year, he or she is exempted from any further co-payments incurred. This is to alleviate the financial burdens of household against catastrophic or high-cost diseases helping to prevent them from falling into bankruptcy. This ceiling system is applicable for inpatient, outpatient, and pharmaceutical services.

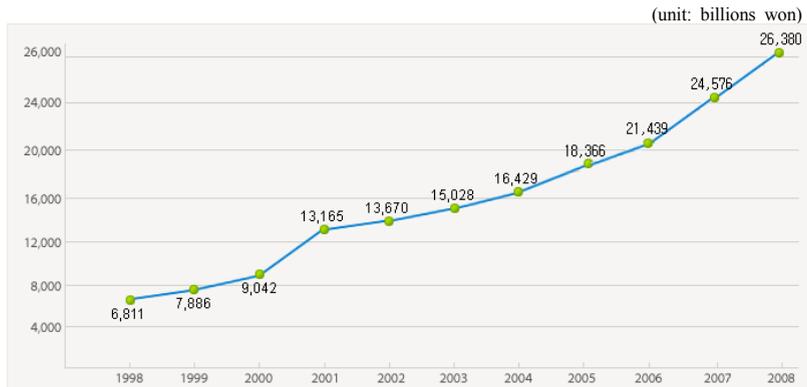
Table 7. Co-payment system of NHI

Classification		Co-payment
Inpatient		10~20% of total treatment cost (Co-payment for cancer treatment and rare diseases: 10%)
Out-patient	Tertiary care hospital	60% of [treatment cost + Per-visit consultation fee]
	General hospital	50% of [treatment cost + Per-visit consultation fee]
	Hospital	40% of [treatment cost + Per-visit consultation fee]
	Clinic	30% of treatment cost
	Pharmacy	30% of total cost

Figure 6 shows trend of NHI benefit expenditures. Those expenditures are increasing continuously since the integration of health insurance program in 1998. In the case of health care expenditures, as would be expected, the increasing rate of health expenditures for those aged 65 and over is greater than that of total expenditures. Although older Koreans constitute only 10.3% of the total population, they used 29.9% (10,490.4 billions won) of total expenditures on health care services through NHI in 2008. During the period 2000~8, the rate of increase in health expenditures for those aged 65 and over was about twice faster than that of total expenditures. Major contributory factors for the growth in expenditures used by older persons over the

period include the increasing numbers of elderly people due to population ageing and the growth of long-term care hospitals which admit 'socialized inpatients' owing to the shortage of long-term care facilities.

Figure 6. Trends of NHI benefit expenditures



Source: NHIC

Table 8. Health expenditures by elderly people through NHI

(unit: billions won)

Year	Total expenditures (A)	Elderly people's expenditures (B)	Rate (B/A) (%)
2000	13,141.0(100.0)	2,289.3(100.0)	17.4
2001	17,819.5(135.6)	3,168.1(138.4)	17.8
2002	19,060.6(145.0)	3,681.1(160.8)	19.3
2003	20,533.6(156.3)	4,372.3(191.0)	21.3
2004	22,355.9(170.1)	5,109.7(223.2)	22.9
2005	24,796.8(188.7)	6,055.6(264.5)	24.4
2006	28,558.0(217.3)	7,393.1(322.9)	25.9
2007	32,259.0(245.5)	9,081.3(396.7)	28.2
2008	35,036.6(266.6)	10,490.4(458.2)	29.9

Note: Numbers in parenthesis are index in case of 2000=100.0

Source: NHIC

With relation to population ageing the present public health insurance should be improved, putting a great emphasis on the control of the sharp increase in health care expenditures (Moon, 2009). Alternatives to control at a proper level those expenditures can be suggested that in view to the continuous growth of elderly patients the present reimbursement method for medical fees, so-called fee-for-service system, be changed toward additional inclusion of the prospective payment system such as DRG, total budgets and etc., and the growth of long-term care hospital beds be constrained because of high costs in comparison with those of nursing homes.

### *Community Health Services for the Elderly*

In Korea the public community health services for the elderly are delivered by public health centers, which are situated at each local government. Its major programs are visiting health services, chronic disease management services, health examination services and health promotion services. Those programs excluding health promotion services concentrate on the prevention of the occurrence or the serious development of chronic diseases.

The visiting health services are delivered by doctors, nurses and PTs as a type of team, including health check ups, health education, drugs and nutrition consultation or guidance. At present the beneficiaries of those services are limited due to insufficiency of man-powers and budgets. The chronic disease management services have been delivered to persons with a hypertension and diabetes mellitus since 2003. The level of the acceptance from patients, however, is low in general owing to the concentration of disease education. The health examination services are delivered for the detection of diseases and dementia. From 2007 the health examination service is delivered to older persons at age 66 years by the name of 'health examination program at the time of lifetime turnover'. This service is placed a high value on contents of program,

substituting the traditional screening method for disease detection by individual health risk assessment and disease prevention method including consultation about his or her lifestyle modifications. Besides, the early examination program for the dementia detection delivered to persons aged 60 and over with government budgets.

The health promotion programs for the elderly are concentrated on physical activities including exercise and nutrition guidance. The reason is why the exercise practice rate becomes very low in his or her old age and the obese elderly people are increasing gradually, while the prevalence of smoking or alcohol drinking is lower than that of younger generation. For example, according to the *2008 Survey of Living Profile of Older Persons* as stated above, the prevalence of practicing physical activities as a level of medium-severity was 10.9%, and of overweight (BMI  $\geq$  25.0) was 31.2%. In consideration of those phenomena elderly-tailored exercise programs for strengthening muscular power, endurance, balance and flexibility are performed in almost the whole public health centers. However, the adequate nutrition management programs for the elderly are not implemented generally yet due to under-deploy of nutritionists.

## **LONG-TERM CARE POLICY FOR THE ELDERLY**

### *Backgrounds of the Introduction of LTCI and Its Preparation Processes*

In Korea, the major reasons why public long-term care insurance (LTCI) should be introduced are as follows. Firstly, it is because older persons in need of long term care are increasing sharply due to population ageing, accompanied by dementia and stroke, etc. For example, the proportion of older persons aged 65 and over is expected to reach 24.3% in 2030

(National Statistical Office, 2006). The prevalence of dementia is 8.4% of those aged 65 and over in 2008 and is expected to reach 9.7% in 2020 (Ministry of Health and Welfare, 2008). Secondly, it is because informal caregivers by family members are expected to decrease due to low fertility, growth of nuclear family and increase in women's paid job participation. Especially, total fertility ratio in 2008 was 1.19 and remains to be about 1.2 since 2002 (National Statistical Office, 2009). Thirdly, it is because care costs has become a heavy burden to the needy persons or their family caregivers, as almost the middle income classes were not covered by public long-term care system. Fourthly, it is because elderly person's medical expenses were increasing largely due to unnecessary long-term inpatients in acute and chronic hospitals.

The preparation for the introduction of a public LTCI started from 2000, when central government, so-called the Ministry of Health and Welfare established a Policy Committee for Public Long Term Care Security System for the Elderly to develop long-term care policies. The National Survey of Long-Term Care Service Needs of Older Persons was carried out in 2001 on the recommendation of the above-mentioned committee in order to estimate the proportion of older persons in need of long term care services with a long-standing limiting condition in activities of daily living (ADLs), instrumental activities of daily living (IADLs) and with cognitive impairments. In 2003 the government established a Planning Committee for Developing the Public Long Term Care Security System for the Elderly to gather opinions of various stakeholders and to decide LTC model on the basis of the results of national survey and various basic reports. In 2004 Executive Committee was established to design a tentative LTCI model.

Tentative LTCI model was comprehensively tested through the demonstration projects and evaluations for three years from July 2005. The first demonstration project was carried out in 6 areas, and the second project in 8 areas, and the third project in 13 areas. The host agency was National Health Insurance

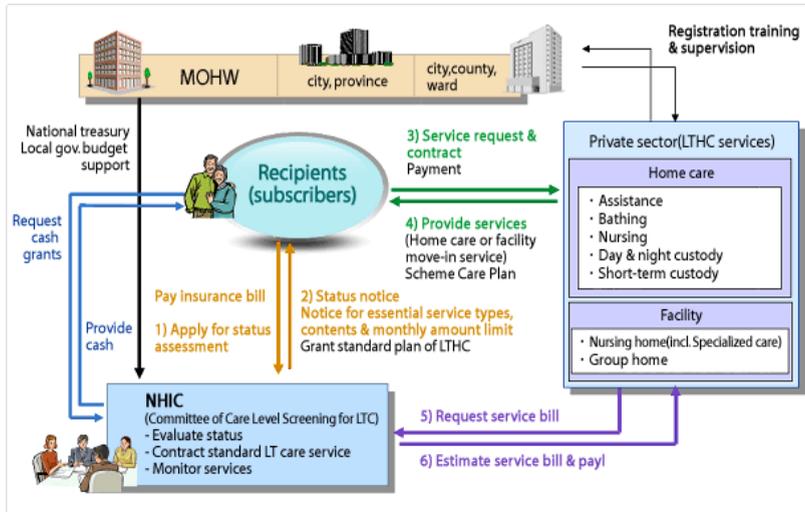
Corporation (NHIC), which is now insurer of national health insurance, and was responsible for need assessment, service utilization supports and cost payment to suppliers, etc. But the Long Term Care Insurance Law for the Elderly was acted on April 2007 on the basis of the results of two demonstration projects before ending the third one.

### *Overview of Korea's LTCI System and Its Characteristics*

All Korean people become insured automatically if they are enrolled in National Health Insurance and Medical Aid Scheme targeting low-income classes without respect to age and income level.

The insured have to apply to each branch office of NHIC which is established in their residential areas in order to get LTCI benefits. At first, social workers or registered nurses who work in NHIC visit their homes to assess care needs of persons who applied for LTCI benefits. But, those under 64 years of age can apply only if they have a difficulty in everyday's activities caused by age-related diseases such as stroke or dementia, etc. Care needs of applicants are assessed on the basis of total 52 national standard checklists which consist of 12 physical function-related items, 7 cognitive function-related items, 14 behavioral problem-related items and 19 nursing & rehabilitative treatment needs-related items. IADLs, however, are not considered in deciding care level. Secondly, members, who are composed of medical doctors, registered nurses and social workers, etc, of 'Committee for Deciding Care Level' which is established in each administrative unit (county) decide finally care level on the basis of results of the first tentative care level which was decided through computerized programs, and a physician's medical opinion paper.

Figure 7. Outlines of LTCI system



Care level is classified into three types among total 12 ADLs. Level I refers to full supports in more than 6 ADLs, and level II refers to a part of supports in more than 5 ADLs, and level III refers to a part of supports in more than 3 ADLs (see Table 9).

Table 9. Type of care level

Category	Criterion
Care Level I (severest)	Qualifying scores must be more than 95 points (In the case of bed-ridden status all the day)
Care Level II (severe)	Qualifying scores must range from 75 to 94 points (In the case of home-bound status and wheelchair users)
Care Level III (moderate)	Qualifying scores must range from 55 to 74 points (In the case of walkable status, if with canes or one's supports)

The current LTCI benefits are classified into three different types in general: institutional care benefits, home care benefits and special cash benefits. Institutional care benefits are provided for a person in nursing homes, excluding long-term care hospitals. Home care benefits are classified into six different service types: home-visit care services, home-visit bathing

services, home visit nursing care services, adult day & night-care services, short stay services and rental services of specified welfare equipments. A person in short-stay care facility may be allowed to stay for a maximum of 180 days a year. Special cash benefit (150,000 won a month without respect to care level) can be provided for family caregiver if beneficiaries reside in remote areas or islands. But, in the case of care level III institutional care services were unavailable until 2009 because of shortage of nursing homes or priority over level II & level III. Maximum benefit limit for home care is established monthly and if care costs exceed the benefit limit, users have to pay the excess (see Table 10).

Table 10. Monthly maximum benefit limit for home care services ,2009

Category	Amounts	In the case of institutional care services
Care Level I	1,140,600 won	1,464,563 won
Care Level II	971,200 won	1,356,279 won
Care Level III	814,700 won	1,247,996 won

Note: Costs of short stay services and rental services of specified welfare equipments are excluded in calculating the limit.

Beneficiary has to pay directly to service providers for 20% of institutional care costs and 15% of homecare costs as a copayment and the rest of costs will be paid to service providers from insurer, excluding food and housing expenses. Therefore, it can be said that total of out-of-pocket payments amount to about a third of institutional care costs. But a low-income person's copayment is relieved to 10% and 7.5% respectively. Beneficiary eligible under the National Basic Livelihood Security Law as part of the public assistance system is free of charge.

Unit cost of each long-term care service by type is calculated as follows: that is to say, a fixed amount per day by care level for institutional care service and short-stay service; a fixed amount per care time for home-visit care and nursing care

services without respect to care level; a fixed amount per frequency for home-visit bathing service without respect to care level; a fixed amount per care time according to care level for day & night-care service (see Table 11). But, unit cost of each long-term institutional care service might be reduced to 70% of a fixed amount per day in the case of nursing homes exceeding the definite number of residents and to 70~90% in the case of nursing homes violating the arrangement standard of staffs regulated in the law.

Funding system of LTCI is similar to that of National Health Insurance scheme from the viewpoint of fact that it is financed by contributions on the basis of income which are shared equally by employers and employees as a pay-as-you-go system. The individual LTCI contribution is calculated on the basis of their contributions of National Health Insurance and the LTCI contribution rate is 4.78% in 2009. The amount of contributions is equivalent to 60% of total LTCI expenditures, whereas the rest of expenditures are financed by government subsidies (taxes) and user's copayments.

The characteristics of Korea's LTCI can be said as follows.

Firstly, the insured of LTCI are all members of the public health security scheme without respect to age and income level, whereas the insured under the Japan's LTCI which was used as a benchmark for structuring of Korea's LTCI system are people aged 65 or over (category 1 insured persons) and people aged 40~64 covered by health insurance program (category 2 insured persons) (Japan's Ministry of Health, Labor and Welfare, 2008).

Table 11. Unit cost of each long term care service by benefit type, 2009

Service type	Criterion	Amounts (won)
Home-visit care	Per care time	30 minutes: 10,680, 60 minutes: 16,120 90 minutes: 21,360, 120 minutes: 26,700 150 minutes: 30,200, 180 minutes: 33,500 210 minutes: 36,600, 240 minutes: 39,500
Home-visit bathing	Existence of bathing car	Using a bathing car: 71,290 Not using a bathing car: 39,590
Home-visit nursing care	Per care time	Less than 30 minutes: 28,700 30~59 minutes: 36,650 Not less than 60 minutes: 44,600
Day & Night-care	Per care time according to care level	Care level I 3~6 hours: 24,960, 6~8 hours: 33,280 8~10 hours: 41,600, 10~12 hours: 45,760 Nor less than 12 hours: 49,920 Care level II 3~6 hours: 22,740, 6~8 hours: 30,320 8~10 hours: 37,900, 10~12 hours: 41,690 Nor less than 12 hours: 45,480 Care level III 3~6 hours: 19,140, 6~8 hours: 25,520 8~10 hours: 31,900, 10~12 hours: 35,090 Nor less than 12 hours: 38,280
Short-stay service	Per day	Care level I: 43,300, Care level II: 39,600 Care level III: 35,900
Institutional care(including small-sized group home)	Per day	Care level I: 48,150, Care level II: 44,590 Care level III: 41,030

Secondly, those aged less than 65 years of age can receive care services only if a condition requiring care results from aging related diseases, such as stroke or dementia. This is the same way that Category 2 insured persons of Japan's LTCI should develop aging-related diseases to require care or support (Japan's Ministry of Health, Labor and Welfare, 2008). Therefore, the majority of younger disabled persons in need of long term care are excluded from provision of LTCI benefits.

Thirdly, care levels are classified into three types such as

those of German's LTCI system, excluding persons with a mild difficulty in everyday's activities (Arntz, *et al*, 2007).

Fourthly, some beneficiaries can be provided with cash benefit as a fixed amount without respect to care level, although it is necessary to have a requirement of residing in remote rural areas or islands in where care from professional caregivers is unavailable, or of the other special cases. This means that care services carried out by family members are recognized partly.

Lastly, the proportion of copayment burdened by beneficiary makes a difference between care services. That is to say, copayment of home care services is lower than that of institutional care services with the aim of the encouraging home care services.

### *Major Results and Problems Raised During the Past One Year*

According to the future estimated financial prospects published by the Ministry of Health and Welfare, the total number of certified persons requiring long-term care is 296,834 as of December 2009, which is equivalent to 5.7% of elderly people aged 65 and over (see Table 12). There is, however, a great difference between administrative regions in the proportion of certified persons. It may be suggested that those regions with a lot of for profit providers have a tendency to certify highly the eligibility of a beneficiary.

The proportion of the middle- and upper-income groups is 78.9% of total certified persons, compared with low income classes (21.1%) who are eligible for the public assistance system. The proportions of those with care level I (very severe disability), care level II (severe disability) and care level III (moderate disability) are 18.9%, 24.8% and 56.3% respectively. What is remarkable, however, is that the proportion of care level III is very high. The reason is why the most of persons who have qualifying scores ranged from 50 to 54 points were certified as a care level III finally by the Committee for Deciding Care Level.

Table 12. Total number of certified persons requiring LTC, 2009

(unit: persons, %)

	Care level I	Care level II	Care level III	Total
Middle- & upper-income	44,777 (19.1)	59,554 (25.4)	130,045 (55.5)	234,376 (100.0)
Low-income	11,458 (18.3)	14,010 (22.4)	36,990 (59.2)	62,458 (100.0)
Total	56,235 (18.9)	73,564 (24.8)	167,035 (56.3)	296,834 (100.0)

Source: Ministry of Health and Welfare (2009b)

Of the total certified persons, the share of people aged 65 and over is 92.6%. The certified proportion of 'oldest old' people aged 85 and over is 17.1% of total population aged 85 and over, whereas that of 'younger old' people aged 65 to 69 is 1.7% as of June 2009 (see Table 13).

Table 13. The proportions of certified persons by age group (as a percentage of total population by age group), June 2009

Age group	~64	65~69	70~74	75~79	80~84	85~
Rate (%)	0.05	1.70	3.16	5.76	10.09	17.13

Note: The statistics were calculated by author.

Source: Ministry of Health and Welfare (2009a), National Statistical Office (2006)

The total number of benefit recipients is 209,948, which is equivalent to 78.1% of the total certified persons as of June 2009 (see Table 14). The shares of benefit recipients as a percentage of the total certified persons with the middle- & upper-income groups, beneficiaries under public assistance scheme and low-income group are 76.5%, 84.1% and 68.7% respectively. Therefore, the share is lowest in spite of reduction of copayments in the case of low-income group, compared with that of the middle- & upper-income groups. This phenomenon means that inequity between income classes exists in the current LTCI system with a view to using care services.

The share of recipients of special cash benefit is only 0.4% as a percentage of the total certified persons. The shares of recipients of home care benefits as a percentage of the total certified persons with care level I, care level II and care level III are 38.6%, 44.5% and 65.8% respectively. What the share of home care recipients with care level III was highest is because persons certified as a care level III couldn't use institutional care services until 2009 if applying for certification of care level newly after the implementation of LTCI in July 2008.

Table 14. The number of benefit recipients by LTCI benefit types, June 2009

(unit: persons, %)

Category	Certified persons	Benefit recipients (service users)			
		Total	Institutional care benefit	Home care benefit	Special cash benefit
Total	268,980	209,948 (78.1)	63,391 (23.6)	145,553 (54.1)	1,004 (0.4)
Middle-&upper-income group	206,657	158,077 (76.5)	40,167 (19.4)	113,113 (54.7)	812 (2.4)
Beneficiary under public assistance	58,935	49,542 (84.1)	21,860 (37.1)	27,502 (46.7)	180 (0.3)
Low-income group	3,388	2,329 (68.7)	545 (16.1)	1,772 (52.3)	12 (0.3)
Care level I	60,134	46,751 (77.7)	23,453 (39.0)	23,209 (38.6)	89 (0.1)
Care level II	71,112	57,884 (81.4)	26,031 (36.6)	31,657 (44.5)	196 (0.3)
Care level III	137,734	105,313 (76.5)	13,907 (10.1)	90,687 (65.8)	719 (0.6)

Note: The statistics in parenthesis represent the proportion of certified persons.

Source: Ministry of Health and Welfare (2009a)

As of the end of 2009 revenues are expected to exceed expenditures and the rate of expenditure to revenue will be 97.1% (see Table 15). It can be said that the situation of the balanced budget financing resulted from the increase in LTCI contribution rate from 4.05% of National Health Insurance contributions in 2008 to 4.78% in 2009.

Table 15. Financial situation of LTCl, 2009

(unit: 100 millions won)

Category	Total	Middle- & upper- income group	Low income group
Revenue (A)	19,767	13,659	6,107
Contributions	11,502	11,502	-
Government subsidies	2,035	2,035	-
Surcharge on low income	6,067	-	6,067
Others	162	122	41
Expenditure (B)	19,192	13,084	6,107
Benefits	17,392	11,759	5,632
Administrative expenses	1,800	1,325	475
Rate of expenditure to revenue (B/A) (%)	97.1	97.1	-
Accumulated Reserves	2,362	1,759	603

Source: Ministry of Health and Welfare (2009b)

With the introduction of a new LTCl the education training system of the new professional caregiver, so-called 'yo-yang-bo-ho-sa' was constructed, who can get a caregiver's license granted by regional government if he (or she) completes the education of total 240 hours necessary for the first grade license and 120 hours for the second grade license without respect to age, sex or level of education. As of June 2009 the proportion of the new professional caregiver with forties and fifties was 38.8% and 31.5% respectively, accounting for 70.3% in both (see Table 16).

Table 16. The number of professional carers by age group, June 2009

(unit: persons, %)

Total	Less than 20	20~29	30~39	40~49	50~59	60~69	70~
518,806	1,291	38,135	81,388	201,073	163,618	31,618	1,683
(100.0)	(0.2)	(7.4)	(15.7)	(38.8)	(31.5)	(6.1)	(0.3)

Source: Ministry of Health and Welfare (2009a)

There are two types of long-term care service facilities: those (so-called nursing home for the elderly) for providing institutional care services and for home care services which are home-visit care, home-visit bathing, home-visit nursing care, adult day- & night-care and short-stay services. In the case of home care service facility there is a composite facility providing a variety of home care services as well as a separate facility.

As of May 2009 there were 2,016 nursing homes, with a total of 76,216 residents as a strength unit, which is equivalent to 1.5% of the total population aged 65 and over. The number of residents as a strength unit increased by 1.4 times in comparison to the time just before the implementation of LTCI (see Table 17). On the other hand, in the case of facilities for home care service there were much more increase in number of facilities than that of nursing homes. The increase in facilities for home visit bathing and short-stay service was noticeable among the other facilities (see Table 18). Especially, what there was comparatively higher increase in facilities for short-stay services in which could be allowed to stay for 180 days to the maximum is because the beneficiary with care level III was unavailable for nursing homes as above-mentioned.

Table 17. The number of nursing homes for institutional care services, June 2009

Year	No. of nursing homes (facilities)	Strengths (persons)	Inmates (persons)
June 2008	1,271	56,140	42,609
May 2009	2,016	76,216	62,677
(Increase, times)	(1.59)	(1.36)	(1.47)

Source: Ministry of Health and Welfare (2009a)

Table 18. The number of facilities for home care services, June 2009

(unit: facilities)

Year	Total	Home -visit care	Home -visit bathing	Home -visit nursing	Adult day & night care	Short-stay service
June 2008	3,630	1,857	719	321	504	229
May 2009	12,935	6,031	4,271	688	925	1,020
(Increase, times)	(3.56)	(3.25)	(5.94)	(2.14)	(1.84)	(4.45)

Source: Ministry of Health and Welfare (2009a)

The major problems raised as a result of implementation during the past one year are as follows.

Firstly, the number of the total certified persons has increased beyond expectation in the beginning of the introduction of LTCI, especially showing sharp increase in those with care level III which became twice as high as in the beginning. All of the certified persons, however, didn't use the LTCI services, showing the difference between care levels or income groups. Almost the whole of the reasons might be suggested to be concerned with the burden of user's out of pocket payment and with admission to a long-term care hospital.

Secondly, a lot of commercial (for profit) care providers took part in care market which has centered on non-profit welfare organizations until now. Although the long-term care facilities are not insufficient in the number generally in spite of shortage in view of the proportion in the other economically developed OECD countries, there is a distinct difference between regions. That is to say, the commercial care facilities tend to concentrate in large cities and the National Capital regions, showing an oversupply and excessive competition between them in those areas.

Thirdly, the benefit expenditures are growing gradually since the introduction of LTCI in July 2008. The growth of institutional care benefit expenditures was more remarkable than

that of home care benefits in spite of less recipients in the case of institutional care benefits. The growth of total expenditures resulted in the increase in burdens of central and local governments taking the responsibility for cost payment for low-income groups including public assistance recipients and also in the gradual increase in contributions of middle- & upper-income group. The phenomenon might have an undesirable effect on the allocation of welfare budgets for the elderly.

## **FUTURE POLITICAL DIRECTIONS**

### *Improvement of Health Insurance System for Supporting Elderly People*

Firstly, it is necessary to constrain health expenditures for the elderly which can be pointed out as a cause of increase in total health expenditures. From considerations of high prevalence of chronic diseases and deaths caused by those diseases, the effective policies should be developed, which place emphasis on disease prevention and health promotion. Whereas early examination system to detect diseases has been constructed and improved continuously, the effective and efficient health promotion programs are not enough. Health programs for the elderly, especially for the frail elderly people which can't be found, are necessary to be developed as soon as possible.

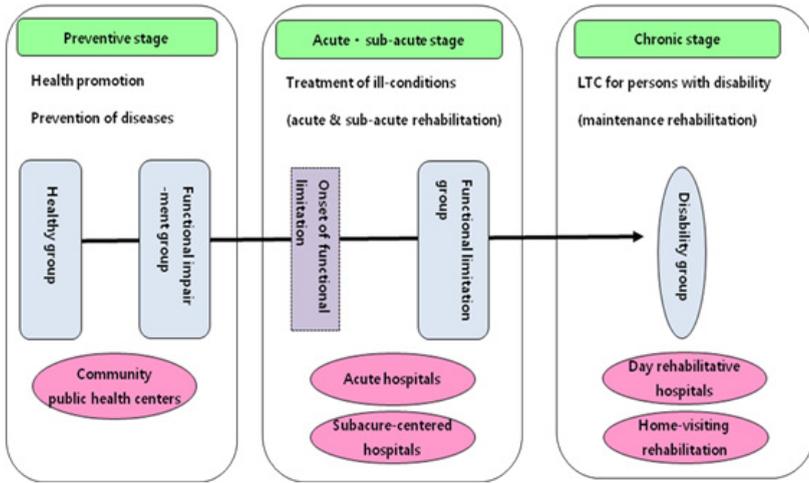
Secondly, it is necessary to construct coordination of acute & sub-acute health care and long-term care services. An underlining cause of the onset of care needs has been known as a chronic disease such as stroke, osteoporosis and dementia from results which were analyzed on the basis of health status of the certified persons. Especially, the most of illness such as stroke and fractures by falls necessitate rehabilitative treatment. To reduce sequelae by illnesses which cause the restriction of ADLs to a minimum it depends on the effective and efficient

rehabilitative treatment system. Namely, figure 2.8 shows the coordination of health and long-term care in the field of medical rehabilitation. It can be said that the effective provision of the acute & sub-acute rehabilitative treatment results in reduction of the disabled persons, the most of whom are in need of long-term care (Evashwick, 2004).

In the case of Korea's health insurance and LTCI system, the rehabilitative services by health insurance or by long-term care insurance are not provided sufficiently. First of all, the continuum system of sub-acute rehabilitative treatment is not constructed so far, although those services can be provided partly in long-term care hospitals named as *yo-yang-hyong-won*, of which role is prescribed as a hospital of restoring physical functions after acute treatment by the 'Medical Care Law', without close cooperation with the other acute hospitals.

