Higher Education Reform in China

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This report is the result of visits to Chinese university campuses in Spring 2003. As a Fulbright scholar I became interested in proposals for reform of Hong Kong higher education; that interest expanded to mainland universities as well. My focus was on key comprehensive universities, the best institutions in the country and ones under the direct control of the national Ministry of Education. I visited ten mainland universities, almost all of them are in the large urban centers of the east coast of China, government offices, and several education research institutes. I also interviewed individuals at several Hong Kong institutions. (The names of the universities and organizations visited and the categories of people interviewed are listed in the appendix.)

On each campus I visited, I spoke with a variety of people, from undergraduate and postgraduate[1] students to senior faculty and administrators. In all, I interviewed more than seventy individuals in a formal sense and several dozen more in classroom settings and informal situations.[2] The formal appointments were usually made by my contact person on that campus and depended in many cases on that person's network of colleagues. I speculate about the different impressions I might have taken away if I had happened to talk with a different six or ten people at a given university.

My focus on key universities[3] and urban universities has both strengths and weaknesses. These are the best institutions in the country, so I knowingly saw the top universities rather than a cross-section of Chinese higher education. Thus my observations are limited to one category of school—albeit the model for much of the rest of Chinese higher education. Everyone, it seems, wants to be more like Peking University or Fudan University, so learning more about those schools provides a sense of the direction that less famous institutions might pursue in the future. With almost 2000 universities in China, it would take much more than a semester or two of research to be able to say anything comprehensive about higher education reform more

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[1] Chinese universities use the term "postgraduate" to describe what Americans call graduate students - master's degree and PhD candidates.

[2] In most cases, the individuals I interviewed had received a short written description of my research agenda outlining my interest in the following issues:

*What do the leading comprehensive universities of China see as their strategic direction for the next three to five years?

* What innovations are occurring on different campuses? What motivates these changes?

* How are institutions dealing with dramatic growth in student demand and student enrollments?

* What is the role for private universities?

* What is happening with regard to academic exchange for students, professors, and university staff? How do these exchanges fit into the larger picture of institutional enhancement?

* How is the undergraduate program changing?

* What do the terms "liberal arts" and "general education" mean on your campus?

[3] Key universities are the top 100 schools in China. In practical terms they are the equivalent of the Ivy League and the Big Ten combined. Traditionally the top three are Peking, Tsinghua and Fudan Universities, although all the institutions I visited are very competitive institutions. In the annual league tables (ranking system) released in early 2003, the campuses where I conducted my interviews are among the most highly rated of more than 1200 universities nationwide.

generally. Thus everything in this report should be read as "this is what I heard, saw, inferred" rather than "this is definitive."

I am mindful of the difficulties of a scholar from one culture seeking to understand the educational system of another. Although I speak some Chinese, all my interviews were conducted in English, either because the people I met were fluent in English or because I used a translator. All too often, however, people used familiar words but I sensed that those references had different meanings and implications in the Chinese context.

What did I see and hear? What did I learn? Equally important, what did I not see and hear? I organize my observations around a series of trends — from regulation to greater autonomy, from teaching-only universities to an emphasis on research, from public provision of education to private players in the market, and so on. The current situation in China is quite fluid, however, with institutions arrayed along a continuum on each of the characteristics mentioned. Depending upon the topic under investigation, a given university might be highly centralized in one dimension while quite autonomous on other. And the rules are changing almost daily.

Before presenting the results of my research, I need to say a word about the background (and prejudices) I bring to the task. I have been fortunate to have a variety of institutional experiences in my career—president of a private liberal arts college, dean at a public land-grant university, mid-level administrator in the Ivy League, policy analyst in Washington DC, national association executive, college trustee for more than a decade, and teacher and professor of students ranging from sixth grade to graduate study, mostly in the United States but also in China. Thus I bring perspectives that encompass both public and private institutions, domestic and international, curricular and student life dimensions, finance and personnel, governance and management.

But throughout this report the reader will hear the American voice of an educator who comes from a background of institutional autonomy in a decentralized market-based system, a variety of institutional missions and structures, and significant freedom and mobility for students, faculty, and administrators. I try to be conscious of the values I bring to this task, but inevitably I have made assumptions and judgments that may say more about me than about China.

