International Workshop on Challenges of Higher Education Governance and Finance Reform in East Asia

2019

Center for Research and Development of Higher Education,
the University of Tokyo
Foreword

This report is based on the presentations given at the international workshop held at the Center for Research and Development of Higher Education, the University of Tokyo on November 21 and 22, 2018.

One of the missions of the center is to exchange academic activities, in particular focusing on observations of trends in higher education in various countries. To accomplish this mission, we have thus far held several international symposia and workshops.

In 1999, a symposium organized jointly with the National Center for University Management was held on the theme of Higher Education Finance. The symposium in 2006 was on Student Financial Assistance Policies in six countries. Two further symposiums were devoted to the Higher Education Reforms in the UK and Japan, in 2012, and Student Financial Aid in four countries, in 2015.

While the sizes of the international workshops are smaller, we were delighted to invite distinguished scholars from China, the United States, and Australia and engage in intensive discussions with them.

The outcomes of these international conferences have been published as publications of our center.

The purpose of this workshop is to hold intensive discussions on higher education reform and finance in East Asia. We have therefore invited two distinguished scholars from China and Korea: Professor Wang Rong, Director of the Chinese Institute for Finance of Educational Research at Peking University and Professor Sin Jung Cheol of Seoul National University.

We are also very fortunate to be able to invite Professor Roger Geiger, who is currently resident at our university. He is extremely well known not only as an expert on higher education history but also as a researcher in higher education finance and governance.

We sincerely welcome the three distinguished guest speakers and look forward very much to holding fruitful discussions with them.
Higher education in Japan, China, Korea, and the United States has been changing very rapidly. The common characteristics of higher education in these countries are decreasing governmental financial support and increasing tuition fees. Comparing the experiences of each country is very useful, considering the differences in cultural, social, and political backgrounds.

Professor Motohisa Kaneko is the most famous and important expert on higher education. I underline the fact that he was the first director of our center. He discusses the relationship between economic growth and higher education during the emerging “the capital market.” He criticizes the development of Japanese higher education for its heavy dependence on student loans since the 1990s. These observations indicate that since the 2000s, factors related to the financial market have begun to play significant roles in higher education, causing significant shifts in macroscopic resource flow.

In Japan, National Universities are undergoing reform. One of the reforms is known as the “Distinguished National University.” Both the University of Tokyo and Tohoku University have been designated Distinguished National Universities, and Professor Yonezawa of Tohoku University will give a presentation on this timely topic. He was the first assistant professor of our center.

Professor Tanaka, Professor Nagase, Dr. Wang Jie, Professor Akabayashi, and Professor Kobayashi, will all give presentations on student financial aid. In Japan, two brand new student financial aid programs have just been established, and the government will establish another very big program in 2020. This is therefore a very controversial and important issue. I very much appreciate the contributions from these scholars.

Finally, we hope everyone interested in this topic will find much fruitful information and many useful suggestions in these reports.

February 2019

Masayuki Kobayashi
Professor, Center for Research and Development of Higher Education, the University of Tokyo.
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Opening Remarks

On behalf of all the staff of the Center for Research and Development of Higher Education at The University of Tokyo, I would like to extend our sincere welcome to you on your visit to our Center.

Our center is one of the smallest centers in our university, but it has many missions and activities.

One of the missions is to promote the evolution of education at the University of Tokyo from university-wide perspectives. The Center collects and analyzes information on educational activities throughout the University, supports the development of curricula and the implementation of learning environments for its education, and is building a new university-wide educational infrastructure utilizing information and communication technology (ICT).

Thus, one of the missions of our center is to engage in academic exchange activities, in particular, regarding observations of trends in higher education in various countries. To accomplish this mission, we have held international symposia and workshops several times.

While the sizes of the international workshops are smaller, we were delighted to invite distinguished scholars from China, the United States, and Australia and engage in intensive discussions with them.

The outcomes of these international conferences have been published as publications of our center.

The purpose of this workshop is to hold intensive discussions on higher education reform and finance in East Asia. We have therefore invited two distinguished scholars from China and Korea: Professor Wang Rong, Director of the Chinese Institute for Finance of Educational Research at Peking University and Professor Sin Jung Cheol of Seoul National University.
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Not only our university but also our center is under rapid reform. Our center has several missions. One of them is institutional research and observing the trends of higher education reform, as I mentioned. Another important mission is to facilitate teaching methodologies through the use of MOOCs and other information technology such as ICT.

We have drawn up a plan to reform our center in the age of AI.

I’d like to talk about the discussions in the Council for Social Principles on Human-centric AI organized by the Cabinet Office of the Government of Japan. I am the chair of this council.

The importance of education is also discussed at this council. Allow me to introduce the main points to you.

*In a society based on AI, education must be provided to make appropriate and prompt AI deployment possible and not to produce divisions among people. In particular, it is thought that the following points are important.*

- Society must provide equal opportunities for education to acquire the necessary AI literacy and skills so that all people understand AI correctly and receive benefits from it.
- *This AI literacy education needs to be an educational system in which everyone can acquire knowledge on AI, mathematics, and data science. At the*
same time, the literacy education should have sufficient content to allow everyone to recognize the characteristics of data and to understand the characteristics and limitations of AI.

- In addition, the education system should place importance on the training of creativity, reasoning, and problem-solving abilities so that everyone can utilize AI and demonstrate their abilities.
- The recurrent education system should be enriched so that AI will enable people to be relieved from simple or heavy labor and engage in work with higher creativity and productivity.

Finally, I hope you will all enjoy this workshop and your stay in our center.

Osamu Sudoh
Professor and Director, Center for Research and Development of Higher Education, The University of Tokyo
Slowed Economic Growth and Higher Education

- Emergence of the Capital Market -

Motohisa KANEKO
Tsukuba University
At around the turn of century, economic environment surrounding higher education shifted significantly in OECD countries. On one hand the rate of economic growth slowed down, and on the other the narrative of changes in higher education started involving the term “Marketization.” What are the structural shifts behind it, and how are they affect the future of higher education? These are the questions that I wish to address in this presentation. In the following, I will consider various factors surrounding higher education in a conceptual framework (section 1), outline how each factor contributed to the changes in higher education in Japan and how the financial market has emerged as a significant player since the turn of the century (Section 2), and discuss what the macroscopic picture implies to future direction of policy (Section 3).

1. Higher Education under Slowed Economic Growth

Higher Education and Economic Growth

The relation between higher education and economic growth drew attention for the first time in the late 1950s and 1960s. The economies in the OECD countries were about to start the phenomenal postwar economic growth. At the same time higher education was about to expand. The momentum of massification of higher education in combination with economic growth continued into the 1970s, to propel the move of higher education from the “Elite stage” to “Mass stage.” This rendered the picture of higher education in the late twentieth century.

Corresponding to these changes in economics was the development of Manpower theory, and subsequently the Human Capital theory. A new field of inquiry was thus formed as the Economics of Education which was built upon the concept of Human Capital Theory. In retrospect one may argue that they played the role of justifying growing expenditures to expand higher education.

By the end of the 20th century, however, the picture changed significantly. Economic growth lost its momentum in many OECD countries, as the economies grew gained maturity (Figure 1). Meanwhile, participation in higher education institutions kept expanding, leading to what may be called the stage of universalization. The narrative of development has changed also. Now what is talked about has become “Marketization” of higher education.
At around the turn of the century, the economic environment surrounding higher education shifted significantly in OECD countries. On one hand, the rate of economic growth slowed down, and on the other hand, the narrative of changes in higher education started involving the term "Marketization." What are the structural shifts behind it, and how do they affect the future of higher education? These are the questions that I wish to address in this presentation. In the following, I will consider various factors surrounding higher education in a conceptual framework (section 1), outline how each factor contributed to the changes in higher education in Japan and how the financial market has emerged as a significant player since the turn of the century (Section 2), and discuss what the macroscopic picture implies to the future direction of policy (Section 3).

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These observations raise a series of questions. Why have the participation rates kept increasing despite slowed economic growth? What does the concept of marketization signify? Why has it become a popular term when the permutation between development of higher education and economic growth shifted? In order to answer these questions, one has to expand the scope of thought to various factors by which higher education is affected. Also, it requires macroscopic viewpoints. It may be recalled that human capital theory originally started as a macroscopic theory explaining how much the society benefits from investing in education, even though it soon became the theoretical basis to analyze individual behavior on education and training. In a way, one has to return to the original perspective on how higher education is related to economic development of the whole society.

Markets in Higher Education

Set in a social and economic perspective, the relation between higher education and society involves various intervening factors. Besides government, which of course plays significant roles, one can conceive three economic functions.
that mediate economy and higher education. First is the Higher Education Market, the market of opportunity of higher education that relates the demand and supply of higher education opportunities, with the price (tuition) and the size of enrollment as major parameters. Second is Labor Market, which relates the graduates to employment opportunities, or the outcome of higher education to production. In consequence, it affects the choices of higher education. The third, and arguably of increasingly significance, is the Financial Market, which relates the accumulated monetary assets in the society to investment on higher education in various forms. I laid out a conceptual framework relating higher education and national economy, government and market (Figure 2).

Figure 2. Markets and Higher Education
In this diagram, the demand for higher education derives from aggregated choices of households, each of which is determined by prospective cost and benefit from college education. The cost includes tuition and foregone income; and the benefit comprises expected wage differential to be gained in the Labor Market, non-pecuniary benefits. Meanwhile, available resources consist of family contribution, available student aids and loans. These factors are correlated with academic ability of individual students, but in aggregate they remain constant.

The supply consists of the sizes of enrollment available at different prices (net tuition). Each university determines a particular combination of enrollment and tuition under institutional constraints including government subsidies, incomes from endowment and other factors.

Both the supply and demand are affected not only by government policies, but also by Financial Market. The Government, through taxation, divert an amount of national income into higher education through subsidies to higher education institutions and through student aid programs. At the same time tax regime creates incentives for household to choose higher education and for individuals and corporations to contribute to higher education institutions.

Financial Market has become a significant player in recent years as we shall see in the next section. It taps the accumulated wealth of the national economy into higher education through student loan schemes, under condition that the rented amounts will be repaid to the lenders. It should be also remembered that even without considering student loans, Financial Market provides funds to higher education indirectly when the government runs deficit – the deficit is most likely financed by borrowing form Financial Market. At the institutional level, higher education institutions borrow from the market for construction and other purposes, and deposits the endowment for financial gains.

Thus, higher education institutions, government, and three markets, together with flow of resources and information, constitute a very complex picture. I call macroscopic structure of higher education financing. The configuration of this structure vary substantially from a country to another. Also, the structure evolves over time with the changes in economic and political environment. It implies that policy issues in higher education should shift accordingly.
2. Evolution of the Structure

We now turn to the process of development in higher education from the perspective laid out above. After recovering from the damage of WWII, Japanese higher education started development in the 1960s. The historical path since the 1960s can be divided into two major phases, each of which consists of two sub-phases stretching over ten to fifteen years (Figure 3).

Phase I: Massification.

Thirty years from 1960 to 1990 can be called the period of massification in higher education, consisting of the sub-phase of the great expansion and the ensuing sub-phase of stagnating enrollment.

Sub-phase Ia was a period of a great expansion of higher education. Participation rate of 18 years old in four-year institutions of higher education leaped from less than ten percent in 1960 to 36 percent by 1975 – an increase of almost 20 percent-points in fifteen years. Moreover, the increase took place when the size of population at college-going age increased substantially.

The increase in enrollment was lead mainly by the increase in demands for higher education, which was propelled by the unprecedented increase in household income under rapid economic growth. Since the beginning of the 1960s to 1980, disposable income of typical household increased rapidly - almost three times in real terms. It implied that each year, a typical household was given as much as 7 or 8 percent of additional income. Since higher education was the major channel for securing social ascendance, families were willing to spend additional resources for availing their off-springs higher education.