They, therefore, need get plenty of care services restoring their physical functions through the sub-acute rehabilitative treatment system before patients who received acute treatment, for example, due to stroke and falls, apply for the certification for LTCI beneficiary. First of all, the role of long-term care hospital should be redefined and the total numbers of long-term care hospital beds should be readjusted on the basis of the role and facility standard of long-term care hospital. Besides, home-visiting and outpatient rehabilitative services need to be extended to the certified persons with the moderate level of care needs for maintaining physical functions which have been restored by sub-acute and restorative rehabilitation (see Figure 8).

Figure 8. The coordination of health and long-term care in terms of rehabilitation



Source: Author's drawing

### *Improvement of Long-Term Care Insurance System for the Elderly*

Firstly, it is necessary to construct consumer-oriented system. The certified person receives 'Standard Care Planning Paper' for supporting the use of long-term care services, which is written by staffs working in National Health Insurance Corporation on the basis of 52 items used to assess care needs and additional 44 items about social activities, family environments and so on. This paper, however, includes only information on type of available benefits, long-term care facilities located in residential areas and so on. It can be said that 'consumer-oriented' system should be based on 'choice' between different forms of care provision. The meanings of 'choice' can be considered from two aspects: the one is a choice of benefits, the other is that of caregiver.

Although benefits of LTCI are classified into in-kind and cash in general, only in kind benefits are provided in principle in the

case of Korea's LTCI, excluding special cash benefits which accounted for 0.4% of all benefit recipients as of June 2009. This means to be not 'consumer-oriented' but 'supplier-oriented' system in which care services are delivered by an intention of suppliers although they make allowances for care needs of recipients. The majority of European countries, including those with insurance-typed long-term care system such as Germany, the Netherlands and Luxembourg, recognize cash benefits also, resulting in the autonomy and participation of those in need of care (OECD, 2005). For example, in Germany the choice between in-kind and cash benefit and a combination of the two was introduced in LTCI system, contrary to the case of Japan's system. According to the recent results of the demonstration project carried out in America cash benefit caused more satisfaction with services, reduction of unmet needs and reduction of nursing home admissions (Dale and Brown, 2007; Applebaum and Nelson, 2009).

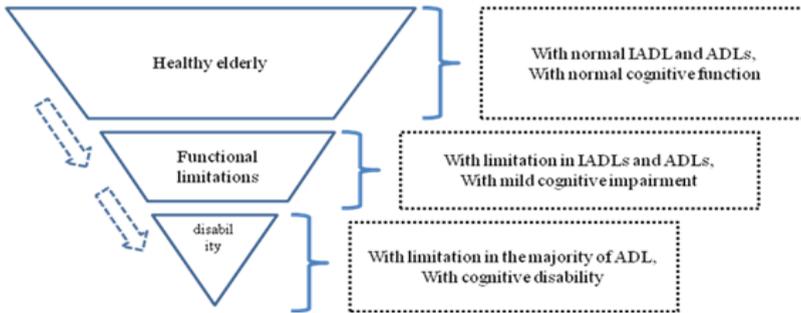
On the other hand, the type of caregiver consists of professional caregiver and informal caregiver such as family members or relatives in a field of long-term care in general. The informal care might be said that long-term care expenditures can be reduced if informal care-givings are provided together with formal care-givings by professional caregivers (Pratt, 2009) and that those are more attractive, compared with formal care giving including the frequent change of care staff, the predetermined time of day for daily care and the high speed with which care is carried out (Eichler and Pfau-Effinger, 2009). In the Korea's system informal care-giving by family members isn't recognized with the exception of care by family members who got a professional caregiver's license. The choice right, however, isn't given to a beneficiary.

Therefore, the strengthening of 'consumer's choice' through cash benefit and informal care is necessary to accomplish the propriety of social expenditures ultimately as well as the stabilization of LTCI fund. In addition, care counseling and appraisal of 'quality of care' system must be constructed for the rational enforcement of consumer's choice right.

Secondly, it is necessary to construct earlier prevention system for the occurrence of long-term care needs. Elderly people aged 65 and over are divided into three groups on the basis of the functional health status: healthy elderly group without any need for assistance with ADLs, elderly group with functional limitations and disabled elderly group (see Figure 9). According to 'the disablement process' many of healthy people experience functional limitations by long-standing chronic conditions, which in turn cause physical or cognitive disability, making it difficult to perform everyday's living activities (Verbrugge and Jette, 1994). According to the results of *the 2001 National Survey of Long Term Care Service Needs of Older Persons* carried out in 2001 the proportion of 'dependent' elderly people with functional limitations and disabilities was 20.7% of total elderly people aged 65 and over living in private households (SunWoo, 2004). Among total 'dependent' elderly people about a quarter of those above-mentioned are eligible to receive LTCI benefits as of 2009. Therefore, about 15% of those can fall under elderly group with functional limitations in figure 9. There are lots of analytic results that most of those groups could improve their functional health, judging from empirical data. In conclusion, it's not too much to say that the stabilization of LTCI fund depends on how well those with functional limitations are managed. In fact, the management for those groups is called 'long-term care prevention' in Korea and Japan. That is to say, the prevention is related with the fact that the most important element in addressing the future needs for LTC services is the degree of additional life-years spent in good health or the health status of the elderly population (European Commission, 2006).

The programs for improving physical and cognitive functions effectively which center on those with functional limitations and mild disabilities should be developed in terms of delaying the onset of functional disabilities or dependency caused care needs.

Figure 9. The composition of elderly people aged 65 and over by health status

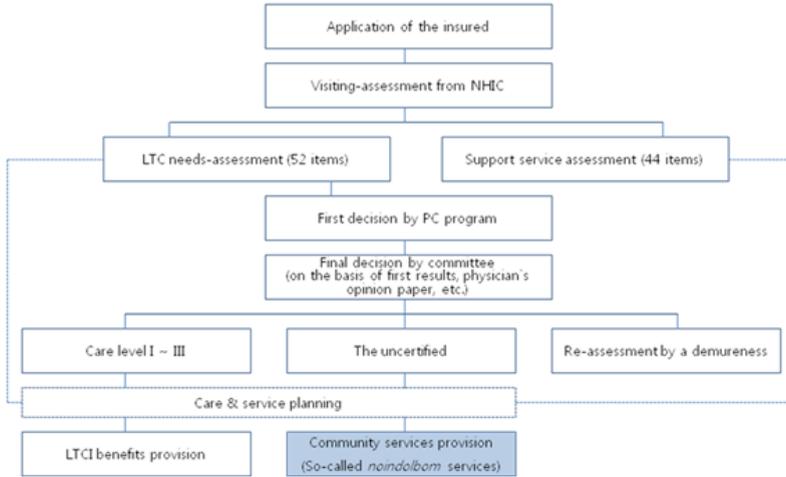


Source: Author's drawing

It is necessary to provide for all the persons with mild care needs with community welfare services. The community elderly support services, so-called '*no-in-dol-bom*' service, are available to the uncertified persons of LTCI less than care level III who applied for a certification of eligibility to receive LTC services. They are classified into two types: those in need of mild care and those in need of keeping an eye on them. Because the former have needs to be cared for, even if slightly, they can't receive only self-care services but also living-support services such as safety-confirmation. The latter, however, can receive only living-support services on the condition that they live alone. Figure 10 shows the flowchart to explain the process of deciding community services by the name of *no-in-dol-bom* services.

It means that he/she has to apply for certification of care at first if he/she wants to receive *no-in-dol-bom* services. Although the qualification for using those services is allowed, all of them can't use the services. That is to say, the services are available for only low-income groups due to restriction of government budgets in the current system. Therefore, the extension of coverage to middle- & upper-income groups is necessary through the support of LTC fund, because they mainly contribute to the LTCI financing.

Figure 10. Flowchart of decision for care & community services after the application for care level certification in LTCI system, 2009



Source: Author's drawing

## CONCLUSION

Korean society is experiencing the rapid population ageing due to the lasting low-fertility and the continuous extension of lifespan since 2000. In 2000 elderly people aged 65 and over constituted 7.2% of the total population and the proportion of elderly people is expected to reach 11.0% in 2010 and 14% in 2018 (National Statistical Office, 2006). Although total fertility rate is recovering slowly since 2005, the level is very low yet (1.19 in 2008), compared with European societies. Because increases in life expectancy at higher age are a major driver behind growing dependency ratios in the population (OECD, 2005), Korean society which shows the rapid growth in the number of 'oldest old' people aged 80 and over is facing the increases of elderly people in need of long-term care. In fact, family members carrying out cares for elderly people in need of care began to be too heavy a burden for them in view of monetary and physical aspects already. As a result,

this phenomenon led to the introduction of long-term care insurance in the case of Korea, advocating 'socialization of care'. The fact is that the decision of the early introduction of LTCI, compared with Germany or Japan, was also influenced by political judgment.

It can be said to be successful on the basis of results of implementation for the past one year since July 2008, although there are problems to be improved. That is to say, the payment burdens of care costs by family decreased highly to a third of those paid before the introduction of LTCI and the level of satisfaction of beneficiaries came out substantially from the investigation, especially showing very high satisfaction for home-visiting care services (Ministry of Health and Welfare, 2009a). Besides, the physical function of beneficiaries came out to be changed for the better as a result of re-assessment of care needs, compared with a year ago. After all, the fact means that the quality of life in their old age was improved by means of LTCI.

However, the financial expenditures of LTCI increased drastically due to the substantial growth of the certified persons and beneficiaries and as a result, contribution rate of insured persons has gone up contrary to expectations of government. Therefore, the stabilization of LTCI fund has been raised as an issue to be addressed from now. In view of research results that the major determinants of the financial expenditures of LTCI were dependency rate and availability of informal care (Martins and Maisonneuve, 2006), it is necessary that Korea's government develop the way of delaying an onset of dependency as long as possible and utilizing informal caregivers positively.

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# Health Care Financing in the USA and Hawai'i

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*Sang-Hyop Lee<sup>2)</sup>*  
*Jaclyn Lindo<sup>3)</sup>*

**EWC-KIHASA JOINT CONFERENCE 2010**  
**Policy Responses to Low Fertility and Aging Society**  
**6-7 July 2010**

**Health Care Financing in the USA and Hawai'i**

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Jaclyn Lindo

1 KIHASA EWC 2010 6 July 2010

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3) University of Hawaii



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## Topics

- U.S. Health Care Financing
  - Medicare
  - Medicaid
  - SCHIP
  - ESI
- Hawai'i Uninsured Population
  - Total Population
  - Age
  - Income
  - Children
- Health Care Reform

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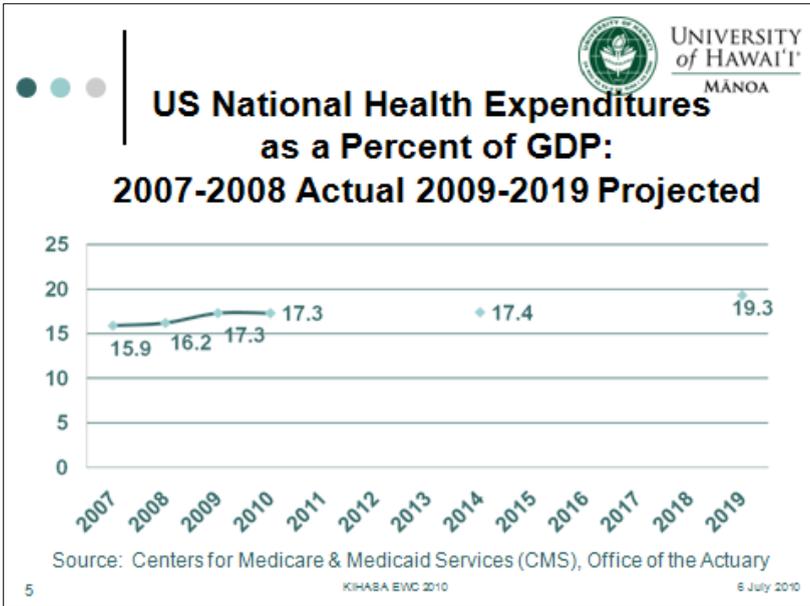
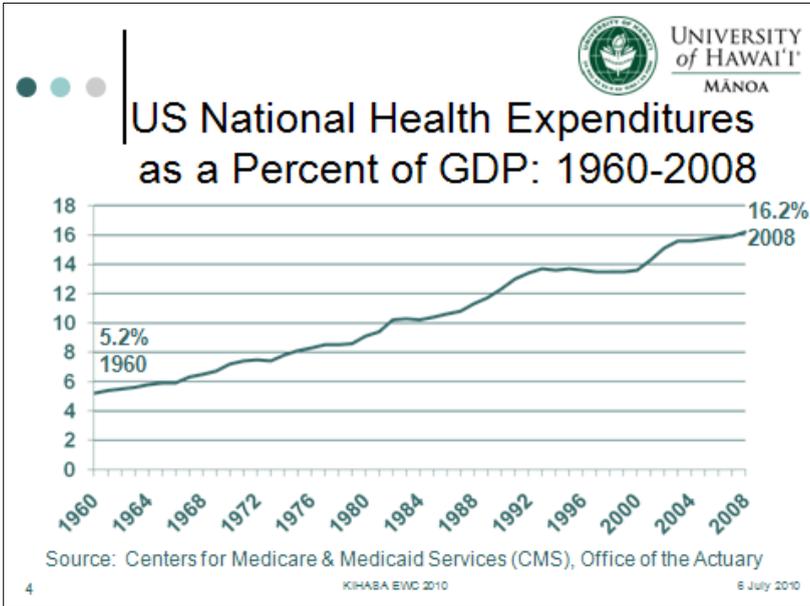


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## U.S Health System

- National Health Expenditures (2008)
  - \$2.3 Trillion; 16.2% of GDP; \$7,681 per person
  - Projected to be \$2.5 Trillion; 17.3% GDP 2009
- Public Insurance
  - Medicaid
  - Medicare
  - CHIP
- Employer–Sponsored Insurance
- USA 46,340,000 Uninsured; 15.4% (2008)
- Hawaii 98,000 Uninsured; 7.8% (2008)

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## Social Security Amendments Public Health Insurance USA

- **Medicare: Title XVIII of the Social Security Act 1965**
  - Federal Program
  - Age 65+, Disabled, ESRD, ALS
- **Medicaid: Title XIX of the Social Security Act 1965**
  - State/Federal Program
  - Poor, Blind, Disabled, Medically Indigent
- **SCHIP: Title XXI of the Social Security Act 1997**
  - Low-Income Uninsured Children Age 0-18

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## MEDICAID PROGRAM

- State-Federal Program
  - Federal Basic Mandate
  - State Options
  - State Administered
  - 50% State-50% Federal Financed
  - Financed through general tax receipts

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# MEDICARE PROGRAM



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- FEDERAL PROGRAM
- Hospital Insurance is FINANCED THROUGH A FEDERAL PAYROLL TAX
  - 2.9% Wage Tax (1.45% + 1.45%)
- PARALLELS SOCIAL SECURITY (OASDI)
  - 12.4% Wage Tax (6.20% + 6.20%)

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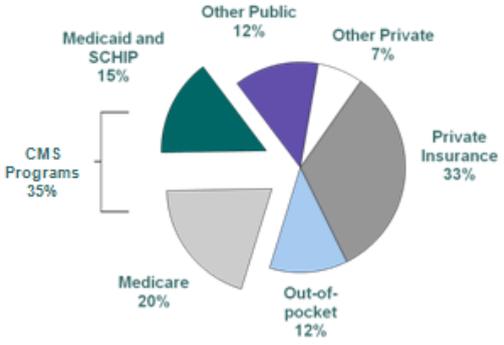


## The Nation's Health Dollar, CY 2008



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*Medicare, Medicaid, and SCHIP account for one-third of national health spending.*



Category	Percentage
CMS Programs	35%
Private Insurance	33%
Medicare	20%
Medicaid and SCHIP	15%
Out-of-pocket	12%
Other Public	12%
Other Private	7%

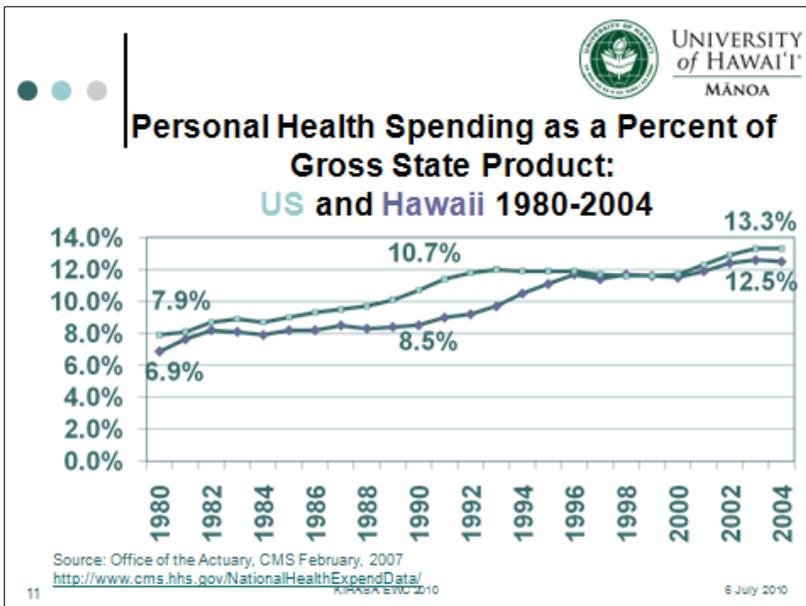
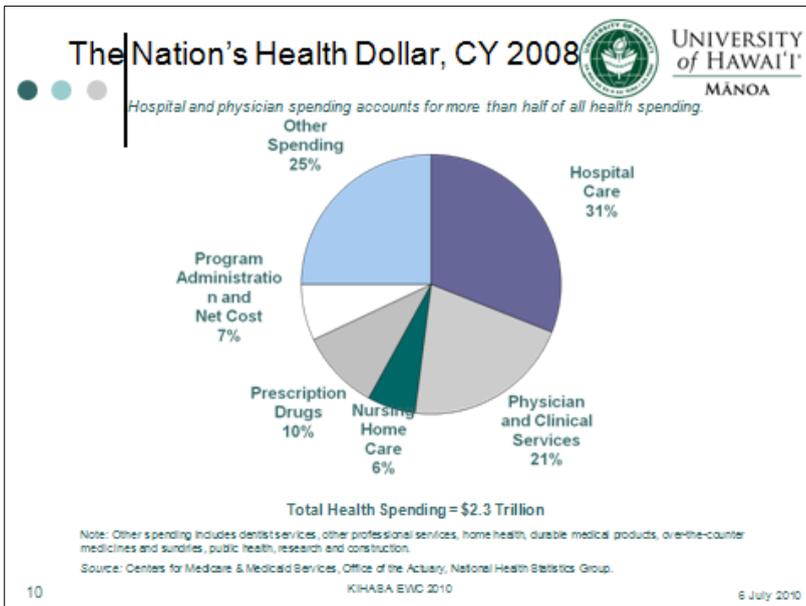
Total National Health Spending = \$2.3 Trillion

<sup>1</sup> Other public includes programs such as workers' compensation, public health activity, Department of Defense, Department of Veterans Affairs, Indian Health Service, and State and local hospital subsidies and school health.  
<sup>2</sup> Other private includes industrial liability, privately funded construction, and non-patient revenues, including philanthropy.  
<sup>3</sup> Out of pocket includes co-pays, deductibles, and treatments not covered by Private Health Insurance.  
 Note: Numbers shown may not sum due to rounding.  
 Source: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group.

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## CAUSES OF RISING HEALTH CARE SPENDING

- AGING
- INCOME GROWTH
- HEALTH INSURANCE
- CHRONIC DISEASE
- INFECTIOUS DISEASE?
- TECHNOLOGY?
- MEDICAL MALPRACTICE?



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## THE RISE OF HEALTH INSURANCE: USA 1960-2001



Year	Out-of-Pocket (%)	Third-Party (%)
2001	14.4%	85.6%
2000	14.9%	85.1%
1999	15.1%	84.9%
1998	15.2%	84.8%
1990	19.7%	80.3%
1980	23.7%	76.3%
1960	56.0%	44.0%



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**PAYMENT MECHANISMS**

- FEE-FOR-SERVICE
- CAPITATION
- PROSPECTIVE PAYMENT SYSTEM
  - DRGs
  - Case-Based Payment

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**Medicare Beneficiaries: 2002**

**Source of Eligibility**

Source of Eligibility	Percentage
Elderly	85%
Disabled	14%
ESRD	0.6%

**Source of Coverage**

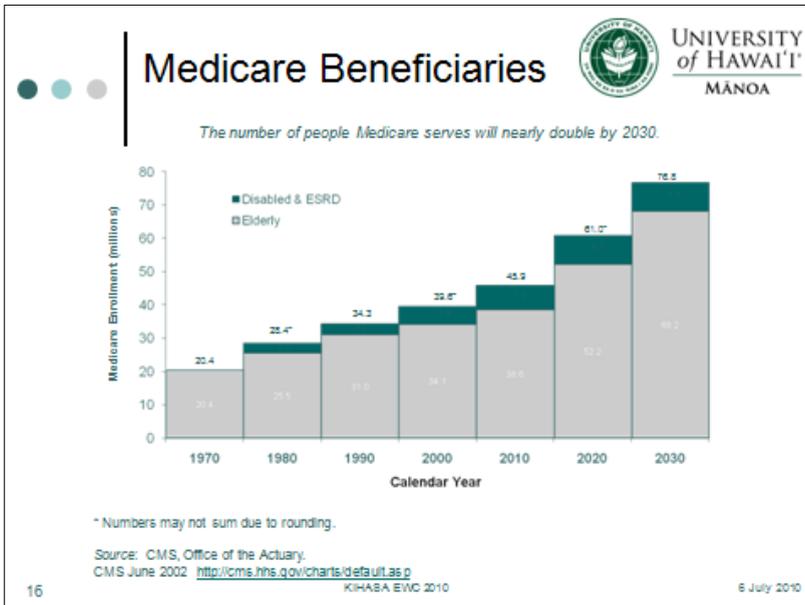
Source of Coverage	Percentage
Fee-for-Service	87%
Medicare+Choice & Cost HMOs	13%

**Beneficiaries = 40 million**

Notes: 1) Totals may not sum due to rounding; 2) ESRD refers to beneficiaries under age 65 with End-Stage Renal Disease; 3) the Disabled category refers to beneficiaries under age 65 without ESRD.

Source: Elderly, disabled, and ESRD data from CMS's Office of the Actuary; Medicare+Choice and cost plan data from CMS's Medicare Managed Care Contract Report, March 2002. CMS June 2002  
<http://cms.hhs.gov/charts/default.asp>

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- ## MEDICARE: Four Parts
- Part A Hospital Insurance (HI)
  - Part B SMI Physician Care Coverage
  - Part C Medicare Advantage
    - New 1998
  - Part D Medicare Rx Prescription Drug Coverage
    - New January 2006
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● ● ● | PART A:  
HOSPITAL INSURANCE (HI)  
Premiums & Deductibles 2010



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- MONTHLY PREMIUM
  - \$0 (40+quarters=Social Security Qualified)
  - \$254 (30-39 quarters)
  - \$461 (less than 30 quarters)
- Deductible \$1100 per Hospital Episode
- Co-Insurance
  - Days 1-60: \$0 Co-Insurance
  - Days 61-90: \$275 per Day Co-Insurance
  - Days 91-150: \$550 per Day Co-Insurance
    - Lifetime Reserve of 60 Days

Source: [www.medicare.gov](http://www.medicare.gov)

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● ● ● | MEDICARE  
BENEFITS: 2010



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- PART A: SKILLED NURSING FACILITY (SNF)
  - Days 1-20: \$0 Co-Insurance
  - Days 21-100: \$137.50 per Day Co-Insurance
  - Short-Term Long-Term Care

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**PART B:  
SUPPLEMENTARY MEDICAL  
INSURANCE (SMI)**  
Premiums & Deductibles 2010

- PART B: SMI; PHYSICIAN CARE (optional)
  - **\$96.40 Monthly Premium if withheld from Social Security Payments**
  - **\$110.50 New Base 2010**
    - Sliding Scale up to \$353.60
  - **Annual Deductible \$155**
  - **20% Co-Insurance**

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**MEDICARE  
ADVANTAGE: new in  
1998**

- PART C: Medicare Advantage
  - **Coordinated Plans**
    - health maintenance organizations (HMOs)
    - point of service plans (HMO-POS)
    - preferred provider organizations (PPOs)
    - Provider sponsored organizations (PSO)
  - **Private Fee-For-Service (PFFS)**
  - **Medical Savings Account (MSA) Plan**
  - **Special Needs Plan (SPN)**

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## Medicare Part D: Prescription Drug Basic Coverage

- Annual Deductible: \$310
- BASE Premium \$33.10

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## EXAMPLE: HMSA 65C Plus High Option RX

- Medicare Part B Premium \$110.50  
per month
- HMSA 65C Plus \$89.00 per month
- Add Medicare Prescription Drug  
Coverage High Option SRx \$37.60  
per month
- TOTAL \$237.10

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## Employment-Based Health Insurance

- Approximately 60% of the U.S. Population is covered by private employment-based health insurance.
- Employer Sponsored Insurance (ESI)
- Why?