THE CONTEXT FOR REFORM

While China has a long history of education for leadership, it has only one century of experience with universities in the contemporary sense. Beginning with the founding of the forerunners of Tianjin, Jiaotong, and Peking Universities in the 1890s, China rapidly developed a system of colleges and universities in the twentieth century, many of them established by European and American missionaries.[4]

After the formation of the Peoples Republic of China in 1949, all of higher education was nationalized. A few institutions, such as Lingnan College in Guangzhou, left the mainland but

[4] This brief historical summary draws upon many sources; in my opinion the best is Ruth Hayhoe, *China's Universities 1895-1995: A Century of Cultural Conflict* (Comparative Education Research Centre, University of Hong Kong, 1999). A good short summary of contemporary reform efforts is "Current Trends in Higher Education Development in China" by Min Weifang in *International Higher Education* (Center for International Higher Education at Boston College), Winter 2001.

most remained under the new government. In 1952 the higher education system was reorganized along European/Soviet lines with a focus on specialized training to meet the needs of a developing society. Most research was assigned to special institutes, while universities concentrated on education of elite students with the highest scores on the national entrance examinations. The 1952 reforms also moved departments and even entire institutions from one location to another, while government ministries responsible for such functions as banking, highways, and health created their own specialized universities.

After the decade of the Cultural Revolution in which virtually all educational activities ground to a halt, universities opened again in the 1970s, initially for workers, peasants, and soldiers or their children. Later in the decade the national examination system was reinstituted and Chinese higher education shifted from red (political criteria) to expert (academic achievement) once again. The policies and procedures of earlier years resumed—students were assigned to institutions and specific programs by the national government based on exam scores; graduates were assigned by government to lifetime jobs based on performance, social need, and connections; and the specialized nature of higher education continued.

Reforms since the Cultural Revolution can be divided into those that come from outside of the higher education sector—the efforts to reduce the size of the Chinese bureaucracy, for example—and those that are initiated within the university system—instituting general education requirements. Similarly, one can look at reforms before Tiananmen Square with those that have happened subsequently and often in reaction to that event.

In 1979, then-premier Deng Xiaoping acknowledged that China was far behind the west in many ways, including such fields as law, politics, and sociology. "We must catch up," he declared. In fact, much of the academic reform in the following years involved the addition of programs as management, tourism, library science, and international economics to complement the already heavy emphasis on the sciences. As one long-time faculty member explained to me, this was evidence of the famous "make up" theory, although the management of universities continued under the state-planning model. Only later did the reform impetus come to the administrative side of higher education.

In the 1980s, China moved toward a market economy with socialist characteristics. This dramatic reorientation in outlook led to reforms in many different segments of society, and higher education was no exception. On almost every campus I visited I was told, "China is becoming a market economy, necessitating many reforms. Now it is time for higher education to modernize, just as other segments of society have opened up." An important theme weaving many of these reforms together is the priority on comprehensive/broad (style of institution, academic requirements, nature of curriculum) in contrast to specialized (subjects of research, nature of degrees, and expectations of faculty).

After the Tiananmen incident in 1989, a number of reforms focused the fourth of Deng Xiaoping's Four Modernizations—the advancement of science and technology, a priority that continues to the present day. Also during the 1990s, government officials gave increased attention to the welfare and satisfaction of students, professors, intellectuals, and the middle class in general. Students were permitted to find their own jobs rather than being assigned to lifetime

employment by the state.[5] Professors' salaries and benefits were increased dramatically while expanded enrollments provided greater access to higher education, especially for the urban population.

One government official told me that the central government's goal of creating "a well-off society in an all-around way" requires both qualitative and quantitative changes in Chinese universities. The hope is to quadruple China's Gross Domestic Product (GDP) by the year 2020 and to achieve a GDP of Y3500 billion (approximately US$440 billion) in ten years, a level equal to that of Japan.[6]

China's increasing internationalization is also reflected in higher education reforms. With its membership in the WTO, its vibrant economy, and its appeal to foreign investors, China needs people who understand international economics, who speak foreign languages, and who are sophisticated about business and political practices in other parts of the world.

Thus higher education plays a key role in China's modernization. Not only do universities represent a significant part of the government's investment in society, but the products of higher education—highly skilled people—are essential for continuing national development. As one official told me, the new demands of science and technology require changes in the nation's education and training as an important impetus for reform. The efforts to reform China's colleges and universities can be read on several levels: a segment of the state apparatus that needs to improve just as factories and financial institutions must reform, but also as a vital link for the necessity of talented workers to carry out these changes in all areas of society.

A major change is the scale of higher education. From an elite system enrolling only a tiny fraction of the 18-22 year age cohort, China now has a gross enrollment ratio[7] of almost 20% in some form of tertiary education, well ahead of the goal. (In comparison, the U.S. has about 40% of the 18-24 year old group enrolled in college and a gross enrollment ratio of 83%—but a large proportion of American undergraduate and graduate students are older than 24 years of age.) Expansion of undergraduate education has been an explicit policy in China since 1999; by 2003 there were more than 12 million university students in 1200 universities and almost 700 adult education institutions. (In comparison, the U.S. had 15 million students enrolled in almost 4000 institutions of postsecondary education, both public and private.) This change from elite to mass education reflects the Chinese government's belief in the power of education to drive continued economic growth, as well as the Chinese tradition of education as a key to personal and professional success.

