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1

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Who Benefits from the Massification of Higher Education in Taiwan?

Abstract: The objectives of expanding higher education are to foster advanced personnel and realize the concept of achieving equal access to education. The problems created by the expansion of higher education in many countries, including Taiwan, in fact indicate a divergence from originally anticipated objectives. Such problems include the uneven allocation of resources, tuition differences between public and private schools, and vicious competition in the face of declining student enrollments, all of which contribute to concerns about educational quality issues. Of additional interest is whether Taiwan's focus on university enrollments of disadvantaged ethnic groups has created a trend toward greater educational opportunities for its aboriginal people. Nevertheless, the distribution of resources is increasingly concentrated on elites from high socioeconomic backgrounds and in a few public universities. All of these factors have facilitated an increasing class reproduction in higher educa-

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tion. The original elites continue to enjoy a wealth of resources. Yet while more and more students gain access to higher education, their institutional teaching quality and learning environment still fall behind that of the elites.

World War II can be seen as a turning point in the development of higher education internationally. Prior to the 1950s, higher education was primarily an elite-oriented education aiming to develop qualified intellectuals for nations and talent for the social mainstream. Consequently, only a few individuals from the upper classes could be admitted to higher education institutions (HEIs). After World War II, many newly developing nations, influenced by the prevailing theories of modernization and human capital, advocated an expansion and greater investment in education to enhance the quality of human resources and promote national modernization and economic development (Rust 1991). In addition, with the demand generated by the postwar baby boom generation, more and more nations invested in higher education and admitted an increasing number of students. Such investments changed the profile of the previous elitist higher education and met the education demands of common people. Despite the continual expansion of higher education, many countries still encountered severe economic problems and social inequities. In view of this phenomenon, this article attempts to explore who has benefited from the expansion of higher education in Taiwan and demonstrate the underlying issues of ethnicity, resource allocation, and class reproduction.

The International Expansion of Higher Education

After World War II, nations engaged in a substantial expansion of the volume of higher education to foster talent and address their economic development and social needs (World Bank 2006). The advantages and disadvantages of such a development process have been mixed for various countries. On the positive side in terms of national competitiveness, continued investment in advanced human resources and upgrading older systems have led to increased productivity, which has aided industrial development. At the same

time, a large number of qualified personnel have been educated, which is a considerable help to national development and the cultivation of talent. In addition, expanded higher education has not only increased student enrollment and enhanced civilian educational opportunities but also narrowed the unequal gap between different social groups in access to higher education.

After the rapid expansion of higher education, however, there was no way to accommodate so much advanced labor due to the limited capacity of economic and structural adjustments. Thereafter, this expansion resulted in an increasing phenomenon of highly educated and highly unemployed people. Also, as higher education significantly expanded, its government funding was greatly diluted, coupled with public-sector financial constraints. Consequently, this great expansion of higher education threatened educational quality in a time marked by constraints of insufficient allocation of education resources. In particular, as population growth in many developed nations slowed down and birthrates declined, schools began to experience shortages in student enrollment, which later affected sustained quality in higher education. Many schools and universities faced merging, relocating, and even closing, creating a series of social problems and a waste of education resources.

In the United States, for example, the expansion rate of higher education reached its peak in the last century (OECD 2004). Even so, the higher education enrollment profile is still very uneven throughout the United States in terms of ethnic distribution and regional differences. Although individual states are committed to increasing the enrollment rate of ethnic minorities, their high school completion rates are still low. According to Wang (2008), while 50 percent of African Americans graduating from high school enter colleges and universities, 80 percent of white graduates enroll in higher education. In terms of the educational system, more than half of minority graduates enroll in two-year community colleges; about 9 percent of African Americans obtain a bachelor's degree, while only 6 percent of Hispanics do so. Overall, the proportion of ethnic minorities receiving a bachelor's degree in the United States is significantly lower than whites.

Likewise, Japan is also facing difficulties in maintaining the

quality of education after its expansion of higher education. There is a large proportion of various types of private HEIs in Japan's system. While in the massification process of higher education, Japan began in 1990 to deal with the challenge of a declining birthrate. Facing the twin problems of expanded higher education and a lack of students, some Japanese universities began to lower admission standards in order to accommodate more students, and some even tailored their programs and administration based on the principles of market economy.