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## Possible Reasons

- Lack of adverse selection
- Predictable risk
- Economies of scale in administration
- Tax treatment of insurance premiums

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## Effective Price of Employment-Based Health Insurance Effective Marginal Tax Rates

- Marginal Federal Income Tax Rate
- Marginal State & Local Income Tax Rate
- Social Security Wage Tax
- Medicare Wage Tax

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## MEDICARE & SOCIAL SECURITY WAGE TAXES

- Hospital Insurance (HI) is FINANCED THROUGH A FEDERAL PAYROLL TAX
  - 2.9% Wage Tax (1.45% + 1.45%)
  - No Maximum
- PARALLELS SOCIAL SECURITY (OASDI)
  - 12.4% Wage Tax (6.20% + 6.20%)

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## Effective Tax Price



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$$TP = \frac{1 - \text{federal} - \text{state} - \text{social security} - \text{medicare}}{1 - \text{social security} - \text{medicare}}$$

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## Effective Tax Price: Example: 67.2%

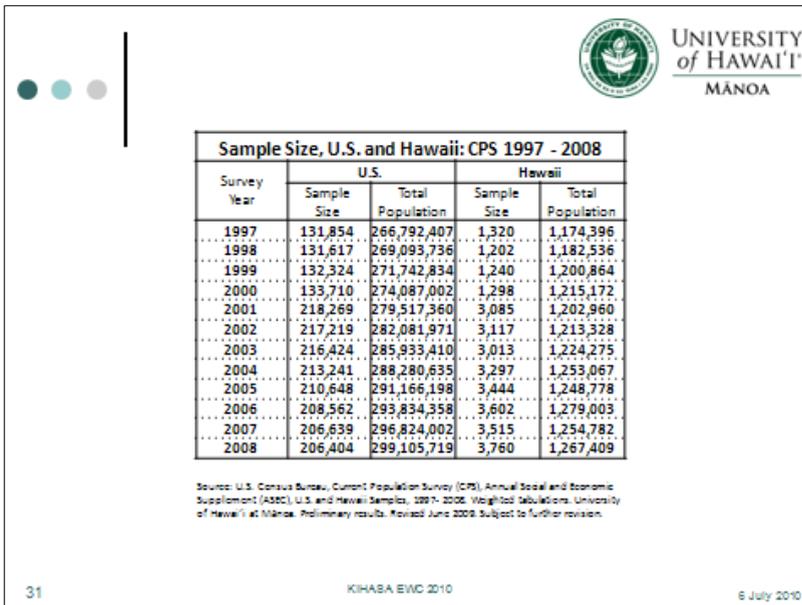
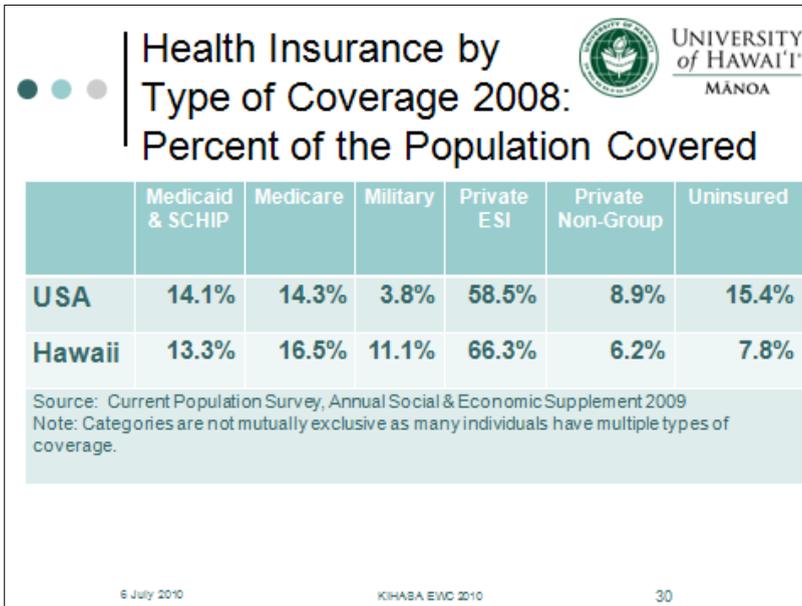


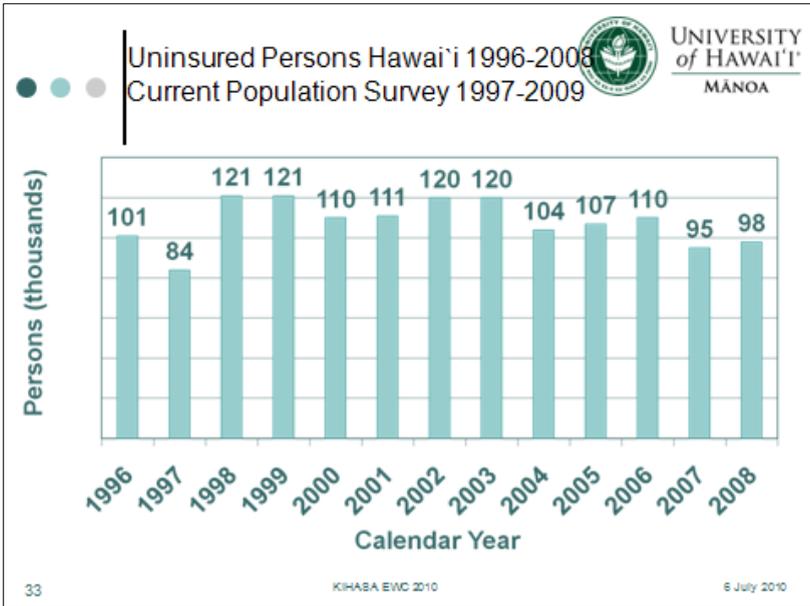
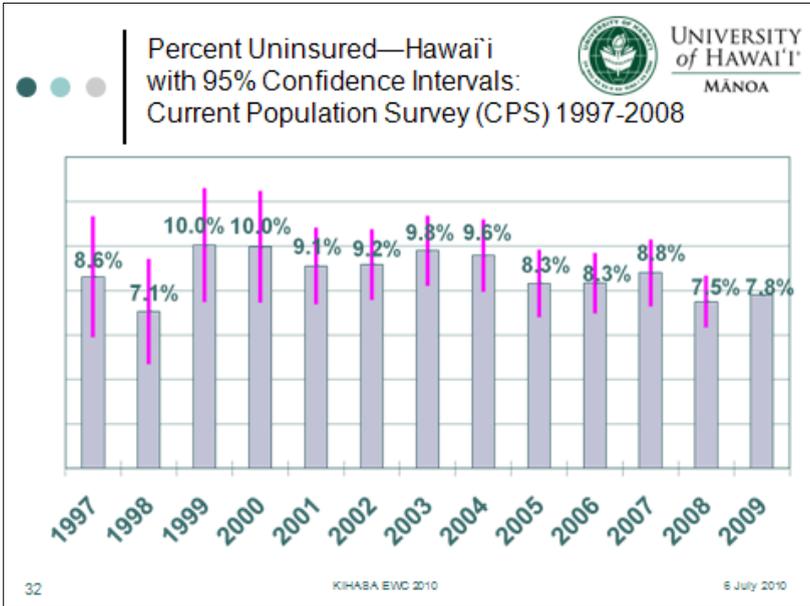
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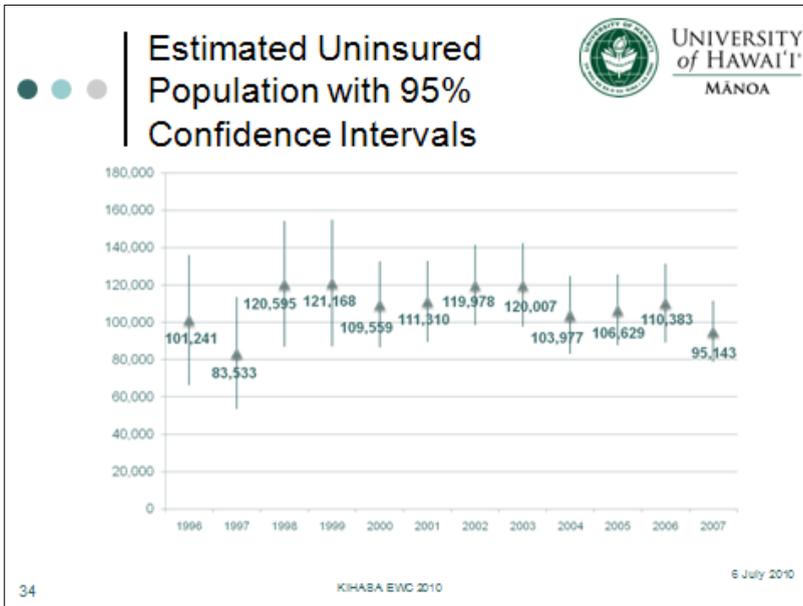
  
  

$$TP = \frac{1 - 15\% - 5\% - 6.2\% - 1.45\%}{1 - 6.2\% - 1.45\%}$$

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**Uninsured Population, U.S. and Hawaii: CPS 1997 - 2008**

Survey Year	United States			Hawaii		
	Total Population	Uninsured Population	Uninsured Rate	Total Population	Uninsured Population	Uninsured Rate
1997	266,792,407	41,093,066	15.40%	1,174,396	101,241	8.62%
1998	269,093,736	42,084,881	15.64%	1,182,536	83,533	7.06%
1999	271,742,834	42,653,461	15.70%	1,200,864	120,595	10.04%
2000	274,087,002	37,551,210	13.70%	1,215,172	121,168	9.97%
2001	279,517,360	38,088,339	13.63%	1,202,960	109,559	9.11%
2002	282,081,971	39,452,624	13.99%	1,213,328	111,310	9.17%
2003	285,933,410	41,749,670	14.60%	1,224,275	119,978	9.80%
2004	288,280,635	43,128,531	14.96%	1,253,067	120,007	9.58%
2005	291,166,198	43,161,223	14.82%	1,248,778	103,977	8.33%
2006	293,834,358	44,489,061	15.14%	1,279,003	106,629	8.34%
2007	296,824,002	46,598,396	15.70%	1,254,782	110,383	8.80%
<b>2008</b>	<b>299,105,719</b>	<b>45,305,725</b>	<b>15.15%</b>	<b>1,267,409</b>	<b>95,143</b>	<b>7.51%</b>

Source: U.S. Census Bureau, Current Population Survey (CPS), Annual Social and Economic (ASEC) Supplement, U.S. and Hawaii Samples, 1997-2008. Weighted tabulations University of Hawaii at Mānoa. Preliminary results. Revised June 2008. Subject to further revision.

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**Hawaii Uninsured Population, by Age Group: CPS 1997 - 2008**

Survey Year	All Ages			Age 0-18			Age 19-64			Age 65 and Older		
	Total Population	Uninsured Population	Uninsured Rate	Total Children	Uninsured Children	Uninsured Rate	Total Adults	Uninsured Adults	Uninsured Rate	Total Elderly	Uninsured Elderly	Uninsured Rate
1997	1,174,396	101,241	8.62%	310,153	16,355	5.27%	716,108	83,309	11.63%	148,134	1,577	1.06%
1998	1,182,536	83,533	7.06%	308,287	17,042	5.53%	707,128	65,830	9.28%	167,121	841	0.50%
1999	1,200,864	120,593	10.04%	319,394	31,504	9.86%	707,793	83,240	12.04%	163,677	3,451	2.11%
2000	1,210,172	121,168	9.97%	349,900	33,078	9.46%	722,969	85,693	11.85%	142,710	2,396	1.68%
2001	1,202,980	109,259	9.11%	317,951	26,055	8.19%	733,017	81,136	11.07%	151,992	2,368	1.56%
2002	1,213,328	111,310	9.17%	316,951	27,621	8.45%	728,444	80,764	11.09%	157,931	2,926	1.85%
2003	1,224,275	119,378	9.80%	340,543	25,043	7.35%	718,501	92,670	12.90%	165,129	2,266	1.37%
2004	1,233,067	120,007	9.73%	327,080	28,444	7.16%	735,231	99,156	12.60%	170,737	4,437	2.54%
2005	1,248,778	103,977	8.33%	302,462	11,723	3.88%	789,150	89,590	11.71%	161,167	2,864	1.77%
2006	1,279,003	106,629	8.34%	310,172	17,696	5.71%	776,816	83,709	11.09%	182,015	3,224	1.77%
2007	1,254,782	110,383	8.80%	310,010	20,985	6.77%	777,347	86,480	11.13%	167,423	2,908	1.74%
<b>2008</b>	<b>1,267,409</b>	<b>95,143</b>	<b>7.51%</b>	<b>304,770</b>	<b>14,976</b>	<b>4.91%</b>	<b>779,400</b>	<b>77,855</b>	<b>9.99%</b>	<b>183,238</b>	<b>2,312</b>	<b>1.26%</b>

Source: U.S. Census Bureau, Current Population Survey (CPS), Annual Social and Economic (ASEC) Supplement, Hawaii Sample, 1997-2008. Weighted tabulations. University of Hawai'i at Mānoa. Preliminary results. Revised June 2009. Subject to further revision.

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**Hawaii Uninsured Population, by Detailed Adult Age Group: CPS 1997 - 2008**

Survey Year	Age 19-34			Age 35-49			Age 50-64		
	Total Adults	Uninsured Adults	Uninsured Rate	Total Adults	Uninsured Adults	Uninsured Rate	Total Adults	Uninsured Adults	Uninsured Rate
1997	308,489	43,047	13.95%	254,144	26,776	10.54%	153,476	13,486	8.79%
1998	272,722	32,182	11.80%	271,868	22,673	8.34%	162,538	10,795	6.64%
1999	288,818	39,909	13.82%	271,673	33,247	12.24%	147,501	12,084	8.20%
2000	271,360	47,873	17.64%	291,091	31,090	10.68%	160,513	6,730	4.19%
2001	265,586	43,272	16.29%	268,745	22,912	8.53%	198,686	14,952	7.53%
2002	247,968	35,416	14.28%	278,524	23,085	8.29%	201,952	22,263	11.02%
2003	263,250	43,105	16.37%	272,120	32,083	11.79%	185,132	17,481	9.55%
2004	260,104	50,533	19.43%	277,182	22,801	8.23%	217,965	21,822	10.01%
2005	255,405	45,331	17.75%	285,668	28,914	10.12%	224,077	15,345	6.85%
2006	255,875	33,301	13.01%	275,065	26,372	9.59%	245,876	26,037	10.59%
2007	277,873	38,265	13.77%	264,577	26,218	9.91%	234,798	22,007	9.37%
<b>2008</b>	<b>282,169</b>	<b>33,434</b>	<b>11.85%</b>	<b>249,927</b>	<b>17,916</b>	<b>7.17%</b>	<b>247,304</b>	<b>26,504</b>	<b>10.72%</b>

Source: U.S. Census Bureau, Current Population Survey (CPS), Annual Social and Economic (ASEC) Supplement, Hawaii Sample, 1997-2008. Weighted tabulations. University of Hawai'i at Mānoa. Preliminary results. Revised June 2009. Subject to further revision.

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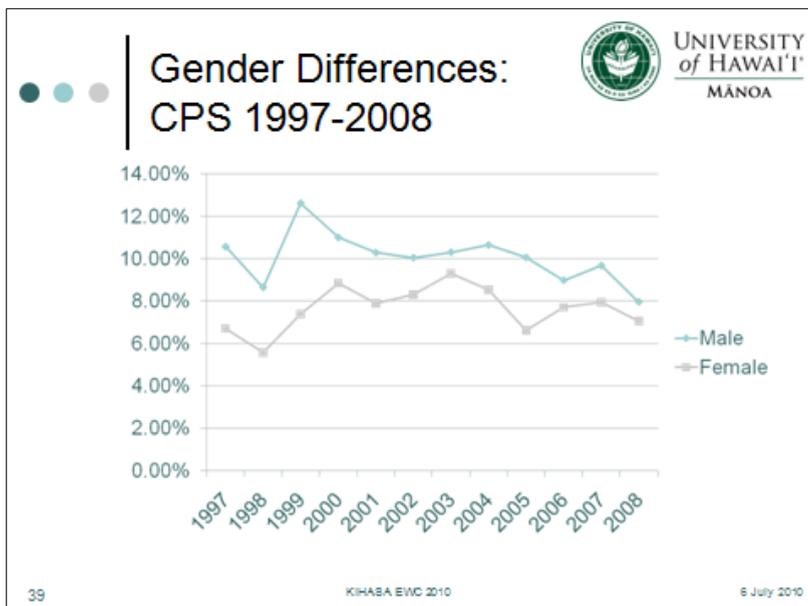
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Hawaii Uninsured Rates, by Gender with 95% Confidence Intervals: CPS 1997 - 2008

Survey Year	Male					Female				
	Male Population	Uninsured Rate	Standard Error	95% Confidence Interval		Female Population	Uninsured Rate	Standard Error	95% Confidence Interval	
				Lower Bound	Upper Bound				Lower Bound	Upper Bound
1997	582,110	10.57%	1.88%	6.89%	14.25%	592,286	6.71%	1.27%	4.22%	9.19%
1998	574,792	8.65%	1.72%	5.27%	12.02%	607,744	5.57%	1.21%	3.19%	7.94%
1999	607,658	12.63%	1.66%	9.37%	15.89%	593,206	7.39%	1.40%	4.64%	10.14%
2000	630,842	11.01%	1.67%	7.74%	14.29%	584,330	8.85%	1.40%	6.10%	11.59%
2001	606,706	10.29%	1.12%	8.09%	12.50%	596,253	7.90%	0.95%	6.03%	9.77%
2002	608,268	10.05%	1.01%	8.07%	12.02%	605,059	8.30%	0.91%	6.52%	10.07%
2003	607,735	10.31%	1.00%	8.34%	12.27%	616,540	9.30%	0.90%	7.53%	11.07%
2004	618,724	10.65%	1.00%	8.70%	12.61%	634,344	8.53%	0.94%	6.69%	10.36%
2005	619,439	10.06%	1.02%	8.06%	12.07%	629,340	6.62%	0.82%	5.02%	8.22%
2006	631,949	8.98%	0.90%	7.22%	10.75%	647,055	7.71%	0.76%	6.22%	9.19%
2007	616,454	9.68%	1.01%	7.70%	11.65%	638,328	7.95%	0.80%	6.38%	9.51%
2008	631,750	7.96%	0.77%	6.46%	9.47%	635,659	7.05%	0.70%	5.69%	8.42%

Source: U.S. Census Bureau, Current Population Survey (CPS), Annual Social and Economic (ASEC) Supplement, Panel Study, 1997-2008. (Original tabulations by University of Hawaii at Manoa. Preliminary results. Released June 2009. Subject to further revision.)

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2009 US HHS Poverty Guidelines:  
Hawaii vs. 48 Contiguous States & DC

Family Size	Hawaii Annual Family Income	48 Contiguous States & DC Annual Family Income
1	\$12,460	\$10,830
2	\$16,760	\$14,570
3	\$21,060	\$18,310
4	\$25,360	\$22,050
5	\$29,660	\$25,790
6	\$33,960	\$29,530
7	\$38,260	\$33,270
8	\$42,560	\$37,010

Note: For Hawaii family size more than 8 persons add \$4,300 for each additional person. For U.S. Mainland family size more than 8 persons add \$3,740 for each additional person. Alaska has separate rates which are higher than Hawaii. Valid until March 31, 2010.  
Source: Federal Register, Vol. 74, No. 14, Friday, January 23, 2009. <http://aspe.hhs.gov/povart/09fedreg.pdf>

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## Income Limits Hawai'i Family of Four 2009

- 200% FPL up to \$50,720
- 250% FPL up to \$63,400
- 300% FPL up to \$76,080

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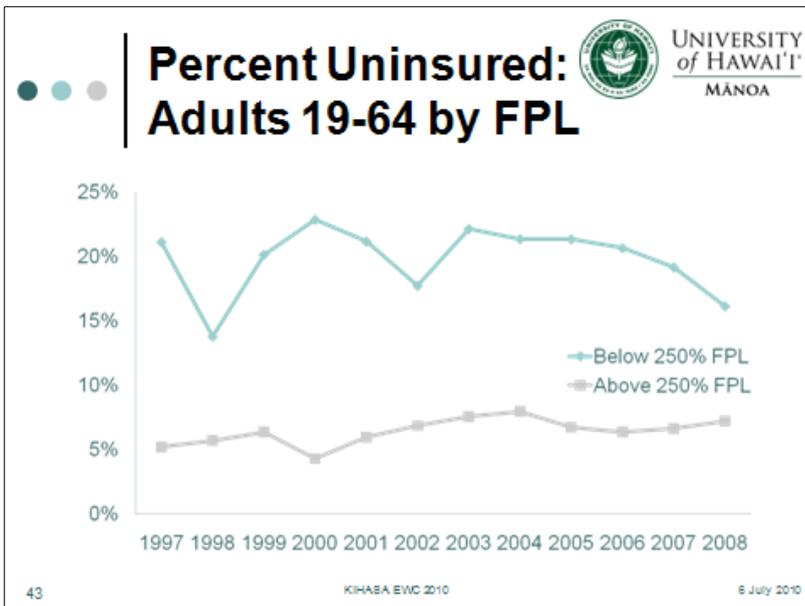
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### Hawaii Uninsured Population, Adults Age 19-64, by Federal Poverty Level—Above & Below 250% FPL: CPS 1997 – 2008

Survey Year	250% of the federal poverty level (FPL) and below			Above 250% of the federal poverty level (FPL)		
	Total Adults	Uninsured Adults	Uninsured Rate	Total Adults	Uninsured Adults	Uninsured Rate
1997	289,683	61,189	21.12%	426,426	22,120	5.19%
1998	315,844	43,477	13.77%	391,284	22,173	5.67%
1999	292,356	58,863	20.13%	415,437	26,377	6.35%
2000	295,124	67,444	22.85%	427,839	18,249	4.27%
2001	247,046	52,287	21.16%	485,971	28,849	5.94%
2002	284,374	50,392	17.72%	444,070	30,371	6.84%
2003	263,706	58,356	22.13%	454,795	34,313	7.54%
2004	262,534	56,041	21.35%	492,717	39,115	7.94%
2005	261,444	55,799	21.34%	503,706	33,791	6.71%
2006	254,482	52,551	20.65%	522,334	33,158	6.35%
2007	279,520	53,523	19.15%	497,828	32,966	6.62%
2008	244,069	39,374	16.13%	535,331	38,481	7.19%

Source: U.S. Census Bureau, Current Population Survey (CPS), Annual Social and Economic (ASE) Supplement, Hawaii State, 1997-2008 (http://hawaii.census.gov/hawaii/cps.html). Preliminary results based June 2009 Survey for 2008. Note: Federal poverty level is based on the Hawaii state's U.S. Department of Health and Human Services (2008) Federal Poverty Guidelines. KIHASA EWC 2010

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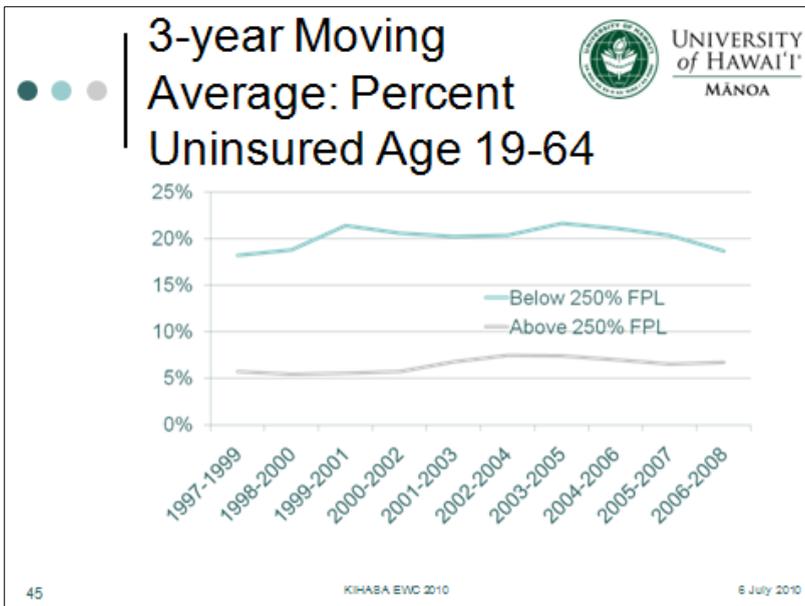
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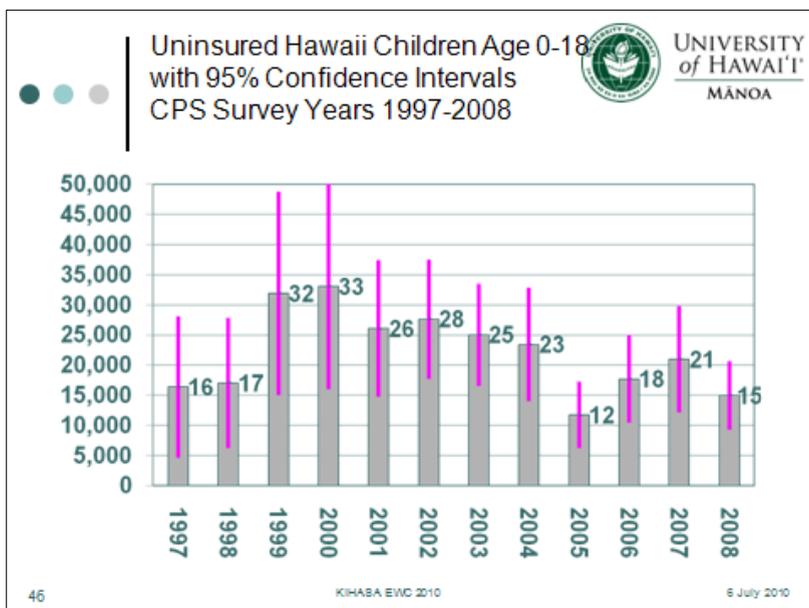
**Hawaii Uninsured Population, Adults Age 19-64, by Federal Poverty Level—Above & Below 250% FPL, 3-Year Moving Average: CPS 1997 – 2008**

Survey Years	250% of the federal poverty level (FPL) and below			Above 250% of the federal poverty level (FPL)		
	Total Adults	Uninsured Adults	Uninsured Rate	Total Adults	Uninsured Adults	Uninsured Rate
1997-1999	299,294	54,510	18.21%	411,049	23,557	5.73%
1998-2000	301,108	56,595	18.80%	411,520	22,266	5.41%
1999-2001	278,175	59,531	21.40%	443,082	24,492	5.53%
2000-2002	275,515	56,708	20.58%	452,627	25,823	5.71%
2001-2003	265,042	53,679	20.25%	461,612	31,178	6.75%
2002-2004	270,205	54,930	20.33%	463,861	34,600	7.46%
2003-2005	262,561	56,732	21.61%	483,739	35,740	7.39%
2004-2006	259,487	54,797	21.12%	506,252	35,355	6.98%
2005-2007	265,148	53,958	20.35%	507,956	33,305	6.56%
2006-2008	259,357	48,483	18.69%	518,498	34,869	6.72%

Source: U.S. Census Bureau, Current Population Survey (CPS), Annual Social and Economic (ASEC) Supplement, Hawaii Sample, 1997-2008. Weighted tabulations. University of Hawai'i at Mānoa, Preliminary results. Revised June 2009. Subject to further revision.  
Note: Federal poverty level is based on the Hawaii-specific U.S. Department of Health and Human Services (DHHS) Federal Poverty Guidelines.

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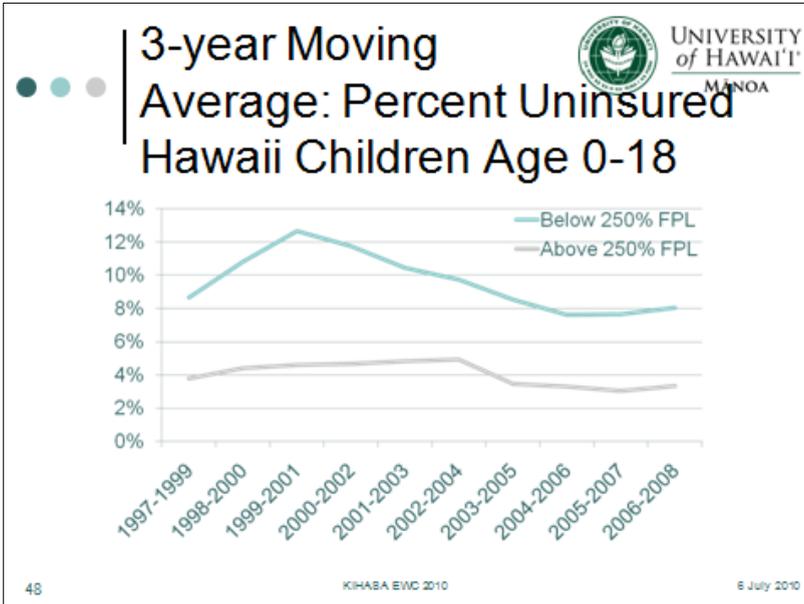


Hawaii Uninsured Children Age 0-18, by Federal Poverty Level—Above & Below 250% FPL, 3-Year Moving Average: CPS 1997 - 2008

Survey Years	250% of the federal poverty level (FPL) and below			Above 250% of the federal poverty level (FPL)		
	Total Children	Uninsured Children	Uninsured Rate	Total Children	Uninsured Children	Uninsured Rate
1997-1999	200,249	17,379	8.68%	115,695	4,388	3.79%
1998-2000	200,137	21,664	10.82%	128,923	5,677	4.40%
1999-2001	186,742	23,662	12.67%	145,540	6,684	4.59%
2000-2002	189,305	22,270	11.76%	142,163	6,648	4.68%
2001-2003	183,982	19,266	10.47%	144,501	6,973	4.83%
2002-2004	187,372	18,231	9.73%	144,154	7,128	4.94%
2003-2005	174,197	14,886	8.55%	149,165	5,174	3.47%
2004-2006	165,954	12,647	7.62%	150,617	4,964	3.30%
2005-2007	158,826	12,161	7.66%	152,056	4,640	3.05%
2006-2008	159,176	12,830	8.06%	152,475	5,056	3.32%

Source: U. S. Census Bureau, Current Population Survey (CPS), Annual Social and Economic (ASEC) Supplement, Hawaii Sample, 1997-2008. Weighted tabulations. University of Hawaii's IRMI/IRIS. Preliminary results. Released June 2009. Subject to further revision.  
Note: Federal poverty level is based on the Hawaii-specific U. S. Department of Health and Human Services (DHHS) Federal Poverty Guidelines.  
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- ### U.S. Health Policy Goals
- Increased Efficiency
    - Lower Expenditures
    - Improved Health Outcomes
    - Higher Productivity
  - Reduction in the number of Uninsured
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## U.S Health Insurance Reform



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- Expand Medicaid
- Tighten Medicare
- Young Adults treated as Dependents: Age 26
- Individual Mandate with exceptions
- Employer Mandate: Employers Play-or-Pay
- Government Sponsored Market Clearinghouse with Subsidies/Tax Credits: Exchanges
- Special Provision for Hawaii Prepaid Health Care Act.
- CLASS

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*Mahalo!*

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# Aging and Income Security Policy in Korea

*Kyunghee Chung<sup>1)</sup>*

It is well known that economic conditions have tremendous impact on the quality of life for older people. When the income level is low, the level of life satisfaction is also low; poverty is one of the difficulties people experience in later life. Therefore we have to pay attention to the fact that the poverty rate among older persons is far too high. Also because the size of the older population and the proportion of older persons are increasing rapidly, policy measures for economic security in later life are urgently needed (Chung, 2009). However, the proper economic security system for later life is not fully set up yet and the current system is not very effective. The linkage among the elements of income security systems is not fully set up, and the allotment among public pensions and private pensions is not clear. Also, policy measures to ensure economic security in later life are not multi-faceted. This paper will review the economic profiles of older persons and the income security system, and point out some policy issues and tasks.

