

**Policy Analyses on the Effectiveness of the National University Corporation Act:
What has changed since 2004?**

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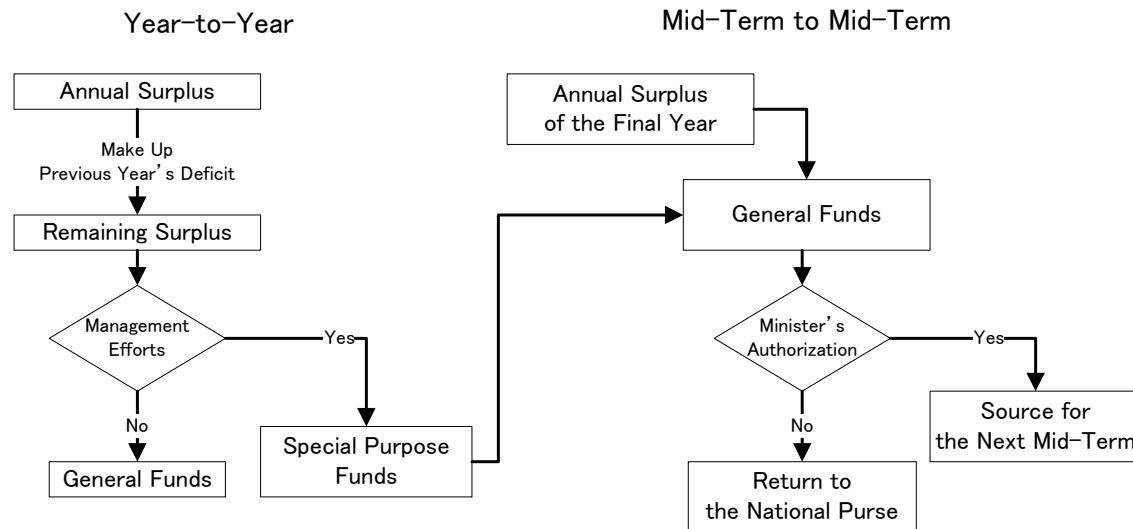
1. Introduction

The 2004 enactment of the National University Corporation Act (NUCA) in Japan was intended to empower the executives of national universities by endowing greater authority to institutional management. Previously, when these universities were government branches directly governed by the Ministry of Education, Culture, Sports and Technology (MEXT), institutional autonomy was heavily restricted and the decision-making capacity of the institutions' executives was considerably more limited in comparison with their U.S. counterparts.

The major characteristics of the 2004 reform can be summarized as follows:

- MEXT no longer functions as a governing board of national universities. Each institution now has its own governing board.
- In exchange for expanded autonomy, institutions are required to develop a medium-term (6-year) plan with specific achievable goals, and report progress toward these goals to MEXT and the public on an annual basis¹.
- Prior to 2004, all appropriations from MEXT were restricted funding. NUCA ended such a prescribed budgeting approach, bringing in a system where MEXT appropriates tax revenues to institutions as unrestricted revenues² and provides institutions with more discretionary power in their spending.
- Under the new law, institutions can bring forward their annual surplus to the next year within the medium term (6 year). If they need to carry the surplus beyond the end year of the medium term, however, MEXT has to approve the carry-over. MEXT also can decide to what extent institutions can take the surplus beyond³ (see Figure 1).

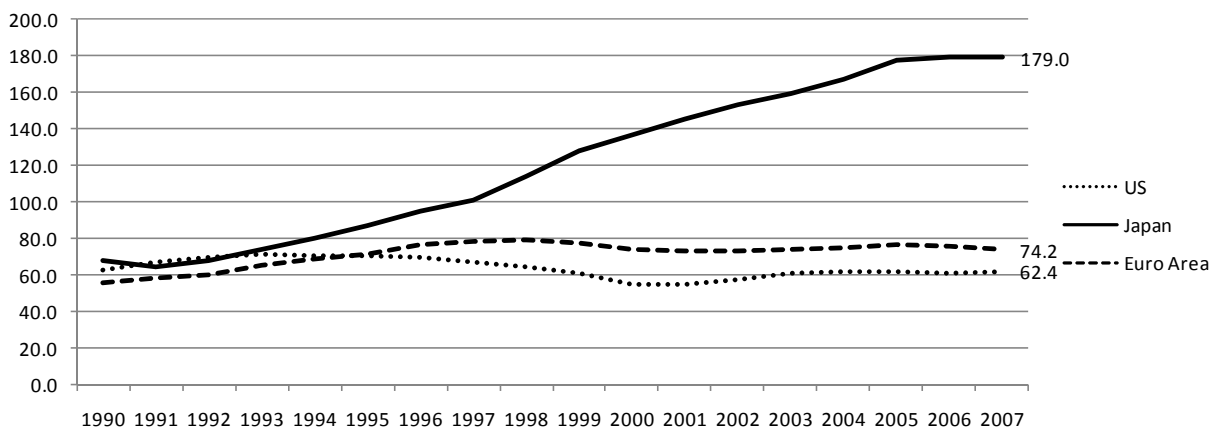
Figure 1. Carry-forward of Surplus within the National Universities



Source: Sato (2005, p.47-52)

While it appears theoretically possible that NUCA benefits institutions by providing more autonomy and discretionary power in their management, this reform has in fact led to a drastic decline in government spending on higher education. Since the early 1990s, when the economic recession started, the central government has attempted to stimulate the national economy by increasing public investment. However, the national economy has not grown as initially expected, and has actually ended up severely hurting public financial health. Japanese government debt as a percentage of total GDP reached 179.0% in 2007 (Chart 1), a level that is by far the largest among the OECD countries. This unprecedented amount of public debt has created fiscal pressures to curb the spending of the government and its affiliated agencies, including that spent on higher education⁴. Since the enactment of NUCA, central government has started to turn its back on higher education in exchange for the provision of greater institutional autonomy.

Chart 1. General Government Gross Financial Liabilities (percent of nominal GDP)



OECD (2007b, p.270)

To understand the overall impact of NUCA on the running of national universities, in early 2006 the Center for National University Finance and Management (CNUFM) conducted a survey of 86⁵ national universities in Japan, covering a variety of management areas such as institutional operation, finance,

human resources and facilities. In this paper, we were especially interested in understanding the following from this survey:

- 1) To what extent has NUCA influenced the national universities' core education and research expenses?
- 2) To what extent have priorities in institutional spending become varied among institutional types since 2004?

This paper reveals that universities with less research capacity have been facing growing financial difficulties since the enactment of NUCA, while top-tier research universities (e.g. the former imperial universities) have scarcely been impacted. Clearly NUCA has widened gaps in fiscal capacity among the national universities, and fears of deteriorating quality of education and research among the relatively weaker universities are becoming more real.

2. Background of NUCA

a. Governance Structural Change

NUCA mainly precipitated structural changes in the areas of governance and finance. In terms of the change in governance, the transition is fairly comparable to a shift from a governing board to a coordinating board system in the U.S. context. Prior to NUCA, MEXT functioned like a governing board in the U.S. context for all national universities. NUCA stripped MEXT of its decision-making authority, transforming it into a coordinating-board-type agency. NUCA also required that the national universities establish their own governing board, and it is to their own board that their president will report rather than to MEXT.

To explain the shift in more detail, we draw upon the model developed by Curry, Fischer and Jons (1982) introduced in Jones (1984, pp.25-31). They categorized U.S. state higher education systems into four groups based upon the types of relationship existing between a central state higher education agency and institutions in the U.S. According to the model, state higher education systems can be grouped into the following four models:

- Model 1: State-agency model
- Model 2: State-controlled institution model
- Model 3: State-aided institution model
- Model 4: Corporate or Free-market model

Under this framework, governmental control is highest in Model 1 while institutional autonomy is highest in Model 4. Table 1 provides more detailed information of their classification.