On the supply side, private institutions of higher education increased the sizes of student intake, as a number of new institutions were established. It was made possible by relaxation of University Establishment Standard, which regulates minimum levels of educational conditions such as student/teacher ratio. This policy was the result of political pressure arising from the popular demands for higher education. Meanwhile, the extra tax revenue brought about by the economic growth was spent to increase the number of students in natural sciences and engineering in national institutions to train necessary manpower for the rapid economic growth.
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![Figure 3. Changes in Participation Rates and 18-year Old Population](source: Ministry of Science, Culture, Science and Technology, Schools Basics Survey, Various Years.)

This regime of financial flow proved to be effective in satisfying the popular demands for higher education, while enabling the government to concentrate investment on national institutions of higher education to train strategic manpower for economic development. Consequently, it created a large sector of private institutions characterized with relatively poor educational conditions that remain to this day.

In sub-phase Ib, the participation rate dwindled to 24 percent towards 1980. This is attributable mainly to the restrictive government policy on the supply side. Provided with the achievement of rapid growth, the government gradually shifted from growth towards welfare policies. In higher education it
took the form of government subsidy to private institutions of higher education under the scheme of Current Cost Subsidy to Private Institutions that started in 1976.

While the policy was aimed at reducing the financial burden on students’ families to pay tuition, it in fact created unexpected consequences. In order to receive the subsidy, institutions were required to control the size of enrollment within specified range above that indicated by the University Establishment Standards. In response, major private institutions reduced enrollment, and at the same time raised tuition levels. It can be interpreted as a strategic move to differentiate themselves from less selective institutions.

On the demand side, latent demand should have kept rising, given the continued growth in family income. Moreover, the size of 18-year old population increased towards the end of 1980s, with the arrival of the second-generation of baby boomers at college. Given limited supply, these factors forged frustrated demands, which was translated into intensification of competition to get in college. It eventually induced criticisms against excessive regulation on higher education.

Phase II: Universalization.

Since the beginning of the 1990s, participation rate started growing again. The growth eventually extended into the 2010s to reach at the level of 50 percent. We call this a Universalization period. However, the mechanism that brought about the increase was distinctively different from that of Phase I.

Sub-phase IIa, stretching over the 1990’s, saw a steady increase in participation rate, which can be partly accounted for by the pent-up demand accumulated through the previous period (Ib) of restrictive policies on the supply side. Meanwhile, disposable income of household was still growing, albeit at much lower rates than before, that kept pushing up the demand.

On the supply side, the restrictive policy was reversed under the shift towards government deregulation in early 1990s. Some of the requirements stipulated in University Establishment Standards were relaxed. Existing institutions were allowed to expand their prescribed enrollment capacity, and a substantial number of new institutions, many of which had been two-year private institutions or high school, were created. This allowed increased numbers of students to be admitted. With the declining size of 18-year old population, these factors collaborated to augment participation rate.

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In Sub-phase IIb, participation rate kept increasing, but the driving force behind it changed significantly. In retrospect, the increase was perplexing considering that, because of slowing rate of economic growth, disposable family income stagnated, and eventually started declining marginally due to the increases in contribution to pension and health insurance (Figure 4).

![Figure 4. Changes in Disposable Income – Households with More than Two Persons](image)

Source: Household Income Survey, various Years.

What substituted the decline of disposable income was the use of student loans. Until the late 2000’s, the proportion of students who used the Japan Association for Student Support (JASSO) loans had remained at the level of slightly greater than ten percent. It started increasing in the end of 1990s, eventually to reach the 35 percent line by 2010 (Figure 5). That implies that not only the families that accounted for the marginal increase in participation rate, but also the families that used to depend on family income, started to resort to borrowing necessary cost for college.

It should be noted that since the mid-1980s market interest rates had started declining, eventually down to one to two percent by 2000s (Figure6). The interest rate to student loans came down accordingly to about 1 percent. Meanwhile, the internal rate of return (IRR) to four-year university education,
according to my own estimation, remained at the levels as high as 6 to 7 percent. That implied that going to college should pay off economically even if required costs were financed through loans. Subsequently, the spread between the return to higher education grew rapidly over this period.

Figure 5. Proportion of Students Who Used JASSO Loans
Source: JASSO Annual Report, various years.

Figure 6. Internal Rate of Return to Higher Education, Interest Rate to Student Loans and Market Interest Rate
Source: Author’s estimation, and Bank of Japan
These observations indicate that since the 2000s, factors related to Financial Market has begun to play significant roles in higher education, causing significant shifts in macroscopic resource flow.

Slowed Growth and Higher Education

One can argue that borrowing from financial market for financing higher education had already started in early 1980s in a disguised form. At that period, the national budget started incurring significant deficit, which was financed by borrowing from postal savings and by issuing National Bonds. That implies that, as a part of national budget, governmental expenditures on higher education derived indirectly from the capital market. The increase of student loans implied that the borrowing from the capital market was made more explicitly by the individual beneficiary.

The other side of the story is the existence of available funds for student loans at low interest rates. This fund consists of monetary assets accumulated by households and business firms, which was made possible through the past economic growth, in combination with relatively high savings rate and low tax burden. Those savings were deposited at banks, which in turn were not only invested in enterprises, but also lent to the government in the form of national bonds. A significant proportion of the assets was lent to financial institutions overseas. As of 2018, the total amount of household assets is estimated at more than 1,800 trillion Yen, which is about three times the size of GDP, or about 18 times the size of national budget.

One may recall that the role of financial market in higher education has been salient in the United States particularly since the late 1980s. With the backdrop of economic stagnation and stagnating size of population at college-going age, various private institutions went on to raise tuition, together with admission policies to distinguish themselves. Use of student loans started expanding dramatically. This point will be discussed later. This mechanism rendered a basis of transformation of American higher education in the past three decades.

3. Policy Implications

Provided with the observation above, what can one argue about how higher education would change, or how it should change? I shall discuss it from the perspective of equity, efficiency and the structure of higher education institutions.
Equity

In the past few years, equity in the opportunity of higher education drew renewed social attention. All the political parties included in their platforms for 2017 general education some measures concerning this issue. The ruling Liberal Democratic Party won the election with a proposal for “Free Higher Education.” Subsequently Abe administration has been working to build concrete measures, but the details are still to be seen.

There are several factors behind this renewed concern. First, as four-year higher education has reached the universal stage where a half of the youths at eligible age enter college, college education has become to be conceived not a choice, but rather a necessity, the lack of which is regarded to result in considerable disadvantage. Securing the opportunity has become a serious concern for any parents.

Second, the concern of social deprivation has been spread widely. If children from lower income families and prohibited from the opportunity of higher education for economic reasons, it would constitute a serious impingement on social justice.

Third, as increasing number of students borrow loans, there are incidences where the graduate fall in difficulty in repaying the loans. Especially, college graduates faced with glut in labor market in the few years until 2010. A substantial number of students were unable to secure employment at the time of graduation. As the principle of permanent employment still dominates employment practices, the failure in entering the career path at the time of graduation often results in unstable employment over life-time. These graduates fell in serious difficulty in repayment, sometimes resulting in dire hardship. As those cases were reported by the media, latent weariness rose to the surface of public conscience.

The observations above indicate that the concern on equity in higher education has been constructed through various incidences and interests. Naturally, discussions about necessary policy would not result in clear-cut conclusion. The critical issue in this context would be whether, or how, the government should play a role in responding these social concerns.

The most straight-forward solution would be to increase government expenditure on higher education to the extent that effects of parental income are removed entirely. Currently, the government finances the national institutions
and provide subsidies to private institutions. By augmenting the subsidies, one would hope that the tuition levels will be decreased, thus lessening the influences of family income. However, private institutions may not lower tuition levels despite increased subsidies. Moreover, various surveys show that the differences in the chance of enrollment are related with family income through academic achievement before getting in higher education.

Another approach is to provide direct subsidy to low-family income students in the form of grant. A basic problem of this approach lies on the mechanism to select the target. Budgetary constraint rules out implementing any large scale expenditure for this purpose. On the other hand, it will be difficult to limit the target too narrowly for it will not only cause various technical issues in defining and identifying the target, but also cause conflicts between the beneficiary and others.

These discussion boils down to how effective a marginal increase in government spending can rectify inequity in a wider context. It is true that various surveys show that the incidences of participation in higher education are smaller among children from low-income families (Kobayashi 2009). A survey shows, however, that the difference in participation rates by family income are much smaller among students who showed high academic achievement in high school education. Those students would expect high returns from higher education, and find ways to circumvent financial constraints. Student loans are effective in this sense. The difference by family income becomes more salient among students with low academic achievement.

In this sense, the lower rates in college participation among youths from low family families derives from the low level of academic achievement created prior to entrance to higher education. In fact, there seem to be a universal agreement that resources can be used more efficiently by investing at primary or even at preschool levels of education (Heckman 2008).¹

Then, what can the capital market approach do with respect to equity? It seems to be trivial that student loan schemes cannot eradicate intergenerational transmission of income inequality. After all, the students who borrowed loans will have to repay the debt after graduation, which implies that the net income after graduation should be less than those from wealthier families who did not borrow.

¹ See https://heckmanequation.org/
Nonetheless, loan schemes would make it possible for students with limited means the chance to get higher education and subsequently higher income, with a degree of benefit after paying off the debt. To the extent that the Internal Rate of Return remains higher than the interest rate of loan, this would amount to a substantial gain in net income. Moreover, student loans allow individual choices on higher education. This is the classical argument drawn by Milton Friedman (1980).

Nonetheless, loan schemes have their own problems. One risk aversion. It is sometimes claimed that low-income families tend not to use loan because they tend to avoid the possibility to be unable to repay the loan. However, there is not much empirical ground for this claim. Data from our survey on high school students does not indicate such tendency.

It is nonetheless important that student loan entails risks for recipients, and it discourages students from using it. It was stated above that the incidences of serious problem in repayment caused concerns. After all, the use of loan, instead of governmental expenditure, implies the choice should be made by individuals and the consequences should be born by the individual. However, extreme penalty should be avoided. It is rather here that government should play a critical role.

Efficiency

Another critical viewpoint is the how the national wealth can be used efficiently for future growth.

It was stated above that the internal rate of return (IRR) to higher education is estimated at around 7 percent. To be precise, this should figure be adjusted for income-tax to derive private rate of return, or for government expenditure to derive social rate of return. In either case, however, the adjustment does not make differences more than one percent point. They are far above the returns to alternative investment.

Meanwhile, the interest rates for national bonds and bank savings have declined significantly since the 2000s. To an extent this reflects international trend, but it is particularly pronounced in Japan. It is partly due to the monetary policy to stimulate the slowed economy. At the same time, it shows the shifts in relative position of demand and supply of capital. On one hand, the past economic growth accumulated a vast expansion of savings. It is estimated that the total monetary asset in 2017 amounts to 1800 trillion Yen, which is three times the size of GDP, or eighteen times the government expenditure in 2017 (Bank of
Japan 2018). Meanwhile, investment opportunities have not grown accordingly. Consequently, the excess supply sought opportunities of investment overseas. Currently the net monetary asset of Japan invested in overseas amounts to more than 300 trillion Yen, which is the highest in the world.

One can argue from these considerations that the investment on higher education should be beneficial not only for individuals but for the society as a whole. On the ground that the social rate is higher than the ongoing interest rates, Yano (Yano et al., 2007) argued that the government should spend more resources on higher education. This conclusion, however, is not necessarily trivial.

For one, the high return implies that the whole society can be better off by investing on higher education, but it does not that the government should increase its expenditure on higher education through subsides to higher education institutions. Provided with the large deficit that the government runs every year, it would be unrealistic. An alternative is to tap the accumulated wealth in the national economy through financial market. In fact, it has already become one of the significant channels for higher education finance.

Innovation in Higher Education and Markets

The use of financial market, however, requires a critical condition that the investment on higher education pays off. It should be recalled that the internal rates of return to higher education are calculated from the present wage structure of college and high school graduates. If there should be any significant changes in future, the actual (ex-post) rate of return will either increase or decrease. And the latter may well be the case.