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1) Research Fellow, Korea Institute for Health and Social Affairs

## **THE ECONOMIC PROFILES OF OLDER PERSONS<sup>2)</sup>**

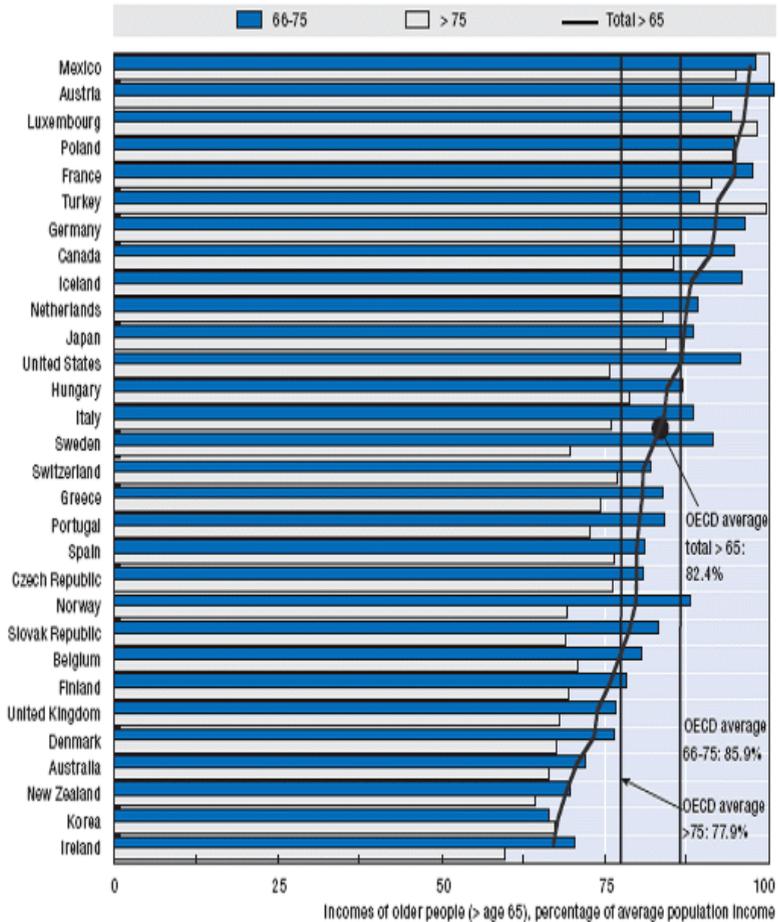
The economic profiles of older persons can be divided into five characteristics. First, the income level of older persons is very low. According to *Pensions at a Glance 2009* (OECD), the income of older people aged over 65 was, on average, 82.4% of the population income in the mid 2000s. However, in the case of Korea, the average income of those over the age of 65 is lower than 70%, the second lowest level among OECD countries, right above Ireland with 66%. Korea is one of the countries whose older people's income level is very low. It means that there is a high probability for Korean people to experience income loss in their later life. There is some relationship between the income of older people and public expenditure on old age benefits. Because of the rapid population ageing and compressed socio-economic development Korea has experienced, the country couldn't spend enough on old age benefits.

Also, among older people, the proportion of lower class is much higher compared to the non elderly population. The proportion of the recipients of public assistance (called National Basic Livelihood Security) is higher among older people than that of the non elderly population. 7.2% of the elderly households are receiving public assistance, which is much higher than 2.5% of the non elderly households. Also, the proportion of the legally defined lower class among elderly households is 17.2% and the proportion of the lower income class (those who are not legally defined lower class but nonetheless have low level of income) among them is 15.3%. These are 10% point higher than 3.3% and 4.0% respectively of non elderly households. 19.4% of older people have income lower than 120% of ordinary income of Korea. It is also much higher than 10.4% of non elderly households.

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2) The data of this part is based on *Pensions at a Glance 2009*(OECD), if there is no special mention.

Figure 1. Relative Incomes of Older People (equivalent household disposable income, mid-2000s)



Note: Countries are ranked by the relative incomes of all aged over 65.

Source: OECD Income Distribution Database; see OECD (2006), *Growing Unequal?*, Figure 2.4.

StatLink <http://dx.doi.org/10.1787/635374185482>

Table 1. Income composition of non-elderly households and elderly households

(Unit: household)

Income	Elderly Households					Non-Elderly Household	Total
	Living Alone	Living with Spouses Only	Living with Children	Others	Sub total		
recipients of public assistance	19.1	3.4	2.3	6.1	7.2	2.5	3.8
legally defined lower class	34.8	17.9	7.3	14.7	17.2	3.3	6.9
income lower class	12.6	27.9	9.9	18.9	15.3	4.0	7.0
household with Other	18.3	21.6	16.9	25.5	19.4	10.4	12.8
	15.2	29.2	63.6	34.9	41.1	79.8	69.5
Total	100.0 (1,468)	100.0 (1,178)	100.0 (42.3)	100.0 (838)	100.0 (6,072)	100.0 (16,839)	100.0 (22,911)

Footnote:

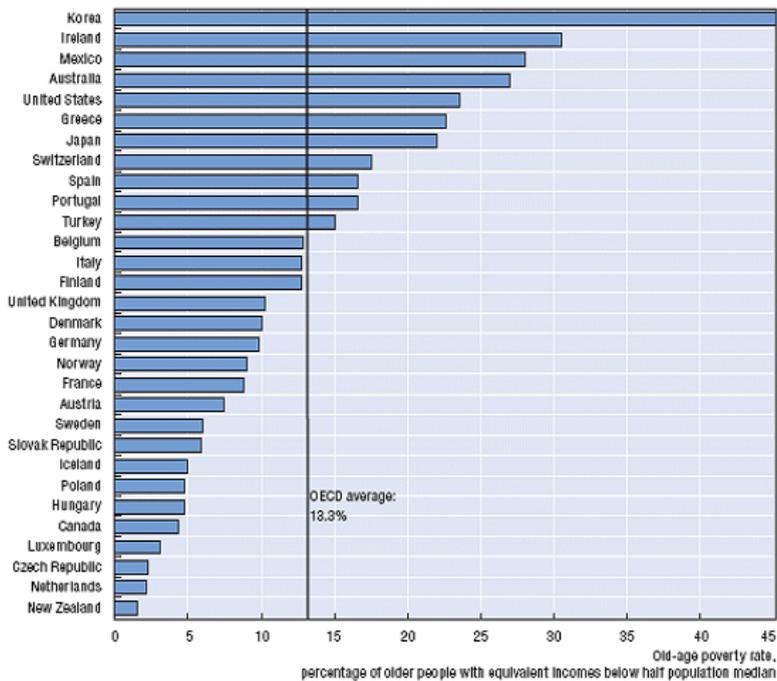
- 1) recipients: recipients of public assistance
- 2) legally defined lower class: households who are not recipients but whose deemed household income is less than 120% of the minimum standard of living
- 3) income lower class; next needy class: Households whose 'deemed income' is more than 120% of the minimum income while 'income' is less than 120% of the minimum income
- 4) next next needy class: households whose income is above 120% and below 180% of the minimum income
- 5) Ordinary class: Households whose income is above 180% of the minimum income

Source: Lee Hyun Joo *et al.*, 'Actual Conditions Analysis of the Next Needy Class and Policy Recommendations 2006', 2008.

Second, the poverty rate of older people is very high. Poverty is measured against the median household income. Relative poverty rates set the threshold for poverty at 50% of the median, equivalenced household disposable income. In other words, people with income below this level are counted as 'the income poor'. According to this definition, Korea's old age poverty rate is the highest at 45% among OECD countries, whose average poverty rate is 13.3%, and the gap with other countries is tremendous. Other countries with a high poverty rate for older people are Australia (27%), Greece (23%), Ireland (31%), Japan (22%), Mexico (28%), and the United States

(24%). Also, there are large subgroup differences in poverty experiences among older people. The old age poverty rate is much higher for female elderly compared to male elderly; Also, if older people live with working household members, the poverty rate is lower; Compared to other household types, older people living alone have higher poverty rates. Therefore, we can say that female elderly, older people living alone are risk groups in terms of poverty.

Figure 2. Old-age income poverty rates, mid-2000s (percentage of those aged over 65 with income less than half median equalized population income)



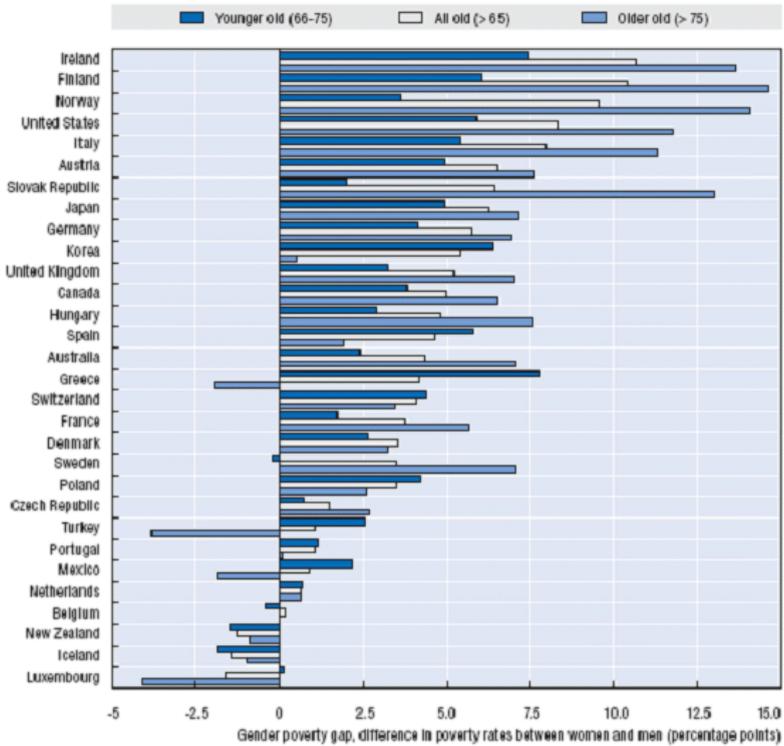
Source: OECD Income Distribution Database; see OECD (2008), *Growing Unequal?*, Table 5.3.  
 StatLink <http://dx.doi.org/10.1787/635443623047>

These high old age poverty rates can be explained by the fact that income is distributed not equally among working people and this persists into retirement. Korea shows an

unequal income distribution in the whole life stages and much more so in later life; Korea shows a tremendous difference in poverty rates between those aged over 65 and the population.

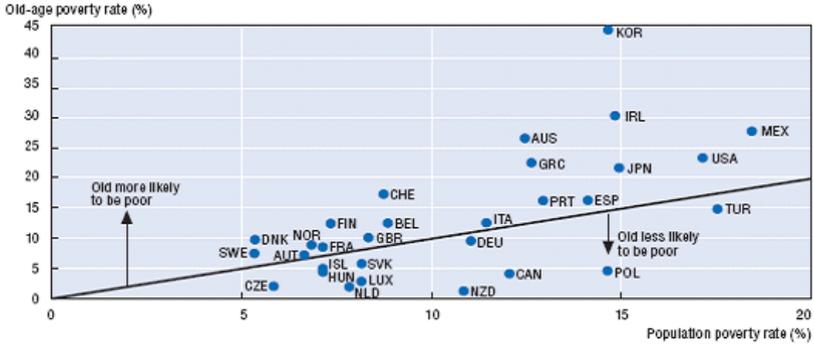
On average, in OECD countries, the population poverty rate is 10.6%, which is below the old age poverty rate of 13.3%. Older people are less likely to be poor than the population as a whole in 11 countries. Only 8 countries (Korea, Australia, Ireland, Switzerland, Greece, Japan Mexico, and the United States) show the large difference in poverty rates between those aged over 65s and the population. Among OECD countries, Korea stands out with the poverty rate three times as high for those aged over 65 as the population as a whole.

Figure 3. Gender gap in old-age poverty (percentage with income less than half median equalized population income)



Source: OECD Income Distribution Database; see OECD (2008), *Growing Unequal?*, Figure 5.6.

Figure 4. Income poverty rates of older people and the population, mid-2000s (percentage with income less than half median equalized population income)



Source: OECD, 『Pensions at a Glance 2009』, 2009.

OECD summarized the findings from the review of retirement income systems in OECD countries into Table 2. Table 2 compares poverty rates and relative income of older people. According to this typology, Korea is categorized as the county having low old age income and high poverty rates. It indicates that governments might consider redistribution from the working age population to retirees. Recently Korea has taken steps in this direction.

Table 2. Old-age poverty rates and relative income of older people

old age poverty rates relative incomes of older people	high	medium	low
high	Mexico	France, Germany, Turkey	Austria, Canada, Iceland, Luxemburg, Netherlands, Poland
medium	Greece, Japan, Portugal, Spain, Switzerland, United States	Italy, Sweden	Czech Republic, Hungary
low	Australia, Ireland, Korea	Belgium, Denmark, Finland, Norway, United Kingdom	New Zealand, Slovak Republic

Based on the recent national survey, we can see the recent poverty situation of older people. Based on the national minimum standard of living, 22.75% of older population is at the absolute poverty rate. The rate is 9.40% for the whole population. In terms of poverty gap, 1.98% for the whole population and 4.85% for older people.

On the other hand, in terms of relative poverty rates, 20.11% and 44.81% respectively. In the case of poverty gap, 6.95% for the whole population and 16.52% for older population. Although this difference might be reduced due to the introduction of the Basic Old age Pension since 2008, poverty among older population is still a challenge for policy makers to deal with.

Table 3. Poverty rates and poverty gaps of non-elderly household and elderly household

(unit: %)

	Absolute Poverty (based on National minimum standard of living)		Relative Poverty (based on half median equalized population incomes)	
	Poverty rate	Poverty Gap	Poverty Rate	Poverty Rate
Whole population	9.40	1.98	20.11	6.95
elderly	22.75(15.40)	4.85(2.48)	44.81(40.31)	16.52(12.63)

Footnote: based on 2007 Ordinary income

( ): are figures based on the simulation after the introduction of the Basic Old age Pension

Source: KIHASA, 『Third Survey of Korea Welfare Panel』, raw data. Kyunghye Chung, *et al.* Socio-economic Impact of the Basic Old Age Pension System, 2009.

Third, older persons are heavily dependent on other household members in terms of income. In household income, only 51.2% is from those of older persons. This proportion is much lower when older persons live with their adult children: the proportion is 20.4%. Also, in terms of income composition, the majority of income comes from transfer income. Transfer income from family members comprises 38.0% of the individual income of older persons. Also, the proportion of income from public pension is 8.1%. And 20.3% of income comes from the

Basic Old age Pension. Including National Basic Livelihood Security, public transfer income comprises 34.4% of older persons' income. On the other hand, income from work is very low.

Table 4. Income composition of older population

(Unit: %)

	Earned income		public transfer			private transfer		Income of Older person	% of income of older persons in household income
	employ-ment	busi-ness	public pension	basic old-age pension	national basic livelihood security system	from family members	from NGO		
Total	5.5	8.4	8.1	20.3	6.0	38.0	5.1	100.0	(51.2)
Gender									
Male	8.9	16.3	13.9	13.2	2.9	26.0	12.0	100.0	(56.3)
Female	3.5	3.8	4.7	24.5	7.8	45.0	1.0	100.0	(47.6)
Living Arrangements									
living alone	4.7	6.7	4.6	16.7	16.6	42.7	1.7	100.0	(99.4)
living with spouses only	5.5	11.2	9.5	13.0	2.6	42.5	11.6	100.0	(51.9)
living with children	5.9	6.4	7.7	30.4	1.8	32.2	0.5	100.0	(20.4)
others	6.2	7.5	12.9	25.0	10.0	25.9	1.3	100.0	(34.0)

Source: Kyunghee Chung *et al.* Socio-economic Impact of the Basic Old Age Pension System, 2009.

Fourth, older persons have a different composition of income and assets. Compared to non elderly, the proportion of assets is much higher among older persons. Around 2/3 of older persons have assets under their own names or spouse's. According to the Basic Old age Pension System data, a significant proportion of older persons have assets even though they don't have taxable income<sup>3)</sup>. It means that for Korean older persons, not only income but also assets can be important resources to secure the standard of living. Government might

3) Kyunghee Chung *et al.* A Study on the measures for the successful introduction of the Basic Old Age Pension System, 2007.

seek the way to utilize such assets as houses and land as disposable income.

Fifth, among the expenditure of older persons, the proportion of health and medical spending is higher, compared to other age groups. According to 2006 next needy class survey, the proportion of health and medical spending is 8.3%, which is almost twice as much as that of the non elderly population. Also, according to a recent survey on older persons, they wanted to spend extra money on health and medical services (Chung *et al.*, 2009). In later life, because a new source of income is not easy to be created and the amount of income tends to be reduced, reducing spending can be one of the ways to enhance the standard of living.

## **OUTLINE OF INCOME SECURITY SYSTEM FOR OLDER PERSONS**

Public pension programs, public assistance based on National Basic Livelihood Security Law, and the Basic Old age Pension are the three main components of the public policy aimed at enhancing the income security of older persons in Korea. In other words, public pension is the first tire, and for the older persons who have income lower than minimum standard of living, National Basic Livelihood Security System is the final safety net. In addition to that, the Basic Old age Pension is provided to 70% of older persons with lower income and asset. Also for additional income, there are private pension and retirement pension (Chung, 2009).

National pension system, which is the main element of income security system in later life, was established in 1988 for work places with 10 or more employees as contributors and was expanded to work places with 5 or more employees in 1992. Afterwards, it was expanded to local contributors of rural area residents in 1995 and urban dwellers in April 1999. The

successful enlargement of the system was made from 4,433 contributors in 1988 to 18,401,000 in 2009, increasing as much as four times. The national pension is yet to be recognized as an effective system.

Figure 5. Outline of income security system for older persons

		general			lower class	
		employed	self-employed	civil servants, teachers, military man	lower class	below poverty line
work, private transfer income	4th tier					
additional income (private pension)	3rd tier	private pension				
	2nd tier	retirement pay (retirement pension)				
prime safety net (public pension)	1st tier	National pension		government employees pension, teachers pension, military pension		
basic safety net					basic old-age pension	
(Poverty Line)	0 tier				National Livelihood system	

The pension benefits are currently provided from age 60 if the individual has contributed for 10 years or more. A reduced, early pension can be drawn from age 55. The normal pension age is being ratcheted up and will reach 65 in 2033. The modelling assumed the long term pension age of 65 and that the early pension age will also be raised from 55 to 60.

Although it passed more than 20 years, half of the contributors started to contribute after 1999, when the coverage expanded to urban dwellers. Therefore, the proportion of the

recipients among older persons is not high.

In terms of benefits, the earnings replacement rate of the pension for 40 years of contributions is 60% of the earnings in 2007, but it will be reduced to 50% in 2008 and then will be reduced by 0.5 percentage points every year until making 40% from 2009 to 2028. The model assumes that the 40% is calculated over a 45 year period (Yoon, 2008).

Special occupational pension is undergoing a serious financial instability. In the case of the government employees pension, which has already experienced substantial instability, the Government Employees Pension Development Committee was set up to examine the financial status and to seek improvement measures and carried out financial calculation. Private school teachers pension also went through a reform in a way similar to the government employees pension in late 2009, with financial instability factor still remaining. In the case of the military pension which became dependent on the government reserve fund already in mid-1970s, the Military Fund Development Committee and the Working Committee were formed in 2008 to discuss about reforms (Yoon, 2007, 2009a).

National Basic Livelihood Security system is a system for those who have no ability or supporting family members to maintain livelihood, where the government guarantees support for their basic need. Therefore, National Basic Livelihood Security system plays an important role for older persons in absolute poverty.

To be eligible for benefit receipt, an individual must not have someone responsible for support, or someone responsible for support who is unable to support anybody, or any support, and the deemed income for household must be equal to or less than the minimum standard of living. To ensure the minimum living condition, the benefit is designed to be above the minimum standard of living when added to the household's deemed income amount.

The Basic Old age Pension was introduced in 2008. In 2008, 60% of those aged 65 and over could get the means tested the

Basic Old age Pension. The coverage expanded to 70% in 2009. The benefit is a flat rate of 5% of the three year average earnings for the insured of the national pension every year. The benefit is reduced in phases according to income and assets of older persons. Couples received 80% of single rate per each.

Table 5. Coverage of the Basic Old-age Pension

Phase	Period	Recipients	No. of Recipients	Coverage
1st Phase	'08.1.~6.	60% of 70 and over	June '08 1,940,000	61%
2nd Phase	'08.7.~12.	60% of 65 and over	Dec. '08 2,900,000	57.3%
3rd Phase	'09.1.~	70% of 65 and over	Dec. '09 3,630,000	69%

source: [www.mw.go.kr](http://www.mw.go.kr)

In 2009, 3,630,000 older persons, which is 69% of older population, received the Basic Old age Pension. There are tremendous differences in the recipient rate in terms of gender, age, and area. 65% of the recipients are female. The receipt rate increases as persons get older. The receipt rates are from 95% of the rural province to 29% of urban areas, reflecting the regional disparity in economic conditions.

Table 6. Differences in the coverage rate of the Basic Old-age Pension

Age	(Unit; persons, %)				
	65~69	70~79	80~89	90~99	100 and over
No. of Older persons	1,914,041	2,477,437	783,005	90,626	2,599
No. of Recipients	1,106,717	1,778,678	660,178	82,384	2,190
Coverage	57.8%	71.8%	84.3%	90.9%	84.3%

source: [www.mw.go.kr](http://www.mw.go.kr)

Currently, among older persons, 15% are not covered by public pension, the Basic Old age Pension, or National Basic

Livelihood Security system. In other words, 15% of older persons are not covered by the public income security system.

## **POLICY ISSUES**

There are several policy issues regarding income security in later life. First of all, measures to strengthen the financial substantiality of the public pension are needed. In the case of national pension, after three years of discussion in the National Assembly, major political parties came to an agreement on how to reform the National Pension Policy. As opposed to countries that sought to reform their pension systems only after facing social problems arisen from the depletion of pension fund such as generational tension, the Korean government has reformed its pension system earlier at the stage of raising the pension fund.

The reform will enable sustainable operation of the pension fund without putting too much pressure on next generations, by delaying the timing of pension fund depletion by 13 years to 2060. But there is a limit to the reform in that changes were made only in benefit levels.

The income replacement rate will fall gradually down to 40% over the next 20 years. The reform will not affect current pensioners and contributions made before January of 2008 of the existing subscribers (Pre reform income replacement rate is applied).

Also, government employees pension, teachers pension, and military pension need strong reform to strengthen the financial substantiality of each pension.

Secondly, measures to remove "blind spots" are needed (Yoon *et al.*, 2009b). Basic Old age Pension is expected to help reduce the number of the elderly in poverty until the National Pension Policy matures. The introduction of the credit system for childbirth and military services, and the improvement of Disability Pension under the National Pension Policy will contribute to the removal of "blind spots", ensuring that no participant will be excluded from receiving benefits. Also, most of own account workers with low income, temporary workers

and daily workers are omitted in the process of tax return settlement and become excluded from national pension. A large number of people from the low income class are excluded from the benefits, and are not given the opportunity due to the reduction of the insured period. The occurrence of "blind spots" would exclude them from such benefits and lead to the flaw of social safety nets. Therefore, the measures to include workers with low income, temporary workers and daily workers are needed.

Thirdly, readjustment of the roles of the Basic Old age Pension and national pension are needed. Because the goal and characteristics of the Basic Old age Pension are not clear enough, the blue print of the Basic Old age Pension is not provided. The benefits are not enough to reduce poverty rates among older persons. Also, although the Basic Old age Pension is means tested, the proportion of the recipients (70%) is relatively high. Currently, two alternatives are under discussion. First alternative is the revision of the Basic Old age Pension as the basic pension schemes, in order to reduce "blind spots" of income security system of older population. Second alternative is to revise the Basic Old age Pension as means tested scheme in order to solve the problem of poverty among older population.

Fourth, because public pension cannot provide sufficient income for older persons, the roles of the private pensions have become more important (Ryu, 2009). However, in Korea the roles of the private pensions are minor yet. Only recently, retirement pension is introduced in December 2005. Therefore, only small portion of the company provides retirement pension to the employees. And private pension was introduced in 1994. However, the increase rate of private pension subscription slowed down recently. Policy measures to extend the coverage of retirement pension and to speed up the subscription of private pension are urgently needed.

Finally, considering the economic profiles of older persons, the reverse mortgage, which was introduced in November 2007, and medical aid for older persons have to be more actively explored.

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# Population dynamics: Social Security, Markets, and Families

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## ABSTRACT

Upward intergenerational flows - from the working ages to old age - are increasing substantially in the advanced industrialized countries and are much larger than in developing countries. Population aging is the most important factor leading to this change. Thus, in the absence of a major demographic shift, e.g., a return to high fertility, an increase in upward flows is inevitable. Even so, three other important factors will influence the magnitudes of upward flows. First, labor income varies at older ages due to differences in average age at retirement, productivity, unemployment, and hours worked. Second, the age patterns of consumption at older ages vary primarily due to differences in spending on health. Third, spending on human capital, i.e., spending child health and education, varies. Human capital spending competes with spending on the elderly, but it also increases the productivity of subsequent generations of workers and the resources available to support consumption in old age.

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All contemporary societies rely on a variety of institutions and economic mechanisms to shift economic resources from the working ages to the dependent ages - the young and the old. Three institutions dominate intergenerational flows: governments which implement social security, education, and other public transfer programs; markets which are key to the accumulation of assets, e.g., funded pensions and housing; and families which provide economic support to children in all societies and to the elderly in many. The objectives of this paper are, first, to describe how population aging and other changes influence the direction and magnitude of intergenerational flows; and, second, to contrast the institutional approaches to intergenerational flows as they are practiced around the world. The paper relies extensively on National Transfer Accounts, a system for measuring economic flows across age in a manner consistent with the UN System of National Accounts. These accounts are currently being constructed by research teams located in 33 countries on six continents representing wide variations in the level of development, demographics, and policies regarding intergenerational transfers.