In addition to the problems of unequal opportunity among ethnic minorities and inadequate distribution of resources, another emerging issue after higher education expansion is the increasing presence of class reproduction. In most countries, those who attend universities tend to have parents with university degrees (OECD 2004) (Table 1). In other developed nations, students whose fathers have a university degree tend to have a greater opportunity to attend university. In this context, even if the university enrollment rate is high, students from higher socioeconomic backgrounds still have advantages in admission to higher education, which does not appear consistent with the original idea that the massification of higher education would result in equal opportunity access to higher education.

The preceding OECD findings also exhibited patterns consistent with Raftery and Hout (1993) and Lucas (2001), who discussed the concepts of Maximum Maintained Inequality (MMI) and Effectively Maintained Inequality (EMI), predicting that the true benefits of expanding higher education only accommodate the needs of higher social classes and wealthy families instead of the average working class. With the expansion of the number of universities, students from higher socioeconomic backgrounds often enjoy smooth access to national/public universities with richer resources, while disadvantaged students may only be able to attend private HEIs with high tuition but relatively lacking in resources. This situation intensified unequal opportunity to higher education and resulted in the strong getting stronger and the weak getting weaker. For example, after expanding higher education in Israel, the Israeli government's funding for higher education still remained concentrated in a few national universities with higher

Table 1

Parental Education Background of University Students by Country

	Blue-collar			Higher education background		
	Students' fathers	Men in same age group	Odds ratio	Students' fathers	Men in same age group	Odds ratio
Austria	20	39	0.51	27	11	2.5
Finland	29	38	0.76	48	28	1.7
France	19	35	0.54	42	21	2.0
Germany	16	37	0.43	39	18	2.2
Ireland	18	21	0.87	24	22	1.1
Italy				17	10	1.7
Netherlands	5	7	0.71	40	25	1.6
Portugal	29	56	0.52	29	9	3.2
Spain	40	45	0.89	32	21	1.5
United Kingdom*				54	27	2.0

Source: OECD (2004).

Note: * The United Kingdom includes England and Wales.

quality and more resources (Hout 2006). On the other hand, private universities, relatively lacking in funds, found it more difficult to enroll better students. This new trend resulted in a more serious increasing gap between public and private HEIs, as many private institutions could not compete with national universities. Therefore, after the expansion of higher education, the acceleration of class reproduction in higher education and the development of a so-called M-shaped society have become increasingly evident.

The Expansion of Higher Education in Taiwan and Its Challenges

Since 2000 as a result of the expansion of higher education, Taiwan's Ministry of Education (MOE) has engaged in the establishment of a more effective university finance system, internationalization, and evaluation systems in order to counterbalance the side effects of the quality discrepancy, the crowding out of education resources,

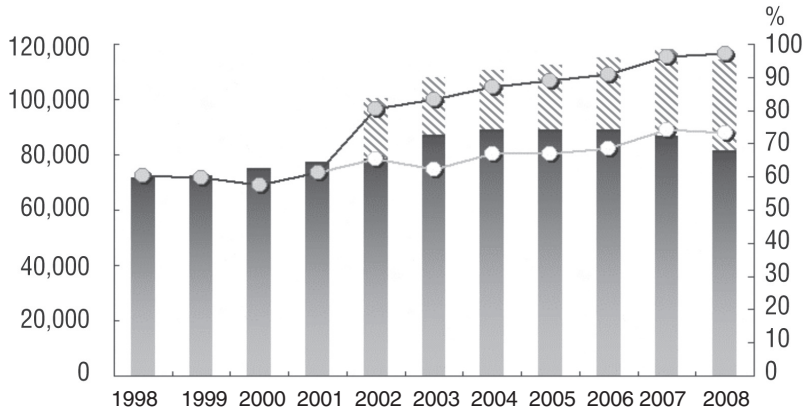
and class reproduction (Department of Statistics, Ministry of Education, Republic of China 2009a). The discussion below will deal with current higher education issues after the expansion, including government budgeting, education opportunities for ethnic groups, the allocation of education resources, and class reproduction. In so doing, we can further explore the question of who truly has benefited from the expansion of higher education in Taiwan.