Along with a dramatic increase in numbers of students comes a shift in power from the central government to provincial and municipal governments and individual universities themselves. The impetus comes from several directions. One is the overall reform of government agencies, a priority of former premier Zhu Rongji. In an effort to reduce the size of government, many ministries were combined, hundreds of state enterprises (factories and so on)

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[5] Throughout this essay I am using the term "state" in the political science sense to mean the national government, and "province" to mean a regional political entity.

[6] The currency of China is the Yuan, also called renminbi (RMB or "people's money") at approximately eight yuan to the dollar. When citing specific amounts, I use "Y" to represent the currency, just as the symbol "$" represents dollars in the United States

[7] The gross enrollment ratio as defined by UNESCO is the number of students in tertiary education, regardless of age, as a percentage of the college-age population.

were privatized, and the total size of government employees was reduced dramatically. As government agencies, colleges and universities experienced some of the same pressures. Many universities merged to take advantage of economies of scale; some experienced "shotgun weddings" at the behest of government leaders; and many moved from central government control to the responsibility of provincial and municipal governments.

At the same time, there has been a philosophical shift in the relationship between the state and higher education. From a totally government-supported enterprise twenty years ago, higher education now is much more dependent on funds raised by individual institutions. For many key universities, central government support now represents only one-third of their annual budgets. Tuition fees were instituted more than a decade ago; universities have created enterprises to generate income (sometimes related to their educational mission, such as software development or language training materials, and sometimes not, such as bicycle manufacturing).[8] These shifts in funding were made before expansion of enrollment, but certainly the central government could not finance the significant growth anticipated for the years ahead.

I am bemused when I think about the dramatic shifts this financial change entails. Like their western counterparts, Chinese university leaders now spent much of their time worrying about finances. Unlike their European or American brethren, however, this change is not just fiscal but cultural. In traditional Chinese society, the scholar was at the top of the status hierarchy and the merchant near the bottom, although both groups were vilified during the Cultural Revolution. Today, scholars are forced to become merchants in order to support the academic enterprise.

Other policy changes followed the trend toward greater market forces in higher education. Universities are encouraged to be entrepreneurial about seeking donations from corporations and alumni as well as generating side businesses. Graduates now enter the labor market—and there is a labor market that allows private decisions about employment. Certain responsibilities traditionally held by the Ministry of Education (MoE) are now being granted to local authorities and individual institutions—aspects of curriculum, hiring of professors, and allocation of funds among departments, for example—but many key decisions are still made in Beijing.

One scholar of higher education whom I interviewed believes that the reforms underway are comparable, in terms of impact, to the creation of the Shenzhen Special Economic Zone in the 1980s, the development of the Pudong region across the river from the traditional center of Shanghai, and the Go West initiative to encourage investment in the interior of China. Certainly the emphasis on urban east coast universities, best market competitors, and science and technology are in keeping with China's larger reform efforts directed largely by Shanghai technocrats. Another observer reported that colleagues feel this is a unique moment for higher education—right now everything is in flux. Five years hence, however, the form of new governance structures and new academic programs will become clearer and thus change will become more difficult once again.

This relationship between center and periphery, between the national government and local institutions, is one of the study questions I had formulated in advance of my site visits. I actively inquired about the policymaking process—who made which decisions at what levels.

[8] A government survey found that 42% of respondents believed that pedagogy has taken a back seat to many universities' businesses. Jiang Xuequin, "China's Top Universities Try for 'World Class' Status" in *Chronicle of Higher Education*, 21 December 2001.

Throughout this report, I give examples of the changing relationships among governments at all levels and with the reforms on individual campuses.

FROM REGULATION TO GREATER AUTONOMY

Central government to provincial and local governments

As China becomes more and more a market economy, the central government is abandoning the central planning model of the past to allow regional governments and individual universities to make more of their own decisions. This is happening in higher education as well as other sectors of society. Many shifts in the locus of decision-making are conscious choices made by the central government, mostly through the Ministry of Education, sometimes initiated by the state, sometimes at the request of local governments or individual institutions.

One scholar of higher education told me that the pre-1980 university was just like a factory or a production unit. The enrollments, job assignments, faculty and student numbers, facilities, and budgets were all elements of the planned economy. The job of the university president was easy - just carry out orders. Since then, with the many reforms under way, universities must be more responsive to the market. The job of the university president today is more corporate and much more like that of his western counterparts.

I found it hard to discern a systematic pattern to the granting of greater authority to smaller units from the central government. Some changes seem to be a formal action of MoE; for example, in 1999 the Ministry delegated authority to provinces and municipalities for the approval of associate degrees. Some changes seem to be financial; the decrease in the proportion of institutional financial support from the state triggers fiscal initiatives at the local level. But why a loose hand on the creation of private universities, for example, while maintaining strict control over enrollment numbers was not clear to me. Perhaps consistency in the policy process is an unreasonable expectation in any governmental system. Certainly the American policy environment for higher education could not meet a standard of rationality!