*Keywords: Population aging, social security, intergenerational transfers, public transfers, pensions, lifecycle, support systems, economics of aging.*

## **INTRODUCTION**

Populations around the world are aging and, in some cases, quite rapidly. The implications for standards of living and social security will be profound as the flow of economic resources to the elderly matches the growth in their numbers. This is an unprecedented change. In the past, intergenerational flows in all societies were predominantly flows to children. In traditional settings few survived to old age and those who did could not necessarily count on their families for support. Members of hunting and gathering societies produced as much as they consumed until the end of their life (Lee, 2003). Retirement was not an option. But the development of financial markets and public social security programs have enabled extended periods of retirement at the end of life. Individuals are now able, through careful planning or through the support of public systems, to consume much more than they produce through continued labor. The emergence of modern, and costly, medicine has played its own role by accelerating the growth of consumption by the elderly. These fundamental changes in the economic lifecycle when combined with changes in population age structure represent one of the most important long-term challenges faced by contemporary societies.

The objective of this paper is to draw on international experience in order to address several important questions about population aging and social security. First, we consider how population aging is influencing the intergenerational flow of economic resources. To this point population aging is a powerful force as compared to recent changes in the economic lifecycle. Efforts to control the rise of health care costs or to encourage later retirement are important policy initiatives, but are unlikely to reverse or substantially slow the effects of population aging.

Second, we consider how societies are currently meeting the economic needs of their growing elderly populations. In principal, the elderly can fill the gap between what they consume and what they earn in three ways. They can rely on their families, on public transfer systems, including public

pension and health care programs, or on assets that have been inherited or accumulated during their working years. Practice varies considerably from country to country. The industrialized countries, particularly in Europe, and many Latin American countries rely heavily on public transfers. Elderly living in Asian countries are more likely to draw on familial resources.

One of the main concerns of many observers is that population aging is leading to generational inequities possibly under the influence of large, politically active groups of elderly. There is no doubt that in many countries, especially Latin America and Europe, that public spending per senior substantially exceeds public spending per child. Simple comparisons of per capita spending have limitations, however. We provide a more comprehensive assessment of intergenerational equity. Of particular importance is considering both public and private intergenerational transfers. This more comprehensive approach shows that in most countries for which estimates are available intergenerational transfers favor children over the elderly and future generations over the current population. However, in countries with large public transfer systems, private transfers to children are insufficient to offset the growth in transfers to the elderly and the burden imposed on future generations. A very important qualification, however, is that estimates of bequests are not available. It is likely that intergenerational transfers may continue to favor future generations once bequests are incorporated.

In the absence of reform public transfers will increase much more rapidly than national income as a consequence of population aging. The implication has been treated in considerable detail elsewhere and is discussed only briefly here. In the absence of effective growth-oriented policies, population aging could lead to slower economic growth and possibly a decline in standards of living. The downside of population aging is straight-forward — as populations age the number of workers will decline relative to the number of consumers. Economies may respond in many ways that will mitigate the adverse effects of aging, but three possible strategies are particularly important.

One is to achieve a radical change in the economic lifecycle that would involve some combination of higher earnings and lower consumption at older ages. The second strategy is to raise the productivity of the work force by greater investment in human capital. The third strategy is to raise asset income and wages by encouraging higher rates of saving and investment. The economic outcomes may differ widely from country to country, however, because countries differ in how rapidly they will age, in their economic lifecycle, and in the systems on which they rely to support older adults.

## **POPULATION AGING AND THE ECONOMIC LIFECYCLE**

National populations around the world are experiencing very substantial changes in their age structures (see Bloom chapter 1 in this volume). In the advanced industrial countries of the world, an increase in the share of the older population is the dominant trend. But many middle income countries and even a few lower income countries will also experience substantial population aging. For most, the increase in the share of the older population will come primarily at the expense of the population in the working ages. Thus, countries will experience increases in both their old age and their total dependency ratios.

Looking toward the future from our current position yields a somewhat distorted picture. The rise in the total dependency ratio to come follows what has been an unprecedented decline. As part of the demographic transition, countries have experienced a decline in fertility rates that has led to a fall in both the youth and total dependency ratios. The rise in dependency we are beginning to experience is a direct consequence of low fertility and entrance to the workforce of small cohorts. Gains in life expectancy are playing a role in population aging, but it is primarily the decline to low fertility

in the past that is leading to populations that are increasingly grey.

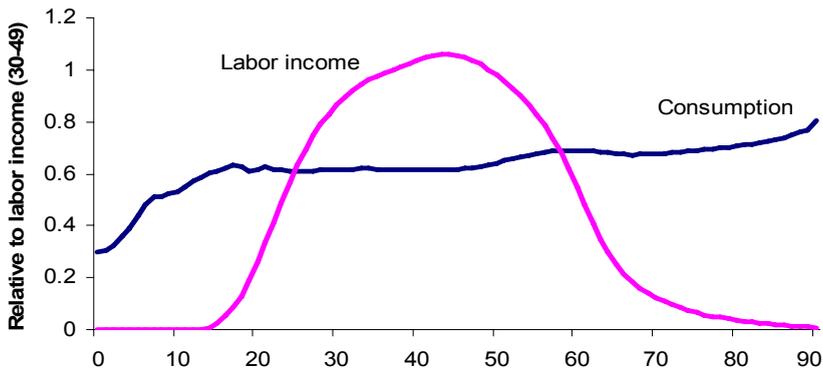
Why are these changes in population age structure so important? Fundamental to any answer is the striking and unique economic lifecycle that characterizes contemporary human society. Over extended periods at the beginning and at the end of life, modern humans consume a great deal more than they produce through their labor. This is a great hallmark of our success. The extended period of childhood has been essential to unprecedented and valuable investment in the human capital of the next generation of parents, workers, and taxpayers. We have also managed extended periods of retirement during which time can be spent in leisure or in productive but uncompensated pursuits. Of course, many endure significant periods of ill health and disability at the end of life dependent on a host of social and economic institutions.

The period during which people actually produce more through their labor than they consume is stunningly short - little more than 30 years. On average people do not realize a lifecycle surplus, consuming less than they produce through their labor, until they reach their mid twenties. And by the time they reach their late 50s or early 60s they are no longer in a surplus position.

The broad outlines of the economic lifecycle are similar across a wide range of countries. To emphasize these we have constructed average age profiles of labor income and consumption using estimates for 15 countries (Figure 1). Labor income and consumption are very inclusive. Labor income includes wages and salaries earned by employees along with their fringe benefits, as well as, the value of labor of those who are self employed. Consumption includes both private consumption and public consumption that is allocated to individuals. All values are expressed relative to the average labor income of persons 30~49 to facilitate comparison across countries with very different development levels. The value of about 0.6 for prime age adults means that they are consuming about 60% of what they are

producing through their labor (Lee *et al.*, 2008, Mason *et al.*, 2009).

Figure 1. Per capita labor income and consumption age profiles, relative to average labor income of persons 30-49, average of estimates for 15 countries



Source: [www.ntaccounts.org](http://www.ntaccounts.org)

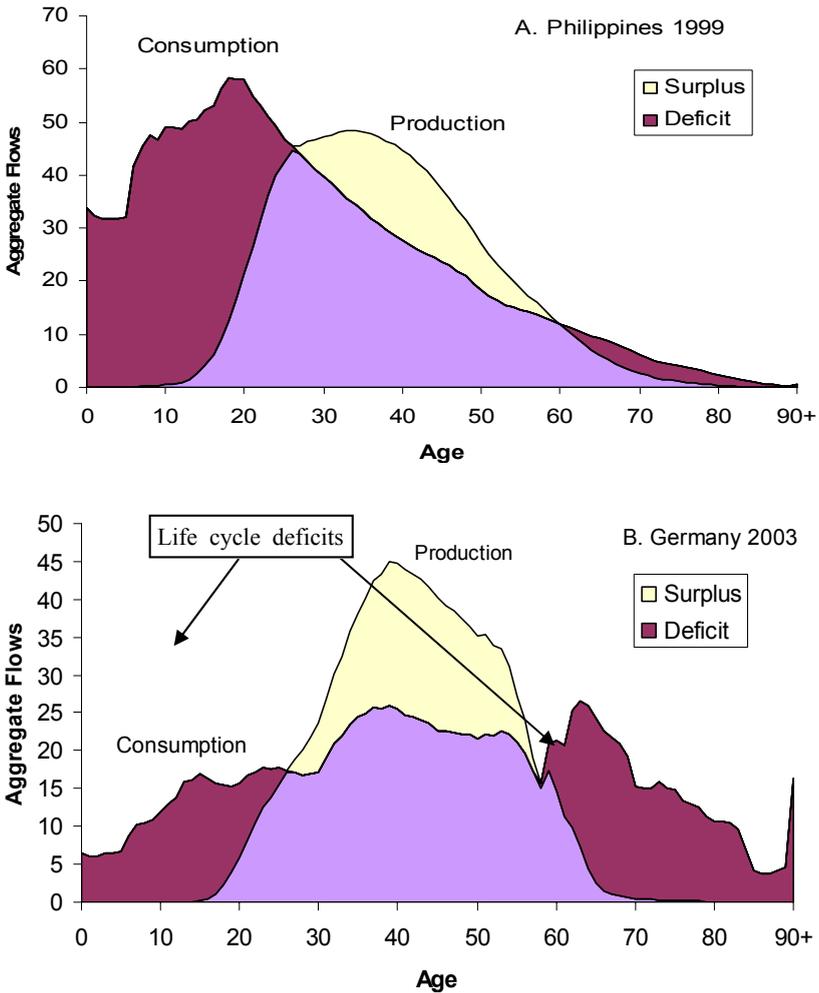
Note: The 15 countries include Austria, Chile, China, Costa Rica, Finland, Hungary, Japan, Mexico, South Korea, Slovenia, Sweden, Taiwan, Thailand, United States and Uruguay.

The per capita economic lifecycle reflects many behavioral and non-behavioral factors that influence the relationship between an individual's age, on the one hand, and consumption and labor income, on the other. Average labor income at each age depends on hours worked, labor force participation, the age profile of wages and the many cultural, political, social, and economic factors that influence each of these elements of labor income. In similar fashion, average consumption at each age is influenced by historical events, by preferences, by prices including interest rates, by political systems, and by many other forces.

The challenge that population aging represents comes into sharper focus when we consider that aggregate profiles are determined by the per capita profiles and population age structures. In young populations, the lifecycle deficit is very large at young ages and relatively small at old ages as can be seen in the case of the Philippines in Figure 2A. In older populations, the lifecycle deficits are substantially larger relative to the child

deficits, as the case of Germany illustrates (Figure 2B). Population aging is in its early stages and, thus, old age deficits will grow substantially unless consumption and labor income profiles change radically.

Figure 2. Aggregate consumption and labor income by age, Philippines 1999 and Germany 2003



Sources: Racelis and Salas (forthcoming) for the Philippines; Kluge (forthcoming) for Germany.

Note: Values for the Philippines are billions of pesos and for Germany billions of euros.

Reflection on the economic lifecycle and population aging inevitably raises important questions. First, will the lifecycle deficit, the gap between what is consumed and what is produced, at old ages continue to increase as populations age? Or, are there likely to be adjustments in policies and behavior as reflected in the per capita lifecycle profiles that offset the changes in population age structure? Second, what are the options for funding the old age deficit and are these approaches sustainable in the face of population aging? Third, are the resources flowing in an equitable manner or favoring current over future generations? Fourth, will population aging inevitably slow economic growth or can changes in public policies result sustain higher levels of consumption?

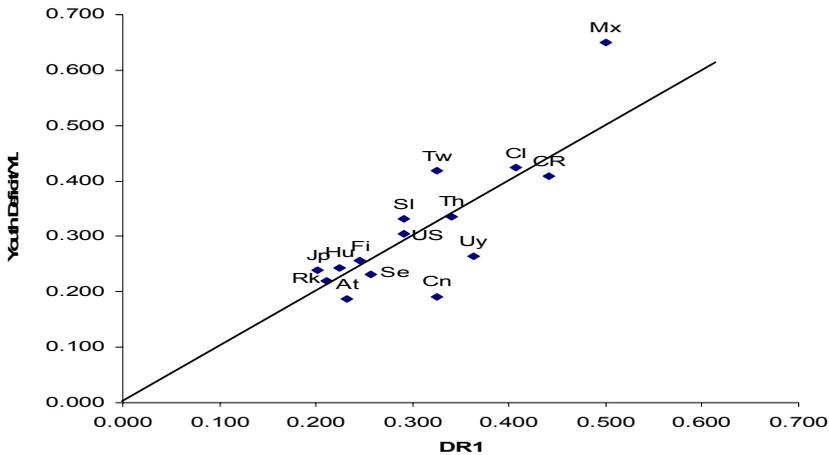
## **POPULATION AGING AND THE CLAIM ON ECONOMIC RESOURCES BY THE ELDERLY**

Population age structure does not exclusively determine the aggregate flow of economic resources across generations. Improvements in health may raise the productivity and labor force participation of those in their sixties and seventies. Changes in tax and pension policy may increase the incentives to delay retirement. Efforts to control the costs of health care and long-term care may slow the growth of consumption late in life. The importance of these and other changes are difficult to predict especially because the population aging we will experience over the coming decades is without precedent. These issues are important and we will discuss them more extensively below, but based on experience to date population aging has a very powerful effect that may overwhelm efforts to influence the economic lifecycle.

One simple way to judge the importance of population age structure is to compare the aggregate lifecycle deficits of countries with different age structures. In Figure 3, the aggregate lifecycle deficit for youth as a percentage of aggregate labor

income is graphed against the youth dependency ratio DR1.<sup>4)</sup> The range in the youth deficit - from 65% of total labor income in Mexico to 19% of total labor income in Austria - is considerable. The relationship between age structure (DR1) and the youth deficit is strong with the variation in age structure explaining about three quarters of the variation in the youth deficit.

Figure 3. Relationship between age structure and aggregate youth deficit, selected countries for a recent year



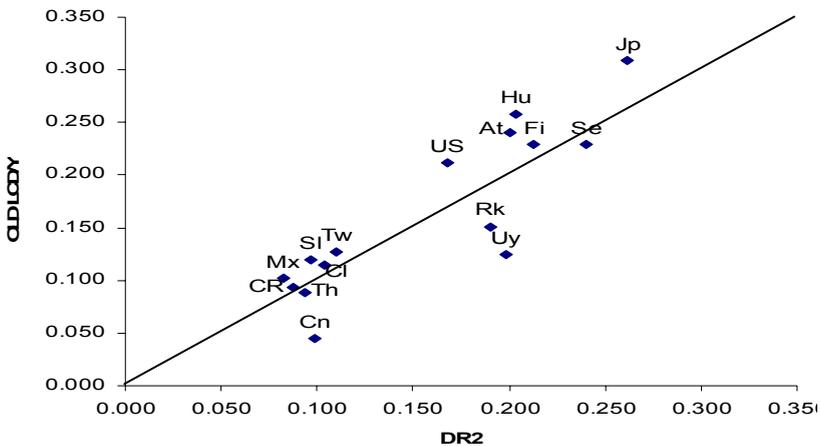
Source: NTA database: [www.ntaccounts.org](http://www.ntaccounts.org).

The aggregate lifecycle deficit at old age relative to labor income is plotted against the old age dependency ratio DR2 in Figure 4. Again there is very substantial variation in the size of

4) DR1 is calculated as the weighted number of young dependents relative to the weighted number of working age adults. The weights for children are equal to the average per capita lifecycle deficit while the weights for working age adults are equal to the average per capita labor income values shown in Figure 1. The weights provide a continuous and more refined measure of dependency that does not rely on an arbitrary age cutoff, e.g., defining dependents to be 0-14 years of age and working age adults as 15-59 or 15-64. The same weights are used for all countries while the population age structure is set to the actual value.

the deficit across countries ranging from 31% of total labor income in Japan to 9% of total labor income in Costa Rica. Again, the old-age deficit is closely linked to changes in age structure with 73% of the variance explained by variation in the age structure of the population (DR2). Note that the age effect being quantified here is the pure age composition effect. Age structure may also influence the per capita age profiles of consumption or labor income, but that possibility is not being considered at this point.

Figure 4. Relationship between age structure and aggregate old age deficit, selected countries for a recent year



Source: NTA database: [www.ntaccounts.org](http://www.ntaccounts.org).  
 Note: Relevant calculations are in DRatio.LCD.xls.

The issue of greatest import to policymakers concerned with population aging is the likely magnitudes of the lifecycle deficits in the future. The potential effect of population aging can be readily assessed using the dependency ratios as calculated here and presented in Table 1. The values give the lifecycle deficit at old age as a share of total labor income and the combined lifecycle deficit at young and old ages as a share of total labor income holding the per capita economic lifecycle constant and allowing population age structure only to vary. Among the

countries shown, aging will have the most severe effects in Japan followed by Germany. But note that the old age dependency ratio more than triples in China and triples in Brazil between 2010 and 2050. France and the US are both aging considerably, but less so than Japan, German, and other low fertility industrialized countries. In the absence of enormous changes in work and/or consumption patterns at old age, the flow of resources to the elderly will be enormous in the future.

In some instances, the total dependency ratio rises considerably less than the old age dependency ratio because of declines in the child dependency ratio. This is particular the case in India and Nigeria, where the total dependency ratio declines substantially, and Brazil where it increases modestly. But in other countries, the rise in the old age dependency ratio is not offset to any considerable degree by the decline in the child dependency ratio. Japan represents an extreme case. If Japan's per capita lifecycle deficit profile conformed to the average, the aggregate lifecycle deficit of children and elderly combined would reach over 80% of total labor income.<sup>5)</sup>

Table 1. Old-age and total dependency ratios, selected countries in 2010 and 2050

country	Old-age Dependency Ratios		Total Dependency	
	2010	2050	2010	2050
Japan	0.31	0.64	0.51	0.84
Brazil	0.10	0.31	0.47	0.53
China	0.11	0.35	0.39	0.58
India	0.08	0.18	0.55	0.43
France	0.24	0.43	0.51	0.69
Germany	0.26	0.53	0.45	0.74
Nigeria	0.06	0.09	0.82	0.49
United States	0.18	0.32	0.47	0.58

Note: Dependency ratios calculated using standard age profiles of lifecycle deficit and labor income and population projections from the United Nations World Population Prospects 2008.

5) This is not a likely outcome as the profiles almost surely will shift in response to population aging. This is the outcome only in the unlikely event that there were no adjustment in consumption and labor income.

The importance of age structure in determining the intergenerational flows is incontrovertible, but other factors are important, as well. In Figure 4, we see that in the United States and Hungary the old age deficit is 25 percent above the standard, in Uruguay the old age deficit is 40% below the standard, and in China the old age deficit is less than half the standard. Clearly there are important differences in the age profiles of consumption and labor income that will influence how rapidly intergenerational flows to the elderly increase and how rapidly intergenerational flows to children decrease as populations age.

Changes in the per capita economic lifecycle may offset, to some extent, changes in population age structure. But comparing across young and old countries does not suggest that favorable changes in the economic lifecycle can be counted on. Figure 5 presents per capita labor income and consumption profiles for two groups of countries, young and old, for which estimates are available. Of the 15 countries for which estimates are presented in Figures 3 and 4, seven have lower old age dependency ratios (DR2) than the US, Chile, China, Costa Rica, Mexico, South Korea, Taiwan, and Thailand. We classify these as young countries. The US and the other seven countries, Austria, Finland, Hungary, Japan, Slovenia, Sweden, and Uruguay, are classified as old countries.

There are interesting differences between these two groups of countries, but before we discuss them two things should be kept in mind. The results should not be taken as representative of old and young countries, in general. The values are based on only a handful of countries for which data are available, but they may not be representative. Second, there is no reason to suppose that the differences between these two groups are a consequence of age structure per se. The old countries are more likely to be rich, industrial, Western countries. Many other factors may account for the differences in the economic lifecycles.

The young country group has labor income profiles that are slightly higher during the teen years, lower during the 40s and

50s, and higher at older ages. Labor income is compressed into a short portion of the life span in the old country group. The young country group has a consumption profile that is quite flat at all adults ages. But in the older country group consumption rises steeply at older ages. Except for adults in their late fifties and early sixties, the per capita lifecycle deficits are smaller in the young population than in the old population.

Figure 5. Per capita consumption and labor income by age, all values normalized on per capita labor income for persons 30-49



Note: Values are simple averages of age profiles for seven young countries and eight old countries. (See text for names of countries).

The most important feature of Figure 5 is that the per capita lifecycle deficit at old ages is greater in the older group of countries than in the younger group of countries. For the most part this is a consequence of high rates of consumption at old ages driven by high spending on health and long term care. Lower labor income in the older countries also contributes to the high per capita deficit but the labor income differences are smaller than the consumption differences.

The differences in per capita profiles reinforce the effects of population aging on the total and old age deficits. This is readily assessed by calculating dependency ratios in 2050 using the same methods employed to construct Table 1. The values in

Table 2 tell us the ratio of the old age lifecycle deficit and the total lifecycle deficit relative to total labor income given the age structure in 2050 and three alternative per capita profiles of consumption and labor income.

Table 2. Old-age and Total Dependency Ratios, 2050, Alternative Lifecycles

country	Old-age Dependency Ratio			Total Dependency Ratio		
	Fifteen country lifecycle	Young country lifecycle	Old country lifecycle	Fifteen country lifecycle	Young country lifecycle	Old country lifecycle
Japan	0.64	0.56	0.71	0.84	0.76	0.91
Brazil	0.31	0.29	0.34	0.53	0.50	0.56
China	0.35	0.32	0.38	0.58	0.55	0.61
India	0.18	0.17	0.20	0.43	0.42	0.45
France	0.43	0.38	0.47	0.69	0.64	0.74
Germany	0.53	0.47	0.58	0.74	0.68	0.79
Nigeria	0.09	0.09	0.10	0.49	0.47	0.50
United States	0.32	0.29	0.35	0.58	0.54	0.61

Note and sources: See Table 1.

The effect of varying the economic lifecycles is largest in Japan because it is the oldest country and the differences in the lifecycle are greatest at the oldest ages. Given the old country lifecycle pattern, Japan’s old age lifecycle deficit would be 25% greater than would be the case given the young country lifecycle pattern. The total lifecycle deficit would be greater by almost 20%. The effects are also substantial for other countries with relatively old populations, e.g., France, Germany, and the United States. For a young country like Nigeria the effects are relatively modest.

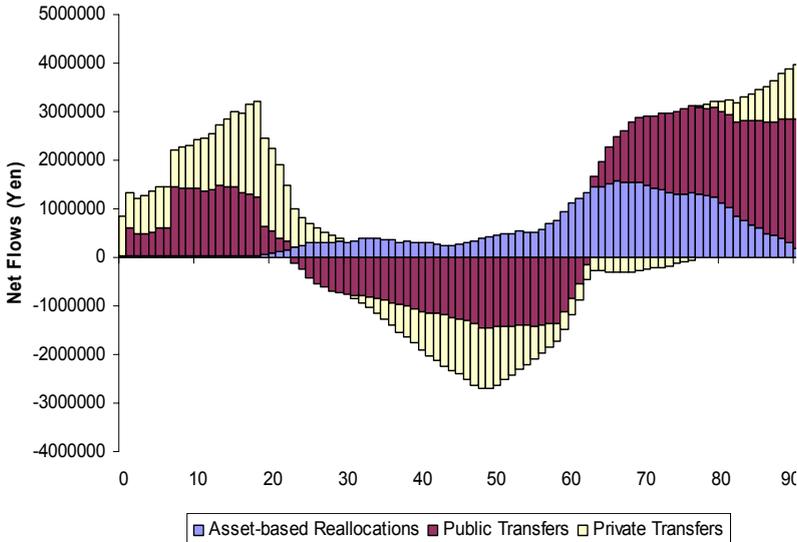
The key point here is that the advanced industrialized countries have relatively low labor income and high consumption at older ages. Combining these features with population aging implies a very substantial increase in the aggregate gap between what countries are producing through their labor and, judging from current patterns, what they would like to consume.

## **SYSTEMS OF SUPPORT FOR CHILDREN AND THE ELDERLY**

To maintain consumption well in excess of labor income over extended periods of life, countries rely on three important systems of support (Mason *et al.*, 2009). The first is the family - the economic support that parents and grandparents provide to children and that adult children provide to elderly parents. The second is the financial system and assets, e.g., a home, personal savings, pension funds, and so forth. Assets may be inherited or accumulated during the working years. Lifecycle deficits can be funded by using asset income or by disposing of assets during times of need. The third system of support consists of the public sector predominantly social insurance programs that fund pensions, long term care, and health care for older adults and education and health programs that benefit children. But there are, of course, many other public programs that provide support to the young and to the old.

Per capita net economic flows from these three systems are shown for Japan in 2004 in Figure 6. Flows to both children and the elderly are shown here to emphasize that transfers go in both directions - upward to the elderly and downward to the young. The young depended heavily on a combination of public and private transfers with private transfers somewhat more important. The support system for older adults in Japan varied considerably with their age. Those in their 60s relied primarily on assets while those in their 70s and 80s relied primarily on public transfers. Those younger than age 78 gave more to their descendants than they received, while familial transfers was a more important source of support for those in their mid to late 80s and older. As we shall see, the old age support system varies considerably from country to country.

Figure 6. Support system: Per capita net flows by age (yen), Japan, 2004. Net flows sum to per capita lifecycle deficit



Source: Ogawa *et al.* (2009).

Two features of the support system in Japan warrant emphasis. The first is the substantial difference in the composition of transfers to the elderly versus transfers to young. In Japan, per capita familial transfers to the young are much more important than per capita public transfers. For the old, the opposite is the case with public transfers dominating. The second feature to bear in mind is the importance of assets for the elderly. Those in their 60s and 70s are relying heavily on flows from their accumulated assets.

### *The Old-age Support System: a Comparative Perspective*

Countries vary greatly in the systems they employ to fund the old age lifecycle deficit. To show this, we compute public transfers, private familial transfers, and asset based reallocations as a “share” of the lifecycle deficit of those 65 and older.<sup>6)</sup> The shares are conveniently represented using a triangle

graph that requires some explanation. Any of the three vertices of the triangle represents exclusive reliance on one of the three sources of support with the other two being zero. Along the side of the triangle, one source is zero while the other two vary. Movement along one of the gridline implies that one source is constant at  $1/3$  or  $2/3$  of the lifecycle deficit while the other two vary. Values charted outside the triangle indicate that one or more of the components is negative (Figure 7).

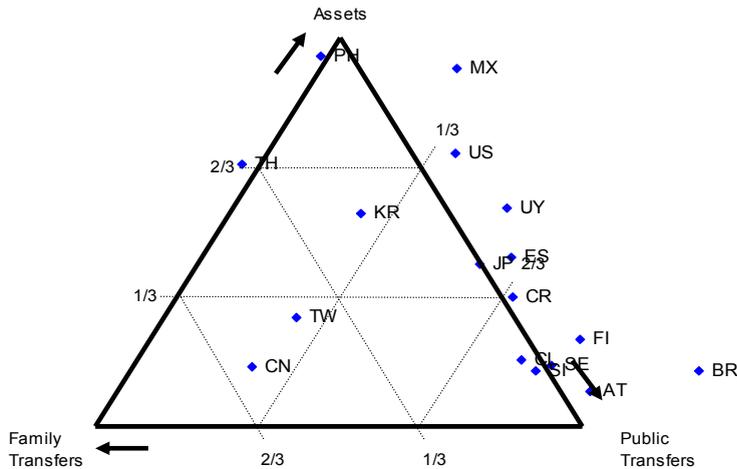
Net familial transfers are an important source of support for the elderly in only four economies: China, Korea, Taiwan and Thailand. Elderly in China rely to the greatest extent on their families with a little less than  $2/3$  of the lifecycle deficit funded by net family transfers. In Taiwan and Thailand, net family transfers are about  $1/3$  of the lifecycle deficit and in Korea the value is roughly 20%. In many of the countries, net familial transfers are close to zero or relatively small (the Philippines, Japan, Costa Rica, Chile, Slovenia, Spain, Slovenia, Sweden, and the US). In a few cases, net familial transfers are negative and relatively large (Brazil, Mexico, and Uruguay).