Table 1. Influence of Governance Relationships on Financing, Budgeting and Accountability

	STATE-AGENCY MODEL	STATE-CONTROLLED INSTITUTION MODEL	STATE-AIDED INSTITUTION MODEL	CORPORATE OR FREE MARKET MODEL
Financing	<ol style="list-style-type: none"> 1. All funds received deposited in general fund and subject to appropriation control 2. Fees and charges prescribed by legislature 3. Financial responsibility for higher education operations would be vested solely in state government 	<ol style="list-style-type: none"> 1. Operating fee collections deposited into state general funds 2. Tuition levels prescribed by legislature 3. Services and activity fees, auxiliary enterprise revenues, etc. treated as "nonbudgeted" funds 4. State government is primarily responsible for financing higher education operations 	<ol style="list-style-type: none"> 1. All funds raised by institution retained locally 2. Fees and charges established by institutional governing boards 3. Only State general funds subject to state appropriation 4. Financial responsibility is shared by state and institution 	<ol style="list-style-type: none"> 1. Institutions have total control over all funds 2. State appropriations made to third-party state agency for purposes of contracting for services and enrollment opportunities 3. Ultimate financial responsibility vested in corporate institutions
Budgeting	<ol style="list-style-type: none"> 1. The budget request would reflect a spending plan 2. Specific work-load factors would serve as basis for level of institutional request 3. Relative efficiency would be a major criterion 4. Legislature would approve spending level for various programs, major activities, and objects of expenditure within programs and activities. Adherence would be expected. 	<ol style="list-style-type: none"> 1. Variety of formulas and incremental bases may be employed 2. Detailed budget requests are prepared and submitted by institution, although major funding decisions are based on activity levels, base budgets, or other broad factors 3. Funding bases tend to be perceived as spending plans rather than funding vehicles 	<ol style="list-style-type: none"> 1. State support based on a general allocation formula - e.g. \$/FTE resident student 2. Appropriation is on a lump sum basis 	<ol style="list-style-type: none"> 1. Contract amounts determined through negotiation or external indices 2. Basic state-level budget decision would be number of spaces or levels of services to be "purchased"
Accountability	<ol style="list-style-type: none"> 1. Accountability would focus on process considerations - adherence to spending plans, personal policies, etc. - and relatively little attention would be given to effectiveness of services provided 	<ol style="list-style-type: none"> 1. major focus of oversight tends to be on process considerations with relatively little attention being given to effectiveness of services provided 	<ol style="list-style-type: none"> 1. Financial records must be auditable 2. Accountability reporting established as a parallel process and tends to focus more on effectiveness 	<ol style="list-style-type: none"> 1. Financial records must be auditable Accountability provisions specified in contract that specifies meaning of "satisfactory performance"

Source: Jones (1984, p.27)

In applying this model to the Japanese national higher education system, NUCA transformed the system structure from Model 1 (State-agency model) into somewhere between Model 2 (State-controlled institution model) and Model 3 (State-aided institution model). For example, before 2004, all funds including tuition revenues were deposited in the central government's National School Special Account then redistributed to institutions. Appropriation spending was rigidly prescribed by MEXT at this time and accountability was not a major public issue. In fact, the passage of the NUCA bill was largely driven by public frustration with the lack of accountability in the national higher education system. It is for these reasons that the Japanese national higher education system pre 2004 was close to the State-agency model.

NUCA changed the relationship that existed between MEXT and the national universities. Under the current system, all funds other than tax appropriations are retained in the individual institutions. Appropriations are allocated as a lump sum with much less prescription than before. In terms of accountability, institutional financial records must be audited annually, and there is the need for the universities to report on the progress of their medium-term management plans and goals on an annual basis. These are characteristics observed for the State-aided institution model (Model 3). However, a tuition level is prescribed by MEXT, which is a common characteristic of the State-controlled institution model (Model 2). It is for these reasons that we consider the Japanese national higher education system to fall between Models 2 and 3.

b. Changes in Fiscal Policies

The funding sources of national universities for general operating expenses are categorized into four groups: 1) tax appropriations and grants from the central government, 2) tuition revenues from students, 3) hospital revenues, and 4) other⁶. The first component (governmental support) amounted to 1,061.4 billion yen (\$10.11 billion)⁷ or 42.0% of total current revenues, revenues from tuition and other fees were 355.5 billion yen (\$3.39 billion) or 14.1% of the total, revenues from hospitals was 709.9 billion yen (\$6.76 billion) or 28.1% , and revenues from the other sources were 402.8 billion yen (\$3.87 billion) or 15.9% (FY2007⁸).

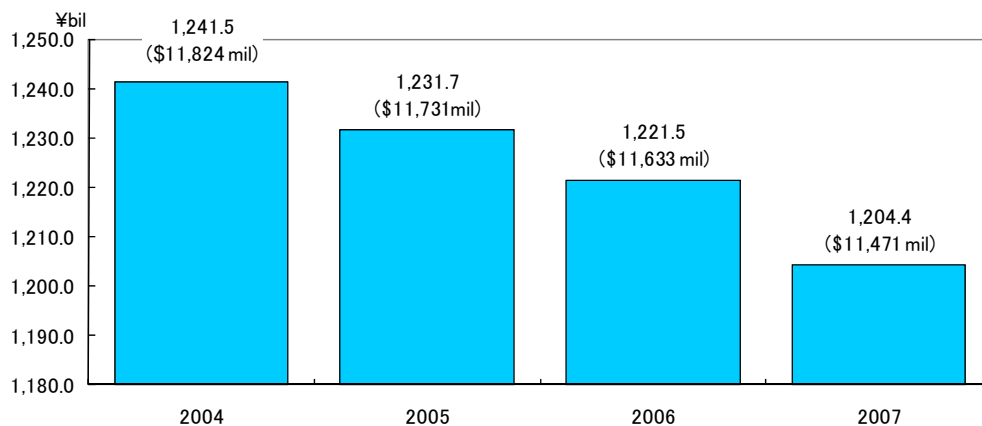
Three major changes occurred in fiscal policy after NUCA. One was the introduction of a lump-sum, non-prescribed, budget allocation for general operating expenses of the national universities. The next was the expansion of competitive grants for research and special program initiatives. And the final one was the provision of a decision-making authority within institutions enabling them to set their own tuition level. This section will briefly explain these three changes.

i. The Introduction of Lump-sum Allocation

NUCA in 2004 ended the appropriation of tax revenues with strings. Under the current law, MEXT allocates tax appropriations, the so called Operational Grants (OG), to institutions as a lump-sum without prescription. The OG consists of three types of grant: 1) Standard Operational Grant, 2) Special Operational Grant, and 3) Operational Grant for Hospitals. The Standard Operational Grant is funding for the general operating functions of institutions. The Special Operating Grant and Operational Grant for Hospitals are almost comparable to research grants and appropriations for medical schools and hospitals, respectively, in the U.S. context.

When NUCA was passed by the Diet, it also required a change in the method of estimating the cost of national higher education operation in out years. Under the new method, the total cost is assumed to remain constant for future years regardless of inflation (in fact, between the late 90s and 2006 Japan did not experience inflation). Also, because national universities are no longer government agencies and are “liberated” from governmental bureaucracy, institutions are expected to operate in a more cost-effective manner, much in the manner of private corporations. Based on these assumptions, the government decided an incremental approach for national higher education with Fiscal Year 2004 as the base year, although the direction of “increment” has been negative thus far. The central government, particularly the Ministry of Finance, insists that higher education institutions can operate in a much less costly manner and as a result, it was decided that institutions would lose 1% of their operational grants every year in a nominal term after 2004.

Chart 2: Total Amount of Operational Grants in the 2004-2007 Budgets



Source: MEXT website

In order to understand the rationale behind the 1% decline, it is necessary to view NUCA in a broader context. Before its enactment, the central government had already severed several governmental agencies and departments as a cost-cutting measure. The first action in 2001 was to separate service-providing functions from the central government so the government could focus solely on policy-making functions. An organizational status was endowed on the separated agencies and departments; they became “Independent Administrative Institutions (IAIs).” Subsequently in 2003, the government detached quasi-autonomous national governmental organization (quangos) and also reorganized them

as IAIs. To these separated organizations the central government applies the so called “efficiency rule” in which it decreases appropriations every year by 1% for the ex-ministry IAIs and by 3% for the ex-quango IAIs. The central government decided to apply the same reduction rule to national universities after the enactment of NUCA. Chart 2 shows the recent trend in Operational Grants from the 2004–2007 budgets. After NUCA, the total amount of OG has steadily decreased, due primarily to the efficiency rule.

ii. Competitive Funding

Recently, the call for more competitive governmental funding in lieu of a conventional, non-competitive funding scheme for Japanese universities has been growing. Particularly, political pressures exerted by the Cabinet Office and the MOF⁹, which steadfastly pursues libertarian economic policy, has strongly advocated for competitive funding. Consequently, competitive research funds have increased in the share of total governmental funding since 2004.

