Focus on Higher Education in East Asia and among East Asians

An Asian Multiversity? Comparative Reflections on the Transition to Mass Higher Education in East Asia

RUTH HAYHOE

Presently, Chinese higher education stands on the verge of transition from a highly elite system serving about 3.5 percent of the age cohort to a mass system. By the year 2000, plausibly 8 percent of this tremendously large age group will be accommodated, with rapid expansion expected thereafter. This move toward mass higher education has been stimulated by rapid social, economic, and political change—evidenced by the State Education Commission's comprehensive new plan released in February 1993.\(^1\) The experience of such East Asian societies as South Korea (which recently went through this transition), Japan, and Taiwan may have lessons for China since their broadly shared Confucian tradition has informed popular perceptions of higher education in most of East Asia.\(^2\) However, China comes to this transition with its socialist system still in place, though adapting to an experimental "market socialism," suggesting that values distinct from those of East Asian capitalist societies are also likely to play a role.

This article develops a comparative framework for reflecting on the possibilities and choices open to China in higher education policy over the coming decade. I begin with a discussion of the transition from elite to mass higher education in Japan, South Korea, and Taiwan, taking four broad parameters for comparative analysis. I then set the East Asian experience against the Western experience, contrasting the emergence of the "multiversity" in North America with escalating institutional stratification patterns and hierarchy in East Asia. These contrasting cases provide an evaluative context for considering China's move toward mass higher education. The intention is both to identify trends that are emerg-

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\(^2\) One of the best popular studies of China's traditional civil service examination system is by the Japanese scholar, Ichinada Miyazaki, China's Examination Hell (New York and Tokyo: Weatherhill, 1971). Clearly there were common ideas of social mobility through "climbing the education ladder," even though that ladder was constructed differently in each society.

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ing and to envision transformative possibilities. What kinds of policy choice, at this important turning point, could lead to a form of mass higher education characterized by social equity as well as by economic effectiveness? Is there a possibility of an Asian-style multiversity developing, or will persisting values of Confucian meritocracy, so evident in other East Asian societies, shape the transition?

The Transition from Elite to Mass Higher Education in East Asia

The mass higher education threshold is defined as the point at which 15 percent of the age cohort enter some form of higher education. As table 1 indicates, this level had been reached by the late 1960s in Japan, the early 1970s in Taiwan, and the early 1980s in South Korea. These growth patterns generally reflect economic growth patterns in the three societies, with Japan in the lead, followed by Taiwan, then South Korea. While China is still far from this threshold, the expected move from 3.5 percent to 8 percent of the age cohort by the year 2000 is highly significant, one that bears comparison with the experience of these other Asian societies.

Four broad parameters are the foci for comparison, each pointing to a particular aspect of the transition. First, the degree to which female students are able to achieve equal participation is perhaps the most fundamental issue in terms of social equity. Second, the degree of emphasis on the basic and applied sciences—when placed against broadly defined social science and humanities areas—indicates the extent to which modernization is seen as a technocratic process or as one of broader social and cultural transformation. Third, the success with which 4-year academic programs are balanced by an appropriate emphasis on short-cycle pro-

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3 Johann Galtung, The True Worlds: A Transnational Perspective (New York: Freedom Press, 1980), provides the model for this approach that views both identifying empirical trends and visioning preferred futures as the social scientist’s responsibility. An attempt was made to apply this to Chinese higher education in Ruth Hayhoe, China’s Universities and the Open Door (New York: M. E. Sharpe; Toronto: Ontario Institute for Studies in Education Press, 1989), esp. chap. 4.


6 Unesco statistics are used throughout the paper for Japan, South Korea, China, and Canada. For Taiwan, see Ministry of Education, Educational Statistics in the Republic of China 1990 (Taipei: Taiwan, 1990). For the United States, see U.S. Department of Commerce, Statistical Abstract of the United States, 1992 (Washington: U.S. Government Printing Office, 1992). Enrollment figures for the basic and applied scientific areas include natural science, mathematics and computer science, medical and health-related science, engineering, architecture and town planning, trade, craft and industrial programs, transportation and communications, and agriculture. These figures have been tallied and calculated as a percentage of total enrollments, thereby giving a general indicator.
### Table 1