Net public transfers vary widely in importance. In the Philippines and Thailand, net public transfers are essentially zero. Net public transfers fund roughly  $1/3$  of the lifecycle deficit in Mexico, the US, Korea, Taiwan, and China; one half in Uruguay; and  $2/3$  in Japan, Spain, and Costa Rica. Well more than two thirds of the lifecycle deficit of those 65 and older is funded by public transfers in Chile, Finland, Slovenia, Sweden, and Austria. In Brazil, net public transfers are about one third larger than the lifecycle deficit!

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6) Note that the shares must sum to one by definition, but they need not be positive. Negative transfer shares indicate that the elderly are giving more than they are receiving. If the elderly are saving all of their asset income plus some of their labor income, the share for asset based flows will be negative, but we do not observe this outcome for any country.

Figure 7. Support systems for persons 65 and older measured as shares of the lifecycle deficit, selected countries for a recent year



Source: National Transfer Accounts ([www.ntaccounts.org](http://www.ntaccounts.org)).

Note: Two digit country codes conform to ISO standards: [http://www.iso.org/iso/english\\_country\\_names\\_and\\_code\\_elements](http://www.iso.org/iso/english_country_names_and_code_elements)

Assets are most heavily relied on in the Philippines, Mexico, Thailand, and the United States. They are relied on to a much smaller degree in China and Taiwan, where family transfers are important, and in Finland, Chile, Sweden, Slovenia, Brazil, and Austria where public transfers dominate.

There are interesting regional patterns in the support system. Public transfer systems are most important in Europe and Latin America - especially Brazil - and least important in Mexico and developing Asia. Among industrialized countries public transfers to the elderly are less important in Japan and the United States as compared with European economies.

If we look at age detail rather than average values for all 65 and older combined, a different picture about the role of familial transfers emerges. There are two kinds of countries more or less. In one kind, illustrated by Korea 2000, the importance of public transfers does not vary substantially with age but familial

transfers increase dramatically while asset based reallocations decline with age. In the second case, US 2003 is a good example, familial transfers are relatively constant (and not very important) at every age, but as age increases public transfers rise and asset based reallocations decline (Figure 8, Panel A). For the most part, the first pattern is characteristic of Asia and some Latin American countries (Mexico, Costa Rica) but not others (Uruguay, Chile). The second pattern is characteristic of Western industrialized countries (Figure 8, Panels B, C, and D).

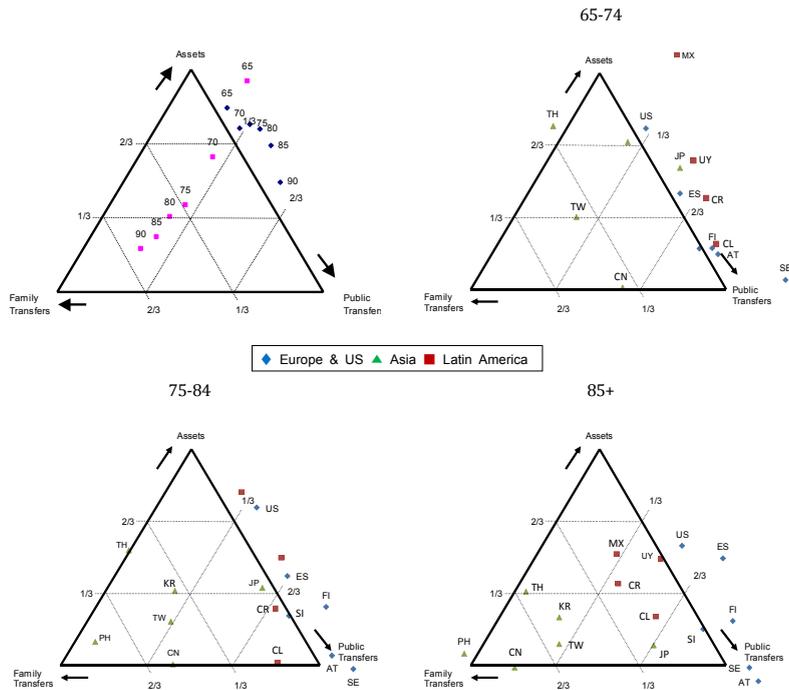
What is driving this? In almost every country, the importance of asset based reallocations decline with age because the very old have lower assets and asset income. This does not appear to be a consequence of the elderly spending down their assets. In none of the countries do we find dis-saving among the elderly at any age. But the elderly may have fewer assets because (a) they have transferred assets to their children, and (b) they accumulated less over their working lives because of low labor income relative to younger adults. The latter phenomenon is particularly important in countries that have experienced very rapid rates of economic growth over extended periods of time. A special feature of some transition economies, e.g., Hungary, Slovenia, and China, is that many elderly could not accumulate assets because private ownership was not allowed.

A second important force is spending and long term care. In the industrialized countries, public transfers devoted to these items increase dramatically with age and, because of the transfer systems in place, public transfers become increasingly important at older ages.

An important point here is the extent to which familial transfers filled in the gap for the very old. (Keep in mind that consumption profiles are relatively flat.) Neither public transfers nor asset based reallocations could have maintained an equitable standard of living across all ages. Familial transfers were critical to this outcome. As higher standards of living are reached and rates of economic growth have slowed in some countries, the generational differences may be much smaller and familial transfers may become less important. But in very high

growth economies, such as China and India, familial transfers may continue to be very important in reducing generational inequity.

Figure 8. Funding the lifecycle deficit of the elderly



Panel A: United States 2004 and South Korea 2000 at age 65, 70, 75, 80, 85, and 90+.  
 Panel B, D: Available countries for ages 65-74, 75-84, and 85+.  
 Source: Calculated by authors using National Transfer Account data from [www.ntaccounts.org](http://www.ntaccounts.org).

### Public Transfers to the Elderly

One of the most striking features of the support system for the elderly is the wide variation in the importance of net public transfers across countries. Net public transfers is a comprehensive measure of the net flow of economic resources to the elderly through public programs. As such it includes cash transfers, e.g., public pensions, and in kind transfers, e.g.,

publicly funded health care. But in kind transfers also includes each age group's *pro rata* share of public consumption that presumably benefits all members of society including national defense, public diplomacy, and other pure public goods.

There is another important difference between net public transfers and other measures of the size of public transfers. The elderly not only receive public transfers, but they also fund public transfers by paying taxes. Many social security programs are funded by taxing labor income and, hence, fall rather directly on those in the working ages. However, to a varying degree the elderly pay taxes on consumption, income, wealth, labor income to the extent that they continue to work, and public transfer inflows. Taxes on public transfer inflows varies across country but also varies depending on whether the transfers are cash or in kind. In the US, for example, health transfers are largely untaxed while pension benefits are taxed for the most part.

Important differences in the public transfer system are highlighted in Table 3 which reports net public transfers and public transfer inflows by sector (health, pensions, and other). These values have been normalized on the per capita labor income of persons 30~49. This facilitates comparison across countries and also has a ready interpretation. A value of 1.0, for example, would indicate a transfer equal to the annual labor income of an individual at the prime of his working life (30~49). This is the pre tax labor income and includes all benefits, self employment labor income, in addition to, salaries and wages.

In two countries, public transfer inflows actually exceed 1.0. In Sweden the mean public transfer inflows received by those 65 and older are 111% of the per capita labor income of persons 30~49. In Brazil mean public transfer inflows received by those 65 and older are 120% of the per capita labor income of persons 30~49. When we incorporate that public transfer outflows from the elderly to obtain net public transfers, the values drop to 78% for Sweden and 86% for Brazil. These are remarkably high values that are possible when the working age

population is substantially larger than the population 65 and older. But clearly net public transfers in this range cannot be sustained as the populations of Sweden and Brazil age.

The regional diversity in support systems noted above is also very evident in net public transfers in Table 3. Net public transfers are high in Europe, Japan, and in Latin America with the exception of Mexico. Net public transfers are quite low in the US as compared with other industrialized countries, but net public transfers to the elderly are also low in Spain.<sup>7)</sup> In Mexico and East Asia, Japan aside, net public transfers are much smaller and in Southeast Asia they are close to zero.

Table 3. Public Transfers, Average for Population Age 65+, normalized on

Region/Country	Net public transfer	Public Transfer Inflow			
		Total	Health	Pensions	Other
Europe and US					
Austria	na	0.79	0.15	0.54	0.10
Spain	0.36	0.55	0.12	0.35	0.08
Finland	0.57	0.75	0.12	0.45	0.18
Sweden	0.78	1.11	0.36	0.63	0.11
Slovenia	0.46	0.59	0.17	0.35	0.07
United States	0.31	0.55	0.21	0.22	0.11
East Asia					
Japan	0.44	0.67	0.20	0.35	0.12
Korea, Republic of	0.16	0.28	0.05	0.08	0.15
Taiwan	0.16	0.31	0.07	0.01	0.23
Latin America					
Brazil	0.87	1.20	0.09	1.00	0.11
Chile	0.48	0.59	0.06	0.47	0.06
Costa Rica	0.41	0.53	0.12	0.29	0.12
Mexico	0.17	0.32	0.06	0.10	0.16
Uruguay	0.37	0.50	0.04	0.39	0.07
Southeast Asia					
Indonesia	0.03	0.06	0.02	0.00	0.05
Philippines	-0.01	0.25	0.01	0.16	0.07
Thailand	-0.02	0.13	0.03	0.00	0.10

Note: All values are expressed relative to the average labor income of persons aged 30-49. Net public transfer inflows are equal to public transfer in flows less outflows. Source: [www.ntaccounts.org](http://www.ntaccounts.org).

7) Net public transfers as a share of the lifecycle deficit is much higher in Spain than in the US, because the lifecycle deficit in the US is much higher than in Spain.

One interesting feature of Latin America is that net public transfers are relatively high as compared with public transfer inflows except in Mexico. Net transfers range from 72% of public transfer inflows in Brazil to 82% of public transfer inflows in Chile. In Europe the values range from 64% in Spain to 78% in Slovenia. By comparison, net transfers are 65% of transfer inflows in Japan and only 57% in the United States. Properly assessing the importance of intergenerational transfers to the elderly requires information about the extent to which the elderly themselves are funding public transfers.

To a considerable degree public transfers are high because public pensions are high. In some Latin American countries, public pensions are close to 80% of public transfer inflows. In European countries public pensions are closer to 60 to 70% of public transfer inflows, while in the US public pension inflows are only 40% of public transfer inflows. Health care bears a more complex relationship to public transfers. In many countries, the public sector funds all or a large portion of health care costs. Hence, health transfers tend to be more important in richer countries where spending on health, in general, is higher. The US is again somewhat atypical with its very high spending on health care. Note, however, that spending in Sweden is even higher because of public spending on long term care which is included in the figure.

## **TRANSFERS AND INTERGENERATIONAL EQUITY**

Intergenerational equity is an important issue that frames much of the public debate about social security and other public programs that tax one generation for the benefit of another. Some observers are concerned about the amount of public resources directed at children as compared to those directed at the elderly. Other observers emphasize a concern that public programs benefit current generations at the expense of future

generations. These concepts are closely linked concepts because downward intergenerational transfers benefit children and future generations while upward intergenerational transfers benefit the elderly impose a cost on future generations.<sup>8)</sup>

A simple approach to assessing intergenerational equity is to compare current public spending on the elderly and on children. This is a useful starting point, but such an approach has limitations and can be misleading on several grounds.

First, generations vary both in what they receive and what they give. Taxes paid by the elderly are generally higher than those paid by children. Thus, benefits provided to the elderly overstate their net transfers and exaggerate the extent to which economic resources are being redirected to the elderly as compared with the young. This problem is remedied by comparing net transfers.

Second, needs vary by age. If the goal is to insure that individuals achieve some basic standard of living, net transfers will vary so as to reflect that variation in need. This point seems obvious when we consider the need for food and clothing, for example, but less so in the case of health care. In rich societies high levels of spending on health care for the elderly may be viewed as part of providing for basic needs. Thus, if the goal of public programs is to meet some basic standard, net transfers may vary considerably with age and intergenerational equity can be assessed, for example, by comparing poverty rates across age groups or in similar ways (Preston, 1984, Turra *et al.*, 2009).

Third, many public programs involve a form of saving or investment. Education is an obvious example. At the most basic level we invest in children because of the returns, both monetary and otherwise, that are realized over the remainder of their lives. Some of the benefits accrue to those receiving the

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8) Intergenerational equity is one of many important features of social security programs. They may reduce intragenerational inequity and insure against risks, e.g., longevity risk, that private markets do not effectively cover.

investment and some spills over to society at large. Equity considerations imply that those who benefit from publicly funded human capital investment when young should repay that investment through higher taxes as adults. But equity considerations would not suggest that money spent on education should be matched by money spent on the elderly.<sup>9)</sup> Public pensions can be viewed through a similar lens. Contributions to pure transfer systems (PAYGO pensions) are not saving or investment, but they are a form of forced pseudo saving with contributions during the working years repaid through pension payments during retirement. Of particular interest on equity grounds is whether each generation is receiving pension and other public transfer payments that are consistent with the contributions they have made.

All intergenerational transfer programs are characterized by an important feature - that transfers received are separated by many years from transfers made. This has implications for assessing the economic value of a particular transfer system for any cohort, and implications for the extent to which costs or benefits are being shifted to future generations. With public education programs and other downward transfer systems, future generations will benefit from transfers they will receive from members of the current population. With public pensions and other upward transfer systems, future generations will bear some of the cost of funding benefits that will be received by the current population. Thus, the costs and benefits shifted to future generations depend on the lag between payment and receipt of transfers, as well as, the annual flow for each transfer program.

A comprehensive measure of the resources shifted from future generations to current generations is transfer wealth. This is simply the present value of all transfer that those currently alive

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9) But see Becker, G. S., Murphy, K. M. 1988. "The Family and the State", in *Journal of Law & Economics*, Vol. XXXI, No. April. and Bommier, A., *et al.* 2004. The Development of Public Transfers in the US: Historical Generational Accounts for Education, Social Security, and Medicare. *Annual Meeting of the Population Association of America*. Boston, MA. on this point.

will receive from those not yet born less transfers that those currently alive will pay to those not yet born. Downward transfers, those to children, create negative transfer wealth - the obligation of the current population to future generations, while upward transfers, those to the elderly, create positive transfer wealth - the obligation of future generations to the current population. Under special circumstances transfer wealth is equal to the product of the annual flow and the age span of the transfer systems, i.e., the average age at which benefits are received less the average age at which benefits are paid (by taxpayers) (Lee, 1994, Willis, 1988). Under more general circumstances, the product of the annual flow and the age span is an approximation of the extent to which transfer systems are burdening or benefiting future generations.

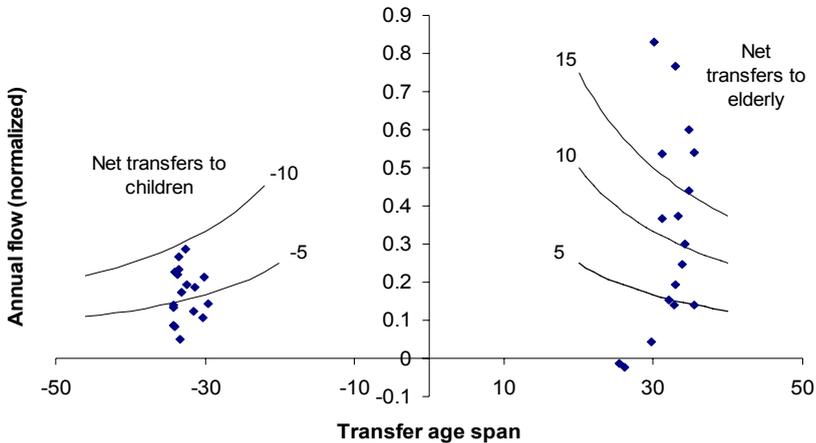
A final issue is an important one - the role of private transfers. As we have seen in the case of Japan (Figure 6) private transfers are dominated by transfers to children. Private transfers to children are dominant, as well, in the Western countries and the Latin American countries for which we currently have estimates. In addition to the inter vivos transfers presented here, bequests are another important transfer from older to younger generations. Clearly a comprehensive understanding of intergenerational transfers requires that both public and private transfer be considered. Otherwise, misleading conclusions about generational equity can easily be reached.

The analysis presented here is based on National Transfer Account estimates of public and private transfers for 15 high and middle income countries. Calculations are based on per capita age profiles of net public and private transfers to children (0~19 years of age) and to the elderly (60 and older) in a recent year that varies from country to country depending on data availability. To control for differences in age structure we have calculated values using the stationary age structure consistent with survival rates for the US population in 2000. Annual flows have been normalized by dividing by the average labor income of persons 30~49 in order to facilitate comparison across countries

with very different levels of income. The mean age of inflows is calculated using net inflows as weights for those 0~19 and 60 and older. The mean age of outflows is calculated using the net outflows as weights for those aged 25~59. Transfer wealth is calculated as the product of the annual flow and the difference between the mean age of inflow and the mean age of outflow.

Net public transfers to children and to the elderly are summarized in Figure 7 with values by country presented below in Table 4. Annual net public transfers to children range from a little less than 30% of the per capita labor income for those 30~49 (Japan) to less than 5% (China). The variation in the age span of transfers is modest ranging from just under 30 years to somewhat more than 34 years. Per capita transfer wealth, the estimated obligation to future generations, varies from about -2 to almost -10 times per capita labor income of persons 30~49 years of age - as represented by the isoquants.

Figure 9. Summary of net public transfers to children and the elderly, 15 high- and middle-income countries



Note: All values are calculated using single year of age estimates of transfer inflows and outflows and a stationary population age distribution consistent with US 2000 survival rates. Net transfers and the mean age of inflows are calculated using net transfers to the elderly and to the young. The mean age of outflows is the mean age of net transfers for persons 25~59. The transfer span is the mean age of inflow less the mean age of outflow. Transfer wealth is the product of the transfer age span and the annual flow and is represented by the isoquants.

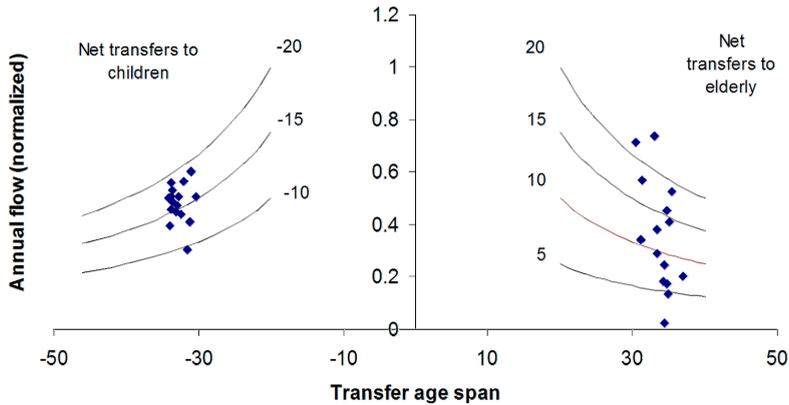
Source: Constructed by authors using NTA estimates from [www.ntaccounts.org](http://www.ntaccounts.org).

Net public transfers to the elderly vary a great deal. In some countries the annual flow is close to zero or even negative, while in others it exceeds 75% of the labor income of a 30~49 year old adult. The age gap is also more variable ranging from 25 to 35 years. Estimated transfer wealth - the burden the current generation is imposing on future generations - ranges from essentially zero (China, Philippines, and Thailand) in a few countries up to a high of 25 (Austria and Brazil).

Averaging over the 15 countries, net public transfers to the elderly whether measured using the annual flow or transfer wealth are twice net public transfers to children. Combining transfers to children and to the elderly, the "average" public transfer system is burdening future generations by a substantial amount - about 5 years worth of average labor income for a prime age adult. The variation across countries is considerable, however. In the Philippines and Thailand the public transfer system favors future generations. In China, South Korea, Taiwan, and the United States combined transfer wealth is less than one year's worth of prime adult labor income. In Europe and Latin America the public burden on future generations is substantial and particularly in Brazil where combined transfer wealth is almost 18 years worth of prime adult labor income.

The picture changes dramatically when private transfers are combined with public transfers (Figure 10). Net combined transfers to children are substantially higher than net public transfers. On average the annual flow is 0.47 for combined transfers as compared with 0.16 for public transfers alone. Transfer wealth -15.6 for combined transfers as compared with -5.3 for public transfers - the obligation of the current generations to future generations of children are very substantial. To a modest degree public and private transfers to children are substitutes - the simple correlation between public and private transfers is -0.38 and child transfer wealth is less variable than public child transfer wealth (as measured by the coefficient of variation, for example.)

Figure 10. Summary of net public and private transfers to children and the elderly, 15 high and middle income countries (Annual flow(normalized); See notes for Figure 9)



Net combined transfers to the elderly are modestly greater than net public transfers. Combined transfer wealth due to transfers to the elderly is 12.0 as compared with 10.8 for public transfer wealth. The correlation between public and private transfer wealth is stronger for the elderly (-0.65).

On average total transfer wealth is negative and equal to -3.6 years worth of prime adult labor income per person (-15.6+12.0). Given the current transfer profiles for public and private sectors combined, future generations will receive more from current generations than they are obligated to pay to current generations. Future generations will benefit primarily due to transfers from their parents and pay primarily through the higher taxes they will pay.

Transfer systems in four countries, Austria, Brazil, Hungary, and Sweden, impose burdens on future generations with Austria imposing the greatest burden by a substantial margin. In Slovenia, total transfer wealth is less than 1 year worth of labor income. Brazil is an interesting case in that private transfers to children are so substantial and offset to a considerable degree the enormous public transfers to the elderly.

In the other ten countries transfer wealth is negative, i.e., future generations will be the beneficiaries of transfers from current generations, if current transfer profiles persist. The largest transfers to future generations are found in the Philippines, the United States, Spain, Thailand, and Uruguay, in that order.

Large net public transfers to the elderly do not necessarily burden future generations. They may be balanced by large public or private transfers to children. To some extent that balancing occurs, but it is incomplete. In general, countries with large net public transfers to the elderly typically are burdening future generations through their transfer systems. These systems can be reformed to reduce, to eliminate, or to reverse this generational bias. In some cases, reforms have already been enacted but have not yet begun to influence the generational flow of resources.

A final consideration in realizing a comprehensive assessment of generational equity is that the estimates presented here do not include bequests. Transfers to the elderly may be saved and bequeathed to their descendants. To the extent that the elderly behave in this way, the effects of large public transfer programs on intergenerational equity will be moderated and possibly eliminated or reversed.

Table 4. Summary of intergenerational transfers for 15 high- and middle-income countries

	Children(0-19)			Elderly(60+)		
	Age span	Annual flow	Transfer wealth	Age span	Annual flow	Transfer wealth
<i>Public transfers</i>						
Austria 2000	-33.5	0.23	-7.8	33.0	0.77	25.4
Brazil 1996	-31.5	0.12	-3.9	30.2	0.83	25.1
China 1995	-33.3	0.05	-1.7	29.7	0.04	1.3
Costa Rica 2004	-30.3	0.11	-3.2	31.3	0.37	11.4
Hungary 2005	-32.4	0.19	-6.3	31.3	0.54	16.8
Japan 2004	-33.6	0.27	-8.9	33.4	0.37	12.4
Philippines 1999	-34.1	0.08	-2.8	25.5	-0.01	-0.4
Slovenia 2004	-30.1	0.21	-6.4	34.8	0.44	15.3
South Korea 2000	-29.6	0.14	-4.2	32.9	0.14	4.6
Spain 2000	-33.1	0.17	-5.8	34.2	0.30	10.2
Sweden 2003	-34.0	0.23	-7.7	34.7	0.60	20.8
Taiwan 1998	-31.3	0.19	-5.8	35.4	0.14	5.0
Thailand 2004	-34.3	0.13	-4.5	26.2	-0.02	-0.6
Uruguay 2006	-34.3	0.09	-2.9	32.9	0.19	6.4
US 2003	-33.8	0.22	-7.5	33.9	0.25	8.4
Average	-32.6	0.16	-5.3	32.0	0.33	10.8
<i>Public and private transfers combined</i>						
Austria 2000	-32.4	0.44	-14.2	33.0	0.74	24.3
Brazil 1996	-34.0	0.50	-17.0	30.4	0.71	21.7
China 1995	-31.5	0.30	-9.5	36.9	0.20	7.4
Costa Rica 2004	-33.1	0.45	-14.8	31.2	0.34	10.7
Hungary 2005	-31.2	0.41	-12.7	31.3	0.57	17.8
Japan 2004	-33.8	0.56	-19.0	33.3	0.38	12.6
Philippines 1999	-33.7	0.46	-15.4	34.4	0.03	0.9
Slovenia 2004	-30.4	0.51	-15.4	34.8	0.45	15.7
South Korea 2000	-32.8	0.50	-16.5	33.3	0.29	9.7
Spain 2000	-33.6	0.53	-17.9	34.4	0.25	8.5
Sweden 2003	-33.5	0.49	-16.3	35.4	0.53	18.6
Taiwan 1998	-31.1	0.60	-18.7	35.1	0.41	14.4
Thailand 2004	-32.9	0.47	-15.5	34.3	0.19	6.3
Uruguay 2006	-33.9	0.40	-13.4	35.0	0.14	4.7
US 2003	-33.8	0.51	-17.1	34.7	0.17	6.1
Average	-32.8	0.47	-15.6	33.8	0.36	12.0

Note: All values are synthetic cohort estimates based on US2000 survival rates for both sexes combined. Transfer age span is the difference between the average age that transfers are received and the average age that they are given. Annual flow is net transfer inflow to children and the elderly normalized on per capita labor income 30-49. Transfer wealth is the product of the transfer age span and the annual flow. See text for further discussion.

Source: Estimated by authors using NTA([www.ntaccounts.org](http://www.ntaccounts.org))

## **ECONOMIC GROWTH**

The welfare of future generations depends on the extent to which we burden them through our transfer systems, as discussed in the preceding section, but also on continued economic progress. Population aging and aging related policies have important implications for economic growth (Cutler *et al.*, 1990). The number of workers will grow more slowly than the population in coming decades, reversing the favorable trend often referred to as the demographic dividend (Bloom and Canning, 2001, Bloom and Williamson, 1998, Mason, 2001, Mason and Lee, 2007). The economic support ratio has been increasing in many countries but now it is beginning a long decline.<sup>10)</sup> It is possible that the decline in the support ratio will be more modest than appears likely. Childbearing could rebound as a consequence of behavioral changes or pronatalist policies. The economic lifecycle could go through a radical restructuring along the lines discussed above. But based on experience to date, it appears likely that the economic support ratio will decline for the foreseeable future.

Whether economic progress slows or standards of living actually decline will depend on a variety of forces - political stability, technological innovation, and environmental policy, for example. But policies related to intergenerational transfers and social security will play an important role, as well. The important issues have been discussed extensively and will only be briefly described here.

First, heavy reliance on public transfer systems will require substantially higher taxes undermining work incentives both for those nearing retirement but also for young and middle aged adults (Gruber and Wise, 2001, Gruber and Wise, 1999). Second, heavy reliance on either public or private transfers to fund

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10) The economic support ratio is defined as the number of workers adjusted for age differences in productivity divided by the population adjusted for age differences in needs.

retirement needs undermines saving incentives. In countries where the elderly are relying on assets to fund their retirement, population aging will lead to an increase in aggregate assets, greater asset income and higher wages (Feldstein, 1974, Kinugasa and Mason, 2007, Lee *et al.*, 2003). Third, if low fertility is matched by substantial increases in human capital investment - as appears to be the case in many countries - the aggregate productivity of the labor force may continue to grow even though the number of workers does not (Becker and Barro, 1988, Lee and Mason, 2009). By substituting quality for quantity the adverse economic circumstances of population aging can be largely offset.