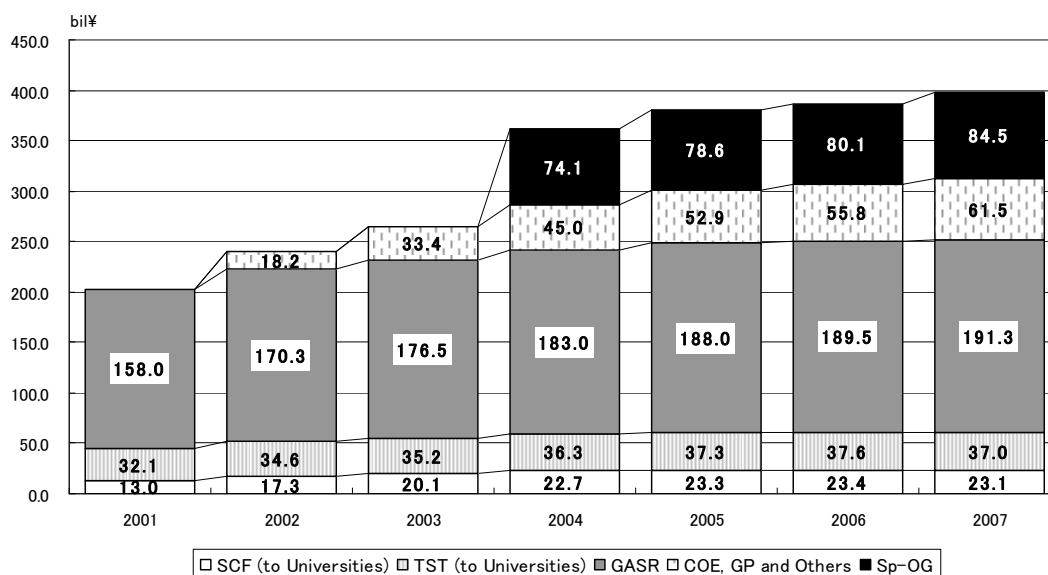
The major programs of competitive funding are listed in Table 2. Among all, only the Special Education and Research Fund is provided to institutions through the OG scheme. The rest are standalone grant programs distributed directly to faculty or institutional staff, much like the Federal research grant in the U.S. Any university and any researcher in any institution can submit a research proposal to these programs and independent committees consisting of experts in specific fields review the applications. Chart 3 shows the recent trend in these competitive funding programs, the funding volume of which has grown rapidly.

Table 2. Major Competitive Funding Programs by MEXT

<p>1. Special Coordination Funds for Promoting Science and Technology (SCF) These funds are used for the comprehensive promotion and coordination of critical tasks necessary to promote science and technology according to the policies set forth by the Council for Science and Technology.</p> <p>2. TST Basic Research Program for Advanced Technology (TST) As part of efforts to establish a nation based on the creativity of science and technology and develop intellectual assets that contribute to the creation of new industries, funds are used to promote basic research mainly in the four priority fields by inviting research proposals from researchers in the business, academic and public sectors, based on the strategic goals set by the government considering its science and technology policy as well as social and economic needs.</p> <p>3. Grants-in-Aid for Scientific Research (GASRs) Grants are awarded with the aim of advancing scientific research in Japan by encouraging creative and pioneering work across a spectrum of fields, from the humanities and social sciences to the natural sciences.</p> <p>4. Center of Excellence (COE) Until 2007 “The 21st Century COE Program” provided priority support and promoted the building of universities of the highest international standard. This program mainly provided priority support adding advanced human resources cultivation functions to research and education centers with high research potential. “The Global COE Program” took over from this program in 2007.</p> <p>5. Distinctive University Education Support Program (Good Practices: GP) This program is based on indications of the need to diversify universities as well as the need for incentives for universities placing priority on educational aspects, coming from all parties concerned, such as various councils related to higher education. It consists of the following two schemes: the Support Program for Distinctive University Education and the Support Program for Contemporary Education Needs.</p> <p>6. The Special Education and Research Fund included in national universities’ OG (Sp-OG)</p>

Source: MEXT website, MEXT (2004, p.61-65)

Chart 3: Historical Transition of Competitive Funds to Universities



Source: Ibuki (2007)

iii. Tuition Setting Authority

To make up the loss caused by the declining national support for national universities, it is inevitable that institutions increase their tuition revenues and thereby maintain their competitiveness in the market. NUCA allows institutions to set their own tuition level, which was determined by MEXT prior to 2004. However, MEXT does set a tuition cap; the growth rate of tuition (sticker price) must be no more than 120% of the standard level determined by MEXT (see Table 3).

Interestingly, only 2 schools set their tuition higher than the standard level in 2008. One way to explain this behavior is that institutions are afraid to lose students by raising tuition higher than the other institutions. Unlike the U.S., Japan is faced with a declining young population. The competition among universities to recruit students has thus become more intense and in such a market where supply exceeds demand, it is not easy to raise tuition fees simply to make up the loss of revenues from the government.

Table 3. Standard Tuition Fees for National Universities in 2008

Tuition: 535,800 yen (\$5,102.9)
Admission Fee ¹⁰ : 282,000 yen (\$2,685.7)
Entrance Examination Fee: Undergraduate 17,000 yen (\$161.9), Postgraduate 30,000 yen (\$285.7), Compulsory Examination 18,000 yen (\$171.4)

Source: MEXT website

3. Literature Review

Many scholars in Japan have conducted policy analyses on NUCA even before its enactment. Alongside these numerous works, CNUFM (2007a) provide excellent reviews on the effectiveness of NUCA. CNUFM selected 18 leading researchers for the project, who produced academic papers across a broad range of areas. We use the data collected by this project in our analyses later.

Amano (2008), the head of this project, conducted a study on the policy effectiveness of NUCA and pointed out that NUCA had put the institutions in fiscally difficult situations to pursue their missions as

national higher education institutions. Mizuta (2007, 2008), who also participated in the project, analyzed the extent to which the new fiscal policy and governance structure are congruent with each other by using the typology developed by Salmi and Hauptman (2006). He also examined the same topic using the Architecture-Routine-Culture (ARC) framework¹¹, an analytical framework frequently used to analyze corporate organizational structure. In both studies, he concluded that an inconsistency between the new fiscal policy and governance structure exists. He argued that NUCA motivated the national universities to reduce their operational costs at the expense of institutional quality. Yamamoto (2008) examined the impact of NUCA from human resource perspectives, comparing the ratio of full-time staff relative to part-time staff. He found that part-time staff costs have dramatically increased over FY2004-06.

While numerous data and research indicate that the fiscal practice of institutions has been influenced by NUCA, what exactly the effect NUCA has had on institutions is not known beyond anecdotal experiences and stories. The contribution of this paper is to provide hard evidence on such institutional perceptions.

4. Methodology and Data

We employed two approaches to understanding the impacts of NUCA on the running of the national universities. First, we conducted descriptive analyses on national universities' fiscal conditions using selected financial indices in the period of 2004-06 using data retrieved from CNUFM. Second, we then analyzed the results of a CNUFM survey conducted in early 2006. The postal survey was sent to the CFOs of all national universities and asked a total of 26 questions in regards to their perceptions of the impact of NUCA on their budgeting practice and educational quality at their institutions. From the 86 national universities, 84 CFOs responded. Through these two methods, we aim to understand the impact of NUCA quantitatively and qualitatively.

5. Results

Descriptive Analyses

We examined the financial conditions of all 87 national universities by institutional type¹² in the period of 2004-06 from four perspectives: 1) Personnel Cost, 2) Education Cost, 3) Research Cost, and 4) External income dependency. All the data used in this section is from CNUFM (2006, 2007b, 2008).

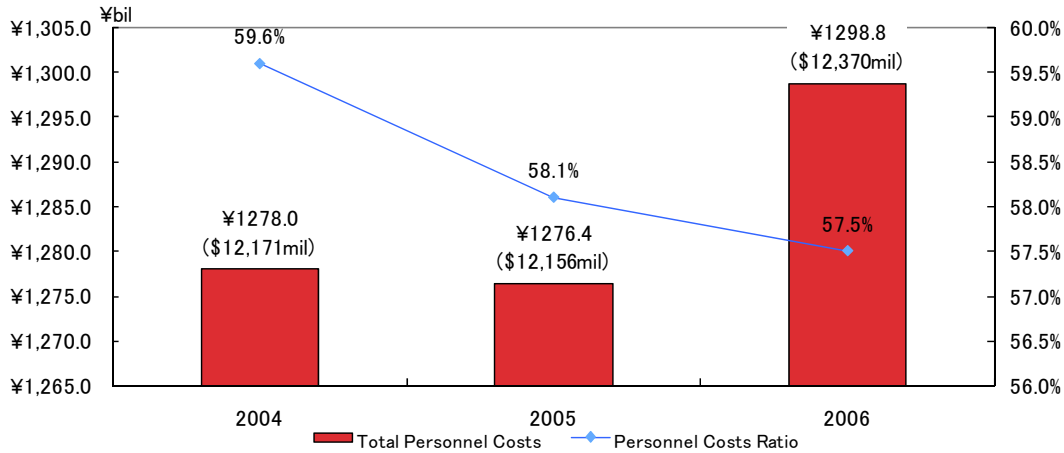
a. Personnel Cost

The total personnel cost shows a downward trend from 2004-2005, but returned upward from 2005-2006 (Chart 4-A). The latter trend was caused by the temporal increase in retirement allowance. Japanese national universities have a mandatory retirement policy where staff and faculty must retire at age 60 and 65, respectively¹³. In that year, the number of retiring employees was boosted by the retirement of baby-boomers. For a few years after 2006, Japanese national universities expect to see a relatively higher number of retirees.