The devolution of authority is also linked to the reform of government ministries. In the past decade, national ministries have been consolidated and the number of employees reduced. At the Ministry of Education, for example, the staff has declined from about 1000 to about 500 people. Thus MoE doesn't have the workforce to maintain a centrally planned system of higher education even if it wanted to. Greater autonomy for local entities is a bureaucratic necessity as well as a policy objective.

I wonder, however, if some of those redundant workers are still involved in higher education in new roles. For example, in April 2003 MoE announced the possible creation of the China Higher Education Evaluation Center, a non-governmental organization (NGO) to handle quality assessment efforts, much like an American accreditation agency. Who are the people working at this center? Some might well be former MoE officials. Thus the number of employees at the Ministry may not be a good indication of the scale and scope of the central government's engagement with higher education.

In addition to contraction in the workforce, MoE has also reduced the number of institutions under its direct control. From more than 300 in the central planning model, there are now about 100 universities directly connected with the national government. This reduction

came about through institutional mergers (see section on mergers, below, for more details) and by assigning other universities to provincial and municipal authorities. Since China has more than 2000 institutions of higher education that deliver degree courses, most institutions are under the control of local governments.[9] I suspect, however, that MoE is still engaged at some level with institutions under local control, if only to set the parameters of local autonomy.

An official at the Ministry of Education provided the following statistics about the Chinese universities in the year 2001. Of the 1911 institutions nationwide in that year, 686 were "adult" universities and 1225 were "regular" universities. The latter are further divided by offerings, control, and funding (see Table 1).

Table 1. Chinese "regular" universities (total 1225 institutions in 2001)

Level of degree	597 four-year	628 two- or three-year	
Source of control	71 under Ministry of Education	45 under other national ministries	1109 under provincial and local governments
Source of funding	1105 public	120 private	
Enrollment	11,750,500 undergraduates (first-degree)	393,000 postgraduates	

From information supplied by the Ministry of Education.

I also learned about an interesting new phenomenon of joint control. In Shanghai, for example, some universities are managed by both national and local authorities. I suspect this change was brought about in part by the decision of the Shanghai government to provide financial support to eight local campuses at levels comparable to the annual allocation from Beijing. With this level of commitment, Shanghai authorities certainly would want some say in policies affecting those universities. Of the schools I visited, three were under this joint responsibility system—Fudan University, Shanghai Jiaotong University, and East China Normal University.

Many of the changes occurring in Chinese universities have begun at the local level, spreading more widely when success has been demonstrated in a smaller venue. The enrollment increases over the last four or five years are one example. I was told that the expansion of student numbers did not come about initially as a central policy decision but rather as an action initiated by universities in Nanjing. Despite skepticism, the Nanjing universities increased their intake of new students from Jiangsu Province by 10,000 persons; when the new plan was successful, the idea spread to other institutions and other regions with the blessing of MoE. I never heard anyone say directly whether the idea of more university graduates had been discussed at MoE or not before the Nanjing expansion, although it must have been given the control that government maintains on student numbers. Certainly it is central government policy today.

[9] Four cities in China — Beijing, Shanghai, Tianjin, and Chongqing — are not part of any province but are governmental entities in their own right. In fact, these four municipalities behave much like provinces in that they report directly to the central government. In this essay, when I refer to local governments, I usually mean sub-national political entities, either provincial or municipal. In addition, there are county, township, and village governments, but these levels rarely get involved in higher education, especially not with key universities.

I heard other examples of power and responsibility being delegated, first in small experiments and then in formal policies. In Shanghai, for example, the municipal government petitioned central authorities for greater authority in four areas—approval of bachelor's degrees by local officials (in the past Shanghai authorities could only approve associate degrees); shared responsibility with MoE for certain institutions; local rather than national approval of universities' student recruitment plans; and additional resources through an education lottery. Early in 2003 the Shanghai government was granted greater autonomy in the first three areas. Similarly, I was told that five universities in Beijing now have independent power to approve their own students and faculty to study abroad, while in the past they were required to seek approvals from MoE. The explicit plan is to expand this authority to twenty campuses if the initiative is successful, and perhaps to many more institutions over time.

The pattern of local experiments spreading gradually throughout the nation is a sensible way to go. The central government can assess the value of the reform proposal and the capability of the local cadres to carry out the reform successfully. Rather than changing the rules nationwide with the possibility of significant instability, the diffusion model allows for absorption of change in a more predictable way.[10] On the other hand, the areas of reform are significant, meaning that local institutions are dealing with adjustments on many levels at once. I was impressed with the juggling act that I saw on the campuses I visited, as institutions sought to pursue their own goals at the same time that they responded to changes imposed by local and national government officials.