So far in Japan, the productivity underneath the wage levels has been created through accumulating and sharing of needed skills and knowledge in workplaces made possible by life-time employment. A large proportion of contribution by college education was in identifying young population with proper basic competency on which the informal training at workplace can build. This mechanism is now faced with significant challenges. New industrial fields are emerging, and they require different knowledges and skills. At the same time, corporate organizations keep reforming themselves. Under fierce international competition, corporations have lost the long-term perspective to invest on workforces. All these factors make the existing mechanism of productivity obsolete quickly. Higher education is asked to inculcate knowledge and competencies relevant to fill the gap.
Nonetheless, higher education institutions so far have not responded to these challenges. Business firms recruit students not by what they learnt in university, but how well they did in entering selective institutions. Since universities are set in a sharp hierarchy of selectivity, they have not had much interest in improvement of education.

Meanwhile, many private institutions are still plagued with poor educational conditions, such as high numbers of students per faculty numbers. It is not unusual to see a school of social sciences in large-scale private institutions at the order to 30 or more. The physical conditions are critically undercutting innovative efforts. On the other hand, many large- and small-scale private universities have tried since the 1990s to expand their enrollment. It is interpreted as the means to secure financial basis while adding new program catering to new academic fields that attract students. In other words, the markets and the government policies have created little incentive to raise tuition to improve educational condition. At the same time, the decline of 18-year old would not allow any institutions keep expanding.

From this perspective, it is interesting to observe what happened in the United States since the 1980s. Over this period, many private institutions admitted fewer students to raise selectivity, while raising tuition to compensate for it. becoming (Geiger 2004, Kirp 2004, Hoxby 1997). The higher level of tuition could be financed by federal and other student loans. At the same time, institutions provided academically excellent students with grants to cancel the high level of tuition. The grants could be financed by incomes from endowments, which was important to defend against the criticisms that the grants were diverted from the tuitions levied on other students. It should be also noted in this nexus that the federal government under Reagan administration initiated significant changes in tax regime. Significant deduction in value appreciation of monetary assets was made possible. This created a significant incentive to private giving to higher education institutions when stock prices kept rising in the later periods.

The changes created through this mechanism have been criticized for many reasons. The tuitions have more than doubled over two decades, and the financial burden on students to repay loans have ballooned accordingly. On the other hand, it seems to have created an environment where universities compete with each other in recruiting able students and in innovating education. It can be argued that in that way, leading American institutions succeeded in achieving high achievement, and that induced other institutions to follow.
Conclusion

Since the turn of the century, the role of financial market has emerged as a significant player of higher education under slowed economic growth. In this regard, there are similarities between the United States and Japan. The mechanism in which it plays in higher education, and its consequence, are different in various ways. The critical factor is how institutions behaved in these circumstances.

Will similar change take place in Japan? What are the necessary conditions for that to take place? Will it be desirable with respect to equity or efficiency? Will it induce necessary change for Japanese higher education?

These are questions that we are to answer when we are faced with the choice for future direction of higher education in Japan.
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Japan: World-Class Universities for Social Innovation

Ask Not What Your Country Can Do for You…1

Akiyoshi Yonezawa

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1 This article is originally published at International Higher Education: 96, 21-23. DOI: https://doi.org/10.6017/ihe.2019.96.10779
Abstract
A new world-class university policy called the Designated National University scheme was introduced in Japan in 2017. Six national universities are now given a distinguished legal status, differentiating them from all other national universities, and are expected to be competitive with leading universities worldwide. However, the government expects the selected universities to be capable of generating their own income. In light of the uncertainty surrounding the highly complex mechanism linking knowledge activities at universities and industrial commercialization, this appears to be a risk-taking policy.

Keywords: Japan; World-class university policy; Institutional strategy; University–industry relationships; Innovation

A new world-class university policy was introduced in Japan in 2017. The government selected six out of 86 national universities to be Designated National Universities, all with long research traditions—this list includes the University of Tokyo, Kyoto University, Tohoku University, the Tokyo Institute of Technology, Nagoya University, and Osaka University. These chosen institutions have been given a “distinguished” legal status, different from all other national universities that already experience significant advantages in national government funding—they are quite distinct from the 90 local public universities and 604 private universities in Japan. Designated National Universities are expected to be competitive with leading universities worldwide. What then can the national government do for them and what are these selected universities expected to do?

Not the First Attempt
This is not the first attempt at creating world-class universities in Japan. In fact, Japan is recognized for having been actively engaged in world-class university policy through a series of governmental projects and excellence initiatives: for example, 21st Century Centers of Excellence (2002–2009), Global Centers of Excellence (2007–2014), Global 30 (2009–2015), and Top Global Universities (2014 onward).

In contrast with emerging institutions in neighboring China, Singapore, and South Korea, Japan’s flagship universities have gradually slipped down in the
rankings over the last two decades. Two reasons are always highlighted: the slow pace of internationalization of universities and society as a whole and the shortage of financial investment. While the two first Centers of Excellence projects mentioned above were funded by direct investment to research clusters, impact was not significant, partly because the basic infrastructure of science and technology at Japanese universities had already been established before the launch of these projects, namely, in the 1990s after the economic culmination of the country. From 2007, the World Premier International Research Centre Initiatives targeted only a few research institutes with much more concentrated investments. It is still too early to measure the exact impact of these initiatives on research and universities and on the country as a whole.

The Global 30 project ultimately supported 13 universities because of policy changes after the financial crisis of 2008. The Top Global University project now supports 13 universities in their efforts to be globally competitive, and another 24 universities as leading examples of internationalization. These projects are not funding research excellence but are enhancing the internationalization of universities through key performance indicators such as employing international researchers and enhancing the English language proficiency of students and staff.

When the Top Global University project was launched in 2014, the government declared that the policy’s goal was to propel 10 Japanese universities among the top 100 in world rankings. Indeed, the profiles of flagship universities in Japan, for example in terms of the proportion of international students and staff, appeared low in global university rankings, and remain poor even now. The slow internationalization of Japanese universities largely reflects the slow internationalization of the whole education system and of the labor market within this country.

**At the Core of National Innovation Policy**
The Japanese government is now trying to use research universities as a key driver of national economic development and promotes an integrated economic and financial policy linked with industrial innovation. Top research universities are now attracting attention not only from the ministry of education, culture, science, and technology, but also from cabinet office departments such as the Council for Science, Technology, and Innovation and the Council on Economic and Fiscal Policy.
Compared with previous excellence initiatives and internationalization schemes, the selection of Designated National Universities focuses much more on an institution’s capacity to set a vision and plan and implement changes that will enable it to achieve world-leading status. Applicant universities were asked to present a self-assessment of their strengths and weaknesses; of their achievement of goals based on benchmarks within good practice and performance measurement; of their strategies to implement leading research and human resource development; and of their contributions to the economy and to society by addressing global and national challenges. The guidelines stipulated that the universities cover topics such as human resource acquisition and development, improvements to research capacity and university governance, strengthening financial foundations, international collaboration, and links to the wider society.

As What You Can Do for Your Country
Takeshi Sasaki, chair of the Designated National University project review committee, has expressed concern about the vulnerable financial foundation of even top research universities in Japan. His wish is to see public support expanded and assistance from society significantly increased, in particular through donations from the business community and individuals, with backing from the government.

However, in reality, the new “designated” status does not automatically guarantee drastic financial advantages. The amount of public funding directly linked to the scheme constitutes only a small portion of the universities’ running costs, at around 0.2% of their annual income. Rather, the government expects the selected universities to engage more actively in income generation from nongovernmental sources, for instance from philanthropic donations and university–industry cooperation. The underlying message is that developing management capacity within universities is the only sustainable pathway for them to achieve world-class status, and that institutions are required to contribute directly to the development of the national knowledge economy. Here, the government’s message to the universities seems to be, “Ask not what your country can do for you; ask what you can do for your country,” as stated by US President John F. Kennedy in his 1961 inaugural address. In that respect, the proposal and implementation of this particular scheme has stimulated a systemic discussion about how a university can establish, and contribute to, a virtuous
circle between its development and its socioeconomic impact.

In contrast to the officially expressed vision, cabinet level support for the policy appears to strengthen governmental intervention in university governance and management—adding contribution to economic development through industry relations and innovation to education and research as a core function of a university. This new challenge for aspiring world-class universities -- the expectation of generating their own income -- appears to be a risk-taking policy, in light of the uncertainty surrounding the complex mechanism linking long-term knowledge activities at the universities and industrial commercialization.

Of particular note: the Japanese business environment is largely under the dominance of global enterprises typically based in the United States. It is becoming apparent that universities will have to struggle and fight to gain their financial autonomy and, ultimately, define their new identity.

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1. Perspectives on Higher Education

1.1. Perspectives on Higher Education as Public Goods

- Education (Teaching) vs. Research
- Undergraduate Program vs. Graduate Program
- Pure/(Applied) vs. (Applied)/Development Research


1.2. Perspectives on Higher Education across Social System

- Human Resource Training (Capitalism) (e.g., USA, UK)
- Social Welfare (Socialism) (e.g., France, Sweden)
- Education as a Channel for Social Mobility (Confusianism) (e.g., Japan, Korea)

1. Perspectives on Higher Education

1.2. Perspectives on Higher Education across Social System

<table>
<thead>
<tr>
<th>Social System</th>
<th>Public Goods</th>
<th>Willingness to Pay</th>
<th>Public Investment per student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capitalism</td>
<td>Semi-Public Goods</td>
<td>Mid</td>
<td>Mid</td>
</tr>
<tr>
<td>Socialism</td>
<td>Public Goods</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Confucianism</td>
<td>Public Goods</td>
<td>High</td>
<td>Low</td>
</tr>
</tbody>
</table>


1.3. Funding Policies across Systems

<table>
<thead>
<tr>
<th>Social System</th>
<th>Resource attraction from private sectors</th>
<th>Student Tuition</th>
<th>Financial Aids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capitalism</td>
<td>Very active</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Socialism</td>
<td>Not much</td>
<td>No (or minimal)</td>
<td>No</td>
</tr>
<tr>
<td>Confucianism</td>
<td>Not much</td>
<td>High</td>
<td>High</td>
</tr>
</tbody>
</table>


2. Funding Investments across Systems

2.1. Public Investments for Higher Education

![Graph showing public investments across systems]

Source: UNESCO (2018)

2.2. Student Tuition Fees for Higher Education

- Annual average tuition fees charged by HEIs (Unit: PPP$)

![Graph showing annual average tuition fees]

Source: OECD (2018)
3.3. Assessment-based Funding

- Student head-count based funding allocation (-1994)
- Assessment-based funding (1995-2007)
- Formula-based funding (2008-2012)
- Project-based & Student aid focused funding (2013 - )

Source: Compiled data from different sources such as Korea Advanced Education Foundation, Ministry of Education, and Korean Education Development Institute (each year)
3. Student Tuition and Financial Aids in S. Korea

4.1. Students’ response to tuition increasing

- Growth in enrollment and tuition (public four-year colleges) (U.S.)

4. Student Tuition and Financial Aids in S. Korea

4.1. Students’ response to tuition increasing

- Students’ response by academic discipline (Shin & Milton, 2007)
  - Enrolled students are elastic to tuition level, but not to tuition increases.
  - Once students choose their college, they are less likely to transfer though tuitions are increased.
  - Tuition elasticity is different across disciplines, especially in Engineering, where the tuition or tuition increase was not significant in modeling enrollment.


4.2. Policy Development for Financial Aids

- Small scale student aid programs (-2005)
- Government’ Guaranteed Loan program(2005)
- Establishment of Korea Student Aid Foundation(2009)
- Income Contingence Loan (ICL) (2012)

4.2. Student Tuition and Financial Aids in S. Korea

- Annual tuition fees of universities (dollars)


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- Establishment of Korea Student Aid Foundation(2009)
- Income Contingence Loan (ICL) (2012)
5. Cost Sharing or Cost Transfer?