Even after accounting for retirements, we can still see the personnel cost relative to the total expense¹⁴ has been consistently declining from 2004-2006. The first reason is that institutions have increased their reliance on part-time staff. When the Japanese Cabinet made the policy decision to reduce the number of full-time staff in the central government agencies by 5% during 2006-10, they also decided that the same policy would be applied to national universities¹⁵. Under the accounting standards for national universities, cost for part-time staff does not appear in the personnel cost, but instead in the "education cost", "research cost", "medical care cost", "supporting cost for education and research" or "general administration cost"¹⁶. Second, institutions have increased the size of non-traditional funding such as revenues from research and business contracts. The internal reorganization in staffing and the

acquisition of more external funding contributes to the decline in the share of personnel cost relative to the total expense.

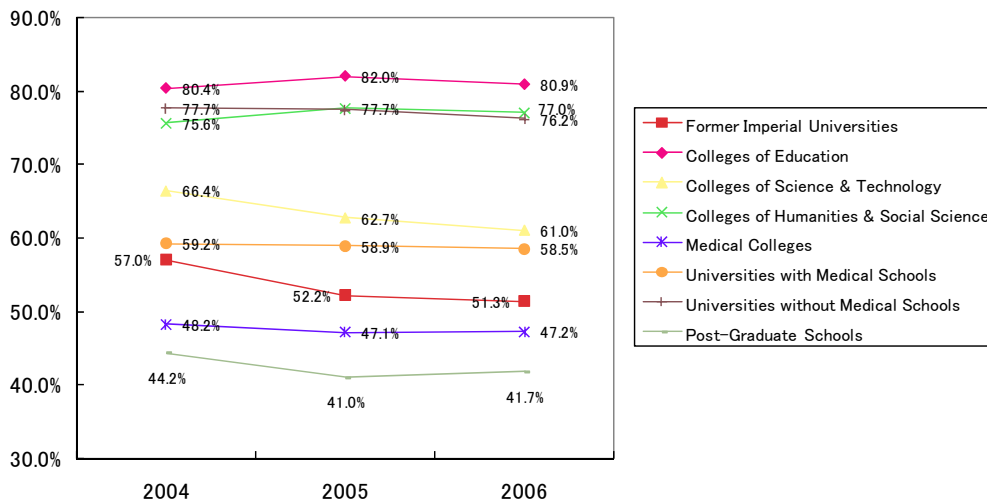
Chart 4-A
Total Personnel Cost and Total Personnel Cost as a % of Total Expense in National Universities, Fiscal Years 2004-2006



Source: CNUFM (2006, 2007b, 2008)

Chart 4-B breaks out the data by institutional type and indicates that national universities with a higher personnel cost ratio (e.g. colleges of education, colleges of humanities & social science, and universities without medical schools) and institutions with medical schools have not changed their cost structure in regards to personnel. On the other hand, institutions with relatively higher research competitiveness (e.g. former imperial universities, post-graduate schools, and colleges of science & technology) have decreased their ratio for the last three years. One of the main reasons for the decline of this ratio is that institutions with high research capacity have been able to acquire external revenues from research and business contracts.

Chart 4-B
Total Personnel Cost as a % of Total Expense in National Universities by Institutional Type, Fiscal Years 2004-2006

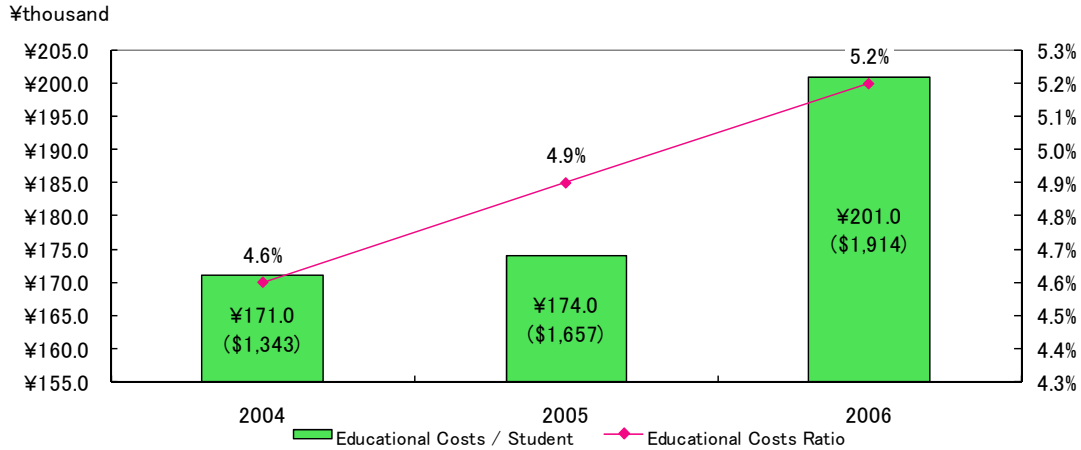


Source: CNUFM (2006, 2007b, 2008)

b. Educational Cost

As shown in Chart 5-A, educational cost per student has increased for the past three years, with dramatic growth occurring in 2006 which was due to the change in the accounting rule with respect to the allocation of teaching hospital cost in the same year¹⁷. Even so, the educational cost as a share of the total expense has steadily increased.

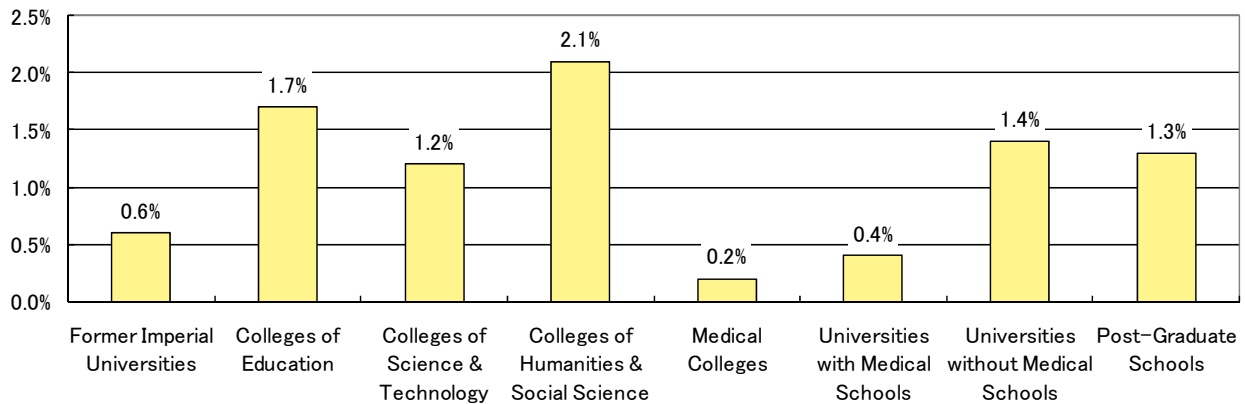
Chart 5-A
Education Cost per Student and Total Educational Cost as a % of Total Expense
in National Universities, Fiscal Years 2004 - 2006



Source: CNUFM (2006, 2007b, 2008)

Chart 5-B shows the changes in educational cost as a percent of total expense between 2004 and 2006. Among national universities, the share of colleges of humanities and social science has increased to the largest extent, followed by that of the colleges of education and the universities without medical schools.