The shift from a central planning model to a market-based model, from central regulation to greater autonomy, is not simply an exercise in giving away power. The state still exercises control over higher education but in a new way. For example, in the old system, government gave the universities 100% of their budgets and told institutions how to spend that money, probably in some detail. Today, however, when MoE gives a grant to an individual institution, it asks the university to report later on the uses and results of the grant.

One professor involved in MoE-sponsored activities told me that the Ministry has four major projects in higher education at the present time:

- Quality of undergraduate education, especially encouragement of student creativity
- Reform of college English teaching and learning
- Identification of 100 high quality undergraduate textbooks in a variety of subjects
- Recognition of 100 teachers of excellence nationwide with an emphasis on those who teach fundamental courses for undergraduates. Over five years this project will identify a total of 500 professors from all subjects. Videotapes of their lectures will be distributed widely. (I smiled to myself that, despite all the efforts for pedagogical reform, the immediate response is to assume a lecture format for classroom teaching.)

[10] This model of experimentation in one region is not limited to higher education. Some models of local experiments spreading more widely have been initiated from above (welfare reforms, for example) while others have been initiated from below and then endorsed by the state (such as village direct elections). Another example of local experimentation was recently publicized. In 2000 in Anhui Province reductions in the township-village workforce and reforms of the tax system were instituted among rural villages; in 2002 the plan was expanded to 20 other regions. "Rural cadres are warned tax reforms, job cuts will push ahead," *South China Morning Post*, 18 May 2003.

This shift from direction at the outset to evaluation after the fact is a huge change in mindset, one that is not fully completed. For example, some university decisions are still controlled centrally; numbers of students and staff (and the funds to pay for them) are determined by MoE. On the other hand, universities have broad authority in determining the uses to which these general funds will be put, including allocations among departments. People are still struggling with this shift from state control to a more market-oriented system with most evaluation after the fact. I inferred that quality assurance is a rapidly changing area in higher education with an appropriate role for the central government, one that is still be hammered out. But I also suspect there are lots of informal relationships among different levels of government, and between cadres and institutional officials, some based on the old system and some on the newer model.

At the same time that MoE is devolving authority, it is also engaged in a series of nation-wide, multi-institution efforts. In 1995, for example, the state instituted the 211 Project, designed to give special support to 100 universities to prepare them for the 21st century.[11] But in addition to grants to individual institutions, the 211 Project created CERNET, an internet connection for all Chinese universities, and CALIS, a system for sharing library resources and academic materials. These are infrastructure efforts that require the national perspective of the Ministry. Similarly, the central government now has a research foundation that awards grants to scholars based on nation-wide competition, much like the National Science Foundation or the National Institutes of Health in the United States.

The relationship between center and periphery is constantly changing, as MoE and other ministries consciously give responsibility to lower levels of government, as state planning efforts give way to more market-driven activities, and as individual universities exercise greater responsibility for their own decisions. With these policy changes comes a change in attitudes, as university administrators are eager for an even faster rate of change on behalf of their campuses. As a visitor I could tell that what was officially declared as the policy was not always the reality in such relationships among different levels of government; I suspect the same would be true in any nation on earth. These two powerful shifts in public policy—giving more responsibility to local entities and moving away from state planning—combine to have a dramatic impact on individual colleges and universities.

Greater decision-making power for individual institutions

In my interviews, I regularly asked about changes initiated and implemented on a particular campus. Many of the examples came in areas that could be described as internal to the university—curriculum change, for example, and new academic organizational structures. Others I would describe as shared with governmental authorities; the most prominent example here is student recruitment. In general, the broad outlines of reform were quite similar from one campus to another; only the details varied. In this section I want to describe the reforms that seemed most common among the universities I visited.

In response to my "who decides what" question, I was told:

[11] I see this project (as well as subsequent special grants to particular universities) as a concentration of resources on the relative handful of institutions of the highest quality in China, in response to the decision to require universities to find their own funding for much of their operations. In other words, help the best and leave the rest to figure out their own destinies.