Government Budgeting

With regard to establishing a better university finance system, in the past the budgets, tuition, and fees of Taiwan's public universities were entirely set by the government. In recent years to reduce the resource-allocation gap between public and private institutions, there has been a substantial increase in assistance to private universities, significantly shrinking the resources devoted to the public institutions. Nevertheless, approximately 60 percent of the total income of public universities comes from government subsidies, while government subsidies only make up 20 percent of the total income of private universities. There is therefore a large gap in the utilization of public funding. In particular, tuition, which is only about 10–25 percent of total expenditures for public universities, is 80–90 percent of total expenditures for private universities, indicating that public institutions still rely mainly on government subsidies, while private institutions rely primarily on tuition payments for their operations (Chen and Chen 2009). This demonstrates a visible discrepancy in public resource allocation between public and private universities.

At the same time, Taiwan has begun to relocate its overall educational expenditures to previously more neglected areas, such as K–12 education and indigenous as well as special education, which cut into investments in higher education. Over the last decade, the number of colleges and universities has risen dramatically while a culture of corporate donation to private educational sectors has not yet flourished, resulting in funding shortfall problems at many universities. Even the subsidies to private universities have been under more pressure due to the government's increasingly shrinking financial situation. As public universities encounter funding

Figure 1. New Admissions and Enrollment Rates at Taiwan's Universities



Source: Department of Statistics, Ministry of Education, Republic of China (2009b).

shortages and private university subsidies are also becoming a burden on the government, the subsidization of private institutions without hindering the development of public institutions is a thorny dilemma in higher education today.

Education Opportunities for Ethnic Groups

In only one decade, public university admissions in Taiwan rose from 71,826 in 1987 to 81,409 in 1997, and the overall admission rate increased from 60.45 percent to 97.1 percent (Figure 1). In terms of ethnicity, the number of Taiwanese aborigines (ethnic minorities) admitted into universities has significantly increased in the past few years. To improve the right of Taiwan's aboriginal students, the MOE has developed a series of measures to ensure their enrollment (Department of Statistics, Ministry of Education 2009b). According to statistics, the university admission rate for aboriginal students increased from 28.7 percent in the 1994 academic year to 76.3 percent in 2008. The number of aboriginal undergraduates admitted increased 4.54 times over the last 14 years but, compared with the overall rate across Taiwan, still lags by 13 percent (the gap was larger a few years ago but in recent years has

shrunk). In graduate schools, there were only 18 aboriginal students attending during the 1998 academic year, representing only 0.02 percent of all students; in 2008 there were 680 aboriginal graduate students, or 0.4 percent, a 34.7-fold growth rate (Department of Statistics, Ministry of Education, Republic of China 2009b). But there is room for further improvement in the overall ratio of ethnic minorities in universities.

Education Resource Allocation

To ascertain whether Taiwan's higher education funds are equally distributed, the number of colleges and universities and the number of students are examined below.

Expansion in the number of HEIs. Over the past decade, the number of universities and colleges in Taiwan grew by 40 percent, among which public universities increased by 8.7 percent and private universities by 64.41 percent. Due to their conversion into universities, the number of technical and vocational institutions was reduced by one-third. In general, during Taiwan's higher education expansion since the 1990s, there was little increase in public universities; the majority of growth has been in private universities and upgraded vocational and technical colleges.

Increasing number of students. In the same decade, the overall number of students in higher education has expanded rapidly. The number of university students increased 2.14 times, including a 2.7-fold increase in doctoral students and a 3.3-fold increase in master's degree students (Department of Statistics, Ministry of Education, Republic of China 2009b). In 2004, 68.1 out of every 100 Taiwanese 18-year-olds entered college, an enrollment rate almost four times that of mainland China and Hong Kong (Song 2006).

The question remains as to whether expanding the number of universities signifies that all students receive the same quality of education. The research of Chen and Chen (2009) found that regional inequities continued to exist in the development of Taiwan's higher education. The distribution of institutions has long been concentrated in certain counties and cities in northern Taiwan. More resources are allocated to schools in the northern region than those in the central

and southern areas. In terms of overall education expenditures, since 1994, the number of university students in Taiwan has more than doubled, but higher education funding has not increased commensurately. This resulted in a one-third decline in government grants to public university students, causing Taiwan to provide only one-fifth as much as Hong Kong (Song 2006). Even in China, where average education funding for each undergraduate is less than half that of Taiwan, many key universities received much more public funding than that of Taiwan. Students at private institutions in Taiwan, who represent 70 percent of the total number of students and come mostly from more disadvantaged families, receive even less in government grants, thus embodying the MMI and EMI phenomena described by Raftery and Hout (1993) and Lucas (2001).