Chart 5-B **Difference of Total Educational Cost as a % of Total Expense in National Universities**
by Institutional Type, Fiscal Years 2004 and 2006



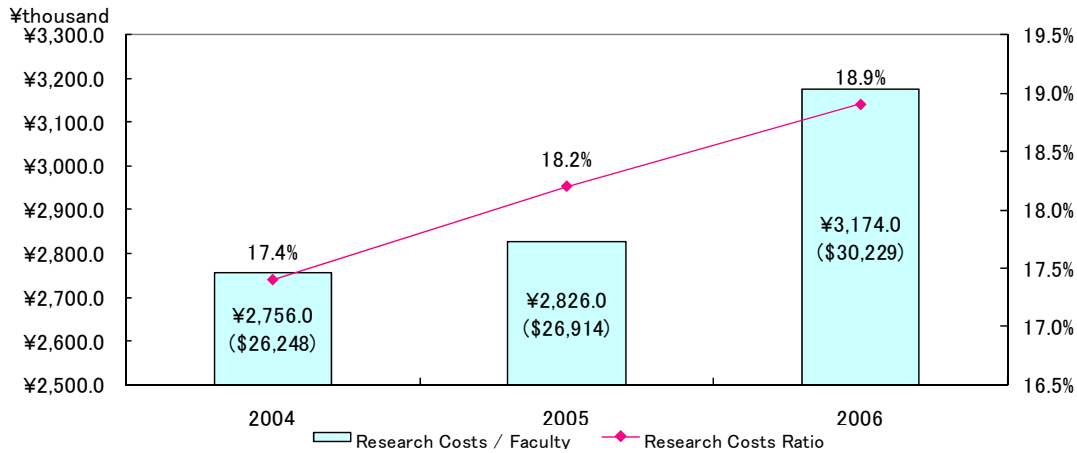
Source: CNUFM (2006, 2007b, 2008)

c. Research Cost

Chart 6-A shows the average research cost per faculty and as a percent of the total expense from 2004 to 2006. The trends are relatively similar to those for educational cost. The chart shows a slight jump in the

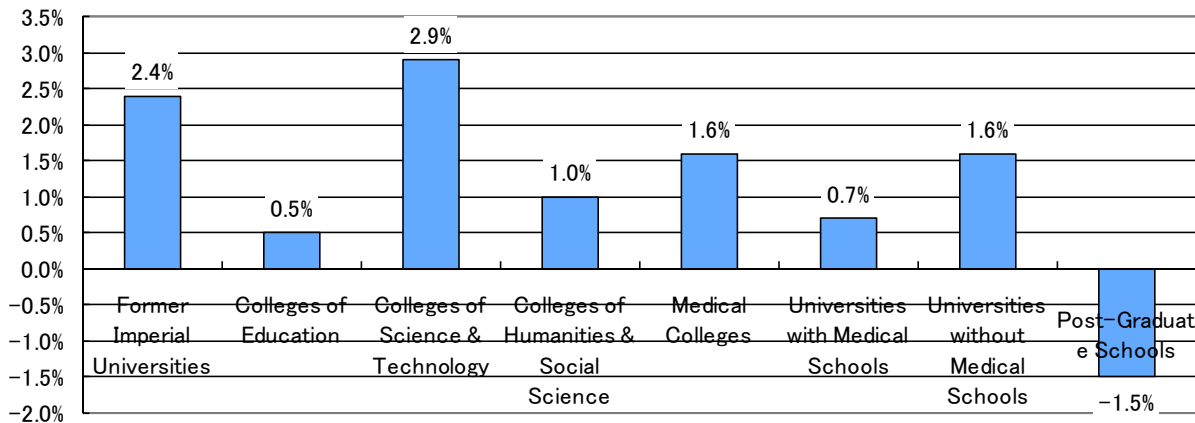
unit cost. While the change in the accounting rule on teaching hospital cost also substantially affected research cost, the rising trend is partially due to the increase in competitive research funding. Since 2004, MEXT has expanded competitive research grant programs. National universities are more financially stable and house more research staff than private institutions, and are thus better positioned to acquire such funding, which partly explains the reason for the increase in the research cost.

Chart 6-A
Research Cost per Faculty and Total Research Cost as a % of Total Expense in National Universities, Fiscal Years 2004 - 2006



Source: CNUFM (2006, 2007b, 2008)

Chart 6-B
Difference in Total Research Cost as a % of Total Expense in National Universities by Institutional Type, Fiscal Years 2004 and 2006



Source: CNUFM (2006, 2007b, 2008)

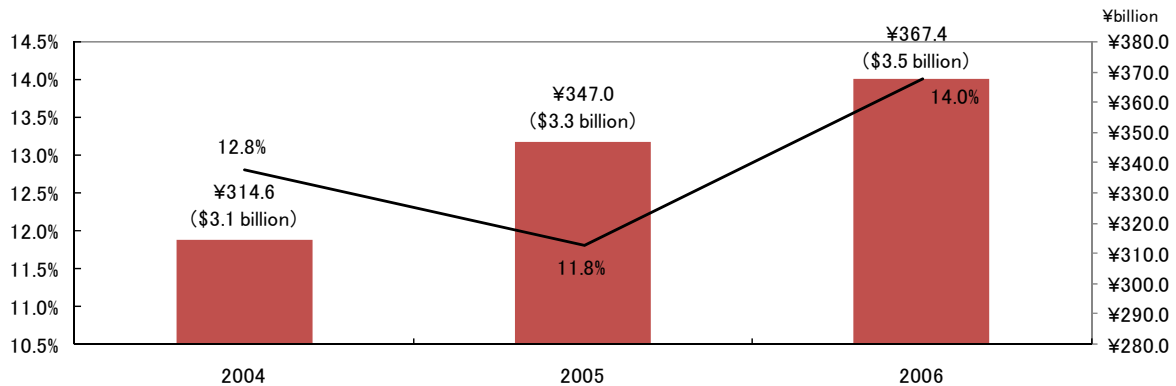
Chart 6-B shows the extent to which institutions have increased the share of research cost relative to total expense since 2004. All institutions with the exception of post-graduate schools have increased such share.

d. External Income Dependency

External income and its dependency ratio indicate the national universities' capabilities of earning revenues from external sources. As shown in Chart 7-A, external income as a whole dollar amount has

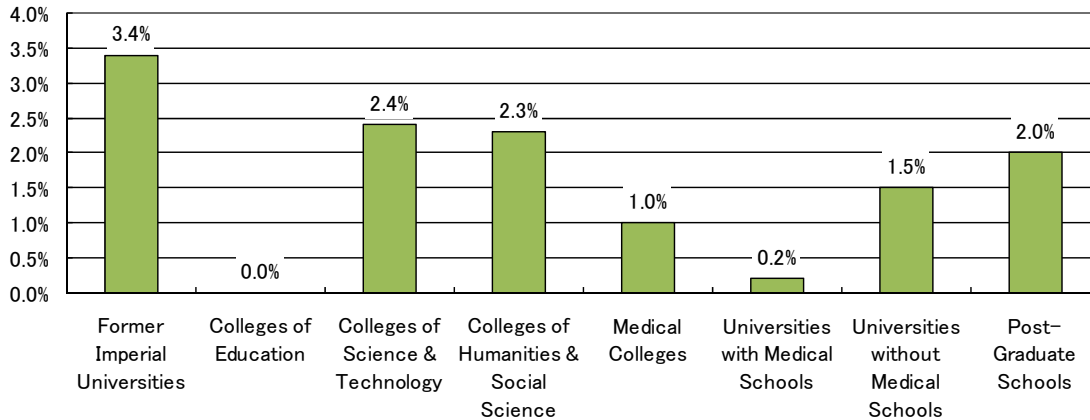
increased through 2004-06 although its proportion to total revenues dropped once in 2005. It appears that national universities have enhanced their capacity to acquire external funding; however, a few more years of data are needed in order to determine if this is truly happening.

Chart 7-A
External Income (External Research Grants, Contracted Research and Business, and Gifts) and External Income Dependency (External Income as a % of Total Revenues) in National Universities, Fiscal Years 2004 - 2006



Source: CNUFM (2006, 2007b, 2008)

Chart 7-B
Difference in External Income Dependency in National Universities by Institutional Type, Fiscal Years 2004 and 2006



Source: CNUFM (2006, 2007b, 2008)

Chart 7-B demonstrates the extent to which national universities have increased the share of external funding relative to total revenue by institutional type. All institutional types except for the colleges of education have raised their reliance on external funding, with the former imperial universities having increased their reliance level the most.