<table>
<thead>
<tr>
<th></th>
<th>% of Age Cohort</th>
<th>Students per 10,000 of Population</th>
<th>Total Enrollment</th>
<th>% Female</th>
<th>% Sciences</th>
<th>% Short Cycle</th>
<th>% Private</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Japan:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td>9.5</td>
<td>85</td>
<td>789,755</td>
<td>21</td>
<td>28</td>
<td>11</td>
<td>59.7*</td>
</tr>
<tr>
<td>1965</td>
<td>13</td>
<td>121</td>
<td>1,182,345</td>
<td>25</td>
<td>31</td>
<td>14</td>
<td>N.A.</td>
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<tr>
<td>1970</td>
<td>17.1</td>
<td>176</td>
<td>1,819,323</td>
<td>28</td>
<td>27</td>
<td>17</td>
<td>74.4</td>
</tr>
<tr>
<td>1980</td>
<td>37</td>
<td>205</td>
<td>2,412,117</td>
<td>32</td>
<td>27</td>
<td>20</td>
<td>N.A.</td>
</tr>
<tr>
<td>1989</td>
<td>N.A.</td>
<td>217</td>
<td>2,435,576</td>
<td>42</td>
<td>28</td>
<td>21</td>
<td>72.6</td>
</tr>
<tr>
<td><strong>South Korea:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td>4.7</td>
<td>40</td>
<td>98,798</td>
<td>17</td>
<td>37†</td>
<td>6</td>
<td>N.A.</td>
</tr>
<tr>
<td>1965</td>
<td>6.2</td>
<td>50</td>
<td>141,636</td>
<td>25</td>
<td>47</td>
<td>23</td>
<td>72.8</td>
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<tr>
<td>1970</td>
<td>7.5</td>
<td>63</td>
<td>201,436</td>
<td>24</td>
<td>51</td>
<td>24</td>
<td>67.4</td>
</tr>
<tr>
<td>1980</td>
<td>N.A.</td>
<td>161</td>
<td>578,465</td>
<td>24</td>
<td>56</td>
<td>33</td>
<td>73.7</td>
</tr>
<tr>
<td>1989</td>
<td>37‡</td>
<td>399</td>
<td>1,501,905</td>
<td>32</td>
<td>43</td>
<td>22</td>
<td>77.7‡</td>
</tr>
<tr>
<td><strong>Taiwan:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td>3</td>
<td>N.A.</td>
<td>34,623</td>
<td>21</td>
<td>46</td>
<td>22</td>
<td>19</td>
</tr>
<tr>
<td>1965</td>
<td>7</td>
<td>N.A.</td>
<td>84,353</td>
<td>29†</td>
<td>42</td>
<td>35</td>
<td>51</td>
</tr>
<tr>
<td>1970</td>
<td>14</td>
<td>136.6</td>
<td>201,178</td>
<td>39</td>
<td>45</td>
<td>54</td>
<td>64</td>
</tr>
<tr>
<td>1980</td>
<td>18</td>
<td>192.4</td>
<td>336,222</td>
<td>46</td>
<td>51</td>
<td>54</td>
<td>69</td>
</tr>
<tr>
<td>1990</td>
<td>26</td>
<td>217*</td>
<td>513,515</td>
<td>43</td>
<td>51**</td>
<td>57</td>
<td>73</td>
</tr>
<tr>
<td><strong>People’s Republic of China:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td>N.A.</td>
<td>16</td>
<td>961,623</td>
<td>24</td>
<td>82</td>
<td>19</td>
<td>⋯</td>
</tr>
<tr>
<td>1965</td>
<td>N.A.</td>
<td>5.6</td>
<td>674,456</td>
<td>27</td>
<td>82</td>
<td>5</td>
<td>⋯</td>
</tr>
<tr>
<td>1970</td>
<td>N.A.</td>
<td>5.7</td>
<td>47,815</td>
<td>N.A.</td>
<td>80</td>
<td>100</td>
<td>⋯</td>
</tr>
<tr>
<td>1975</td>
<td>N.A.</td>
<td>5.4</td>
<td>500,993</td>
<td>33</td>
<td>79</td>
<td>100</td>
<td>⋯</td>
</tr>
<tr>
<td>1980</td>
<td>N.A.</td>
<td>11.5</td>
<td>1,143,712</td>
<td>23</td>
<td>75</td>
<td>25</td>
<td>⋯</td>
</tr>
<tr>
<td>1990</td>
<td>2.0</td>
<td>18.4</td>
<td>2,062,695</td>
<td>34</td>
<td>68</td>
<td>36</td>
<td>⋯</td>
</tr>
</tbody>
</table>

**Note.**—Graduate students are included in 1980 totals for Japan but in no other statistics.


* Figure from the year 1955;
† Figure from the year 1961;
‡ Figure from the year 1985;
§ Figure from the year 1988;
|| Figure from the year 1964;
* Figure from the year 1984;
** Figure from the year 1986.

Programs, educating young people for mid-level administrative and technical positions, may well reflect the character of links between higher education and the economic and employment systems. Finally, the level of private higher education reflects familial support as well as governmental policy. Table 1 provides a succinct statistical picture of the transition from elite to mass higher education in Japan, South Korea, and Taiwan between...
1960 and 1990. While all three societies had reached levels of mass participation close to those of North America by 1990, female participation has not yet reached the 50 percent level achieved in North America by 1980.7 In 1989 South Korea lagged farthest behind with 32 percent female enrollment, Taiwan reached 43 percent, and Japan reached 42 percent.

In emphasizing scientific fields, there are interesting differences among the three societies. A high and increasing concentration on basic and applied sciences is evident in Taiwan, reflecting a purposeful economism in higher education planning and a largely technocratic leadership class.8 South Korea reached a 56 percent peak of all enrollments in basic and applied sciences in 1980, but this had fallen to 43 percent in 1990. The greater potential for expansion at lower costs in the social sciences is the likely explanation here, considering the dominant role of the private sector. For Japan in the past three decades, a steady 28–31 percent of enrollments in the sciences indicates fairly constant support for a large proportion of social sciences and humanities enrollments. These Japanese percentages closely resemble North American figures.9

In South Korea, interestingly, there were high scientific enrollments and low female participation in 1970 and 1980, followed by a substantial jump in female participation in 1990 when the percentage of scientific enrollments was down. Unesco’s 1991 yearbook indicates that female enrollments tend to be clustered in the humanities and social sciences in both Japan and South Korea, as occurs in North America.10

The percentage of short-cycle enrollments relative to overall enrollments is generally lower in East Asia than in North America.11 Taiwan, however, is an exception, displaying a very close link between higher education growth and national economic planning—evident both in high short-cycle enrollment proportions for targeted employment needs and in the high degree of curricular emphasis on the applied

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9 Unesco, Statistical Yearbook 1991, pp. 3-301, 315, 316. Canadian higher education had 24.6 percent of its enrollments in scientific fields in 1980 and 20.9 percent in 1989; U.S. figures for graduates were 27.7 percent in scientific fields in 1980 and 26.2 percent in 1990. This includes agriculture, architecture, computer science, engineering, life sciences, mathematics, and physical sciences.
10 We do not have Unesco figures for Taiwan. Unesco Statistical Yearbook 1991, pp. 3-257, 258.
11 In Japan around 73 percent of enrollments in education, the humanities and the fine arts areas were female, while only 4.4 percent of enrollments in engineering were female. The parallel statistics for Korea are 57 percent and 6.1 percent, and for Canada are 68.4 percent and 13.3 percent. U.S. statistics for graduates in 1989 were 13.6 percent female in engineering, 60 percent female in education, liberal studies, and visual and performing arts.
12 Canada had 33 percent of all students in short-cycle institutions in 1975 and 39 percent in 1989. The United States had 35 percent in 1975 and 37 percent in 1985.

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sciences. In Japan, short-cycle enrollments have grown in importance, though they have never risen above 21 percent of the total. In South Korea, they have fluctuated between a high of 33 percent and a low of 22 percent, with much of the enrollment growth in the 1980s resulting from dramatically increased student demand and the private sector’s consequent response. As in Japan, South Korea’s degree-granting programs have the greatest prestige and therefore the greatest power to attract students. Both societies have been described as “degreeocracies” by their own researchers.

The distinction between short-cycle and degree-oriented programs has particular significance for female participation in East Asia, with a strong tendency for women’s participation to be concentrated in the system’s less prestigious, short-cycle sector. In Japan and South Korea, female students constitute only 27 percent and 29 percent, respectively, of university-level enrollments. Taiwan has 42 percent women at this level, while Canada has 55 percent and the United States 53 percent.