- MoE chooses university presidents, although campus opinion is solicited
- MoE controls the level of tuition that an institution may charge
- MoE approves new majors—there is a list of 248 approved undergraduate majors; a university may only apply for majors from the official list. Among the criteria for approval are presences of qualified faculty, appropriate laboratory facilities, and so on. The Major Placement Council controls approval.
- MoE "carefully guards its power" to determine the number of students and faculty any given institution may have.
- But…I was also told that Peking University has the autonomy to decide these numbers, although it must report its decisions to MoE. Each year the university must submit its past plan and results as well as its desired plan for the upcoming year.
- MoE officials say that curriculum is a university decision although one dean told me that the Ministry specifies basic requirements for each major, perhaps ten courses, leaving the remainder of the program to local determination.
- Schools and departments can determine specialties within existing majors.
- But…I was also told, "If the history department wants to add a concentration in world history, it would need to seek approval at a higher level." (Frankly, I have a hard time sorting out the decisionmaking process regarding curriculum change.)
- The creation of a school by combining existing departments can be decided at the institutional level.
- The creation of a new department is a university decision.
- The number of postgraduate students can be set locally, I was told, but…I couldn't reconcile this statement with the control exercised by MoE over student numbers. What seems to be the case on most campuses is that departments and university administrators devise an admissions plan but government officials make the final decision on each university's quota—overall, by subject, and by province or municipality.
- The addition of a new discipline or department requires approval, although key universities are now self-regulating to the extent that they can determine their own degrees.
- Thirty universities, including East China Normal, can determine their own master's degrees; six additional institutions, including Shanghai Jiaotong, are allowed to make similar decisions about undergraduate programs.
- Although the number of faculty members is controlled by MoE, the person to be hired in an approved position is determined by the university.
- At *minban* (private) universities, the central government controls the number of students enrolled through the national examination system, but the individual campuses can set their own curricula.

In other words, it is not all that clear what an individual university can and cannot do. An administrator told me that his university gets different signals from different departments within MoE. One scholar of higher education told me that the government believes it is granting more authority to individual universities, but the institutions themselves don't feel that they have more

power to make decisions. This person also told me that MoE is uneasy about the release of authority to campuses; if the university uses its autonomy to chase after profits rather than enhance academic quality, the market system will be jeopardized. In addition, even if key government officials are in favor of a release of authority, others in MoE may not be equally supportive. Bureaucrats within the Ministry could remain engaged in university affairs despite the official decision to devolve authority.

The decision-making power within a given university seems to be a collaborative model. I saw a familiar management structure with vice presidents for major university functions—facilities, finance, medical school, teaching and research, and so on. Yet Chinese universities have one aspect totally unfamiliar to an American administrator. I was told that the president and key vice presidents act "under the leadership of the [Communist] Party." On every campus there is a party secretary and vice secretaries, paralleling the structure of president and vice president. In schools and departments this dual structure continues.[12] Apparently the presidents, vice presidents, and the party committee work together as a collaborative decision-making body. In some ways this process is not dissimilar to American universities with a senior cabinet, although the ideological flavor may be different. I had the sense that this dual structure has been in place for a long time and has not changed much.

This, then, is the background on which the reforms of higher education are occurring.

Creation of schools and institutes On several campuses I learned of departments being gathered into schools. For example, at Fudan University the school of international relations and public affairs is the new home for seven previously independent institutes for various geographical regions—Nordic studies, American studies, etc.—plus a significant component of the international relations curriculum. Similarly, Nanjing University has just created a school of social and public administration incorporating education, sociology, and the like. The move toward merger of previously autonomous departments into schools seemed to be a common theme.

The motivation, I was told, is greater efficiency, with decision-making more directly linked to the people involved. In addition, this change is part of a broader theme of comprehensive units rather than specialized units. To become a school, a department or collection of related departments must expand its scope, thus encouraging the development of new academic offerings. Also, students are encouraged to exercise mobility among departments. But according to one informant, the new structure is not achieving these goals. In fact, he believed that students were more restricted now than in the past since the gap between schools is larger than the earlier divisions among departments. "At places like Stanford, students move around a lot, but that is not happening here."

In effect, and perhaps in intention, the power of individual departments is diminished; in an era of reform the administration probably is looking for ways to overcome entrenched customs. The advantages of amalgamation can be substantial. For example, the creation of an international school at Fudan has given greater visibility and prestige to the university, I was told. Fudan has been invited to conferences of prestigious organizations of international affairs, something that had not happened before the creation of the school. At the management level,

[12] Several years ago when I was teaching at Sichuan University, I noted with interest that the directory inside the main entrance of the school of foreign languages listed the party secretary first and the dean second. I suspect I would see similar structures elsewhere.

senior administrators have fewer individual units reporting to them, something I am sure they appreciate. And, I was told, with the increasing emphasis on research, the school could support this new priority (although no one detailed for me how this would happen).

One person described two models for this reform. The first is the strong school model in which the department is diminished in authority and more power resides at the intermediate level. The second model is the opposite; he called it the "empty college" model because the dean of the school is not obligated to do much of anything. He did not analyze his own campus, however, to tell me which colleges are which.

At the faculty level, however, many professors are uneasy about these changes. On one campus, a faculty member told me that in the past he would apply directly to the *waiban* (the international affairs office for the university) if he wanted to attend an international conference. Now, however, he needed the approval of the school before he could move to the university level. In larger universities, he admitted, it makes more sense to create schools but on his smaller campus "the old system worked well for us."