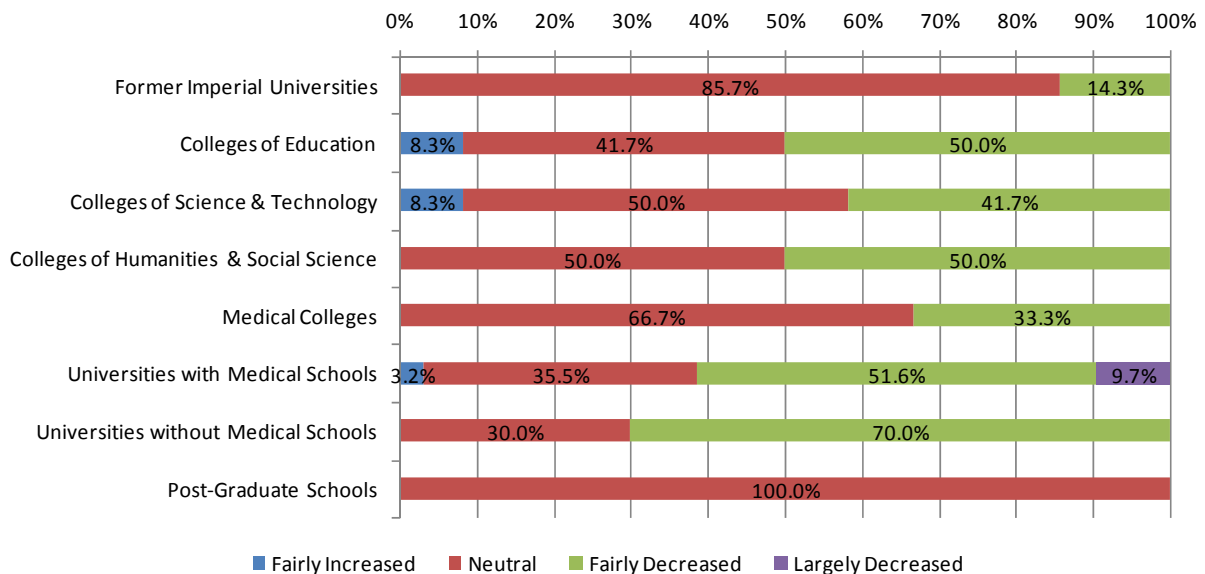
Survey Analysis

The descriptive analyses above show that the extent to which NUCA has impacted the national universities differs substantially by institutional type. This section presents the results of a survey conducted by CNUFM in early 2006 in which 84 CFOs in 84 national universities responded to the survey on their perceptions about the impacts of NUCA in regards to institutional financial condition and management.

a. Impact of NUCA on Core Education and Research Funds

Chart 8 summarizes the CFO's impressions of the influence of NUCA on funding volume associated with teachers' educational activities (hereafter, referred to as "core educational funds")¹⁸. It should be noted that no standard definition of the core educational fund exist and its definition varies from one institution to the next.

Chart 8. Change in Volume of Core Educational Funds



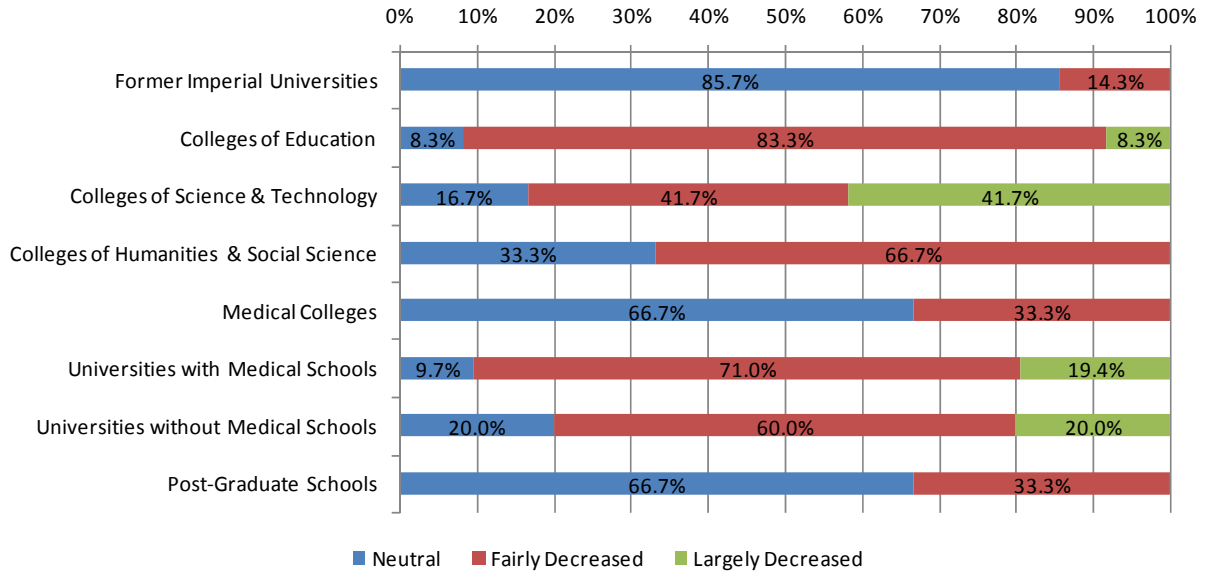
Source: CNUFM (2007a)

In terms of the results, 85.7% of the former imperial universities and all of the post-graduate schools perceived no change in core educational funds relative to the level before 2004. For the other national universities, especially the comprehensive universities, more than 60% reported they have experienced some decline in their core educational funds as compared to the level before 2004. These comprehensive universities account for almost a half of the respondents (41 out of 84), and 34 out of these 41 institutions or 82.9% are located outside the Tokyo metropolitan area. This means that the core educational funds of the comprehensive universities located in less economically prosperous areas have been negatively impacted by the new fiscal policy.

A similar impact of NUCA is found for funding volume associated with teachers' research activities (hereafter, referred to as "core research funds"), as can be seen in Chart 9. All institutions but the former imperial universities, medical colleges and post-graduate schools believe they have decreased research funds. For instance, 80-90% of comprehensive universities replied that they had needed to decrease their core research funds, and for colleges of science & technology, 41.7% of them answered they had "greatly" cut back on their core research funds despite being research-intensive institutions. It appears

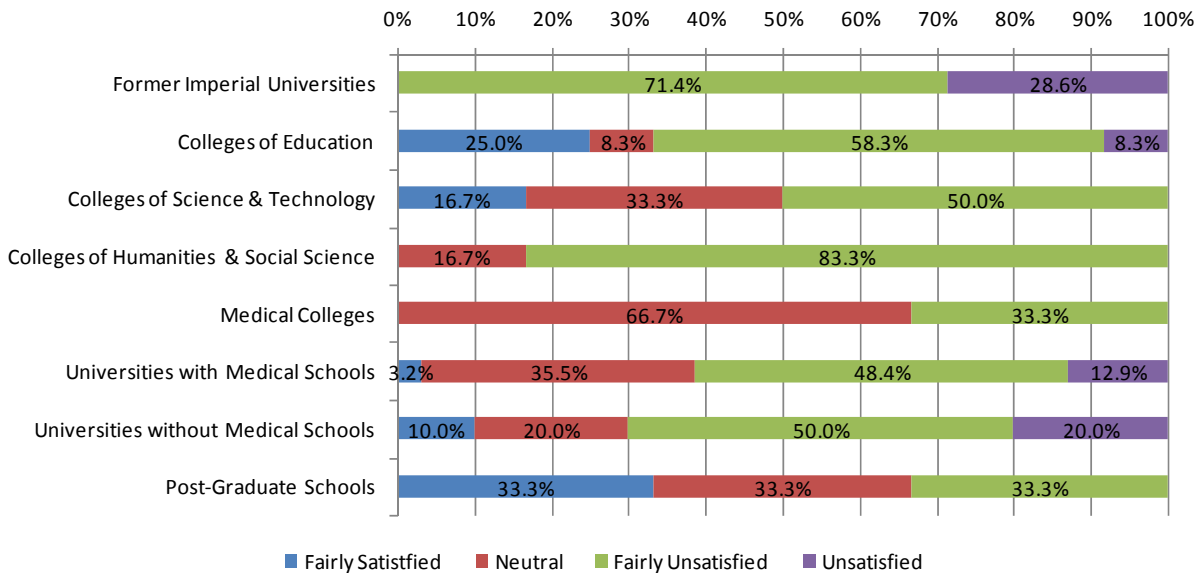
that national universities tended to put higher priority on educational function ahead of research function under the fiscal pressure exerted by NUCA, focusing on securing their core educational funds first.