Finally, the most striking contrast with North America appears in the percentage of students enrolled in private higher education institutions. The move in Taiwan to mass higher education was evidently fueled by a huge expansion in the number and size of private institutions. In Japan and South Korea, private higher education already played a considerable role in 1960, but this level increased somewhat in the transition to mass systems. In all three countries, private enrollments stood at well over 70 percent in 1990.

The East Asian approach to private higher education has been characterized in a recent study as one of a mass private and restricted public sector, in contrast to the parallel public and private sectors in the United States, and the comprehensive public and peripheral private sectors char-

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12 Kirby Chaur-shin Yung and Frederick Welch, "Vocational and Technical Education," in Smith, ed. (n. 8 above), pp. 221–76, gives a thorough description of how a technical education system at secondary and short-cycle tertiary levels was designed and implemented for specific national economic goals.

13 Of course, Japan has a large sector of further education, carried out mainly under private auspices in large corporations for postsecondary technical training. If statistics for these enrollments were included in higher education enrollment reports to Unesco, the age cohort participation would be around 53 percent and the short-cycle percentage around 36 percent.


16 Epstein and Kuo, p. 207.

17 Unesco, Statistical Yearbook 1991, p. 3-257.
characteristic of Canada and many European countries. In all three East Asian societies, familial and societal values have supported participation in higher education to the degree that families are prepared to make considerable sacrifice to pay their children’s education costs at this level.

Studies on Taiwan’s education system indicate that often lower-income families pay a higher price in the private sector, given the advantages in examination competition enjoyed by children of higher-income parents. Additionally, the private sector has experienced a decline in standards and has been subjected to increasing governmental control over allowed fee levels. South Korea has seen a similar problem, with an increasing gap between enrollment expansion in the private sector and the resources available to maintain quality. Only in Japan has a sufficient private higher education state subsidy level ensured minimum quality standards.

Another aspect of the private/public dichotomy in East Asian higher education is gender patterning. Generally, men dominate the elite public sector, and women are overrepresented in certain parts of the mass private sector. A striking example may be found in Japan, where the junior college system absorbs 20.9 percent of all postsecondary enrollments but is 92 percent private. This private sector is dominated by female enrollments, while the small public sector is almost entirely a male preserve.

We might ask at this point to what extent these characteristics of East Asian higher education reflect a shared cultural tradition in Confucianism. There has been an increasing interest in recent years in understanding ways in which the “Confucian ethic” has contributed to East Asia’s remarkable economic success. Ezra Vogel identifies the following four cultural patterns in his analysis of this success story: the role of a meritocratic elite, the examination ladder, the importance of the group, and an ethos of self-cultivation or self-improvement. All of these cultural patterns are closely linked to highly stratified higher education systems that take substantial familial contributions as the norm, and view equity more from the perspective of perceived equal opportunity than of an equity of educational outcomes. Vogel does not address the Confucian patriarchy issue, but clearly persistent vestiges of a Confucian norm requir-

19 Epstein and Kuo, pp. 184–87.
21 Geiger, p. 710.
23 Vogel (n. 5 above), pp. 93–102.
ing that a woman obey father, husband, and son have created particular difficulties for women in East Asia.24

Mass Higher Education and the Multiversity

George Bereday uses inductive methodology to describe the process of transition to mass higher education in a now classic study, which makes the following three points. First, open admission and rapid quantitative expansion need not reduce quality, except possibly in the short term. Second, it is not necessary to link enrollments closely with the economy's numerical absorption limits since a continual upgrading of various positions can be expected with the stimulus of mass higher education. Third, openness is the basic principle, along with a belief that everyone is educable; mass higher education is a compensatory rather than an egalitarian ethos that includes diverse groups.25 Ronald Dore's Diploma Disease painted a bleaker picture of the problems in credentialist societies, where late industrialization produced fewer professional and technical jobs than expected.26 In the three East Asian countries considered here, there have been employment problems at times, especially in South Korea, yet generally the pace of economic growth has paralleled higher education expansion. Thus the persistent graduate unemployment plaguing such societies as the Philippines and India has been less acute.

The East Asian experience highlights how cultural patterns shape mass higher education systems—a dimension to which Bereday does not give adequate attention. Notably, Japan, South Korea, and Taiwan have maintained highly stratified higher education systems, with different levels channeling directly into various bureaucratic and industrial employment echelons. Japan's higher education structure is the classic example, and Ikuo Amano's important analysis could be seen as an amendment to Bereday's theory. Amano noted that in Japan "the relative position of particular institutions has scarcely changed since the system's inception in the 1870s... In other words, the movement of the system into the mass stage has merely served to reinforce the hierarchy established in the formative period."27 Studies of South Korean higher education in the

25 George Bereday, Universities for All: International Perspectives on Mass Higher Education (San Francisco: Jossey Bass, 1978), esp. chap. 8 in which he constructs a mass higher education theory based on common experiences in North America, Japan, and the Soviet Union.
transition to a mass system indicate a phenomenon parallel to Japan's. 28
Taiwan has similar patterns as well, though an interesting anomaly appears between higher education's elitism and the lack of evidence of widespread socioeconomic inequity. 29 In addition to shared cultural patterns, of course, the historical legacy of Japanese colonialism has endured in both South Korea and Taiwan. Stratification in higher education has had severe consequences for female professional employment, especially in Japan and South Korea. 30

From the perspective of an emerging civil society—Jürgen Habermas's sense of the activities of a semi-autonomous grouping of intellectuals and professionals 31—it is possible to see how the huge increase in the size of the professional/intellectual class was managed in ways that allowed fairly authoritarian political systems to stay in place. Only since the mid- to late 1980s have these three East Asian societies begun to move toward greater political pluralism, engendered by the end of military rule in South Korea, the end of martial law and the development of alternative political parties in Taiwan, and the undermining of a long Liberal Party monopoly in Japanese politics. Although Japan may be an exception, Teruhisa Horio shows that persisting patterns of Confucian hierarchy have stifled ongoing popular demands for education toward human emancipation and democratic participation in that society. In all three societies voices can be heard that express deep frustration over what is seen as an enlightenment process that remains incomplete. 32 This apparently has been the cost of economic achievements that may only have been possible under authoritarian political establishments.