5.1. Policy Perspectives on Tuition

- Two competing policy approaches

<table>
<thead>
<tr>
<th>High tuition &amp; High aid</th>
<th>Low tuition &amp; Low aid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education: Public/private good</td>
<td>Private good</td>
</tr>
<tr>
<td>Policy goals</td>
<td>Maximizing resource generation, Minimizing public subsidy</td>
</tr>
<tr>
<td>Student motivation</td>
<td>High</td>
</tr>
<tr>
<td>Delivery cost</td>
<td>High</td>
</tr>
</tbody>
</table>


5.2. Global Competition and Rising Costs

- Growing competitions for Global Rankings between Universities
- Growing emphasis on research performance
- Growing size of graduate education (especially, doctoral education)
- Disciplinary balances between sciences/engineering and humanities/social sciences

5.3. Cost Sharing or Cost Transfer?

- Changing Share of Revenues (SNU case) (Unit: %)


- Expenditure and Tuition Fees by Disciplines (Shin & Kim, 2013)

5. Cost Sharing or Cost Transfer?

5.3. Cost Sharing or Cost Transfer?

- Gaps in Funding and Tuition by Under and Graduate (Shin & Kim, 2013)

![Graph showing gaps in funding and tuition by under and graduate students.]


REFERENCES

“The Commanding Heights” Revisited: the State and Higher Education in China — Towards a Synthesis of the Theories

Wang Rong, China Institute for Educational Finance Research (CIEFR), PKU
Yang Po, Graduate School of Education, PKU

Outline

• I. The commanding heights: the state and higher education in China
• II. Chinese-styled federalism in economic growth: a literature review
• III. The commanding heights revisited: towards a synthesis of the theories

University Expansion: in a Changing Global Economy

• Project initiated by Professor Martin Carnoy of Stanford in 2008, and joined by CIEFR, and colleagues from HSE of Russia and NUEPA of India.
Analytical frameworks of higher education development (Carnoy et al, 2013):
- Institutions driven
- Globalization driven
- Market forces driven

From a comparative perspective,
- China: the developmental state story
  - The legitimacy of the Chinese state is rooted in its ability to maintain economy growth, of which human capital is increasingly an important determinant. The expansion of higher education in China is a state-led process, which by design primarily serves the political objective of sustaining the state legitimacy.

- Commanding Heights was first used by Lenin as a defense of his New Economic Policy
  - which included permitting profit-making enterprise in some areas of the economy.
  - In persuading his suspicious colleagues, Lenin at a convention in 1922 proclaimed that the reforms were rather modest, and the new Soviet state would always retain its control over what he called the “commanding heights” of the economy.

- What I would argue, however,
- The past several decades after economic reform witnessed a transition of the strategy by the state, which is from the control-all strategy to the commanding heights strategy.

II. Chinese-styled federalism in economic growth: a literature review

- How the expansion in China has been achieved?
  - To loosen grip on the mass of HEIs and decentralize towards local governments
  - To prioritize support/control towards elite institutions

- Research very limited.

- In contrast, in the economics literature, local autonomy and behavior in China remains a focal point of analysis.

- China higher education expansion depending on local public higher education institution in China
  - Where are the center-local relations in China’s higher education?

- What are the center-local relations in China’s higher education?
Higher education development

- Central and local: the intergovernmental division of duty and expenditure responsibility is rather ambiguous and fluctuates over time to time.

- State and sectoral institutions (HEI): the financing commitment of the state to HEI is rather non-institutionalized and fluctuates over time to time.

Five strands of the Chinese-styled federalism literature

- 1. "Market-preserving federalism": economic decentralization as the driving force of economic growth in China (Qian and Weingast, 1997)

- 2. Decentralized economic governance combined with centralized political governance

- 3. Regional tournament competition

- 4. Composition of the central ruling elite (shifting from center-dominated to provincial dominated, according to Liu Mingxing (2013))

- 5. "Vertical elite networks" mechanism and rent-seeking (Krug et al, 2014)

Fundamental questions are the same for both economic domain and education (social development) domain:

- Center-local relations, without constitution-based guarantee

- Policy advocacy and engineering process, without voter-pressure groups

- Government incentives for growth and public service, without elections

- Public budgeting, without the Congress-styled politicalized process
Higher education development

- Central and local: the intergovernmental division of duty and expenditure responsibility is rather ambiguous and fluctuates over time to time.

  What are the sectoral authority’s strategies?

- State and sectoral institutions (HEI): the financing commitment of the state to HEI is rather non-institutionalized and fluctuates over time to time.

- MOE (sectoral authority) as leader of sectoral coalition and sectoral overseer (Wang, 2014b):
  - Form a political coalition with elite institutions to advocate for the legitimacy of world-class university construction in China. Once the project-based funding mechanism for research universities (such as Project 985) came into being, government support for individual institutions no longer primarily depended on the success or the failure of the Ministry of Education-led mobilization campaign for huge categorical grant projects, but rather depended on the success or failure of the Ministry of Education-led mobilization campaign for huge categorical grant projects, plus the collective performance of elite universities.
  - The political coalition with elite research universities transforms Ministry of Education from a marginalized central agency to a leading ministry with direct connection with knowledge production and innovation. This new position increases its legitimacy and credibility as a sectoral authority. Thus, it is able to lobby for large-scale intergovernmental transfer programs for regions, such as operational subsidy for regional 4-year universities, financial aid for students in regional institutions, and categorical grants for discipline/major construction in regional colleges and universities.

- Since the late 1990s, the state has utilized three transfer programs to facilitate regional institutions’ growth.
  - The first is a direct subsidy for regional HEI’s operational budget.
    - For instance, Ministry of Finance and Ministry of Education announced a program to subsidize regional 4-year universities for provinces whose per student fiscal appropriation is under RMB 12,000 per student per year. In 2013, central government allocated RMB 25.3 billion for this program.
  - Support for college student financial aid is another type of intergovernmental transfer.
    - MOE provides both need-based and merit-based financial aid. These programs are available for regional university and college students. In 2013, the state allocated RMB 57.4 billion for college student aid and the aid increased to RMB 71.7 billion in 2014 (China National Center for Student Financial Aid, 2016).
  - The third type of transfer refers to earmarked discipline or major construction projects.
    - From 2006 to 2014, Ministry of Finance and Ministry of Education jointly invested more than RMB 4.7 billion for a major construction projects which covered 788 majors in 200 National Demonstrative and Key Vocational Colleges (China Financial and Economic News, 2016). These large-scale transfer programs bring the state back to higher education arena at provincial level.
In summary

• Chinese-styled federalism in social and economic development

• Sectoral governance versus local governance

• Sectoral governance (leader of sectoral coalition and sectoral overseer):
  – policy advocacy
  – Funding mobilization against competition for fiscal revenues
  – Control over sector-specific resources of scarcity

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Thank You!

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Peking University
Background

1. Deterioration of Youth Labor Market after School Graduation
2. Increase in Student loan in Japan, Hardships on Repayment

Method

3. Quantile Income Regression of Males and Females
4. Income Dynamics Controlled

Result

5. The Estimation of Different Scheme of Income Contingent Loan using Japanese data, using the knowledge and scheme of ICL conducted in UK and Australia

Possible Limitation

6. Possible Moral Hazard
1. Deterioration of Youth Labor Market After School Graduation

Large wage gap in Permanent contract regular workers and non-standard workers

Strong increase of non-standard workers among youth and women.

Youth employment has deteriorated after 1997 and the deterioration has not stopped in 2000s.

Employment: *Seishain* Wage of *Seishain* vs Termed-Contract Workers

Males under Age of 35

Non-Married Females under Age of 35

Source: MHLW Basic Survey on Wage 2008

1. Deterioration of Youth Labor Market After School Graduation

Large wage gap in Permanent contract regular workers and non-standard workers

Strong increase of non-standard workers among youth and women.

Youth employment has deteriorated after 1997 and the deterioration has not stopped in 2000s.
Percentage of long term employees below age 35, by educational attainment, women non-married


Ratio of Male Seishain Workers, 1st to 12th years after graduation Graduates of 2002 and 2009


Ratio of Female Seishain Workers, 1st to 12th years after graduation Graduates of 2002 and 2009


Education, and Student Loan, Increase in Hardship in Repayment
JASSO Loan
Increase of Type 2 loan

In 2015, 38% of university students have JASSO loan (up from 23.5% in 2004)
1.32 million students totaling to 1 trillion yen in 2015

Type 1 loan
- non interest levied
- higher grade requirement

Increase in Type 2 loan
- interest levied

Source:
Student loan according to JASSO study, Gakusei Seikatsu Chosa, student going to 4 year uni day course

Type of Universities in Japan

Private universities have 70 percent of share of universites.
Tuition lower for national and prefectural public, around $30,000 for four years, vs private around $42,000 for four years
JASSO Loan by Gender

No difference by gender

Average JASSO Debt

Who has JASSO student loans?

Using JASS 2014 student survey

Lower income households are more likely to have JASSO loans

Average outstanding debt

2016

Type 1 Loan (without interest rate, higher grades required)
2.36 million yen (around $30,000)

Type 2 Loan (with interest rate, lower grades required)
3.43 million yen (around $43,000)

Repayment Model Case

For Type 1, monthly loan of 54,000 yen: 87% (6.9 years)
For Type 2, monthly loan of 80,000 yen: 100% (4 years)

Minimum Wage Japan vs Australia
10.6 $ (848 yen) vs. 18.93 $ (about double in AUS)

Source: JASSO Home Page
**Method**

Following the method of


1. Estimate smooth quantile regression by age to estimate future earnings.
2. Use interval regression for banded data
3. Use t-copula function that is, use t to t+1 income change to estimate dynamics in the earnings prediction. → This is not yet done.

---

**Increase in Bad Loan Repayment and the Measurement of JASSO**

2004 ⇒ 2009 Peak of those with RP 3 months late: 210,000

guarantor system: about half of students use this hardship of guarantor

**JASSO measurement**

1. Deferral of repayment
can go up to 5 years ⇒ from 2012, can go up to 10 years
criteria of economic hardship: 3 million yen annual income
2015: 150,000
2. Decrease monthly RP to half or one third 2015: 180,000
3. Those who started Type 1 loan (about 11% of university students) from 2017 can choose ICL, 9% of taxable income, and 2000 yen per month if no income. The amount to be repaid will be linked to last year income.

---

**Yearly JASSO loan**

The distribution is most often 0.5-0.6 million yen per year. However, for those at Private universities, one in four has 0.8-1.25 million yen.
That is, nearly 5 million yen debt in four years.
4. Quantile Regression of University Graduated Males and Females

1. Do interval Regression
2. Predict income within upper income limit and lower income limit to make continuous income trajectory with wage.
3. Then do first stage and second stage smoothing with respect to age.
4. Then using the estimated income profile with age in each deciles, estimate the cost of ICL using various parameters, and the size of student loan.

ICL Scheme

- Debt of 244.8 (type 1 loan away from home)
- ICL with 5% marginal repayment rate above 1.5m yen and 10% marginal repayment rate above 3.0m yen.
- We compare the situation where the loan is written off after 25 years or where it is never written off
- An interest rate of 1% real which is assumed to be the same as the assumed government discount rate 1%

By Quantile, how much will be repaid by ICL, by using slide 26
3 Types of Households each by Quantile, BA married to BA, BA married to non-BA, and Single

1. BA married to BA (males and females)
2. BA married to non-BA (males and females)
3. Singles (males and females)

Make household income, do income smoothing, and do quantile regression.
3 Types of Households each by Quantile, BA married to BA, BA married to non-BA, and Single

Estimation falling into 3 categories using LFS
In the future, there will be more BA BA marriage for males as well

51% of female BA graduates and 42% of male graduates will end up marrying each other. Almost all (460 couples in our simulated sample)

25% of males and 24% of female 4-year graduates will remain single

The 32% of males and 25% of female graduates will marry non-BA partners.