Chart 9. Change in Volume of Core Research Funds



Source: CNUFM (2007a)

Chart 10. Satisfaction Level with Respect to Core Educational Funds

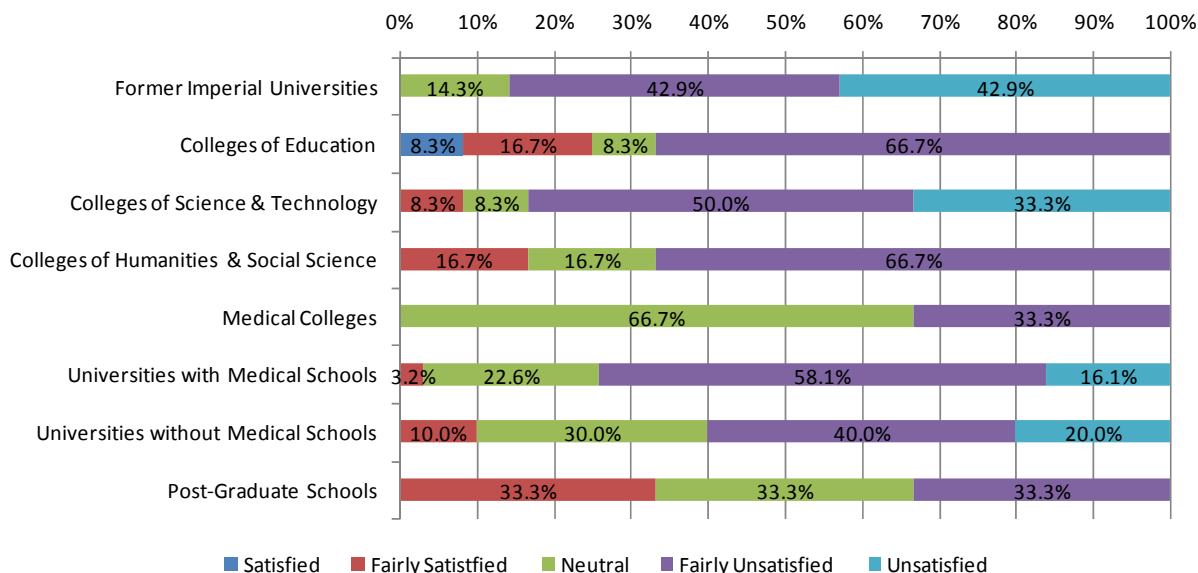


Source: CNUFM (2007a)

We can also confirm to what extent national universities were satisfied with the volumes of both their core educational fund and core research fund after NUCA. Generally, reported satisfaction levels tend to be underestimated because they are subjective in nature. While we can easily imagine that national universities will intentionally report their dissatisfaction in funding levels for their core activities in order to obtain more public money, Chart 10 regarding satisfaction with core educational funds shows

some surprising exceptions in the cases of colleges of education, colleges of science & technology, universities without medical schools, and post-graduate schools; a few institutions in these types were satisfied with the status quo although the majority more clearly showed dissatisfaction. Under serious fiscal pressure, some institutions were trying to satisfy themselves with securing previous levels of funding. Former imperial universities on the other hand, expressed their strong dissatisfaction even though the majority of them could secure the same funding level relative to the period before NUCA. In other words, former imperial universities were planning an enhancement of their educational activities in the future and thus were not satisfied with the status quo.

Chart 11. Satisfaction Level with Respect to Core Research Funds



Source: CNUFM (2007a)

A similar satisfaction tendency is revealed in the case of the core research funds (Chart 11). Some universities responded that they were “fairly satisfied” or “neutral” even when their core research funds had been unchanged or reduced relative to the period before NUCA, with the exception of the following two institutional types: former imperial universities and medical colleges. Former imperial universities demonstrated strong dissatisfaction with their core research funds, and the reasons for their dissatisfaction seem to be the same as those for their core educational funds. They plan to become more globally research-competitive and considered the funding volume for their research activities insufficient to fund such plans.

As a brief summary of the results above, we can point out the following:

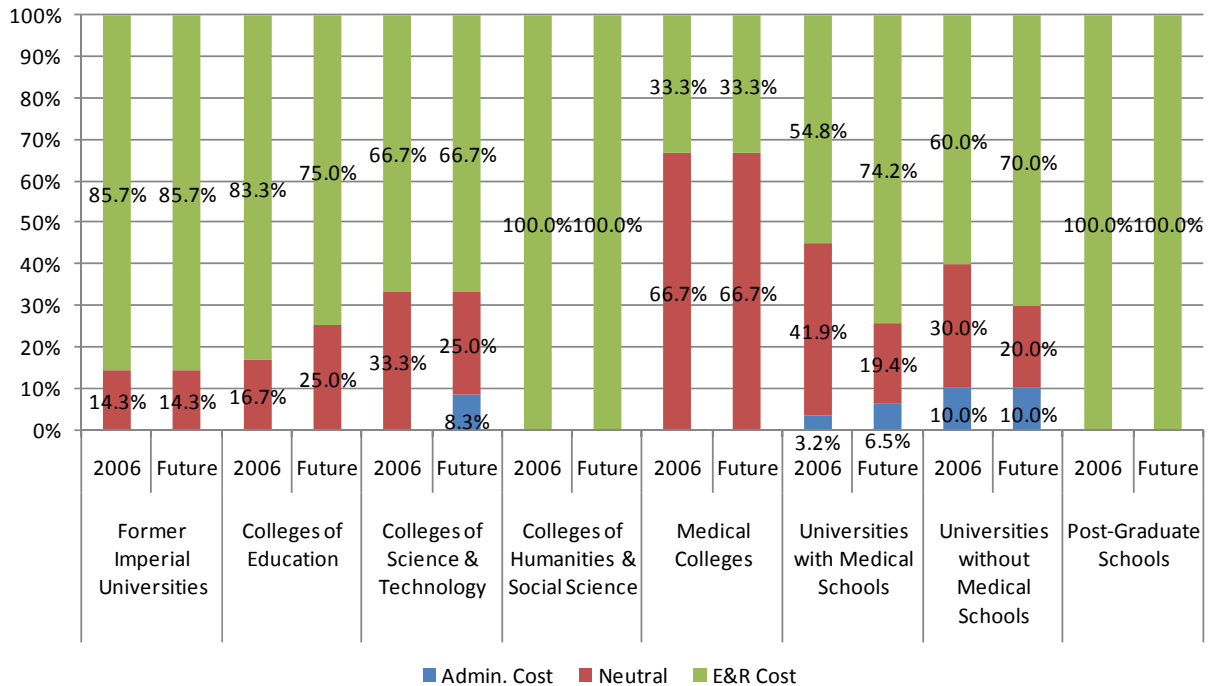
- 1) Former imperial universities, medical colleges and post-graduate schools suffered little or no changes in their core education and research funds relative to the period before NUCA enactment while the other types of national university were struggling against possible deterioration of education and weakening research competitiveness under serious fiscal pressure.
- 2) Former imperial universities, medical colleges and post-graduate schools were planning their future competitiveness in education and research while the other institutional types were simply trying to survive by concentrating their unsatisfactory funds on education rather than on research.

3) As such, there seems to be a dichotomy among national universities stemming not from specific national higher education policy but from fiscal pressure.

In order to confirm this dichotomization, in the next section we take a different perspective, examining the cost priority between their central administrative cost (hereafter, “admin cost”) and education & research cost (hereafter, “E & R cost”), and between educational cost and research cost.

b. Cost Priority after NUCA

Chart 12. Cost Priority between Central Administrative Cost and Education & Research Cost



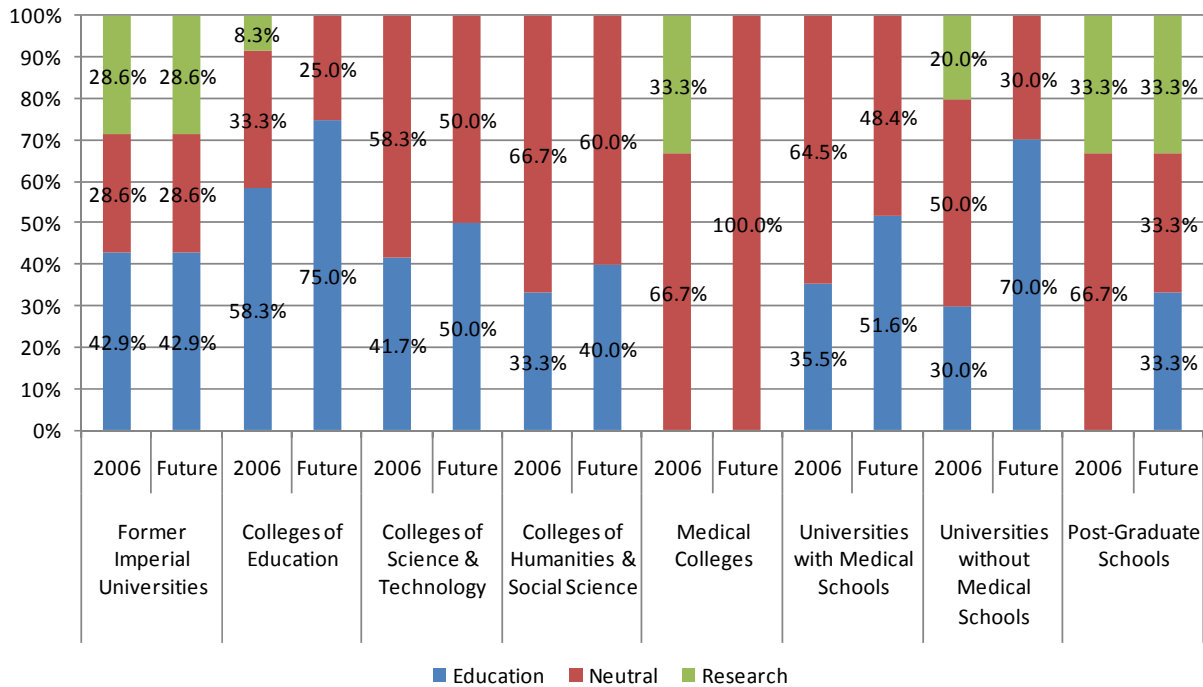
Source: CNUFM (2007a)