Class Reproduction

As mentioned above, after the expansion of higher education, most university students in developed nations came from households where the father had a higher education background; this is also the case in Taiwan (Table 2). The research indicates that 30–40 percent of students whose fathers' education was at the college or graduate level entered public universities, while only 9–10 percent of first-year university students whose fathers' education level was primary or middle school entered public universities. The enrollment rate at private technical and vocational colleges for students whose fathers had a primary education level was nearly four times higher than for students whose fathers had a graduate-level education (Peng 2005).

Who Benefits from the Massification of Higher Education in Taiwan?

In general, after the massification of higher education, nations around the world faced the same challenge: balancing the maintenance of educational quality without affecting equal educational opportunity for all students regardless of family background. Kim and Lee (2006) pointed out that most higher education expansion

Table 2

Distribution of First-Year Taiwan University Students in Various Types of Schools by Father's Educational Attainment (%)

School type	Father's educational attainment					
	Primary	Secondary	Secondary (vocational)	Junior College	University	Graduate school
Public universities	9.33	9.91	14.54	18.61	30.53	40.42
Public, technical, and vocational colleges	8.11	7.28	5.22	4.09	2.22	2.00
Private universities	19.61	21.07	27.40	33.46	38.96	35.03
Private, technical, and vocational colleges	31.07	31.58	25.71	20.05	11.87	6.99

Source: Peng Sen-ming (2005: 8).

comes from the increase of nonelite HEIs (in most countries they are private HEIs). As a result, the stratification and class reproduction of higher education has become a widespread phenomenon internationally and is increasingly apparent in China, Japan, South Korea, the United States, and Israel (Wu 2008). At present, Taiwan also faces similar problems.

According to Raftery and Hout (1993) and Lucas (2001), the expansion of higher education has in fact brought about a false equality. On the surface, all ethnic groups and social classes can get into universities based on their personal capacity and performance, but the education resources made available to students and the tuition they pay show an M-shaped trend. In Taiwan at present, there are three public university students for every seven students at private universities, and tuition has been steadily rising as funding is reduced. The distribution of education resources to university students is continually declining. Tuition accounts for more than 60 percent of the overall operation budget of private universities. In

contrast, tuition for public universities comprises only 7.6 percent to 20 percent of the total budget (Chen and Chen 2009; Lü 2005). In other words, at higher-ranked public universities tuition is relatively low (from one-fourth to one-fifth of student unit cost), and students receive better resources and assistance. Considering the high reputation of these prestigious public universities, it is easy to imagine students' competitiveness after graduation. In contrast, students attending private universities have to pay more than twice the tuition of their public counterparts, but they receive fewer resources and less assistance and equipment. They lack an environment that supports their professional capacity, and consequently their competitiveness suffers. It therefore appears that between the public and private institutions, Taiwan's university students are already headed toward an M-shaped future.

Conclusion

The goals of expanding higher education are to nurture advanced personnel for national development, fulfill individual potential capacity, and realize the ideal of achieving equal educational opportunity. The problems created by the expansion of higher education in many countries, including Taiwan, in fact indicate some unexpected consequences that deviate from the original objectives. Such problems include the uneven allocation of resources, tuition discrepancies between public and private HEIs, severe competition in the face of declining student enrollments, and increasing concerns about issues involving educational quality.

On the whole, Taiwan's university enrollment rate can be seen as one of the highest in Asia, but the distribution of resources has been increasingly geared toward privileged groups in a few public universities. These elites come mostly from high socioeconomic backgrounds, making class reproduction in universities increasingly apparent. Issues brought about by the trend toward expanding educational opportunity include maintaining effective and equal education resource allocation. In addition, quality assurance of higher education deserves more public investment. The answers to who benefits from the massification of higher education in Tai-

wan become obvious as elite groups continue to enjoy a wealth of resources. While children of the general public do enjoy more access to higher education, the teaching quality and the learning environment at the institutions they generally have access to remain subjects for investigation.

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