At the age of 25 virtually all graduates are single and these steadily change until the age of 49. We assume that households do not change after 49 (so we ignore divorce, death, etc.).
Assumption about Scheme

- Debt of 24.8% yrs (type 1 born away from home)
- ICL with 5% marginal repayment rate above 1.5m yrs and 6.5% marginal repayment rate above 1.5m yrs.
- For example, if a person earning 2.0m yrs per year would pay 5% of 200,000 = 10,000 yrs per year. For the ASSIO ICL, they require payments of 24000 yrs per year for all families with no taxable income or nominal income of below around 1.4m yrs.
- We consider the situation where the loan is written off after 25 years or where it is never written off.
- We assume a zero real interest rate and assume a government discount rate of 0.1%.
- The ICL is applied to individual BA graduate incomes and ignores the income of their spouse.

Let's consider income dynamics

When Levied on Households, the results are much better

Estimating Income Dynamics using $t$-coupla function, income variation from to to $t+1$ smaller with higher $\rho$
Estimating Income Dynamics
income variation from to to t+1
smaller at tails with lower

Income dynamics well estimated from t-coupla function when comparing
the income correlation of t+1, t+2 with actual

Decile lifetime earnings
123456789 1 0 All
Males Females
No dynamics Dynamics No dynamics Dynamics
With Income dynamics,
students will repay 93% of
their total borrowing as to 86% if
income dynamics not
considered.

For time based
payment, 96% will be
repayed by
students(Government
interest rate of 0.33%)
Our paper’s Income Contingent Loan

1. Repayment zero below annual income below 1.44 million yen
2. 1.44 million to 3 million, 5% repayment
3. From 3 million and over, 9% repayment
4. Interest rate 0
5. Repayment directly from monthly income, not after tax income based on last year income which is JASSO’s present plan
6. 15% surcharge (This is similar to Australian case. This means if you pay upfront, tuition will be 15% lower.)

Repayment Estimation of our ICL scheme with loan scale of Type 2

With income dynamics: 96% repaid, without income dynamics: 99% repaid with 15% surcharge.

When income dynamics is considered, repayment is made over bottom 30% for females.

Estimation of repayment of our ICL scheme with loan scale of about Type 1

On average 90% will be repaid by males and 84% by females.

Possible Benefit and Problem

1. If we introduce ICL, it will benefit to reduce financial burden of students
2. If we introduce ICL, it may increase family formation and child-rearing, which is needed in Japan. Some youth are said to delay marriage and child-rearing due to the loan.
3. If we introduce household-based ICL, some uncertainty as to whether husband and wives agree on taking the mutual student loan burden after marriage—may not work as to reduce problem of delayed marriage and child-rearing, as some may not want to take burden of spouses.
4. Possible Problem of individual-based ICL: Moral hazard on the side of worker, especially females that they might choose not to earn income over threshold
5. Individually-based ICL will subsidize more females than males.
6. Moral hazard of ICL on the side of educational institution—eager to get students but may not provide adequate teaching. We do not have enough research on the quality of education of the private universities, which consists of the majority of our university system.
Has Work Hour Decreased, especially for Males? -- yes

Has Gender wage gap Decreased?
Annual Income Average, Gender Gap, Male and Female Age 25-39

Has Abe's WOMANOMICS Worked?
So closing gender wage gap is very important for student loan and also J-Hecs to work well.

Has Females in Pipeline Increased?
Differences by Education
Women Seishain ratio among all women by education and marital status increasing, while HS grad deteriorating.

Has Abe's policy worked?

Much improvement for female university, especially university, mais for male especially university, and deteriorating for high school.

Deterioration for never married, especially for married female

Source) Nagase (forthcoming) using Labor Force Survey

Much improvement for female university, especially university, and deteriorating for high school.

Deterioration for never married, especially for married female

Source) Nagase (forthcoming) using Labor Force Survey
The Main Result

The policies are surveyed, and the effects are estimated using microdata from the Labor Force Survey combined with data at the prefectural level on day care provision. A difference-in-difference (DD) method is applied to uncover the impacts of the Abe Cabinet’s policies. The rapid increase in the provision of infant care, especially in the urban area, has contributed to a strong increase in the labor participation of mothers with young children. In addition, DD method estimates show a strong increase in mothers with infants staying in permanent-contract regular employment. A significant shortening of work hours of workers, especially of parents with infants, is observed, which enabled working mothers to maintain their employment status. A substantial wage gap in the Japanese labor market is observed, but much progress is still required to close the large wage gap.
1.2 Increase in scholarship loan recipients has led to social problems and previous research

- Increase in scholarship loan users has led to social problems and previous research
  - Increase in student loan debtors; severe life of debtors; overdue repayments; student loan bankruptcies
  - “In the past 5 years, there were 15,000 self-bankruptcies. In nearly half of the cases, the guarantors were parents and relatives.” Asahi Newspaper, Feb 12, 2018
  - Benefits Scholarship started in 2017. Tuition Aid and Benefits Scholarship will be enlarged from 2020.

However, this does not benefit young people in their twenties and thirties. In the future, young people using student loans may decrease, but the situation where many young people become recipients of and debtors to student loans will continue.

Outline

1. About student financial aid in Japan
   - Social background and state of rapid increase in scholarship loan users
   - Increase in scholarship loan users has led to social problems and previous research
   - Purpose of this study

2. Empirical research based on JHPS second-generation follow-up survey
   - About our survey and the samples targeted in this study
   - State of samples receiving scholarships and student loans
   - Focus on use and repayment of student loans
   - Relationship between student loan repayment status and youths’ social lives, family formation
   - Estimation of prescribed factors of those who have paid off the loan

3. Summary and discussion

WHAT ARE THE EFFECTS OF STUDENT LOAN REPAYMENT ON YOUTHS’ LIVES:
FINDINGS FROM JHPS 2ND-GENERATION FOLLOW-UP SURVEY

WANG Jie, The University of Tokyo
Hideo Akabayashi, Keio University
Masayuki Kobayashi, The University of Tokyo
Shinpei Sano, Chiba University

November 22, 2018 Workshop at the University of Tokyo
1-3 Purpose of this study

Based on the above, in this report we will use data from the “Second-Generation Survey on Learning and Work” carried out by the Grant-in-Aid for Scientific Research(S) “Investigation of the long-term causal effect of economic inequality on educational inequality based on longitudinal survey and experiments of parent-child pairs and international comparison” (Hideo Akabayashi, Keio University) to analyze the situation of student loan use and repayment by young people, differences in family formation and living conditions due to repayment status of student loans.

2. Empirical research based on JHPS second-generation follow-up survey

2.1 About the survey

- Survey period: March 2017
- Survey response format: Mail or WEB
- Targets: We took the data for the first generation of the Japanese Household Panel Survey (JHPS) conducted by the research group of Keio University, and conducted a questionnaire survey for their children of 18 years and over.
- Questions: Education history, utilization of out-of-school education, participation situation of university entrance examination, burden of educational expenses, use and repayment of student loans, employment situation, income, psychological state, temporal preference, marital status, number of children, connections with family and others, donations and volunteer experiences.

Investigations on living conditions of student loan debtors in Japan

Attribute Survey on users of Scholarship Loans, JASSO

Extracting samples from general users and users in overdue repayment, 5 to 6 thousand respondents a year in recent years, the recovery rate is low. In order to improve the collection of scholarship loans, staff compare the information gap, the type of graduated school, the main user’s living conditions between general loan debtors and loan debtors in overdue repayment, and analyze the cause and reasons of overdue repayment. However, loan recipients who have already paid back their loans are not subject to this survey.

Questionnaire Survey on Student Loans, National Council of Workers’ Welfare, 2016

Sampling from workers. Effective recovery count is 33,332, recovery rate is 34.2%. At the age of 34 and under, half of the participants used the scholarship loan system. On average, the total amount borrowed was 3,193,000 yen. For non-regular employees, 48% of them answered that repayment was very tight. About the effect of repayment on life design, approximately 36% of them answered that there was some effect on “marriage” and “acquiring real estate”. These results were based on the subjective judgment of respondents.

Internet survey conducted by Associate Professor Kawada, 2017

An internet survey covering 1,600 people aged 25 to 44 years nationwide. Compared with those who did not take out a scholarship loan and those who have already paid back the loan, the young people in repayment have fewer children, and the age of marriage and house purchase tend to be delayed. The results were only published as an article in the Asahi Newspaper. No paper available.
Analysis targets

772 workers participated in our follow-up survey.

- We principally analyzed 569 samples aged 20-49 years old who had received higher education. Respondents over their 50s and those whose final academic background is below high school are excluded due to a very low scholarship receipt rate.

- Distribution of analysis samples by age and gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>20-24 yrs</th>
<th>25-29 yrs</th>
<th>30-34 yrs</th>
<th>35-39 yrs</th>
<th>40-44 yrs</th>
<th>45-49 yrs</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>17</td>
<td>53</td>
<td>47</td>
<td>38</td>
<td>28</td>
<td>31</td>
<td>214</td>
</tr>
<tr>
<td>Sample</td>
<td>5.0%</td>
<td>9.3%</td>
<td>8.3%</td>
<td>6.7%</td>
<td>4.9%</td>
<td>5.4%</td>
<td>37.6%</td>
</tr>
<tr>
<td>Female</td>
<td>43</td>
<td>86</td>
<td>83</td>
<td>55</td>
<td>52</td>
<td>39</td>
<td>352</td>
</tr>
<tr>
<td>Sample</td>
<td>7.2%</td>
<td>15.1%</td>
<td>14.0%</td>
<td>9.7%</td>
<td>9.1%</td>
<td>6.7%</td>
<td>62.4%</td>
</tr>
</tbody>
</table>

Analysis sample:

% | 10.2% | 24.4% | 22.8% | 16.3% | 14.1% | 12.1% | 90.0% |

Data bias

- Low proportion of low-income group: In the household income of the parent generation (2005-2017), the proportion with an annual income of 3 million yen or less is 5.6 to 12.4%, the proportion with an annual income of 10 million yen or more is 21.2 to 25.6%.

- The ratio of people living with parents and the unmarried rate is probably high.

- Low recovery

2.2 State of samples receiving scholarships and student loans

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Receipt rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>JASSO Type 1</td>
<td>71</td>
</tr>
<tr>
<td>JASSO Type 2</td>
<td>99</td>
</tr>
<tr>
<td>JASSO use</td>
<td>148</td>
</tr>
<tr>
<td>JASSO combined use</td>
<td>22</td>
</tr>
<tr>
<td>Education loan, etc.</td>
<td>20</td>
</tr>
<tr>
<td>Student loans, etc.</td>
<td>162</td>
</tr>
<tr>
<td>Benefits Scholarship</td>
<td>23</td>
</tr>
</tbody>
</table>

Sample size: 569

2.3 Student loan use and repayment by generation

- Approximately 40% of recipients have paid back.