The evidence argues for reform of social security systems that are so large that they are unsustainable, competing with children and future generations for public resources, and undermining incentives to work and to save. But more moderately sized social security systems are sustainable, consistent with generational equity, and compatible with continued economic growth.

## CONCLUSION

Population aging is a widespread and powerful force that is certain to an unprecedented and fundamental shift in intergenerational flows. In the past, the flows were predominantly downward from adults to children, but in the future the flows will be predominantly in the upward direction - from prime age adults to the elderly. This reversal is primarily a consequence of sheer numbers - more resources are flowing to the elderly because there are more elderly. But an important supporting role has been played by changes in the economic lifecycle. Per capita consumption by the elderly is higher while their per capita labor income is lower in old as compared with younger countries. The differences are clear in cross country comparisons, but also in long-term trends in the

industrialized countries.

Radical changes in the economic lifecycle may come. Improving health and changes in policy may encourage people to extend their working years. Growth in health care spending, heavily concentrated at older ages, may yet be reined in. However, intergenerational flows to the elderly appear certain to increase.

The public sector is playing a dominant role in some parts of the world, notably Europe and parts of Latin America. Familial transfers are important to the elderly in some Asian countries, but they are declining in their importance. In a number of countries, the elderly are relying heavily on assets to fund their retirement rather than on public or private transfers.

A matter of grave concern is that public transfer programs are a source of intergenerational inequity. In most countries, the public sector does favor the elderly over the young and the current population over future generations. This is balanced, however, by large private transfers that favor the young. In some countries, however, public transfer systems are sufficiently large that they dominate private transfers creating a system in which the current population is maintaining standards of living by claiming the resources of future generations. Once bequests are considered, however, it is quite likely that all intergenerational flows combined will favor future generations although less so than in the past.

If population aging undermines economic growth standards of living for future generations will also be compromised. Labor forces will grow more slowly than consumers in aging countries putting downward pressure on economic growth. There are ample opportunities, however, to counter these forces by encouraging greater work effort, higher rates of saving and investment, and greater investment in human capital. Success can not be realized, however, by increased reliance on social and economic institutions created in a different time. Continued prosperity requires adaptation to our changing demographic circumstances.

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A Study on Social Risk  
Management Policy toward  
Population Aging  
- On the Basis of Senior Employment  
Promotion Programs between Korea  
and U.S -

*Kwon, Yong Sik<sup>1)</sup>*

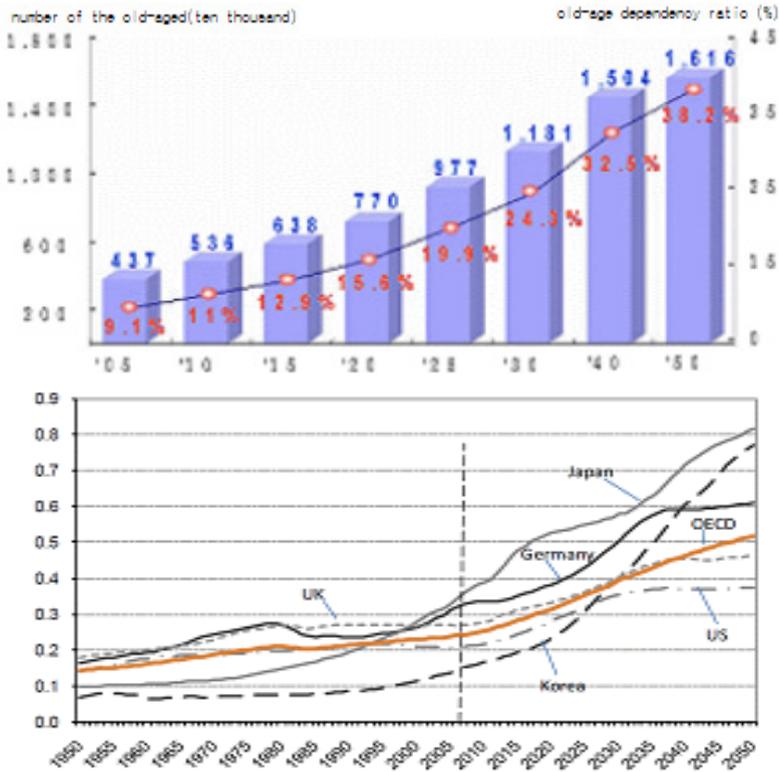
## INTRODUCTION

Korea's population is rapidly aging. The total fertility rate (TFR) decreased from 4.53 children per woman in 1970 to 1.08 in 2005, reaching the world's lowest level. As of 2005, the share of the population aged 0 - 14 was 19.1%, while the share of population aged 65 and over was close to 8%. According to the most recent UN projections (medium scenario), the elderly share in Korea will grow very rapidly, surpassing that of the United States and many European countries in less than two decades. About 20% of Korea's population will be 65 or older in 2025, and this share is projected to exceed 37% by 2050. The challenges resulting from the rapid aging and extremely low fertility level are of great concerns to Korea simply because no other society has faced so dramatic a demographic transition.

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Figure 1. Old-aged (65 and over) in Korea and old-age dependency ratio



Source: BAI, 2007; OECD, 2009

In addition, according to the KNS, the percent of the old aged over 65 to the population is rapidly increasing in Korea<sup>2)</sup>. That is, although the index of the elderly<sup>3)</sup> in Korea, 2010 is still lower (68) than other OECD countries (97), but, after 2020, that will overtake that of other OECD countries. Meanwhile, workers age 55 and over are expected to increase from 16% to 21% of the U.S. labor market<sup>4)</sup> between 2004 and 2014 while workers

2) The proportion of the elderly (over aged 65) to the population Korea: 11.0% (2010) → 24.3% (2030) → 38.2% (2050) / OECD Countries (2050): 21.6% (U.S), 26.9% (FR), 37.8 (JP)

3) the index of the elderly(%)=the elderly(over aged 65)÷the youth(less than aged 14)×100

aged 25 to 54 are expected to show a decrease in the same period (Toossi, 2005).

The rapid aging is viewed as one of the representative *new social risks*<sup>5)</sup> which hinder *sustainable growth* and *social cohesion*. Complicating the response are fiscal burden through rapid increase in welfare expense, inter-generational conflicts, deteriorating familial support system, and poverty of older population. Under this circumstances, market system has limited power to deal with these *uncertainties* and *risks*. Hence, a national policy intervention is required to handle such problems. Sharing and dispersing those risks socially to a manageable level are the essential function of the intervention. One of the important policy intervention is "encouraging active participation and utilization of the senior labor force in the labor market". It is considered an effective tool to maintain sustainable growth of a society, to promote health and social participation, and to support income for the elderly. Therefore many reports claimed the importance of promoting such programs in Korea (Lim, 2008; Lee, 2006; Park, 2005, etc.).

In this regard, many countries and international organizations, such as Japan, UK, UN, and OECD have promoted various employment programs that enhance income security and welfare for the elderly, by providing jobs as a important policy coping with the *Aging Society* (Jang and Kim, 2003 3-4). As a result, the recent reformation of social welfare policies in advanced countries boils down to *Workfare* or *Welfare-to-Work* from *Welfare*. This is implemented by a close connection between

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4) Although U.S. is in relatively good condition on the index of the elderly comparing to other advanced countries, but, during the next 10 years, 43% of the U.S. civilian labor force is eligible to retire. And by 2012, 40% of U.S. workers will be ages 45 and older (Michelle, 2008). So *active participation and utilization of the senior labor force in the labor market* also came to U.S. as one of the important policy issues.

5) The new social risks mean the type of risk with increasing danger of social group to be in poverty according to global economization, demographic structure (low birth rate and rapid aging), and the change of social structure (destruction of traditional family support system) (Huber and Stephen, 2004).

social welfare policies and labor market policies. Job creation for the elderly is necessary to make this policy successful. (Phang and Hwang, 2002: 74)

In countries with advanced welfare systems such as the UK, US, EU, Japan, various employment promotion programs for the elderly<sup>6)</sup> are introduced, such as job training and creating jobs. These policy programs are intended to realize "the increase of social participation of the old aged and integrated welfare for the old aged by providing jobs". (Kordi, 2008a: 57-65)

This paper focuses on the representative employment promotion program for the old aged in the US, "Senior Community Employment Program" (SCSEP), which is similar in its character and policy direction of Korea's "Job Creation Projects for the Elderly" (JCPE). My study evaluates and compares these programs as a successful example of many similar programs. First, this study will focus on the maintenance and development progress of SCSEP of the US, which is a market focused welfare system characterized by the least (or taking a surrounding role) national intervention regarding welfare. Then I will compare it with JCPE in Korea, followed by a review focusing on policy issues. The policy issues will address issues related with future direction for development of JCPE, and with issues for promoting *active aging* and *successful aging*.

## REVIEW OF PREVIOUS STUDY

Case studies of advanced countries' employment promotion program for the old aged or policies for creating jobs for the old aged in order to cope with aging society, are mainly held in a macro aspect such as introduction of related law and system, suggestion of policy issue, and so on. Such studies mostly focus

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6) *Old Workers Sheltered Workshop* in England, *Silver Center* in Japan, *SCSEP* in the US can be examples of such.

on example of policies of Japan, Europe (Kim, 2008; Kim, 2007; Hwang, Kim, and Shin 2006; NPS, 2005, 2004). However, studies on the case of the U.S, a classic example of recent welfare reformation to *workfare* or *welfare-to-work*<sup>7)</sup>, are rarely held.

And especially, there are almost no case studies of comparison and analysis on employment promotion program for the elderly among nations, except a few studies (Kang and Mo, 2007).

In Korea, most studies on the employment promotion program for the elderly have been held since its beginning in 2004. The representative type of study can be classified as ① Social and economical effect analysis of JCPE (SNU, 2009; Lee and Lim, 2007; Kim, 2006) ② Evaluation of satisfaction and affects on the quality of life of participants, self-respect, and etc (Kim and Lee, 2009; Kwon, Kim, Lim, and Lee, 2007; Kwon and Park, 2007). ③ Research on actual conditions of JCPE participants (Kordi, 2008b). ④ Current state analysis and evaluations of JCPE for program revitalization (Choi, Shon, Suh, and Jung, 2009; Lim, 2008; Lee, 2005; Lee, Lee, and Gang, 2004).

These studies are practically proving that the effect of the program for improving the quality of life for the elderly is showing in various aspects on JCPE. But mainly, they are simply focused on state analysis or effects of JCPE. (Choi *et al*, 2009; Yu and Jang, 2008; Kordi, 2008a; Lee, 2005; Lee, 2004, Jang and Kim, 2003) Therefore, comparative analysis with other similar programs are almost not held.

Meanwhile, in case of studies related to SCSEP, despite the program is the only employment promotion program for the old aged of the federal level of the US as well as the successful case of program which is constantly held until now since its beginning in 1965, related domestic and overseas studies are

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7) Regarding the workfare, while the US shows it as punitive approach regarding the reliance of welfare, Europe shows it as a social integrated policy for corresponding to social exclusion of the socially weak. The representative workfare policies in the US are, TANF, Public Assistance, EITC, Food Stamp. In my opinion, SCSEP can also be included in such types in that it shares the character of "forced work" and "limit of period of earning in one's life" as "welfare related to labor", and not "no-strings benefit for welfare".

considerably short. Domestic studies related to this are stuck in the level of summary explanation of mainly the system outline and content of process, introducing them as one of the various employment promoting programs for the old aged of advanced countries (Choi *et al*, 2009), or they do not reflect the details of modification and improvement of system<sup>8)</sup> regarding OAA in 2006, and also, they lack the attempt to search for issues for policy through detailed comparative analysis of certain policy among nations.

In case of overseas studies, except a few scholarly studies (Lee, 2009; Woodall, 2005; Kim, 1998, etc.), there are some studies and performance reports by DOL, Charter Oak Group, and Host Agencies. But recent diverse and accumulated research on SCSEP are relatively rare.

Lee(2009) examined the experiences of older immigrant Asian workers (n=148, Chinese and Korean in Los Angeles and New York) with mixed quantitative method and qualitative method. The major findings of the study identified that factors directly related to job training, such as training conditions and perceptions about employment, have more impact on program satisfaction than participants' demographic characteristics. She reconfirmed previous research results that Asian older workers expressed their meaning of work as improving positive attitudes in their lives, self-sufficiency and social support. Therefore, SCSEP seemed to provide Asian Immigrant older workers a sense of successful aging and life satisfaction. And SCSEP requires to overcome language barrier, age discrimination for the immigrant older workers in order to improve program satisfaction and program performance.

Kim(1998) evaluated the influences of the SCSEP on older Korean American in Los Angeles and New York (n=140). The

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8) In 2006, according to the modification of OAA and the improvement of SCSEP system, there have been some major changes in SCSEP. They are as follows.

① a nationwide survey of the three customer groups (participants, employers, and host agencies), ② emphasis of achievement evaluation, ③ limit of period of benefit during one's life, ④ the increase of national organizations (13→18), ⑤ emphasis on market style and unsubsidized employment. etc.

results founded that SCSEP participants showed overall satisfaction with program participation and positive changes in financial independence, emotional stability, status in their family, status in society, and health status. Therefore, he asserted that SCSEP should be expanded or at least be continued and more attention should be given to job-training, supervision at the workplace, and regular survey from the administration.

Woodall(2005) researched an analysis of the barriers that current and former SCSEP participants identified as inhibitors to successful placement into unsubsidized employment. According to the results, the crucial barriers facing SCSEP participants pointed out a lack of job skill training, age, physical limitation and period of program. Therefore, SCSEP should be more improved to provide more focus on expanding jobs and needs of older workers. [Ages of these older workers?]

According to the review of previous studies, advanced countries' detailed policy cases compared with Korea's similar ones are considerably rare. So, the purpose of this study is to intend to deduce the successful factors through comparative analysis regarding mutually similar detailed policy cases and to review the issue of the policy to be helpful to revitalize the program of creating jobs for the elderly. I hope this is help to seek more effective job creating program for the elderly, JCPE, which is processed as a series of general welfare policy for the old aged as well as the representative employment promotion program for the elderly.

## **SCSEP IN THE US**

### *Process and Status*

The old aged in the US feel worth of life through taking part in community participation program, and at the same time, they are encouraged to be employed so that they would have supplementary support for income, and also, they are supported with utilizing their experiences of their prior work, hobbies, and

their life after retirement (Choi *et al*, 2009). [Consider retirement age in the U.S. and in Korea]

For promoting employment and job training for the old workers, there are four major programs which have fund supported by the federal government. These four major federally funded employment and training programs in which older workers participate : Job Training Partnership Act (JTPA) Adults Training (Title IIA), JTPA Services for Older Workers (Title IIA, Section 204(d)), JTPA Dislocated Worker Training (Title III), Senior Community Service Employment program (SCSEP). Among these employment and training programs, JTPA Title IIA, Section 204(d) and SCSEP specially target older wokers who are over 55 years old. Since July 2000, JTPA has been replaced by the Workforce Investment Act (WIA) (Lee, 2009: 18-19).

Senior employment promotion program in the US is executed through SCSEP generally managed by DOL. The SCSEP was started in 1965 as part of the War on Poverty by Johnson Government and was so successful that it became a national program under the Older Americans Act<sup>9)</sup> in 1973 (Senior Service America). The SCSEP is the only federal employment program that specially targets older Americans. According to GAO (2003), SCSEP serves approximately two-thirds of individuals<sup>10)</sup> aged 55 and over who receive federal employment and training services (Susan, 2008: 184).

The SCSEP is a community service and work based training

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9) The SCSEP grew out of the older workers component of Operation Mainstream, a pilot project established in 1965 under Title II of the Economic Opportunity Act. Operation Mainstream provided job opportunities for chronically unemployed, poor adults. In 1973, the older worker component of Operation Mainstream was converted from a pilot project to an ongoing program (SCSEP) under the Older Americans Comprehensive Service Amendments. The 1978 Comprehensive Older Americans Act Amendments redesignated the SCSEP as Title V of the Older Americans Act. (DOL, SCSEP working handbook)

10) Although the Work Force Investment Act(WIA) is the country's primary public employment and training services program, the number of older workers who are served by WIA programs is considerably smaller than the number served by SCSEP. (Susan, 2008: 184)

program for older workers. Authorized by the Older Americans Act, the program provides subsidized, service-based training for low-income persons 55 or older who are unemployed and have poor employment prospects. Participants work an average of 20 hours a week, and are paid the highest of federal, state or local minimum wage. They are placed in a wide variety of community service activities at non-profit and public facilities (DOL, 2010).

The goal of SCSEP is to promote economic self-sufficiency for the elderly and to provide community services and part-time work based training program (DOL, 2009; Lee, 2009). And it is also to place 30% of its authorized positions into unsubsidized employment annually<sup>11</sup>).

The SCSEP provides subsidized part-time and community service employment for individuals aged 55 and older who have incomes below 125% of the federal poverty level. Program participants work an average of 20 hours a week, and are paid federal minimum wage. They are placed in a wide variety of community services at non-profit and public facilities, including day-care centers, senior centers, schools, and hospitals.

Historically, although The emphasis of the SCSEP has moved into unsubsidized employment from placement rate, participating community society and support income after amendment of OAA in 2000, the unsubsidized employment remain relatively low (Susan 2008: 184, Lee 2005: 56).

Section 503(a)(4)(c)(i)-(iv) of the OAA requires information about the relative distribution of those eligible individuals with greatest needs, eligible individuals who are minorities, and eligible individuals with the greatest social needs who must be afforded priority of service as OAA sec 518(b) and certain other population group, that is, are aged 65 years or older, disability, have limited English proficiency or low literacy skills, reside in rural area, are veterans or their spouses, have low employment

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11) It is explained that SCSEP is intrinsically training course for a job. This helps to increase employment of participants and encourage participate the program to more older workers by preventing long-term public subsidy to individuals.

prospects. etc (Minnesota, 2008).

SCSEP selects people through family means-test because it attaches importance to family support obligation. Especially, it regulates selection giving privilege to female, disabled, and so on who need social support as special population group, which has important meaning to old aged female, farm village residence, old aged immigrants who lack of language proficiency, and who have low work experience and low job skills.

### *Program Operation and Support System*

#### *Legal and systematic aspect*

SCSEP is based on Title V of OAA, and the law is constituted by a total of 7 chapters. Among these, the part related to the guarantee of income for the old aged is Chapter I Purpose and Chapter V Community Service Employment for older Americans, which regulate appropriate income guarantee for the retired, prevent discrimination of employment opportunity, search for expansion of employment for the old aged, and so on (Lee, 2005). Through two times of modification in 2000 and 2006, the OAA included contents of encouraging the elderly for their financial independence and increasing unsubsidized employment which do not have subsidies paid in public and private sectors. In addition, it layed a responsibility on state government to provide assurances for the furnishing of services and job projects fit for the old aged.

Especially, after amendment of the OAA in 2006, the OAA added regulations restricting period of SCSEP participation. The regulation was in force in July 1th, 2007, that is, up to 48 months in lifetime and average 27 months during one program (Sec. 518) (DOL, 2009). This limit terms of participation in SCSEP is one of the significant features as a *workfare* and *market-oriented welfare system* in U.S. This means it is imperative that participants find unsubsidized employment as quickly as possible. It aims to reduce excessive dependance on welfare from the State and to relieve financial burden of

government. SCSEP is related to 「Age Discrimination in Employment Act: ADEA」 and 「Workforce Investment Act: WIA」.

The whole program budget of SCSEP is operated by the subsidy of the federal government. The SCSEP confirms around \$500 Million annually. The SCSEP funds are allocated to state and national organizations in accordance with the formula in Section 506 of the OAA. The appropriations act traditionally allots 22% of the SCSEP funds within a state to the agency designed by the governor and 78% of the SCSEP funds to those 18 national organizations which operate in the state. (Sec. 506, 641.202) Agencies and organizations eligible to receive SCSEP funds shall be those specified in sections 502(b) and 506(a) of OAA (DOL, 2010). The amount allocated to each state is based on the per capita income of each state compared with national per capita income, on the number of eligible persons (those 55 years of age or older with incomes within the specified limits), and on a hold harmless base (Sec. 506(a), 641.201).

And regarding territories such as Samoa Islands, Guam, 0.75% of the total budget is allocated. And in case of minorities such as Indians, natives of Asia-Pacific, necessary budget as needed is allocated. (Kordi, 2008a: 64).

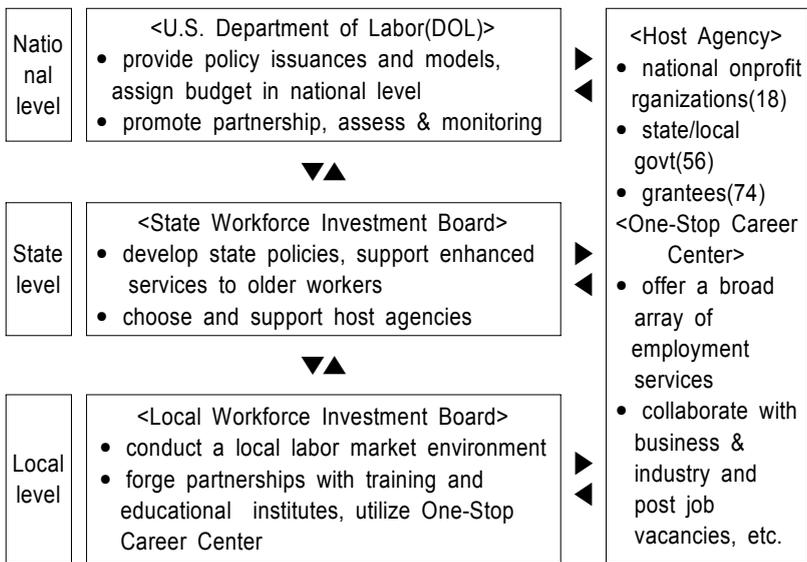
#### *Processing system*

SCSEP is hosted by DOL/ETA, DOWP of federal Ministry of Labor, taking in charge of making instructions, allocating budget, monitoring, various studies, and so on. The host agencies consist of institutes for the old aged (institutes contracted out by state government or local government) and 18 National Organizations Grantees such as AARP which has a nationwide organization network, and 56 SCSEP State or Territorial Grantees such as organizations of state/local government or public/ non-profit institutes such as Salvation Army, UMCA, Environment Protection Center perform entrusted work from state/local government or National

Organizations Grantees.

In addition, the operation support system of SCSEP is established systematically and efficiently from legal support of federal level to administrative performance of local communities with close connection between integrated on-line system and One-Stop Career Center<sup>12)</sup> in their local communities. They provide a wealth of information related to employment for the old aged and support job seeker to efficiently utilize various information matching for one's characteristics and needs (Lee, 2009).

Figure 2. The performance system of SCSEP



Source: reorganizing U.S. Department of Labor(2009), A Protocol for Serving Older Workers)

12) Considering the aging and tendency of retirement of the baby boom generation, the DOL provided an integrated service related to employment, training, and welfare so that old aged workers can correspond to technological change through the One-stop Career Center system based on WIA to correspond to potential phenomena of labor shortage so that old aged workers would actively participated in the labor market.

SCSEP is an employment promotion program by the federal budget, but the federal government just prepares for the plan in a national level. The state/local governments and national organizations actually operate and execute the program in detail, which its autonomy is quite highly evaluation.

*Program content and process*

There are several detailed programs of SCSEP; ① Program of Experience Works ② Program of National Senior Service Corps, and so on (Jang and Kim, 2003: 47-50).

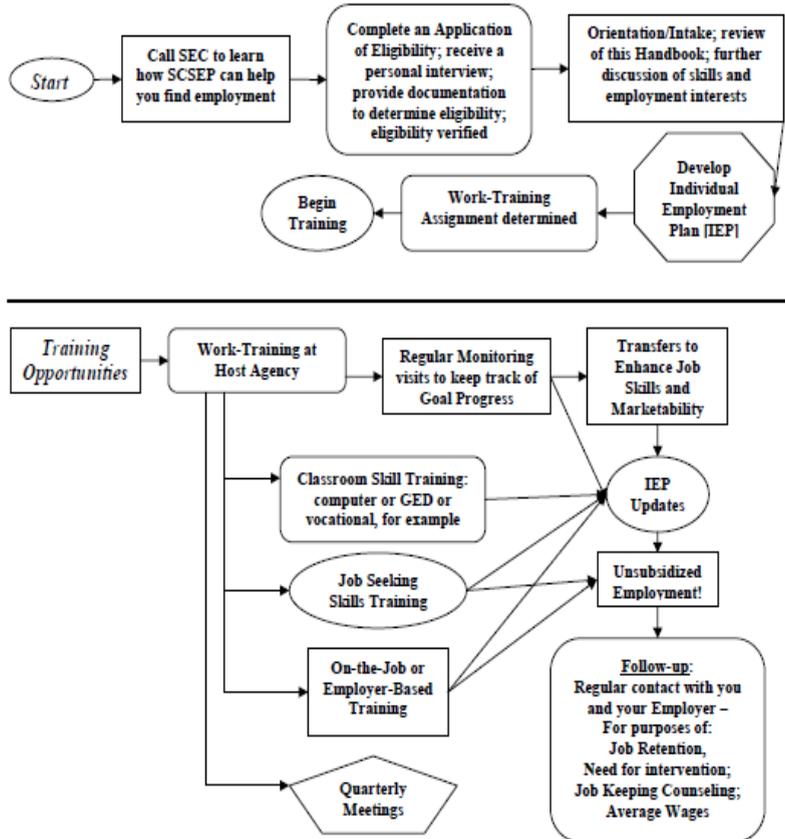
SCSEP, in 1991, provided job training and part-time work to 94,000 people such as home health supporter, nurse supporter, computer operator, and so on. And 14,000 or more among the participants have been reported to be employed (Kim 2003: 88-91). Furthermore, in 2004, among the total budget of \$440 Million, \$340 Million was allocated to the national organizations, \$93 Million to the state/local governments, and \$3.3 Million to sub-state areas. Through this, DOL/ETA set the basic goal of SCSEP to total 61,603 job creating and achieved 86,244 positions, 140% of the basic goal (Lee *et al*, 2004: 58).

SCSEP frequently checked the motives of participants in the course of the decision for participation and process of program. And through various interviews, consultation programs, job training, SCSEP is making effort to enhance self-esteem<sup>13)</sup>, maintaining motivation for achievement of employment goal, and overcoming various barriers the elderly face.

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13) Such is one of important characteristics of SCSEP, which is also heavily executing promoting programs for overcoming obstacles through role playing, confidence recovery training, self-evaluation, constant encouragement. So, the failure experience or frustration in one's job before participating SCSEP would not have negative affect the program. According to the study of Patricia (2007), the main factor is suggested as the lack of self-perception and self-efficacy as internal obstacle which affect re-employment.

Figure 3. Process of SCSEP



Source: Senior Employment Center, 2009: 5

This process is comprised of systematic and efficient plans. Through this process, participants could upgrade their job-skills and get involved in their community with self-efficiency.

First, through aptitude test and orientation program, it supports enough understanding regarding the goal and expectation of SCSEP. After that, through developing IEP (Individual Employment Plan) and regular checking, it encourages participants to achieve both individual employment goal and help to get the purpose of the program. IEP helps to identify and overcome various barriers the elderly face. IEP is designed to enhance not only job-obtainment, but also

job-retention.<sup>14)</sup>

And, the local project director must do periodic follow-ups over a 15-months in order to secure and maintain employment by checking the status of the job.