While the distance between the highest and lowest echelons of higher education has increased in the transition to mass higher education in East Asia, there was some flattening of the hierarchy among different types and levels of higher education in North America with the emergence of the multiversity. Using Harvard and the University of California in his discussion, Clark Kerr characterizes the multiversity as a "city of infinite

28 Shin (n. 14 above).
29 Epstein and Kuo (n. 8 above), p. 193.
30 Fujima-Fasel and Imaura (n. 15 above); Lee (n. 15 above).
variety," a complex, diverse entity with greatly fractionalized power; the multiversity is massive in size, has many levels, serves diverse populations, and feeds into various societal echelons in graduates' employment. "As a city, there are many separate endeavors under a single rule of law."33

The multiversity's emergence and growth have coincided with increasing political and cultural pluralism in North America, and a growing commitment to social equity perceived as much in terms of equity of outcome, as equality of opportunity. The fact that much is left to be done in equity terms and that recent global economic pressures threaten to undo some past compensatory programs does not take away from the ethos of the multiversity as an institution accessible to a wide population and committed to an excellence that is, in principle if not in practice, achievable by most. One of its striking achievements, in contrast to the East Asian model, is the equal participation of female students at all levels, if not in all fields.34

A key point is the belief that open access and diverse levels and programs can function alongside the highest standards of academic achievement. In Canada the multiversity is fully public with a modest yet increasing part of the cost recovered from students and their families.35 In the United States, publicly funded institutions are responsible for 78 percent of all enrollments, and some major private universities have become multiversities. While a clear hierarchy still exists in both countries, perhaps more evidently in the United States than Canada, there is considerable fluidity of movement among the different parts of the system, and a less rigid stratification of professional employment opportunities than in East Asia.

Multiversity graduates in North America constitute an extremely large professional/intellectual class that is critical of politicians and active in promoting a wide range of autonomous cultural, social, and charitable activities. This autonomy and diversity coexist with an increasingly fractured sense of national identity and an unraveling social cohesion derived from traditional familial patterns. In contrast, the confluence of economic success, social harmony, and cultural coherence that has been identified

34 In the United States women make up 53 percent of all graduate students, 45 percent in Canada. The parallel figure for Korea is 22 percent, for Japan 15 percent. Unesco, Statistical Yearbook 1991, pp. 3-356, 369, 370.
35 Each province has a somewhat different situation, though, in all, universities are public and under provincial jurisdiction. In Ontario recently the Council of Ontario Universities, representing 15 universities, is recommending a fee increase that would mean students pay 30 percent of the actual cost of their university education.
by some scholars as the outcome of persisting Confucian values in East Asian societies may well appear highly attractive.36

China and Mass Higher Education

China shares patterns of Confucian culture that have given the East Asian transition to higher education some of the aforementioned characteristics. However, China has absorbed certain elements of the Enlightenment tradition—through Marxist thought—that tend toward egalitarianism and a belief in the potential for all to reach high education levels. While Leninist authoritarianism combined with Confucian tradition has yielded forms of political authoritarianism even more repressive than either the Korean or Taiwanese systems, China also has experienced recurrent demands for mass participation in political life associated with its socialist aspirations.

This past is evident in China's higher education figures (see table 1). China, it is interesting to note, had an absolute number of higher education students that was greater than the number in Japan in 1960, although 59 percent of the Japanese enrollments were in the private sector. This high participation level in China resulted from populist policies during the Great Leap Forward period that led to huge enrollment increases—from 252,978 in 1954 to 441,181 in 1957, and a reported high of 961,623 in 1960.37 This last figure is not very reliable and probably includes a large number of students in spare-time institutions attached to factories. Nevertheless, it illustrates the period's populist expansion that created greater higher educational opportunities for students from working-class and peasant backgrounds. Their participation grew from 20.5 percent in 1953 to 36.4 percent in 1957, and to a reported high of 49 percent in 1960.38 Unfortunately, the failed mass campaign strategy used in the Great Leap Forward and the resultant famine in the early 1960s made it impossible to sustain these initial efforts toward mass higher education.

The Cultural Revolution revived an impulse toward mass participation, but the social conflict around what was perceived as an elitist and exclusionist higher education system resulted in a situation where all universities were closed for several years, in favor of various short-term

training courses. Regular enrollments were restored in the early 1970s, growing to 564,000 in 1976. Three key features stand out in this period. Increasing female student participation that reached 33 percent in 1975 is one feature. This has left a legacy in the gender patterns of Chinese scientific professionals, with a high percentage of women professionals in the age group educated during the Cultural Revolution. A second feature is the continuing emphasis on scientific enrollments. It is particularly notable that female enrollments reached their highest point when most students were enrolled in scientific programs. A third interesting feature of the period is that all enrollments were in short-cycle 3-year programs. In the years before the Cultural Revolution, 4- and 5-year academic programs dominated Chinese higher education, with only 11 percent of all programs at the short-cycle level in 1957, and 19 percent at the height of the Great Leap Forward in 1960. The reasons for this could well be related to similar tendencies noted in Japan and South Korea, where persisting Confucian values led to strong popular support for academic programs. Abolishing regular academic programs during the Cultural Revolution was an extreme reaction—one that was later regretted—but it can be understood in relation to the populist ethos of the time.

Beginning in 1978, Soviet-inspired patterns of the 1950s were first restored, then gradually modified as China absorbed diverse foreign influences. China's expansionist pattern during the 1980s is similar to that of South Korea and Taiwan. However, due to the Chinese population's vast size—with 70–80 percent still living in rural areas—estimated formal enrollments represented only 2 percent of China's age cohort in 1990, in contrast to 26 percent of the age cohort in Taiwan, and 37 percent in South Korea. In addition to these figures for the formal higher education system, China had another 1.55 million students enrolled in various forms of adult higher education in 1980, with the number dropping to 1.47 million in 1990—most of which were at the short-cycle level. In recent years, this group has been composed increasingly of young people unable to gain entry to the formal system; if their numbers were included, roughly 3.5 percent of the age cohort would be in higher education.