I suspect that life for individual faculty members hasn't changed much under the new school structure, but for senior administrators it might be a way to delegate some responsibilities or to reduce the number of units with which they have to deal on a regular basis. It also makes administrative business easier. One school dean told me that the president and party secretary of his campus had visited his school at least three times to seek recommendations and to have discussions about institutional direction. I doubt that these senior officials would have consulted more than once with each of the formerly independent units of the new school.

I heard some debate about whether the advantages of the new system outweighed the disadvantages of another layer of bureaucracy. At most of the campuses at which this change was taking place, the school/college structure is so new that evaluation is premature. In any case, however, the creation of schools from a group of previously independent departments is a decision that individual universities seem to have made on their own. I suspect, however, that someone of influence spoke about the value of consolidation, encouraging institutions to take the hint. Maybe the signal from the top is that school/college formation is a good idea, with decisions about implementation open to local circumstances.

Changes in the academic calendar Several students at Nanjing University told me that their campus had shortened the spring semester by a month, now ending in June rather than in July. They didn't know the official reason for the change, but they speculated that the university wanted to run a summer session (for revenue purposes?) and needed additional time. I was also told that Shanghai University has moved to a trimester system of autumn, winter, and spring terms, with a short summer term used mostly for practicum work. Each trimester is 12 weeks, with 10 weeks of classes, 1.5 weeks of examinations, and ½ week of vacation. In general, the calendar changes I heard about seemed to reflect a movement toward a more European/American system and away from the traditional Chinese model of beginning at the first of September, taking a long break at Chinese New Year in late January or early February, and holding a shorter spring semester ending in the summer.

Development of new academic programs In my interviews I heard a great deal about the creation of new offerings, new institutes, new majors, and new combination of disciplines. Like all academic institutions, Chinese universities make small changes in their curriculum frequently, whenever a professor updates the reading list or adjusts her course to include some new research

finding. One economist told me that his department was consciously adapting U.S. theory and policy studies to their courses, while looking to European scholars for practical models. I sensed that this "modernization" was happening in many departments and in many universities.

In addition many Chinese academic departments are expanding their offerings—for several reasons, I inferred. One is to increase the number of students so the department can mount more programs, especially in popular subjects such as computer science or business. Less popular departments may not be expanding but rather adjusting their courses to attract more students. I also sensed a move toward more applied aspects in response to pressures from both students and local governments. Thus the Nankai University economics department offers specialties in international trade and public finance as well as a center for WTO studies. Beijing Normal University has created a Master in Public Administration program to train civil servants in up-to-date public policy issues.

Many of these new programs are interdisciplinary in nature, in keeping with the general emphasis on broader knowledge contrasting with the old Soviet narrow specializations. Fudan University, for example, is experimenting with such combinations as medicine/electrical engineering and ecology/politics. One person told me that the Shanghai government is pushing interdisciplinary studies, especially in areas that relate to the economic development of the region. Studies in education policy, finance, curriculum, and so on are also being encouraged. One scholar in this area told me that in the past, education research was looked down upon in his university but today it is encouraged as a way for the university to serve society.

When I asked how such programs were created, I got the now-familiar mixed message of some autonomy and some control. One observer told me that MoE is allowing a few key institutions to start new programs without Ministry approval, although autonomy seems to be more easily exercised in postgraduate and adult programs rather than in traditional undergraduate studies. The standard model for new program initiation has been to write a proposal for a program that fits one of the 248 program titles on the MoE approved list. A senior professor on one campus told me that his university had tried to create an MBA program when the market first emerged in China but MoE did not approve. "Less capable institutions have since received permission," he told me ruefully.

I wondered about interdisciplinary programs since they probably don't have titles from the approved list. One scholar told me that such programs could be created by the university without additional approvals as long as they were in accord with the university's blueprint for its academic program. A senior administrator suggested that in most interdisciplinary offerings the university determines which faculty will be part of a new effort. On the other hand, after some prodding from me, he said that a group of professors themselves could propose a new unit crossing disciplinary lines, although the institution would still need to bless the new venture.

But a campus doesn't need to start an entire new program in order to make change. I heard of several curricular additions that certainly sounded like new programs to me, but they were being initiated under the umbrella (or the guise?) of a new track or a series of courses in an on-going and already approved degree program. I suspect lots of academic entrepreneurship is happening in just this way.