Almost all institutional types show greater prioritization of their E & R cost than their admin Cost, although as an exception a “neutral” response was received from two thirds of medical colleges¹⁹. All colleges of humanities & social sciences and all post-graduate schools, and more than 80% of former imperial universities and colleges of education responded that E & R cost was more important; however, the composition of E & R cost differed markedly between them, as explained later. Also, we want to note the difference between the priority in 2006 and that in the future. Two types of comprehensive university, accounting for about half of the respondents, intended to place greater prioritization on E & R cost in the future. Other types of institutions plan to keep the same priority in the future, although colleges of education thought they would have to take greater care of their admin cost in the future.

From the first study on cost priority, we can roughly confirm that former imperial universities and post-graduate schools were able to focus their attention on their education and research activities, whereas others had to take greater care of their administrative cost.

Our second study deals with the priority between educational cost and research cost, as summarized in Chart 13.

Chart 13. Cost Priority between Educational Cost and Research Cost



Source: CNUFM (2007a)

The former imperial universities, medical colleges and post-graduate schools who prioritized research over education constitute about one third of all institutions; moreover, former imperial universities and post-graduate schools intended to keep this priority later than 2006. On the other hand, other institutional types focused more of their attention on educational cost rather than research cost in 2006 and later, with no intention to prioritize research cost later than 2006.

Given the results of these two studies on cost priority, we can confirm the dichotomization of national universities was progressing as of 2006. On the one hand, a few research intensive universities such as former imperial universities reported an intention to become world-class research-intensive universities; on the other hand, other universities had all but given up on being more research competitive and intended to concentrate their scarce resources on education later than 2006. This dichotomization occurred as the unintended consequences of serious fiscal pressure under NUCA and not as the results of national higher education policy.

Policy Implications

As a result of the drastic change in the public funding scheme for national higher education in 2004, tax appropriations for higher education were substantially decreased, which has led to the decline in core funding for education and research for the majority of national universities. However, the extent of the financial impact of NUCA differs by institutional type. Those institutions with solid reputations and large financial resources, such as the former imperial universities, have been little influenced by NUCA. Our analyses found that the smaller the institution's financial resource, the more negative the impact of NUCA on the institution. A dichotomization among Japanese national universities is progressing.

The current funding policy in the allocation of the Operating Grant needs to be revisited. Essentially, what the current policy has done is simply to decrease spending on higher education in order to pay off public debt accumulated over the last 20 years. The impact generated by the sudden shift in 2004 was

too drastic for the majority of national institutions, except some elite universities, to absorb. Policymakers need to take institutional missions and their fiscal conditions into consideration in the formula in order to minimize the damage caused by the ongoing decline in public support for higher education. The one-size-fits-all approach has brought unfairness to the market.

Lastly, MEXT needs to lay out a long-term strategy for Japanese higher education and align funding policy with the master plan. MEXT has been known for being politically vulnerable, particularly with respect to the Ministry of Finance. While it was inevitable that public funding would be lost in the face of economic difficulty, MEXT could have acted better if it had pursued a long-term strategy. MEXT needs to do the same thing it requires of the institutions: clarify the goals of Japanese higher education and constantly evaluate progress. It will not be easy to argue for public funding without justifying why it is necessary. Funding is a means to the end, and MEXT needs to elaborate what the end is.

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Endnotes

¹ It is comparable to the Master Plan in the U.S.

² So called “block grant”

³ Under NUCA, the Minister of Education, Culture, Sports, Science and Technology holds the authority to make these decisions; however, in reality, approval from the Ministry of Finance (MOF) is essential and substantially decisive.

⁴ It has also been observed that appropriation by higher education has been following the total annual state budget between fiscal years 1996-2006 in the United States (Layzell 2007, p.2).

⁵ There were 87 national universities in early 2006. However, Tsukuba University of Technology was a highly specialized institution for the disabled, and this survey did not send questionnaires to this university. In addition, after the survey, Osaka University and Osaka University of Foreign Studies were merged on October 1, 2007. As of October 1, 2008, there are 86 national university corporations in Japan.

⁶ Other revenues include incomes from external research and business, donations, financial incomes, and other public grants.

⁷ A currency exchange rate of \$1=105 yen is assumed hereafter.

⁸ Japanese fiscal year X starts April 1, year X and ends March 31, year X+1.

⁹ At the meeting of the Council on Economic and Fiscal Policy held on May 21, 2007, the MOF estimated the distribution of OG among institutions based on each institution’s actual received amount of the grants-in-aid for scientific research and the special education and research fund; the results of its estimation showed a widening disparity among the national universities.

¹⁰ The Japanese admission fee system is unique. All freshmen must pay a certain amount of this fee once upon entering an institution.

¹¹ The ARC framework is introduced in detail in Saloner, Shepard and Podolny (2001).

¹² CNUFM categorized national universities into the following 8 types.

Types	Definition	Number of Institutions as of FY2006
Former Imperial Universities*	Universities historically established as imperial universities in the imperial sovereign era before World War II. The institutions of this type are all research intensive. The University of Tokyo is representative of this university type.	7
Colleges of Education	Colleges established for training teachers of elementary and junior high schools. Their characteristics are rather those of vocational institutions.	12
Colleges of Science & Technology	Colleges specialized in natural sciences and engineering. Among them, Tokyo Institute of Technology is one of the top-tier research institutions in Japan.	13
Colleges of Humanities & Social Sciences	Colleges specialized in humanities and social sciences. Among them, Hitotsubashi University is one of the most research-active universities in social sciences.	6
Medical Colleges*	Colleges for training medical doctors. Just prior to NUCA, most medical colleges were merged with their neighboring local comprehensive universities, but a few colleges remain.	4
Universities with Medical Schools*	Comprehensive universities with departments of medicine. More than half are located outside metropolitan or economically prosperous areas.	31
Universities without Medical Schools	Comprehensive universities without departments of medicine. More than half are located outside metropolitan or economically prosperous areas.	10
Post-Graduate Schools	No under-graduate programs are available in the institutions of this type. They run only Master’s programs and Doctor’s Programs.	4

*Medical doctors are trained in under-graduate programs for 6 years and post-graduate programs for 2 years in Japan. The institutions of these three types have such mandatory programs and teaching hospitals for training medical doctors.

¹³ The Revised Law Concerning Stabilization of Employment of the Elderly was fully enacted on April 1, 2006 in Japan. Under this act, all employers in Japan must implement one of the following systems: 1) extend their employees’ retirement age to 65, 2) re-hire retirees until the reaches the age of 65, or 3) eliminate the mandatory retirement age from employment agreements.

¹⁴ The total expense includes medical school, hospital and other independent operations.

¹⁵ The Cabinet’s decision became law in 2006.

¹⁶ These cost items include any cost incurred, except by full-time personnel, for their own activities. For instance, financial aid for students, wages for part-time teachers, instruction materials and other consumables costs, operation and maintenance costs of classrooms are elements of the education cost, as are the other four cost items mentioned.

¹⁷ Accounting standards for national universities were partly revised on March 1, 2007, and new standards were applied to all institutions from the financial statements of FY2006. One of these revisions was a redefinition of “medical care cost”. Before this revision, the costs incurred in teaching hospitals were all included in “medical care costs”; however, now the costs incurred in teaching hospitals associated with education and research activities must be treated as “education cost” and “research cost” after this revision.

¹⁸ The survey implicitly defined the core educational funds as internally budgeted funds to teachers provided in a non-competitive manner in order to secure the minimum quality of their educational service; therefore, the core educational funds are assured from public lump-sum grants. The core research funds were also defined in this survey, although faculties in U.S. higher education institutions usually earned the money for their research activities from external sources in a competitive manner.

¹⁹ The scale of medical colleges is very small (their enrollment is around 1000), but they have their own teaching hospitals. Therefore, they must exercise caution in regard to the proportionally large administrative costs associated with their hospitals. These circumstances might have affected their responses.