With the reinstatement of unified national entry examinations to formal higher education in 1977, women's participation in higher education dropped to 24 percent in the early 1980s. By 1990, however, it had climbed again to 33.7 percent—the highest level ever. Over this same


period, the emphasis on science and engineering that had marked Chinese higher education since 1950 was modified, with social sciences and humanities gaining increasing attention. Enrollments in these areas rose to 32 percent in 1990. The social sciences during the Soviet period, which had been defined narrowly in relation to the state's need for a tiny elite responsible for planning and administering the macrosystem, were now recast in much broader terms—including new approaches to management, finance, economics, and law. Such traditional disciplines as philosophy, history, and literature, that were a legacy of both Soviet and European influence, broadened to include new interdisciplinary and applied fields of study.41

Unfortunately, there are no national figures for female enrollments by field of study that would enable us to assess definitively the impact of subject area readjustment on female participation. However, data from Sichuan province suggest that readjustment encouraged women to enroll in higher education programs. While female representation in science enrollments grew from 23.1 to 26.4 percent between 1979 and 1986, the growth for humanities and social sciences was from 32 to 48.5 percent over the same period.42 Nevertheless, in one fairly large and representative sample, Vilma Seeberg found a persisting strong female presence in the sciences, especially significant when compared to other East Asian countries and North America. All of the students surveyed were in professional programs, with a 29.6 percent female enrollment in engineering, 24.3 percent in agriculture, 61.35 percent in teacher education, and 45.7 percent in other applied studies.43

In the overall doubling of enrollment that occurred between 1980 and 1990, short-cycle enrollments rose from 24 percent to 39 percent of the total. This was the result of careful planning to meet perceived needs for mid-level administrative and technical personnel. Short-cycle enrollment growth was relatively unrestrained, while strict limits were enforced at the 4-year academic level. The new short-cycle vocational universities, established mainly by municipal governments to educate young people for positions within their own municipalities, have been particularly popular.44 The urban focus of these institutions makes them sometimes more desirable than provincial institutions with 4-year academic programs that are likely to lead to prefectural or county level jobs.

41 Hayhoe, China's Universities and the Open Door (n. 3 above), chaps. 2 and 3.
43 Seeburg, p. 183.
44 For details on these institutions, see Chinese Education, vol. 24, nos. 1 and 2 (Spring and Summer 1991).
TABLE 2
World Bank Projections for Higher Education in China by the Year 2000

<table>
<thead>
<tr>
<th>Age Cohort Participation (%)</th>
<th>Regular Enrollments (Millions)</th>
<th>Adult Enrollments (Millions)</th>
<th>Total (Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>10</td>
<td>5.2</td>
<td>3.7</td>
</tr>
<tr>
<td>Medium</td>
<td>12.5</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>High</td>
<td>15</td>
<td>7.6</td>
<td>5.6</td>
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</tbody>
</table>


Since 1949, Chinese higher education has been almost entirely supported by the public sector, unlike the situation in Japan, Taiwan, and South Korea. This policy presently constitutes a constraint on further growth, especially since an adequate taxation system is not yet in place while economic enterprises have gained considerable autonomy. A very important question for the future is whether a private higher education sector that responds directly to growing social demand for a dynamic economy is an appropriate policy direction as part of the present move to a socialist market economy. Recent South Korean and Taiwanese experiences are already regarded positively by proponents of "people-run" (minban) higher institutions that are seeking formal legal status as private institutions in China. However, the Canadian model of maintaining a fully public higher education system—albeit one dependent on increasing student contribution through higher fee levels—is also a possible direction for China.

The move to mass higher education has tremendous quantitative implications for China, given its vast population. World Bank advisors, who did much to support and shape China's higher education expansion throughout the 1980s, put forward three possible development scenarios for the year 2000 (see table 2). These rough estimates were based on a concern for greater internal efficiency, especially in relation to faculty-student ratios. However, substantial constraints in the Chinese context—related to both systemic and political factors—has meant that movement toward even the lowest scenario, 10 percent of the age cohort, has been extremely slow.

Since about 1983, there have been modest inputs from enterprises who have negotiated a certain number of "contract enrollments," as well as limited provision for self-paying students, whose fees cover a substantial part of costs.

You Qingquan, "Yuanshang he fazhan woguo minban gaodeng jiaoyu" [Improve and develop people-run higher education in our country], Weilai yu fazhan (March 1993): 1–9, also in Gaodeng jiaoyu [Higher education] (People's University Abstracting service) (August 1993): 56–67.

Hayhoe, China's Universities and the Open Door (n. 5 above), chap. 7.
Enrollments in the formal system reached a high point in 1988 (just before the Tiananmen events), followed by a policy of consolidating enrollments while focusing on quality improvement with plans for minimal expansion up to the year 2000. Although this policy was given an economic justification and linked to a 10-year economic development plan, it was also politically motivated—evidenced particularly by reduced enrollments in basic humanities and social sciences, which were blamed for inspiring the student protests.

Deng Xiaoping's southern journey in February 1992 set the context for a relaxation of political tensions following Tiananmen. The first crack in the resolve to hold enrollments stable came in August 1992 when permission was given to the 36 nationally prestigious keypoint universities administered by the State Education Commission to increase their enrollment of students outside of the national plan, who pay relatively high fees. A full-scale shift in policy followed in February 1993 with a comprehensive new plan for educational development. This plan provides for a steady expansion of higher education but does not give a precise target for the speed and scale of the expansion.

An interview with senior researchers in the State Education Commission's policy research center in May 1993 revealed an intention of reaching an enrollment of 7 million by the year 2000, with 3.5 million to be in the adult higher education sector. This would mean about 8 percent of the age cohort enrolled in some form of higher education, in contrast to the present 3.5 percent. The formula for expansion was 0.6 percent expansion in higher education for every 1 percent of economic growth, linking expansion directly to the economy's ability to absorb graduates. By the end of 1993, there was some retreat from this position, with the projected enrollment for the year 2000 dropping to 6 million, including 2.5 million in the adult sector. However, ongoing social demand and economic dynamism could well raise the figure by decade's end.

What shape will China's higher education system take as it goes through this dramatic change process? Will it follow the patterns of increasing stratification common in other East Asian societies, or is there the possibility of an Asian multiversity emerging in the Chinese context?

49 Ibid., pp. 294–95, 297–99.
51 "State Issues New Development Program" (n. 1 above).
52 Interview with senior researchers at the State Education Commission policy research center, April 30, 1993.
53 This is the figure given to members of a World Bank team, studying the higher education sector in November 1993. The difficulty with expanding the adult sector will become evident later in this article.
MASS HIGHER EDUCATION IN EAST ASIA

Which impulses will dominate policy decisions, those of the legacy of socialist egalitarianism or of Confucian meritocracy?

An Asian Multiversity?