Comparison with the unmarried rate in the 2015 Population Census

Since the influence of outliers is large, detailed analysis will be a subject for the future.
**Student loan use and repayment by generation and gender**

- **Men**
  - Those who did not receive any student loan: 64.3%
  - Those who are repaying a student loan: 28.3%
  - Those who have paid off their student loan: 7.3%

- **Women**
  - Those who did not receive any student loan: 64.3%
  - Those who are repaying a student loan: 25.6%
  - Those who have paid off their student loan: 10.3%

**Student loan use and repayment by gender**

- **Male**
  - Those who did not receive any student loan: 65.3%
  - Those who are repaying a student loan: 21.8%
  - Those who have paid off their student loan: 12.8%

- **Female**
  - Those who did not receive any student loan: 70.8%
  - Those who are repaying a student loan: 14.6%
  - Those who have paid off their student loan: 14.6%

**Student loan use and repayment by generation and higher education experience**

- **College, Junior College, etc.**
  - University and Graduate School: 66.5%
  - College, Junior College, etc.: 27.4%
  - College, Junior College, etc.: 6.1%

- **University and Graduate School**
  - University and Graduate School: 75.7%
  - University and Graduate School: 11.4%
  - University and Graduate School: 11.9%

**Receipt ratio**

- Male: 35.7%
- Female: 36.5%
- Male: 39.3%
- Female: 39.2%
- Male: 28.6%
- Female: 28.8%
- Male: 40.0%
- Female: 40.3%

**Differences in living conditions due to repayment status of student loans (30’s age group only)**

- **Living with parents**
  - Those who did not receive any student loan: 51.3%
  - Those who are repaying a student loan: 46.3%
  - Those who have paid off their student loan: 0.4%

- **Unmarried**
  - Those who did not receive any student loan: 45.5%
  - Those who are repaying a student loan: 42.6%
  - Those who have paid off their student loan: 0.0%

- **Number of children**
  - Those who did not receive any student loan: 74.5%
  - Those who are repaying a student loan: 74.5%
  - Those who have paid off their student loan: 0.0%

- **Mainly working**
  - Those who did not receive any student loan: 80.0%
  - Those who are repaying a student loan: 80.0%
  - Those who have paid off their student loan: 0.0%

- **Annual income (in million yen)**
  - Those who did not receive any student loan: 0.0%
  - Those who are repaying a student loan: 0.0%
  - Those who have paid off their student loan: 0.0%
### Repayment status of student loans and mainly working rate by gender and by generation

<table>
<thead>
<tr>
<th></th>
<th>20s</th>
<th>30s</th>
<th>40s</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Male</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Those who did not receive any student loan</td>
<td>55.1%</td>
<td>39.2%</td>
<td>25.0%</td>
<td>37.8%</td>
</tr>
<tr>
<td>Those who are repaying a student loan</td>
<td>50.0%</td>
<td>16.7%</td>
<td>50.0%</td>
<td>55.0%</td>
</tr>
<tr>
<td>Those who have paid off their student loan</td>
<td>26.7%</td>
<td>16.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Female</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Those who did not receive any student loan</td>
<td>58.0%</td>
<td>24.7%</td>
<td>22.5%</td>
<td>34.5%</td>
</tr>
<tr>
<td>Those who are repaying a student loan</td>
<td>53.1%</td>
<td>60.0%</td>
<td>66.7%</td>
<td>56.4%</td>
</tr>
<tr>
<td>Those who have paid off their student loan</td>
<td>84.0%</td>
<td>25.0%</td>
<td>40.0%</td>
<td></td>
</tr>
</tbody>
</table>

### Repayment status of student loans and the number of children by gender and by generation

<table>
<thead>
<tr>
<th></th>
<th>20s</th>
<th>30s</th>
<th>40s</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Male</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Those who did not receive any student loan</td>
<td>51.1%</td>
<td>.63</td>
<td>.88</td>
<td>0.55</td>
</tr>
<tr>
<td>Those who are repaying a student loan</td>
<td>50.0%</td>
<td>.29</td>
<td>.00</td>
<td>0.16</td>
</tr>
<tr>
<td>Those who have paid off their student loan</td>
<td>0.00</td>
<td>.93</td>
<td>.50</td>
<td>0.65</td>
</tr>
<tr>
<td><strong>Female</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Those who did not receive any student loan</td>
<td>58.0%</td>
<td>.91</td>
<td>1.41</td>
<td>0.82</td>
</tr>
<tr>
<td>Those who are repaying a student loan</td>
<td>53.1%</td>
<td>.53</td>
<td>1.33</td>
<td>0.83</td>
</tr>
<tr>
<td>Those who have paid off their student loan</td>
<td>0.23</td>
<td>1.10</td>
<td>1.14</td>
<td>0.83</td>
</tr>
</tbody>
</table>

### Repayment status of student loans and unmarried rate by gender and by generation

<table>
<thead>
<tr>
<th></th>
<th>20s</th>
<th>30s</th>
<th>40s</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Male</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Those who did not receive any student loan</td>
<td>51.1%</td>
<td>39.2%</td>
<td>25.0%</td>
<td>37.8%</td>
</tr>
<tr>
<td>Those who are repaying a student loan</td>
<td>50.0%</td>
<td>16.7%</td>
<td>50.0%</td>
<td>55.0%</td>
</tr>
<tr>
<td>Those who have paid off their student loan</td>
<td>26.7%</td>
<td>16.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Female</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Those who did not receive any student loan</td>
<td>58.0%</td>
<td>24.7%</td>
<td>22.5%</td>
<td>34.5%</td>
</tr>
<tr>
<td>Those who are repaying a student loan</td>
<td>53.1%</td>
<td>60.0%</td>
<td>66.7%</td>
<td>56.4%</td>
</tr>
<tr>
<td>Those who have paid off their student loan</td>
<td>84.0%</td>
<td>25.0%</td>
<td>40.0%</td>
<td></td>
</tr>
</tbody>
</table>

### Repayment status of student loans and the ratio living with parents by gender and by generation

<table>
<thead>
<tr>
<th></th>
<th>20s</th>
<th>30s</th>
<th>40s</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Male</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Those who did not receive any student loan</td>
<td>93.3%</td>
<td>54.9%</td>
<td>32.7%</td>
<td>58.8%</td>
</tr>
<tr>
<td>Those who are repaying a student loan</td>
<td>50.0%</td>
<td>72.2%</td>
<td>100.0%</td>
<td>87.5%</td>
</tr>
<tr>
<td>Those who have paid off their student loan</td>
<td>30.0%</td>
<td>33.3%</td>
<td></td>
<td>37.5%</td>
</tr>
<tr>
<td><strong>Female</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Those who did not receive any student loan</td>
<td>86.4%</td>
<td>36.1%</td>
<td>46.3%</td>
<td>51.0%</td>
</tr>
<tr>
<td>Those who are repaying a student loan</td>
<td>53.1%</td>
<td>65.0%</td>
<td>33.3%</td>
<td>56.4%</td>
</tr>
<tr>
<td>Those who have paid off their student loan</td>
<td>92.3%</td>
<td>35.0%</td>
<td>28.6%</td>
<td>46.9%</td>
</tr>
</tbody>
</table>
Summary and discussion

• Twenty-eight percent of samples in the 20-49 age group with experience of higher education took out student loans. The median amount received was 2.5 million yen. JASSO scholarship loan receipt rate is 26%. Those at the age of 20-39, whose student loan receipt rates are above 30%, 40% of student loan users on average have paid off, the payoff rate of the upper generation being higher.

• Compared to those who did not receive any student loan and those who had paid off their student loan, the group repaying student loans shows a relatively high rate of living with parents, an obviously higher unmarried rate, and a noticeably smaller number of children. Personal income is also somewhat lower. There is a gap of more than 30% among the unmarried rates, a gap of more than 20% among the rates of living with parents, a gap of 5 million yen in the number of children. When we focus on the 30%, where family formation is constrained, the results are generally consistent with the overall situation. Repayment of the student loans is likely to affect youths’ social lives and family formation. In particular, the influence on those who are repaying student loans is great on men’s marriage and having children.

• Although there are some differences with the conclusion of Kawada (2017), in several respects the same trends are shown. It will be necessary to consider reducing the burden on young people who are in the process of repaying student loans.

• In the estimation of those who have paid off the student loan, the “total amount borrowed” and “personal annual income” are statistically significant. The former has a negative influence, and the latter has a positive one. “Mainly parental repayment” and “living with parents” also show significant influence. “Mainly parental repayment” and “living with parents” can be interpreted as receiving economic assistance from parents. We can consider that the influence of “total amount borrowed” possibly gives a further argument to the theory of total amount control.

### Table 2.5 Estimation of prescribed factors of those who have paid off their student loans

<table>
<thead>
<tr>
<th>Variable</th>
<th>All student loans</th>
<th>JASSO scholarship loans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (female, 1)</td>
<td>-0.04</td>
<td>-0.03</td>
</tr>
<tr>
<td>Age</td>
<td>0.116*</td>
<td>0.079</td>
</tr>
<tr>
<td>Education (university, and above)</td>
<td>0.317</td>
<td>1.061</td>
</tr>
<tr>
<td>Personal annual income</td>
<td>-0.07 **</td>
<td>-0.05 **</td>
</tr>
<tr>
<td>Unmarried</td>
<td>-1.001</td>
<td>-0.691</td>
</tr>
<tr>
<td>Mainly parental repayment</td>
<td>1.408*</td>
<td>1.108*</td>
</tr>
<tr>
<td>Living with parent(s)</td>
<td>1.116</td>
<td>1.159</td>
</tr>
<tr>
<td>Total amount borrowed</td>
<td>-0.007 **</td>
<td>-0.009 **</td>
</tr>
<tr>
<td>Constant</td>
<td>-6.151**</td>
<td>-4.199**</td>
</tr>
</tbody>
</table>

Dependent variable: paid off 1, still repaying 0
Other independent variables:
- Unmarried (yes 1, no 0)
- Mainly parental repayment (yes 1, no 0)
- Living with parent(s) (yes 1, no 0)
Future research topics

- Analysis of total amount of student loan received and repayment balance
- Analysis based on parental generation and form of employment of respondents
- Sampling problem, such as 2 or 3 or 4 children of one family participating in the survey.
- The situation of the family is complicated and a more detailed investigation will be required. For example, in this survey, other loan burdens and family loan burdens are not investigated. More detailed investigation is required.

Main references

- Questionnaire Survey on Student Loans, National Council of Workers’ Welfare, 2016
  (http://www.rofuku.net/network/activity_img/tottori20160301101822.pdf)
- Noriko Kawada, “Those who are repaying student loans have few children. Their marriage age and house acquisition tend to be delayed”, August 23, 2017. Electronic edition of the Asahi Newspaper.
  (https://www.asahi.com/articles/ASK7S7QDJKY5UPD014.html)
- Attribute Survey on users of Scholarship Loans, JASSO (https://www.jasso.go.jp/about/statistics/zokusei_chosa/)

Acknowledgments

With respect to the use of data, we obtained permission from Panel Data Research Center at Keio University. This is a research result of Grant-in-Aid for Scientific Research(S) "Investigation of the long-term causal effect of economic inequality on educational inequality based on longitudinal survey and experiments of parent-child pairs and international comparison" (Hideo Akabayashi, Keio University, No. 16H06323). We would like to extend our sincere thanks to everyone who participated in the survey.
Political Economy of "Free Higher Education" Scheme in Japan

—Focusing on decision-making process—

Meiji University
Graduate School of Governance Studies
Hideaki TANAKA
hideakit@meiji.ac.jp

2. Six years of Abe Administration

<table>
<thead>
<tr>
<th>Year</th>
<th>Politics and public administration</th>
<th>Economics and public finance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>Jul: Upper House election</td>
<td>Apr: Kuroda Governor of BOJ, Extra-easing monetary policy</td>
</tr>
<tr>
<td>2015</td>
<td>Sep: Abe reelected as leader of LDP National Security Bill</td>
<td>Jan: “Economic and Fiscal Regeneration Plan”</td>
</tr>
<tr>
<td>2016</td>
<td>Jun: Ise-Shima G7 Summit Meeting</td>
<td>Oct: Council to Promote Dynamic Engagement of All Citizens</td>
</tr>
<tr>
<td>2017</td>
<td>May: Manifestation on the amendment constitution, including free education</td>
<td>Jun: “Growth Strategy 2017”</td>
</tr>
<tr>
<td>2018</td>
<td>Jun: MOF Report on falsified official documents relating to Moritomo School</td>
<td>Apr: Kuroda Governor reappointed</td>
</tr>
</tbody>
</table>

3. Governance in Abe administration

The dual system of decision-making in Japan is now changing from LDP-led to PM Office-led

Policy function of the government

PM Office
PM, Chief & Deputy Cabinet Secretary, Advisors, seconded bureaucrats

Policy Council
Explanation & coordination

Ministries
Approval

Cabinet decision

On some issues such as security, sensitive ones

Each division
Research Council

General Council

Who takes responsibilities of decisions is often ambiguous, because PM or his office is always behind the scene when ruling party decides and instructs.
4. Characteristics of Abe administration

1. Using institutional capacity of PM strengthened by the reforms
2. Learn the failures of the first Abe administration and DPJ
3. Senior politicians retired and no rival in LDP
4. Fragmented oppositions and LDP’s dominance in both houses
5. Hostility towards bureaucrats in the first administration, but control them through seconded or retired ones in the second adm.
6. Govern top & senior officials through appointment system including the Governor of BOJ and heads of agencies
7. Policy-making by many policy & advisory councils controlled by Cabinet Secretariat but often their conclusion predetermined