After allocation to host agency, community service or job training is provided within the range of 20 hours a week. And if one succeeds getting a job through job training, constant improvement and reflection are held through post-evaluation process such as regular interview and consultation with the project manager for secure maintenance (Senior Employment Center, 2009: 6-7).

### *Program Monitoring and Performance Evaluation*

#### *Program monitoring system*

SCSEP operates monitoring system such as performance evaluation, feedback through quarterly status report, periodic check, and nationwide survey for transparent and efficient system operation in correspondence to the support of federal subsidy of around \$500 Million. The status report category consists of rate of employment, goal achievement, number of participants including those considered with priority, time of input, employment maintenance rate, satisfaction level of employer, participant, and host agency (ACSI<sup>15)</sup> standards), income raise level, and so on.

And after July 1th which is the beginning Program Year (PY), it is submitted 4 times quarterly, and the final report should be submitted by September 30th of the following year (DOL, 2006). Such monitoring system is characterized by regular strict evaluation and supervising system by federal government including DOL and local governments. Through these systematic

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14) According to many research on SCSEP participants (Aday and Kehoe, 2008; Kim, 1998), the lack of self-esteem and self-efficacy occurred insufficiency of program satisfaction. So It is significant for the participants for job-seeking to improve their self-esteem and self-efficacy.

15) ACSI : American Customer Satisfaction Index

monitoring, DOL/ETA manages process of SCSEP, controls some matters need to improve, and utilizes the data as reference in order to make more effective programs.

*Performance evaluation of the program*

According to official statistics, in recent years SCSEP has served around 100,000 seniors nationwide, most of them over age 65 (Susan, 2008: 184). According to Poulos (1997) and NCOA (2002), the SCSEP is cost-effective, returning approximately \$1.50 for every dollar invested. And administration cost is less than 15¢ so SCSEP is considered one of the lowest rates and effective projects among federal programs.

In addition, According to DOL and the Charter Oak Group (2007, 2008, 2009), the performance of SCSEP is amazing. DOL (2009) has explained in these words. New participants 52%, job retention 70%, average Income \$6,638, un-subsidized placement 33%, service rate 167%. These program performances have been annually achieved similar level, and unsubsidized job placement shows a tendency to increase.<sup>16)</sup>

And the characteristics of participants are following. Female 70%<sup>17)</sup>, Minorities 43%, Below poverty level 81% (DOL, 2006), and the policy effects are also excellent. That is, the effects of before and after participating SCSEP are explained as promotion of health (89%), positive outlook on life (69%), as well as financial assistance.

Moreover, according to the Charter Oak Group (2007), the customer satisfaction of SCSEP is very high comparing other

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16) After amendments of OAA in 2000 and 2006, The goal of SCSEP is to place 30% of its authorized positions into unsubsidized employment annually. This has lead the ratio of placement of unsubsidized employment from 33% (2005) to 48% (2008) (DOL, 2010).

17) According to statistics on participants, it has been distinct feature that a high per centage of the SCSEP participants are elderly women with low job skilled and job experience. But this trend has steadily eased with increasing participation of elderly men because of recent economic crisis in U.S. The participation ratio of elderly women : 75% (2001)→ 70% (2006)→ 69% (2007)

federal programs and private sectors. It has been measured by ACSI index. In SCSEP, the customer satisfaction is participants (81.1), employers (86.8), host agencies (79.8), while in WIA, participants (76.8), employers (72.8), and comparing with private sector such as 'Amazon.com' (87.0), and 'Starbucks' (77.0). Therefore, SCSEP is considered one of the most successful program among federal programs.

However, as pointed out in many studies (The Charter Oak Group, 2009; DOL, 2008; GAO, 2006; Wodall, 2005), the followings are indicated as necessary improvements for SCSEP. Which are, a more positive and real consideration in policy (language education, etc.) for the socially weak class such as old aged immigrants, considering the characteristics of multi-racial society in the process of SCSEP, and supporting to overcome age discrimination and physical limitations to improve approachability of SCSEP. In addition to these, it is required more rigorous management of participants, process management for improving SCSEP, more effective distribution of SCSEP fund, and confirmation of responsibility for performance of program, and so on.

## **JOB CREATING PROJECTS FOR THE ELDERLY IN KOREA(JCPE)**

### *Process and Status*

Job Creating Projects for the Elderly (JCPE)<sup>18)</sup> was executed from 2004, with its purpose of the program to prevent old aged problems and reduce social costs through policy effects such as income supplement, active social participation, health increase by

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18) JCPE in the broad sense in Korea is executed with the basis of 「Welfare Law for the Old Aged」 (focusing on welfare of the old aged such as social participation and employment promotion and guarantee of income for the old aged of 65 or more) hosted by MHW, and 「Employment Promotion Law for the Old Aged」 (focusing on the labor market policy such as re-employment and continual employment for the old aged of 55 or more) hosted by MOL. The JCPE in this paper points to the narrow concept of JCPE hosted by MHW.

improving social perception on use of the senior labor force as well as providing customized jobs for the old aged who wants to get a job.

Korea patterned JCPE system and contents on SCSEP in many respects. The JCPE was authorized by 「the Elderly Welfare Act」 of 2004.

The major goals of JCPE are to foster the active lives of the elderly, and reduce the social burden. As a rule, Qualifications requirement for participation JCPE are generally required the old aged among the age of 65 or more who are willing and able to participate the JCPE. However, to avoid receiving duplicated benefits, someone who is given any other beneficiary, public charge, is excluded. By the way, participants in public types of job are considered in their income or assets (MHW, 2008; 22-23).

Program participants work an average of 20 hours a week, and are paid \$200 per month and plus some additional cost during participation period, in usual 7 months per year. Comparing SCSEP, the level of reward is very poor.

JCPE consists of two fields of job creation, public and private fields, after several times institutional improvement. That is public field; public interest type, education type, welfare type and private field; dispatch type, market type, business start-up type.

In the case of *public interest type*, which occupies 50% or more of JCPE, property status and form of residence are positively considered during selection of participant.

In the program contents and its regulation, JCPE focuses on employment with high social effectiveness and which fits to resolution of local issues and public interest (MHW, 2008:22-23, 38). Which have some similar aspects to the community service of SCSEP.

Reviewing the sociology of population characteristics of JCPE participants, rate of female old aged participants indicate high ratio (55% or more), and such seems to be caused by old

aged females mostly cover public type participants (52.3% in 2007, 81% in 2004) who have low income and who are relatively low in job skill as well as lack of work experience, which is similar to SCSEP in the US.

### *Program Operation and Support System*

#### *Legal and systematic aspect*

JCPE has its legal basis on Sec. 23 of 「Welfare Law for the Old Aged」 and Sec. 11 of 「Basic Law of Low Birth and Aging Society」. 「Welfare Law for the Old Aged」 regulates creating and distribution of jobs adequate for the old aged and proving job opportunity for the old aged.

And 「Basic Law of Low Birth and Aging Society」 also regulates obligatory consideration of settlement for secure old aged life such as creating jobs adequate for the old aged. There are prohibition of discrimination in employment with the reason of age such as 「Promotion Law for Old Aged Employment」, 「Law of Employment Insurance and Basic Law of Employment Policy」, and so on.

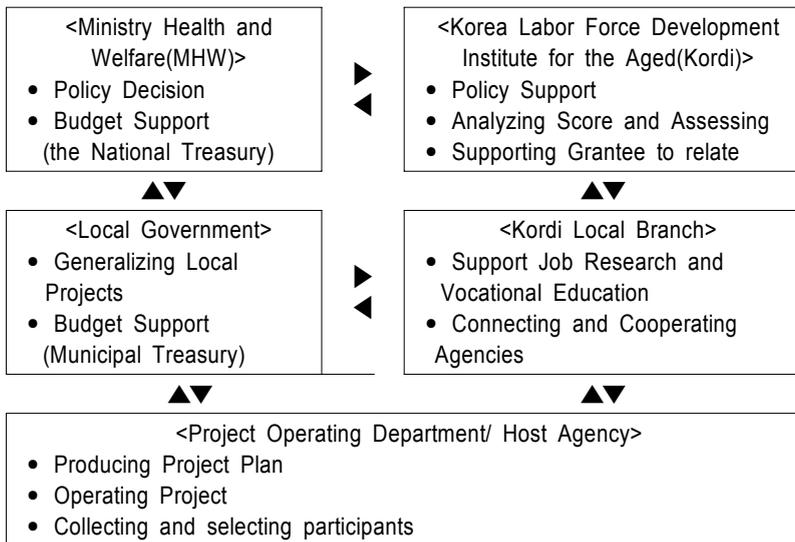
The role and responsibility of local governments become more and more important to manage JCPE when some national subsidiary old-people's welfare programs such as Senior Club project are shifted to local program in 2005 (Park, 2009; Choi *et al*, 2009). Since then, in the aspect of diversity and stability of old-people's welfare programs, they are considerably affected by socio-economical conditions of local governments and interest level of the local government head.

#### *Process system*

JCPE is proceeded by role division among MHW, Kordi, local governments, and program performing institutes. MHW generally handles policies such as JCPE related plan establishment and co-ordination. And Kordi, as a exclusive institute for the program, perform comprehensive support for various policies,

job development, distribution, evaluation, job training, promotion and research. In the case of local governments, 16 upper level local autonomies take in charge of establishing JCPE performance plan, supporting financial support and program performing institutes. And 230 lower level local autonomies establish detailed plans as well as instruct and supervise local programs. They also directly perform public interest type job projects. In addition, there are host agencies which perform participant education, work and payment management, program survey and evaluation (Choi, etc, 2009: 19-21).

Figure 4. The performance system of JCPE



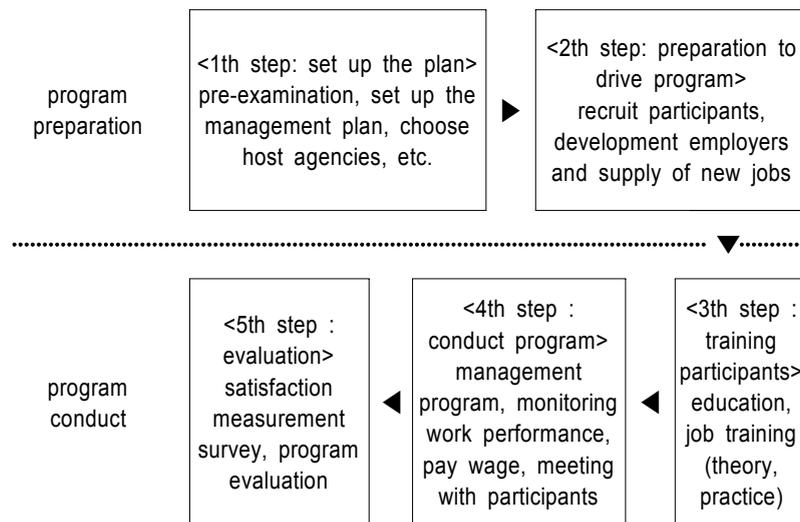
Source: Kordi, 2007

*Program content and process*

After program beginning in 2004, JCPE is focusing on preparing a basis for making a positive social atmosphere use of the senior labor force and expansion of program capable areas. As a result of program for the last 5 years, through its performance of program of 35,127 people/ 29.2 Billion Won (2004), 47,309 people/ 40.7 Billion Won (2005), 83,038 people/

108.6 Billion Won (2006), 115,452 people/ 158.9 Billion Won (2007), 126,370 people/ 177.8 Billion Won (2008), 222,616 people/ 323.6 Billion Won (2009). JCPE is performing its core role as 'Generating income by providing jobs and General increase of welfare for old aged' policy. However, public interest type among jobs types is gradually relieved as 80.8% (2004), 58.8% (2006), and 53.3% (2008), but it still occupies greatly, and in the case of 2008, the ratio between Public Field and Private Field was 89.4% : 10.6%, increasing unbalance for each program types, which indicates limits in diversity aspect of jobs adequate for the old aged (Kordi, 2008a: 68; SNU, 2009: 7-9).

Figure 5. process of JCPE



Source: MHW, 2009

Meanwhile, the process of JCPE is as follows. First, when budget and amount of program are determined in the central government level, program performance plan is established<sup>19)</sup> for

19) According to this top-down process, autonomy of local governments and program performance institutes in program management considerably fall short. For this reason, There is little room for management of JCPE to fit for the

each local government area with the basis of previously surveyed contents regarding demand and desire of participants, place of demand, and so on. After that, the regional program are established and make contracts among local governments and program performing institutes for fulfilling the programs. And with such basis, collection and selection of participants is held, and the program is executed through job training (basic/professional job training) according to the program type of participant. Management regarding participant and place of demand and service user by Host Agency is performed through irregular meeting and satisfaction survey, and such program evaluation feed back again to be reflected in the program of the following year.

### *Program Monitoring and Performance Evaluation*

#### *Program monitoring system*

SCSEP in the US has strict monitoring system by the federal government, state/local governments according to related regulation regarding detailed use of federal subsidy, program performance procedure, and so on. While, in the case of Korea, there is shortage in systematic and effective monitoring system regarding JCPE. Such seems to be due to the limits of experience of only 5 years as well as partially due to administrative culture of Korea with low Administrative responsibility.

In addition, SCSEP has its purpose on evaluation of constant effectiveness of policy through a nationwide survey of customer group, and also, effective budgeting system which intends to create new jobs more positively and actively during policy feedback. But JCPE may have some reason in the aspect of

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condition of the region. Due to such, the BAI (Board of Audit and Inspection) demanded improvement for the allocation method on the creating jobs for the elderly to bottom-up process; from 'prior decision and ordering by the central government' to 'first research demand by local government, since then job allocation by central government'.

having it proceeded as a series of social job creation program in a passive and beneficial viewpoint in a relative sense.

Meanwhile, according to *General Guidance and Instruction for JCPE of MHW*, The specific work guidelines prescribe some monitoring process such as satisfaction survey of participant, place of demand and service employer, MHW-Kordi-local government joint inspection, self-assessment for the program, and so on. But their limitations of objectivity and effectiveness are pointed out (BAI, 2008).

#### *Performance evaluation of program*

Most research have shown us that the JCPE presents participants with positive and desirable effects. According to Kordi(2007), like many other results of research, the customer satisfaction of JCPE is good (mostly 3.9) in terms of economic help, promotion of health and social participation. But work conditions such as the level of wage and work period are poor (less than 3.0). So work conditions need to be improved in the future.

The common study result of many studies (Kim, 2009; Kordi, 2008, etc.) which analyzed JCPE participants' quality of life or policy satisfaction level through sample survey suggests that participation in JCPE is having considerable (+) affect in the improvement of old aged people's quality of life or satisfaction.

Moreover, According to SNU(2009), the performance of JCPE is considerably good. After participating JCPE, most participants felt the promotion of health and social relationship, and economic help. That is, the characteristics of participants are female 58%, over Age 65 88%. And in case of social-economic effects, economic help 78.3%, reducing medical expenses \$160/a year, promotion of health and social relationship are strongly positive. Therefore, JCPE is suggested as a program which aims for general welfare for the old aged, and not a simple social employment program.

While, JCPE also has some limitations in terms of

job-retention, linkage among systems, and weakness of legal and institutional support, etc. That is, first, lack of continuities among similar social job projects. For example, the ministry of labor/health&welfare/public administration and local governments, ect. second, insufficiency of linkage among performance system. third, lean too much towards on public type (more than 80%), fourth, weakness of legal and institutional or creating jobs. So the quality and maintenance of jobs are comparatively low (Choi *et al*, 2009: 92-100; Lee *et al*, 2004: 32-53).

## **COMPARATIVE ANALYSIS OF EMPLOYMENT PROMOTION PROGRAM IN THE US AND KOREA**

SCSEP in the US and JCPE in Korea have similar aspects that they have a tendency of *welfare-to-work* which tries to realize general welfare for the elderly such as supporting income, improving social participation, and increasing health by providing jobs as *senior employment promotion programs* for use of the senior labor force. And they also have similarity that participants mainly participate with economical motives and they are time based job with content of program focusing on job training and community service. However, as reviewed in the analysis frame of the study, there are some differences in the aspects of progress and status, operation-support system of program, and monitoring-evaluation and management of program.

First, in the aspect of process and status.

SCSEP is a federal program filling its whole program budget from the federal government since its beginning in 1965. It provides employment related to time based community services and job training to low income the old aged of 55 or more, and support participants with federal minimum wage. While JCPE is a central government subsidy program after other senior

employment projects including Senior Club's project shifted to local transfer project in 2005. It supports personnel expenses and incidental expenses with about \$200 per month to the participants. In the case of JCPE, excluding the *public interest type* which considers property status during selection, it has relative flexibility in the aspect of income (property) regarding the conditions for participants compared to SCSEP, which has a limitation of those with poverty level 125% or less income. In addition, in regards to qualifications of participants, it is indicated in OAAA that the weak (social class) such as age of 65 or more, disabled, and those with low employment prospect should have priority of selection, but JCPE selects in the order of high scoring individuals for each participating type without policy consideration (except for public interest type, which gives advantage to low income class).

Second, in the aspect of program operation and support system.

① In the aspect of legal-systematic and budget, SCSEP has the basis for necessary budget, administrative support, and other requirements for the program operation indicated in related regulations such as OAA, WIA, and so on. Therefore, the operations of SCSEP is considerably stable and firm in the respect of administrative support and necessary budge. While JCPE is lacking in legal and institutional basis for operation and support, and there is no long-term general plans for creating jobs (Park, 2009). Therefore, it reveals limits of securing program budget and diversity of program management. It is also caused by some reason. That is, JCPE is greatly influenced by fairness with the whole national program budget, socio-economical conditions in local community, and the level of interest of heal of local government, etc. ② In the aspect of program performance system, the DOL in US generally control SCSEP, while MHW in Korea takes in charge of JCPE. Which is caused by the difference in which aspect relatively has more emphasis, in the priority of program, between *income supplement* or *generating income* and *social participation and increase of*

*welfare for the old aged*. In the case of JCPE, it is headed towards a more general purpose of policy that it has relatively more diversity in the level of program type such as *public interest type*, which is similar to SCSEP's community service, and *welfare type*, and also, *education type*, *business start-up type*, and so on.

③ In the aspect of the level of autonomy in program performance system, linkage between central-local government and community, and computing support system of program. Even though SCSEP is a federal program, it has considerable autonomy that it can manage and execute detailed plans and practical programs through sub-process system. And it can divert support fund among similar programs. In addition, it is characterized by the establishment of close and systematic linkage between federal-local government and local communities for 45 years, and nationwide between integrated computing system and One-Stop Career Center in local communities. Meanwhile, in the case of JCPE, it excessively focuses on formal and short term performance due to overwhelming consigned work from central government, administrative burden regarding number of creating jobs, inflexibility of program performance, and lack of administrative support, etc. In addition, it shows limitation of information sharing (BAI, 2008) as well as lack of linkage among program performing system (Choi *et al*, 2009; Park, 2009; Lee, 2006). These are caused by respective management of computing system for central-local government and institutes regarding similar programs. ④ In the aspect of contents of program and management of process, SCSEP is confirming quantitative performance (creating jobs) as well as qualitative performance (diversity of jobs and maintenance of employment) through systematic job training program and continuous post-management. On the contrary, JCPE have excessively focused on quantitative expansion of creating jobs (35,127 people/29.2 billion won (2004) → 126,370 people/177.8 billion won (2008) → 222,616 people/323.6 billion won<sup>20</sup>) (2009)) through great amount of budget input, which is sometimes criticized as *a program structure focusing on simple*

*and parttime job or temporary job creation* in the aspect of program quality and contents. [Pace of population aging and socio-economic development]

Third, in the aspect of program monitoring and performance evaluation. DOL/ETA evaluates satisfaction evaluation of SCSEP through ACSI regarding employers, participants, and host agencies through annual nationwide survey. And DOL/ETA actively publicizes the performance of SCSEP through objective comparison with similar public services such as WIA programs as well as private services. Currently, some institutions<sup>21)</sup> including Kordi and SNU surveyed irregularly 'satisfaction and state analysis of JCPE participants'. But there are few survey result<sup>22)</sup> of complete enumeration survey regarding the whole participants or accurate sampling with the whole participant as population. Meanwhile, in the case of some surveys on the participants or employers satisfaction on JCPE, they were pointed out lack of the objectivity and credibility of the surveys (BAI, 2008), because the program performers including local governments and Kordi become the main agents by themselves for survey or satisfaction evaluation of JCPE. Therefore systematic reformation of the survey process is requested through survey by disinterested institutes and using objective methods such as survey via mail, indirect survey, and so on, not face-to-face survey or satisfaction evaluation.

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20) 1 billion won (₩) = about 0.9 million US\$

21) A national status check regarding participation of the old aged in JCPE has been held 3 times irregularly and without legal basis in 2004, 2007 (Kordi), and 2009 (SNU).

22) In many studies survey and statistical analyses are held regarding participants, but most of them have limits in external validity due to sample representativeness and the problem of checking according to the occurrence of selection bias.

Comparative Analysis of SCSEP and JCPE

Table 1. Similarities between SCSEP and JCPE

Remarks	SCSEP (U.S, as of 1965)	JCPE (Korea, as of 2004)
Purpose of Program	employment promoting program for the elderly by Federal/Central Gov't (promote economic self-sufficiency+participation to society) ※ emphasis on Workfare/Welfare-to-Work from Welfare	
Motivation to Participation	(mostly) economic motive / (financial assistance)	
Work Condition	Part-Time : 20 hours/a week (JCPE : public type jobs)	
Contents of Program	<ul style="list-style-type: none"> <li>• providing community services</li> <li>- various care services</li> <li>• job-related training</li> <li>※ promoting transition to un-subsidized employment</li> </ul>	<ul style="list-style-type: none"> <li>• providing community services (public types)</li> <li>• education &amp; job training</li> <li>※ promoting increased marketability, market-oriented jobs</li> </ul>

Table 2. Differences between SCSEP and JCPE

		SCSEP	JCPE
Program Focus & Directions	way of performance	Federal Program	Central Gov't → Central + Local Gov't (2005)
	eligibility	low-income person age 55 or older ※ priority group : minority	be willing and able to participate JCPE ※ considering low income/public
	contents & compensation	<ul style="list-style-type: none"> <li>• providing community services, part-time work based training</li> <li>• paid Federal minimum wage (\$10,400(1)-\$21,000(4), 2008)</li> </ul>	<ul style="list-style-type: none"> <li>• job training and education</li> <li>• providing jobs : wage + additional cost (\$200/a month) (\$100/a year)</li> </ul>
Program Performance System & Process	legal basis	the Older American Act title V ※ limit terms of participation (27 month/ 48 month : life-time) ※ legal support : firm, clear	the Elderly Welfare Act ※ no limit terms of participation ※ legal support : insufficient

Table 2. (Continued)

			SCSEP	JCPE	
Program Performan- -ce System & Process	funding		Federal Gov't (Local Gov't(22%), National Organizations(78%) by OAA) ※ strong stability of SCSEP	Matching Fund (Central+Local) (depending on financial status and attention of local gov't ※ low stability of JCPE	
	Perf- -or -ma- -nce	admin- -ist -ratio -n	con- -trol	Department of Labor/ETA ※ Charter Oak Group(contract)	Ministry of Health & Welfare/SW ※ Kordi(public institute)
			con- -duct	State-Local Gov't	Local Gov't
		exe- -cuti -on	National Organization(18) non-profit organizations	Local Gov't public/private organizations	
		relat- -ion	Employer, community organizations, non-profit volunteer organization	Employer community organizations	
	Sys- -tem	the level of Autonomy & connection		<ul style="list-style-type: none"> <li>• High / Strong (flexibility to manage programs)</li> <li>• Positive /Close connection</li> </ul>	<ul style="list-style-type: none"> <li>• Low / Weak (inflexibility to manage programs)</li> <li>• Passive / insufficiency</li> </ul>
		on line supporting system		close connection (One-Stop Career Center, integrated hiring supporting systems)	separately management (Ministry, Local, Organization) ※ insufficiency of sharing information
	Proc- -ess	contents of process		<ul style="list-style-type: none"> <li>• dynamic &amp; systematic program (IEP, TAD, feedback, etc)</li> <li>• continuous follow-up</li> </ul>	<ul style="list-style-type: none"> <li>• deficiency of systematic process</li> <li>• lack of follow-up</li> </ul>
		direction		<ul style="list-style-type: none"> <li>• actively generate and develop job fitting for the elderly and various community services</li> <li>• emphasis on job retention and satisfaction of participation</li> </ul>	<ul style="list-style-type: none"> <li>• defects of short-term and pssive jobs (simple labor)</li> <li>• lean too much concentrated in increasing jobs (low quality and satisfaction)</li> </ul>

Table 2. (Continued)

		SCSEP	JCPE
Program Performance Evaluation	Monitoring	<ul style="list-style-type: none"> <li>• quarterly report, monitoring, and evaluation</li> <li>• federal / local gov't, GAO, etc</li> </ul>	<ul style="list-style-type: none"> <li>• quarterly report, monitoring, and evaluation</li> <li>• central(MHW) / local gov't, etc</li> </ul>
	Evaluation	<ul style="list-style-type: none"> <li>• national survey (year, ACSI)</li> <li>- participants, employer, host agency</li> <li>• continuous feedback</li> </ul>	<ul style="list-style-type: none"> <li>• irregularly survey (kordi) :</li> <li>- participants only</li> <li>• lack of feedback and credibility</li> </ul>

## CONCLUSION : LESSONS FOR JCPE

SCSEP in the US has been valued highly as a successful employment promotion program for the elderly despite its limitation of market centered welfare system or residual welfare state. Such successful performance is based on the social perception of respecting old aged population as important human resource of aging society. And it is viewed as positive and active system for old ages, which is in contrast with previous passive and benefit targeting programs. This has an implication for JCPE.

The first implication is related with the direction of policy. To create and support for employment for the old aged, people's perception towards old aged manpower is important. The perception should be such that human resource in the aging society is necessary, and for such purpose, mutual sharing of positive program performance and instructions, reviewing forced regulation of related legal employment promotion for the old aged, and objective indicator (ex: KCSI) similar to ACSI should be utilized for diverse system policy support such as strategic advertisement.

The second implication is related with the level of operation and support system of program. 1) Public field work should be

limited to public service necessary for local society to guarantee the consistency of program, relief of financial burden, and strategic approach for extending and diversifying to private field program area. In addition, administrative and financial support should be strengthened to secure maintenance of program by regulating execution and basis of support for the program in related law. 2) Processing system: it is important to strengthen autonomy of local governments and program-performing institutes for creating and distributing jobs which are adequate for local labor market conditions and characteristics of the old aged. It is also necessary to establish a mutually cooperative network with close relationship among related institutes. 3) Operation and support of program: it is needed to establish an integrated old age manpower managing system with related institutes to provide related information and service which is adequate for demand and desire of the old aged. 4) Process: systematic education programs and constant post management are needed to confirm quantitative performance of extending the number of jobs for the old aged. Improvement of qualitative performance and maintenance of consistency of jobs are also needed. For such purpose, extended performance of a more systematic customized education programs or job trainings are necessary. Such education and training can improve self-esteem and confidence to encourage participants' motivation.

The third implication is related with the level of monitoring and performance evaluation program. To establish close cooperative relationship among related institutes, it is necessary to organize the process system and supplementation of monitoring system to confirm transparent and effective operation of programs.

The fourth implication is related with limitation of SCSEP program performance. Participation of unqualified people due to overwhelming competition for performance, waste of budget, fund distribution, limit of confirmation of performance responsibility (DOL, 2008 GAO, 2006) are the areas which needs

special attention. Finally, in terms of approachability of SCSEP program, experts pointed out (The Charter Oak Group, 2009 Woodall, 2005) that a special cares are needed for the weak. These groups include old aged immigrants, female immigrants, and workers with low skills, who are lacking language proficiency. As Korean society is rapidly shifting to a multi-cultural society, this will be a more important issue.

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