The main characteristics of the multiversity as a mass institution have been set in contrast to the highly stratified patterns of mass higher education that constitute a kind of East Asian model. In this final section I consider where China stands at present in relation to these two models, and offer reflections on the policy choices open to her.

A crucial policy change in preparing for a move to mass higher education in China has been the decision to abolish a job assignment system, put in place in the early 1950s which assured graduates of formal higher education programs the position and perquisites of a state cadre in the Chinese bureaucracy. This government commitment to provide employment has been the major point distinguishing the formal sector from the adult sector, where there have been no employment guarantees.

A move to mass higher education with this job assignment system still in place would be impossible. The main concerns at present are how quickly and by what process the system will be phased out. The 1993 document states that “we should implement an employment system in which a small number of graduates are given jobs by the state and the majority . . . should choose a job by themselves.” However, it also claims that “in the near future, students enrolled through the state’s task plan will, in principle, still be provided with employment by the state under given conditions.”

A primary issue is how to prevent rampant nepotism, which the planning system has kept under some restraint. With the present dynamism of the economy, there is a growing sense of hope that employing agencies, whether governmental or private, will themselves guard against being saddled with recruits who depend for advancement on high level connections rather than professional knowledge and skill.

Shifting to a relatively free professional labor market will fundamentally change past patterns, where a hierarchy of prestige created through socialist planning resembled the stratification noted in Japan and South


55 An interesting survey of university students in 15 higher institutions in the central city of Wuhan, made in 1990, indicates students’ considerable anxiety as to the degree to which their employment prospects will be determined on the basis of ability and achievement, yet many display a cautious optimism over the changes under way. See Tian Jinghai, Gong Yizhou, and Peng Jun, “Daxue biyesheng ye xintai diaochao fenxi” [Analysis of a survey of university graduates’ state of mind in seeking employment], Gaojiao shijian jiaoyu yanjiu [Higher normal education research] 2 (February 1992): 41–48, also in Gaojiao jiaoyu [Higher education] (People’s University Abstracting Service) (September 1992), pp. 61–68.
Korea. Graduates of the most prestigious national-level keypoint institutions were assigned jobs in favored units within the national bureaucracy, while those from national sectoral institutions were given employment within their particular sector—for instance, railways, metallurgy, public health, or agriculture. The overflow graduates from these two groups were assigned to favored positions in the provincial bureaucracy, while graduates of provincial institutions often had to go down to the prefec- tural level for employment, and those from prefectural institutions to the county level or below.

There was also a clearly recognized hierarchy of prestige by subject area with such fields as agriculture, teacher education, geology, and cer- tain kinds of engineering holding little attraction and so tending to enroll a considerable number of rural students who had little hope of competing for entry to fields such as basic humanities and sciences, popular among the best urban candidates. However, some modification in subject prestige occurred during the 1980s, when such fields as finance, economics, law, management, trade, and foreign languages became highly popular. Geog- raphy has been another determining factor in the hierarchy, with a clearly recognized pecking order from such centers as Beijing and Shanghai to cities in the hinterland. There have been and continue to be rigid barriers against transfer among these different hierarchies.

The question now is whether these multiple hierarchies will be further emphasized, with greater gaps emerging among institutions at different administrative levels, between those in economically prosperous and in peripheral locations, among those in popular and unpopular fields of knowledge, or whether there will be a flattening of the hierarchies and a reduction in the differences as a mass system develops. Will the major national universities be allowed to expand rapidly and develop into multiversities, broadening their curricula, absorbing a more diversified student population, and releasing graduates into different echelons of society and employment? Or will expansion be limited at the top, in favor of pro- tecting an elite, and concentrated in the lower echelons of the system and in newly emerging private institutions, as the East Asian model would suggest?

Linked to these questions is the relation between formal and adult higher education. In the past there was a clear line of distinction between them, with separate national entry examinations, and state cadre assign- ments strictly limited to graduates of the formal system. Adult higher education flourished in the first decade after the Cultural Revolution, since a huge number of state cadres promoted during the revolutionary decade were threatened with the loss of their positions if they did not acquire a short-cycle higher education diploma. Since 1986–87, however, many enrolled in the adult system actually have been young secondary
school graduates, whose marks in the national entry examination were not high enough for entry into the formal system. Naturally, fee-paying programs in adult higher education at nationally prestigious universities, which have become a major source of income for these institutions in recent years, are more attractive than programs in provincial television universities or local adult higher education institutions. More attractive still are new fee-paying programs in the formal higher education sector, which recruit students at lower academic levels in the entrance examination. As these are expanded, and the job assignment system phased out, it should be possible to move to a full integration of the adult and formal sectors.

The potential for a multiversity can already be seen in some of China's best national-level institutions, which have developed significant adult education programs, mostly at the short-cycle level, in addition to the formal programs approved within the quota given to them by the State Education Commission. The decision in August 1992 to allow the 36 institutions directly under the commission to increase their fee-paying student enrollment much more rapidly than other institutions was a further step in this direction. Still these institutions continue to have relatively low faculty-student ratios, with considerable potential for much fuller faculty utilization. Table 3 shows the situation in 1992–93 in four fairly typical institutions under the commission, two comprehensive and two polytechnical. Their faculty-student ratio is only slightly higher than the 1992 national norm of 1:5, in contrast with ratios of 1:22 in Canada, 1:16 in the United States, 1:39 in South Korea, 1:17.3 in Taiwan, and 1:10 in Japan. If enrollment in these Chinese institutions were allowed to double, and the extra income used to improve faculty salaries and living conditions, they would come close to the North American multiversity, which typically has 20,000–30,000 students.