5. The number of councils by subjects

<table>
<thead>
<tr>
<th>Subjects of councils</th>
<th>Before Ave adm</th>
<th>Ave administration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Parent</td>
<td>Subsidiary</td>
</tr>
<tr>
<td>General economic policies</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Regulation, industry and market</td>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td>Public finance and tax</td>
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<td>0</td>
</tr>
<tr>
<td>Public administration</td>
<td>1</td>
<td>0</td>
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<tr>
<td>Social welfare and labour</td>
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<tr>
<td>Education and culture</td>
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</tr>
<tr>
<td>Local &amp; regional development</td>
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<tr>
<td>National security and foreign affairs</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Law and order</td>
<td>9</td>
<td>1</td>
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<tr>
<td>Total</td>
<td>34</td>
<td>16</td>
</tr>
</tbody>
</table>

Source: the author’s estimate based on the web site from PM’s Office
Notes: Subsidiary councils means organization or committee set by parent’s councils

6. Development of "Free education scheme"-1

2015 Sep : Report "Education Investment and Resource to Strengthen Education System" by the Advisory Committee to Revitalize Education set up by Prime Minister Abe
   1. Gradual free early childhood education, 2. Reduction in individual payments for higher education
   3. It costs about 3.1 trillion yen to make tuition fee free for both public and private universities

2016 Sep : Report "Towards a New Income Contingency Loans" by ICLs Advisory Committee set up by Ministry of Education
   1. Propose the design of ICL. 2. A new ICL was introduced in 2017

2017 May : PM Abe proposed to include free education from early childhood to higher education in the proposal to amend the Constitution in response to the interview by Yomiuri News Paper

2017 June : "The Economic and Fiscal Strategy 2018" decided by the cabinet includes free education scheme
   1. Gradual free early childhood education, 2. Expand grant-type scholarship and ICLs by finding revenue towards free higher education

6. Development of "Free education scheme"-2

2017 Aug : PM Abe addresses the importance of developing human resource in the interview after the reshuffling the cabinet ministers

2017 Sep : The Advisory Committee Responding to 100-year Life set up by PM
   To discuss a lot of topics including free education

2017 Oct : LDP’s Lower House election manifesto including free education scheme
   Reallocation of 2 trillion Yen from the additional tax revenue generated by consumption tax hike from 8 to 10% in Oct 2019. LDP was against free education when they were the opposition from 2009-12

2017 Dec : Government’s strategy "The New Economic Package" decided by the cabinet reveals the key design of free education scheme
   Dec : the mid-term report by the Advisory Committee Responding to 100-year Life

2018 June : The final report by the Advisory Committee
   *Relevant ministries are now developing the detail of the scheme for the implementation
7. The scheme by the Package, Dec 2017

1. Free early childhood education / starting in April 2019 and 2020
   a. Free fees for 3-5 year children using childcare center, kindergarten and certified children center
   b. Consider if other relevant private facilities are included as ones qualified for free fees
   c. Free fees for 0-2 year children which families don’t pay local individual income tax

2. Free private high school / starting in 2020
   a. Free tuition fees for students who go to private school and their annual income is below about 5.9 million Yen

3. Free higher education / starting in April 2020
   a. More reduction in fees and increase in the amount of scholarships
   b. Free tuition fees applied to students from low income family who doesn’t pay local individual income tax
   Eligible for students in 4-year and 2-year universities and vocational colleges
   National universities: free tuition fees
   Private universities: subsidy of national university’s tuition fees + some additional
   c. Some conditions for students
   Good educational performance not only in high school but also in universities
   d. Some conditions for universities
   • Some teachers having practical business and their classes provided
   • Some board numbers outside universities
   • Strict performance evaluation for students
   • Financial and management information open to public

8. Major Issues on the scheme

1. Does it really contributes to reducing educational disparity between the rich and the poor and improving educational opportunities?

2. Does the quality of education improves really? Low income people should be supported, but do they study more harder than before? Do teachers provide more better educational services? Free tuition fees mean no additional resources for education and research in universities. How can they improve the quality and performance with it?

3. The government tries to intervene education in universities by imposing conditions, but does it undermine the independence?

9. General Account of Japanese government

Revenue 66.2
- Tax 58.0
- Block grant to local governments 7.5
- Social Security 4.8
- Debt service 1.9

Expenditure 66.3
- Education, Defense, others 10.8
- Social Security 1.5
- Debt service 20.9

Trillion Yen Initial budget

Expenditure 97.5
- Education, Defense, others 25.9
- Block grant to local governments 11.6
- Social Security 33.8 (3.5%)"}

10. Public spending in 2013, % of GDP

<table>
<thead>
<tr>
<th>Country</th>
<th>Pension</th>
<th>Health</th>
<th>Family</th>
<th>ALMP</th>
<th>Others</th>
<th>Total A</th>
<th>6Education</th>
<th>Total B</th>
<th>7GG exp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>5.0</td>
<td>6.3</td>
<td>2.7</td>
<td>0.2</td>
<td>3.8</td>
<td>18.1/19.6</td>
<td>3.9</td>
<td>22.0/23.0</td>
<td>35.5</td>
</tr>
<tr>
<td>Canada</td>
<td>4.5</td>
<td>7.1</td>
<td>1.2</td>
<td>0.2</td>
<td>3.8</td>
<td>21.92/25.6</td>
<td>5.1</td>
<td>25.9/26.0</td>
<td>44.9</td>
</tr>
<tr>
<td>UK</td>
<td>7.0</td>
<td>8.0</td>
<td>0.7</td>
<td>0.5</td>
<td>4.0</td>
<td>18.28/21.7</td>
<td>4.2</td>
<td>23.0/26.0</td>
<td>38.9</td>
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<tr>
<td>USA</td>
<td>10.1</td>
<td>6.7</td>
<td>3.7</td>
<td>1.8</td>
<td>6.8</td>
<td>29.02/25.6</td>
<td>6.1</td>
<td>35.1/36.0</td>
<td>55.8</td>
</tr>
<tr>
<td>Denmark</td>
<td>10.1</td>
<td>7.9</td>
<td>3.7</td>
<td>1.8</td>
<td>6.8</td>
<td>29.02/25.6</td>
<td>6.1</td>
<td>35.1/36.0</td>
<td>55.8</td>
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<tr>
<td>Sweden</td>
<td>10.0</td>
<td>6.6</td>
<td>3.6</td>
<td>1.4</td>
<td>5.9</td>
<td>27.4/25.5</td>
<td>5.2</td>
<td>32.6/34.0</td>
<td>52.3</td>
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<td>France</td>
<td>14.3</td>
<td>8.6</td>
<td>2.9</td>
<td>0.9</td>
<td>4.8</td>
<td>31.3/32.7</td>
<td>4.6</td>
<td>36.1/38.0</td>
<td>57.0</td>
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<tr>
<td>Germany</td>
<td>10.1</td>
<td>7.9</td>
<td>3.7</td>
<td>1.8</td>
<td>6.8</td>
<td>29.02/25.6</td>
<td>6.1</td>
<td>35.1/36.0</td>
<td>55.8</td>
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<td>Netherlands</td>
<td>6.4</td>
<td>7.9</td>
<td>1.3</td>
<td>0.8</td>
<td>6.5</td>
<td>22.92/25.6</td>
<td>4.5</td>
<td>27.4/27.8</td>
<td>46.3</td>
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<td>Italy</td>
<td>16.4</td>
<td>6.8</td>
<td>1.4</td>
<td>0.4</td>
<td>3.6</td>
<td>28.6/25.2</td>
<td>3.5</td>
<td>32.1/36.0</td>
<td>51.1</td>
</tr>
<tr>
<td>Spain</td>
<td>12.0</td>
<td>6.4</td>
<td>1.3</td>
<td>0.6</td>
<td>6.0</td>
<td>26.3/25.7</td>
<td>3.5</td>
<td>29.8/35.4</td>
<td>45.6</td>
</tr>
<tr>
<td>Japan</td>
<td>12.1</td>
<td>7.8</td>
<td>1.3</td>
<td>0.2</td>
<td>1.7</td>
<td>23.1/25.6</td>
<td>3.2</td>
<td>26.3/35.4</td>
<td>40.0</td>
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<tr>
<td>Korea</td>
<td>2.5</td>
<td>3.8</td>
<td>1.1</td>
<td>0.2</td>
<td>1.4</td>
<td>9.3/11.5</td>
<td>3.2</td>
<td>12.5/18.1</td>
<td>31.8</td>
</tr>
<tr>
<td>OECD average</td>
<td>8.7</td>
<td>6.0</td>
<td>2.1</td>
<td>0.5</td>
<td>3.9</td>
<td>21.2/24.0</td>
<td>4.4</td>
<td>25.4/26.0</td>
<td>41.8</td>
</tr>
</tbody>
</table>

※Data from OECD Social Expenditure and Education Database
ALMP: active labour market program
Total A = 1+2+3+4+5, small numbers in Total A = Net total social expenditure (including private spending and taxation)
Total B = Total A + 6, small numbers in Total B = the ratio of spending to general government total expenditure (col.7)
1. The Abe administration is exceptionally strong, so they can engage in structural reforms that prompt significant objections; as an example, it enacted the national security legislation. But this event was exceptional; indeed, they are not interested in urgently needed fiscal consolidation and social welfare reforms, because addressing these issues will negatively affect their electoral prospect.

2. Great many policy and advisory councils have been set up to discuss these economic policies, but key issues have already been decided by the government. So, these councils only played the role of political shows. Major policies and initiatives such as consumption tax hike postponement and free education were introduced without detailed analysis and discussion within the government and ruling parties. A few staff including political advisors in PM Office have maneuvered policy-making on key issues by controlling both ruling parties & relevant ministries. Senior civil servants looked like "yes-men" to PM.

3. Japan should invest more in education to develop human resources, but it is regressive to subsidize education in general. Politicians are always reluctant to tax hike, so additional spending is likely to be financed by borrowing. We need to come up with more effective ways for education such as ICLs.
Higher Education Finance and Student Aid in Japan

Masayuki Kobayashi
Center for Research and Development of Higher Education

The University of Tokyo

Contents

• Three Views of Cost Sharing in Education
• Trends in Tuition Fees and Aid Policy
• Higher Education Finance in Japan
• Tuition Fees in Japanese Higher Education
• Background to the Reform of Student Financial Aid Programmes
• Outline of Two Reforms of Student Financial Aid Programs
• New Economic Policy Package, December 2017
• Problem of Information Gap
• Challenges and Perspectives

Three Views of Cost Sharing in Education

Cost Sharing in Higher Education: International Comparison

Trends in Tuition Fees and Student Aid Policy

- Sweden
- England (1980s)
- China (1980s)
- Japan Public (1970s)
- US Public
- US Community Colleges
- Low Aid
- High Aid
- Low Tuition
- High Tuition

Cost Sharing, Tuition Fees and Aid Policy

- Public Funding
- Private Funding
- Differentiation in Sharing
- Excellent Students
- Increased Revenue
- Widening Access and Varied Labor Forces

Cost Sharing, Tuition Fees and Aid Policy

- Low Aid
- High Aid
- Tuition

Education System in Japan

Higher Education System in Japan 2016

<table>
<thead>
<tr>
<th></th>
<th>Numbers</th>
<th>Enrollments</th>
<th>Control National</th>
<th>Public</th>
<th>Private</th>
<th>National</th>
<th>Public</th>
<th>Private</th>
</tr>
</thead>
<tbody>
<tr>
<td>University &amp; College</td>
<td>86</td>
<td>91</td>
<td>600</td>
<td>610</td>
<td>150</td>
<td>2,100</td>
<td></td>
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<td>Junior College</td>
<td>17</td>
<td>324</td>
<td>6.7</td>
<td>122</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>College of Technology</td>
<td>51</td>
<td>3</td>
<td>3</td>
<td>52</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specialized Training College</td>
<td>9</td>
<td>185</td>
<td>2,934</td>
<td>0.4*</td>
<td>25*</td>
<td>622*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: A new type of vocational universities and colleges will be established from 2020
Source: MEXT, School Basic Survey 2016
Note: * Including high and general programs
Acquisition of Public Funds:
Financial and Market Driven Reform