While the 1993 reform document promises considerable autonomy to Chinese universities, the State Education Commission retains control

<table>
<thead>
<tr>
<th></th>
<th>Students</th>
<th>Percentage Graduate</th>
<th>Percentage Adult</th>
<th>Faculty</th>
<th>Faculty-Student Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xi'an Jiaotong University</td>
<td>14,012</td>
<td>12.3</td>
<td>16.4</td>
<td>2,124</td>
<td>1:6.5</td>
</tr>
<tr>
<td>Lanzhou University</td>
<td>7,244</td>
<td>8.1</td>
<td>13.8</td>
<td>1,319</td>
<td>1:5.5</td>
</tr>
<tr>
<td>Huazhong University of Science and Technology</td>
<td>14,229</td>
<td>11.9</td>
<td>24.4</td>
<td>2,311</td>
<td>1:6.2</td>
</tr>
<tr>
<td>Zhongshan University</td>
<td>9,808</td>
<td>9.1</td>
<td>33.8</td>
<td>1,799</td>
<td>1:5.5</td>
</tr>
</tbody>
</table>

Source.—Research visits to Wuhan and Guangzhou in May 1992 and to Xi'an and Lanzhou in May 1993.
over enrollment scale and enrollment quotas given to each institution. It is thus in a position to encourage rapid, even massive, growth in higher education's upper echelons—a move that would be popular both with students seeking entry to these institutions and with the institutions themselves, as student fees become an increasingly significant part of their income. It would also help to encourage geographical balance since there are some excellent institutions in hinterland regions that could attract many students from other parts of the country through high-quality programs and relatively low living costs.56

Some aspects of recent policy have encouraged moving toward a multiplicity. However, there are also contrary indications suggesting that increasing stratification is likely. According to the 1993 document, 100 of the highest-quality institutions are to be selected for national level priority funding, and there is now intense competition for inclusion in this number, with every ministry and every province seeking to ensure that one of its institutions is chosen. In some instances this is leading to institutions merging and to cooperation across sectors. Unfortunately, however, it seems likely that these 100 priority institutions will be encouraged to remain elite in scale, thereby focusing more on strengthening graduate programs than on diversifying the level and type of their student populations.57 If this is the case, lower-level institutions, including newly developing private universities, would absorb the majority of the expanding enrollment.

How will current changes in China's higher education system affect women students? Compared to other Asian countries at a parallel stage, women students show relatively high participation rates, most notably in the sciences and technology. At present, however, the phasing out of the job assignment system is having severely negative effects on them. Due to the increasing autonomy of economic organizations and an emphasis on short-term profit making, women graduates are facing far greater difficulties than their male counterparts in seeking professional employment.58 One reason for this is the reluctance of employing agencies to pay maternity benefits, which are the responsibility of the work unit. Other reasons relate to the revival of traditional social and familial values. These employment difficulties are in turn influencing universities' enroll-

56 A fascinating example is the case of Ningxia University, a provincial level institution with good academic standards, that managed to attract 200 fee-paying students from South China in 1992 but then was forbidden by the provincial government from pursuing this avenue of development.

57 Wang Zhongjie and Wu Zhenyao, "Zhongdian jianshe—yipigaoxedu xuekexue" [Priority development—a group of higher institutions and priority areas of study], Zhongguo gaoxiao jiaoyu [Chinese higher education] 7–8 (July–August 1993): 8–9.

ment plans, with some programs lowering entry requirements for male students in order to "ensure a proper balance."  

Recent investigations in China's northwestern universities indicate that women students from urban backgrounds, who constitute the majority, are responding to this situation in a rather pragmatic way. Many are abandoning professional ambitions for the more practical and accessible benefits of meeting a prospective husband while on campus, and utilizing family connections in seeking employment in preferred urban settings. Women faculty interviewed recently in the Northwest talked openly of what they called the "Japanization" of Chinese female undergraduates, as an emergent "finishing school ethos" contrasts with the rugged professionalism and insistence that "women hold up half the sky" that characterized an earlier generation. This tendency was not as common among the relatively smaller numbers of rural female students, who have few urban social connections. These women are likely to work very hard for the qualifications essential to professional success. They also comprise a considerable proportion of the women applying for graduate study, since this is seen as the only way they can gain an edge over male graduates and women students from urban backgrounds.  

On the whole, graduate level female participation is relatively low; in 1991 only 25 percent of all master's students and 11 percent of all doctoral students were female. Explanations from student affairs' officers and women faculty focuses on the general societal climate, and the likelihood that women students who choose graduate study may well find marriage impossible, due to male prejudice against women with high academic qualifications. At present 30 percent of all higher education faculty in China are women, contrasting with 25 percent in Canada, 18 percent in South Korea, and 15 percent in Japan. Also female representation in faculty ranks continues to increase. However, this is mainly through a process of default, as an increasing number of male faculty leave the university for positions in business or to go abroad. As a result women

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59 This was often admitted in our interviews with student affairs' officers during the research project on the Central South and the Northwest in 1992–93. The most common fields were foreign languages, education, and other social sciences that have been popular with women students.

60 In the 1992–93 study of 57 higher institutions in the Central South and the Northwest, there was a clear correlation between high female enrollments and low rural enrollments in almost all institutions. Seeberg also has clear evidence of this in her data. See Seeberg, pp. 182–83.

61 This information was gathered through individual interviews with 38 women faculty in 15 Northwestern universities, in May 1993. They were asked to comment on the attitudes and behavior of female students at undergraduate and graduate levels, and compare these with their own attitudes toward professional development.


63 Ibid., pp. 52–53.

do much of the basic teaching work, yet their career development is threatened by the fact that few have either the necessary graduate degrees or the opportunity to attain them.65

Would the multiversity at the head of an integrated higher education system—one that gave equal prestige to regular and adult programs—mitigate these problems facing women students and faculty? Its diverse programs and levels, in addition to its greater flexibility, should encourage women students' full participation and help to maintain some of the female academic strengths that have characterized China's socialist experience. It might also provide a setting for women faculty to launch a struggle for equal career opportunities. However, by itself the multiversity would not ensure equal opportunity for graduating students in the professional job market; that would require social legislation and the will to implement it. Nor is it clear how the multiversity would help rural women, who are likely to be even further disadvantaged by the increasing personal and familial costs of higher education. Support for rural women students would require special initiatives in the form of bursaries or other affirmative action policies.

On the other hand, an increasing stratification of higher education similar to Japan's and South Korea's, is likely to drive both urban and rural women further toward the system's lower echelons. Since rural women can count on far less familial support for higher education than rural men, many are likely to suffer further discrimination as the number of publicly supported places in the system's upper echelons are reduced in favor of fee-paying programs at lower levels. Urban women may choose lower level institutions or settle for noncareer stream faculty positions for pragmatic reasons.

What is likely to be the role of the social sciences and humanities in the expansion process? The importance of these fields in the transition to mass higher education may be seen in both North America and East Asia. With scientific enrollments at 68 percent in 1990, there is still a huge potential for growth at modest costs in these areas. In addition to the basic disciplines—history, literature, philosophy, economics, sociology, and psychology—there are burgeoning new multidisciplinary and applied fields that in recent years have seen a steady enrollment increase.