- Japanese Government has created various incentives for competitive funds to universities and colleges.
  - COE, the Center Of Excellence Programs for R&D, etc.
  - Global 30
  - Super Global Universities 30, 2014-
- GP, Good Practice programs for teaching, student support, and regional contributions, etc.
- Other initiatives to facilitate reforms

Changes in Governmental General Subsidies to Universities, Colleges and Sciences, Current Yen

- For All Universities and Colleges
  - The Council on University Establishment and School Corporation
  - University and College Subcommittee of the Central Council on Education
- For National Us & Cs
  - Contracts: Mid-term planning and mid-term objectives (every six years)
- Evaluation by National University Corporation Evaluation Committee
- Evaluation by the National Institute for Academic Degrees and University Evaluation
- For Private Us & Cs
  - Subsidies through The Promotion and Mutual Aid Corporation for Private Schools in Japan
- Evaluation by the certified accreditation bodies
- Research Grants from Japan Society for Promotion of Science and MEXT
- Student Financial Aid by Japan Student Service Organization

Stringent Public Finance

- At the end of fiscal year 2014, the Japanese accumulated government debt reached about one thousand trillion yen
  - More than twice the Japanese GDP
- Very stringent budget policy to improve the deficit
- But Japanese society has many financial problems such as the aging society, increasing social care, medical care, and education.
- Difficult to increase tax revenue, especially consumption tax (now 8%, rising to 10% in 2020)
- We have a serious dilemma between stringent finance and strong demands for public money.

The Financial Roles of the Ministry of Education (MEXT) for Universities and Colleges

- For All Universities and Colleges
- The Council on University Establishment and School Corporation
- University and College Subcommittee of the Central Council on Education
- For National Us & Cs
  - Contracts: Mid-term planning and mid-term objectives (every six years)
- Evaluation by National University Corporation Evaluation Committee
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- For Private Us & Cs
  - Subsidies through The Promotion and Mutual Aid Corporation for Private Schools in Japan
- Evaluation by the certified accreditation bodies
- Research Grants from Japan Society for Promotion of Science and MEXT
- Student Financial Aid by Japan Student Service Organization
Changes in HE Policy & Financial Squeeze in Financing Policy

- 2004 Incorporation of National Us & Cs
  - Decreasing public block grants to universities (One percent per year for every National U & C)
  - Increasing competitive grants to universities
  - Need to acquire external financial resources such as grants, contracts, and donations
- Financial difficulties of HEIs
  - Decreasing governmental subsidies
  - Decreasing revenue from tuition fees due to the decline in absolute numbers of enrollments
  - Difficulty of rising tuition fees
    - National Us & Cs: Gap of up to 20 percent tuition rise
    - Private Us & Cs: Fear of losing applicants
- Drastic increase in the number of borrowers of JASSO type 2 (low-interest loan)

Annual Revenue & Expenditure of National Universities, 2013

Data: MEXT, Ministry of Education, Culture, Sport, Science and Technology

Tuition Fees and External Funds in National Universities and Colleges 2009

Data: National Center for University Finance and Management
Background to the Reform of Student Financial Aid Programs

- Decreasing youth population
- Rising tuition fees
- Very stringent public finance
- Decreasing public subsidies to higher education
- Decreasing family income and heavier burden of educational costs on families
- Parents’ very strong willingness to pay the cost of attendance for their children
- Inequality of higher education participation rates by income class
- Instability of graduates’ employment
- Student loan repayment burden and loan aversion problems
- Information gap and financial literacy problems
- No major reform of JASSO student loan programs since their establishment in 1944

Recent Reforms of Higher Education Finance

- Reform of National University Funding
  - Subsidy allocation differentiated into three types (World class, Strong in special field, Contribute to region) of National Us & Cs and introduction of performance funding
  - Reform of university funding system for “Designated National University” to make it easier to acquire external funds: Tokyo, Kyoto, and Tohoku University
- Plan to establish a new type of vocational university to strengthen the relationship between HEIs and industry and to stimulate competition among HEIs
- Reforms of student financial aid programs
How Will You Pay the Cost of Attendance of Your Children?

Changes in University Tuition Fees: National Us & Cs in Japan (2005 Constant Yen)

Tuition Fees of Japanese Higher Education Institutions in 2012

Changes in the Ratios of Tuition Fees to Family Monthly Disposable Income


Note: the ratios are the average tuition fees to average monthly disposable household income.
Changes in the Revenue of National University Students Not Living with Parents

Source: MEXT and JASSO, Student Life Survey

Changes in the Turnover Rates of University Graduates by Firm Size (Number of Employees)

Source: Ministry of Health, Labor and Welfare

Inequality of Access to HE by Income Class: 2006 to 2016


Changes in the Revenue of National University Students Not Living with Parents

Source: MEXT and JASSO, Student Life Survey
Roots of Growing Concerns about Student Financial Aid Policy

- Widening inequality of HE access among income classes
- Facilitate access of low-income class students
- Overall default rate of new borrowers of JASSO loans is 95%.
- Tightening financial constraints on higher education
- Ministry of Finance requires improvement in default rates
- JASSO strengthens repayments collection
- Family burden of repayment is becoming heavier, in particular among low-income families
- Loan aversion among low-income families
- Need to mitigate the heavy family burden of higher education expenditure and make access to HE more affordable
- No public grants for undergraduate students except tuition waivers
- Reform of student financial aid programs required

Changes in the Numbers of Borrowers of JASSO Student Loans

| Type I: Totally interest free (not indexed to CPI), both needs-based and merit-based criteria except for students from low-income families |
| Type II: Low interest (capped to 3 percent), currently 0.01 to 0.23 percent, for low- and middle-income families |
| Deferment of max. ten years, if annual income of borrower is less than 3 million yen |
| Penalty fee is 5% of each repayment |
| Mortgage type (fixed amount of repayment per month) only till 2016 |
| New income contingent repayment plan for Type I loans since 2017 |
| Two options for guarantee repayment (borrower’s choice) |
  - Guarantee fees (about 0.6 to six thousand yen per month) |
  - Two cosigners (parents and relatives) |

Current Status of Student Loans by Japan Student Service Organization (JASSO) 2014

<table>
<thead>
<tr>
<th>Type</th>
<th>Numbers of Borrowers (A)</th>
<th>Total Number of Students (B)</th>
<th>One in Every Students (C)</th>
<th>Ratio (A/B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universities</td>
<td>881,080</td>
<td>2,552,022</td>
<td>2.8</td>
<td>36.8%</td>
</tr>
<tr>
<td>2-year college</td>
<td>57,714</td>
<td>131,341</td>
<td>2.3</td>
<td>43.9</td>
</tr>
<tr>
<td>Graduate school</td>
<td>77,484</td>
<td>198,971</td>
<td>2.7</td>
<td>38.5</td>
</tr>
<tr>
<td>Master</td>
<td>67,025</td>
<td>149,574</td>
<td>2.4</td>
<td>41.9</td>
</tr>
<tr>
<td>Doctoral</td>
<td>9,839</td>
<td>48,997</td>
<td>5.0</td>
<td>20.1</td>
</tr>
<tr>
<td>College of Technology</td>
<td>5,431</td>
<td>54,354</td>
<td>10.0</td>
<td>100</td>
</tr>
<tr>
<td>Specialized Training School</td>
<td>218,759</td>
<td>343,860</td>
<td>2.5</td>
<td>403</td>
</tr>
<tr>
<td>Art</td>
<td>1,336,339</td>
<td>3,479,748</td>
<td>2.6</td>
<td>384</td>
</tr>
</tbody>
</table>

Source: JASSO
Reforms of Student Financial Aid Programs: Grants for Undergraduate Students

- Grants for undergraduate students
  - Purpose: For students from families facing extreme economical hardship
  - Eligibility: (1) student from family with non-taxable income (about 2-3 million yen annual income)
  - Eligibility: (2) recommendation of a high school headmaster according to the JASSO eligibility criteria guideline e.g. Academic achievement, excellence in sport or arts
  - Amount of grant: 20 to 40 thousand yen per month
  - About 20 thousand recipients a year by 2020 (it is estimated that there are around 60 thousand eligible students)
- New Income contingent repayment plan for JASSO type I (interest-free) loan
  - Purpose: For mitigating the loan repayment burden and loan aversion of low- and middle-income borrowers

New Income Contingent Repayment Plan for JASSO Type I Loans

- Trial to reconcile two contradicting requirements under very severe public budget constraints
- Collect as much repayment as possible
- Make the scheme as generous to borrowers as possible
- Type I (no interest) only
- Repayment rate: 9% of taxable income
- Income threshold: An annual income of about 1.44 million yen (non-taxable income of a single person)
- Repayment for borrowers under threshold income is 2,000 yen per month.
- Maximum ten-year deferment if annual income is less than 3 million yen
- About 2 to 3 thousand yen per month is required for guarantee fees (personal guarantees (cosigners) scheme is not allowed)
- Conventional mortgage type repayment is available (borrower’s choice)
- Mortgage type repayment requires either guarantee fees or cosigners (borrower’s choice)

Two Major Reforms of JASSO Student Aid Programs

- The biggest policy agenda of Japanese Government and political parties.
- One is establishment of new income contingent loan repayment plan.
- Ministry of Education established an ad-hoc committee in April 2015, which proposed a new grant program for undergraduates in August 2016.
- The second is establishment of a new grant program for undergraduate students.
- Ministry of Education established an ad-hoc committee in April; it proposed a new grant program for undergraduates in December 2016.
- The new programs were established in 2017.

Reforms of Student Financial Aid Programs:

Grants for Undergraduate Students

- Purpose: For students from families facing extreme economical hardship
- Eligibility: (1) student from family with non-taxable income (about 2-3 million yen annual income)
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New Income Contingent Repayment Plan for JASSO Type I Loans

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- Make the scheme as generous to borrowers as possible
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- Income threshold: An annual income of about 1.44 million yen (non-taxable income of a single person)
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- Conventional mortgage type repayment is available (borrower’s choice)
- Mortgage type repayment requires either guarantee fees or cosigners (borrower’s choice)
Problems of New Economic Policy Packages: Higher Education

- Four conditions for HEIs to qualify for the eligibility of the new grant
- (1) Strict evaluation of student academic achievement
- (2) Disclosure of financial statements of HEIs
- (3) At least 20% of executive board members must be from outside HEIs
- (4) At least some academic subjects must be taught by “business persons”
Challenges: Income Contingent Loans for All Students

- Extend student loan recipients
  - For Type II borrowers
- Toward a universal scheme: For all students such as HECS to prevent adverse selection
- Introduce a repayment scheme withholding directly from salary or income related with the tax system using the “My number system”
- Introduce a written-off scheme as in the UK
- Reform for a more simple and easy-to-understand system
- Improve the information gap between knows and not-knows
  - New initiative: Scholarship Advisors
- Facilitate financial literacy of teachers, parents, and students
- Facilitate and deepen the dialogue between the “free-of-charge higher education” proposal and student financial aid, in particular how to use the expected increasing public money to education

Problem of Information Gap

- Information gap means the disparity between “knows and not-knows.”
- There are so many high school students who do not apply for Federal Pell Grants even though they are eligible.
  - Kantrowitz, Mark (2011) Reasons why students do not file the FAFSA.
- It is difficult for high school teachers and counselors themselves to make more efforts to give advice and counseling to students.
- In Japan, JASSO cannot have ample power to inform high school teachers, students and parents because of the stringent budget.
- There are few advisory organizations on student financial aid. Cf. CollegeBoard, ACE, NASFAA
- Scholarship advisor program was established in 2017 to establish the information gap.

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