Major national comprehensive and normal universities in China could well absorb much larger student populations in basic humanities and social sciences. They also have the conditions for developing new applied and multidisciplinary programs based on the strong foundation that exists in basic disciplines. In areas of basic social thought China's best scholars

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65 This information comes from visits to 15 universities in the provinces of Sichuan and Guangdong made between May 2 and May 14, 1994.
are concentrated in these institutions, and there would be a considerable extension of their intellectual and social influence if their programs were opened up to much larger numbers of students. In turn, this expansion could have a kind of leavening effect on society, as a diverse group of young professionals is formed and takes up employment at different levels and in various fields across the country. Over the long term, such a trend could be of real significance for the growth of civil society, an issue much discussed in relation to the Tiananmen events.66

Western scholars have tended to be interested in the oppositional role of intellectuals, as critics of the state. However, most Chinese intellectuals have been inclined to see their own professional interests as rather closely linked with state needs. By definition all Chinese intellectuals have been state cadres since 1950, and they have exhibited remarkable willingness to accept job assignments in remote and difficult parts of China while carrying out their academic and professional tasks with scrupulous commitment—in spite of low monetary remuneration and many political stresses. Their loyalty has been connected strongly to elements of the Chinese literati's historical tradition.67

The huge expansion of this group through mass higher education, that will include many who will be employed outside of the state sector in new and more autonomous economic and social organization, signals a fundamental change in Chinese society. Multiversities emerging in the top echelon of China's higher education system could ensure that intellectuals who have taken a lead in various areas of social thought are able to play a significant role, with their graduates constituting a more diffuse professional class than exists in other East Asian societies. This in turn would have implications for democratizing the political system.68

If, on the other hand, the majority of students are absorbed into lower-echelon or private institutions, a tightly stratified professional class is likely—one that would be amenable to authoritarian political control. In the absence of firm academic foundations, social science and humanities programs in these lower echelons would most likely take the form of

68 It is interesting to note the passion with which Chinese intellectuals criticized arguments for neoauthoritarianism derived from the experience of the East Asia "dragons" and insisted on political democratization as an essential condition for economic development in the lively debates that preceded the Tiananmen events. See the four issues of Chinese Sociology and Anthropology, Winter 1990–91 through Autumn 1991, that provide translations of and comments on key essays in the debate.
cheap market-oriented substitutes for real social learning. This kind of development is favored by some in the leadership, due to its low economic and political costs. Reference to the East Asian model could well legitimize it.

Conclusion

Presently, the most important and difficult policy facing the Chinese government is whether or not to encourage a substantial private sector in higher education. On the positive side, there is increasing evidence both of local enthusiasm for developing private institutions, and the degree of prosperity necessary among families in some regions to bear the costs of private tuition. It could also be argued that new private institutions could bring some diversity into the system and encourage a greater degree of autonomy.

However, both the Taiwanese and South Korean experiences illustrate the difficulty of maintaining reasonable academic standards in private institutions, the tendency for these institutions to have low prestige, and the inherent inequities when less advantaged students pay a relatively high price for poorer quality education. In China's present situation, with a still weak legal framework and a social system in rapid transition, there is considerable potential for the abuse of private higher education.

While Chinese higher education will almost certainly have to depend on a growing infusion of familial and social funds as it moves toward a mass system, these resources could be channeled into the public sector, with an emphasis on strengthening the best institutions and supporting their development into national and provincial level multiversities with relatively open access. The state could have an important policy role in safeguarding both educational excellence and social justice. Also a significant leadership role would be given to scholars and administrators in China's best institutions, as they shape the university of the future. New financial subsidy mechanisms could be developed to support a fairer participation of rural students and other disadvantaged groups. Broader educational and social criteria could shape program development rather than the direct market criteria that are likely to dominate private institutions; they are already having a distorted effect on fee-paying student enrollments in certain fields.69

China's short-cycle sector has grown from 25 percent to 39 percent of all formal system enrollments during the past decade, and these institu-

69 Some experiments are being allowed at present whereby institutions in such popular fields as foreign languages, finance, economics, and certain areas of engineering are allowed to enroll all their students at a fee level of 3,000–4,000 yuan, which is near cost recovery. Only the children of private entrepreneurs or state cadres with private sources of income from corrupt activities could possibly afford these costs, and so a new stratification is already in evidence.
tions could be strengthened by management principles that emphasize educational quality and social justice. Local adult education institutions could be encouraged to merge with them, as the distinction between adult and formal higher education is phased out, thereby creating programs that set excellent standards for flexible training to suit changing personnel needs at the mid-level in various administrative and technical areas. Private institutions might suitably plan a limited yet complementary mid-level role, serving specifically identified training needs that are not being met in the public sector.

In short, I am suggesting that the multiversity concept could be adapted to the present Chinese situation in ways that would result in a transition to mass higher education characterized by an ongoing concern for social equity as well as economic effectiveness. It could be a part of reshaping China's socialist institutions in ways that build upon some of the strengths that characterized them in an earlier period. The best universities, including those in hinterland regions, could be encouraged to expand massively, diversifying their programs, and opening them up to large numbers of nonresidential students. The excellent scholars in these institutions could exercise a broad social and cultural influence on both local and national levels. Lower level public institutions could be encouraged to join nearby institutions in enhancing program quality to attract good students. Thus the number of institutions would be reduced as the number of students expanded, and the gap between the highest and lowest institutions would be narrowed in the transition to mass higher education.

70 In the contemporary Chinese literature on reform, issues of economic efficiency dominate discussion, and it is hard to find a serious consideration of equity issues, either with reference to past experience or future plans. A refreshing exception is the article by a scholar in the Shanghai higher education bureau. See Dali Yin, "Reforming Chinese Education: Context, Structure and Attitudes in the 1980s," Compare 23, no. 2 (1993): 115-30.

71 Michio Nagai, Higher Education in Japan: Its Takeoff and Crash (Tokyo: University of Tokyo Press, 1971), provides reflections on the transition in Japan that are particularly relevant to this dimension of China's present situation. Nagai makes the point that "Japanese universities came to be characterized by their easy adaptation to the practical needs of society rather than by their long-term contribution to the formation of culture through the detached pursuit of truth and the promotion of knowledge" (p. 17).

72 A recent World Bank project focusing on higher education in several poor provinces specifically encouraged this kind of amalgamation of small institutions.