The balance of academic programs within a given university is another kind of local autonomy. Beijing Normal, one of the premier education universities, now has only half its students in teacher training majors; the others are in a range of academic subjects. This shift

from the traditional normal school curriculum to a more comprehensive program is part of the overall plan by MoE to create more broadly encompassing institutions. There may be another reason, too, that is related to finances. Students preparing to be teachers pay a lower tuition fee than those in other subjects so Beishida has a large proportion of poor students in its student body, although that may soon change. This shift in emphasis from physics teacher training to straight physics, or from English teacher training to straight English, falls at least in part within the university's own sphere of responsibility—not new programs *per se* but new priorities within the existing curriculum.

Some universities are actively encouraging new program development. Nanjing University, for example, has a number of measures in place to foster interdisciplinary work. The university hosts dinner parties, free to participating faculty, to bring professors from different departments together in the hopes that collaborative efforts will ensue. Also, if the administration wants to encourage a certain academic direction or an interdisciplinary approach, one of the academic deans or other administrators will bring relevant professors together to explore the issues involved.

But it is still a challenge, politically and intellectually, to break the barriers for new courses of study. As one Chinese colleague said, "Faculty like the old ways." The same is true in the U.S. although the American system is more supportive of innovation that what I perceived of Chinese higher education. Chinese university leaders must push, entice, and cajole their professors to move in new directions.

Research funding for interdisciplinary scholarship is one form of carrot—and implicitly stick, if funding is cut in traditional areas. Universities can allocate some of their funds for research support in priority areas, especially now with the flexibility afforded by MoE to local campus leaders. In addition, faculty are encouraged to apply for national research grants. If government authorities want interdisciplinary work or scholarship in new directions, the priorities and evaluation procedures for awarding such grants can shape the direction of scholarly inquiry, just as the National Institutes of Health, National Endowment for the Humanities, and private foundations do in the United States.

Another major area of innovation is general education and undergraduate curricula, topics covered in detail below. Overall, I had the sense that Chinese universities are changing their academic programs very rapidly, in part to incorporate the latest western techniques, in part to look more modern, in part to deal with the challenges of a more global economy, and in part to serve the needs of contemporary society for trained personnel and applied research.

Student recruitment Another new area of autonomy is student recruitment. As noted above, the traditional model has been totally controlled by the central government. The Ministry determined who would be admitted, based on exam scores, and allocated students to the available places—not just to a university but also to a department and a major. Institutions simply received the students assigned to them. In fact, that is still how most Chinese students get to university. However, there are some additional entrance methods running in parallel to the standard model, which means that individual universities are experimenting with active recruitment of students rather than simply educating the undergraduates coming to them.

At several of the most prestigious universities, a small percentage of students are being admitted upon recommendation of their secondary school principals. At Nanjing University, for example, professors visited key feeder schools in Jiangsu Province to identify students for an

elite Department of Intensive Instruction (more on that program below). Each school could name one student to the science track and one to the arts track of this special program.

At Sichuan University, students can be admitted outside the normal process if they win first prize in the academic Olympics in such subjects as biology or physics (about 4000 students nationwide). Also, provincial "excellent students" can be admitted by exception, although there were only 23 such students in Sichuan last year. And 12 foreign language secondary schools can send the top 20% of their graduates to special foreign language universities or foreign language departments of comprehensive institutions.

Nankai University—and I assume others as well—have an internal process in which each department discusses its plan and its quota with a special office for admissions and enrollment. Presumably, then, campus officials negotiate the desired quota for the coming year with government officials at the provincial and national levels. At another institution I was told that key universities now have about 15% autonomy in admissions. On his campus, 5% of the students come through links with high schools that have sent successful students in the past; 5% can be admitted without taking the entrance exam, and 5% can receive special preference. Repeatedly I was told that students with poor scores but substantial wealth could be admitted by paying several multiples of the stated tuition, presumably somewhere within the university's discretionary quota.

When I asked about this directly to the person responsible for enrollment on one campus, however, I was told somewhat indignantly, "It is impossible to get in only on the basis of money." He went on to explain that some lower ability students, unable to be admitted to top universities, choose an affiliated three-year program or private institution which charges higher tuition. In order to save face, the family says that the son or daughter is attending Key University X when in fact the student is enrolled at the semi-private high tuition branch of that university. Personally, I'll accept this explanation as one possibility but I have heard too much about back door admissions based on wealth to discount this reality.[13]

Even a high government minister recently declared that "cheating and corruption" must be eliminated, although he may have been referring to problems other than admissions.[14] In addition, the power of money goes both ways. MoE has issued a notice banning universities from offering cash incentives to lure the highest performing students to their institutions.[15] This was news to me.

Most of the key universities I visited are trying to control admissions and growth. Although the government policy is for rapid expansion of higher education nationwide, these top institutions want to grow slowly (or not at all if they had their druthers) in order to maintain quality. I heard horror stories of universities with 20,000 students and 800 professors, many of them low-grade lecturers—clearly a quality problem in the eyes of those who told me what their institutions were trying to avoid.

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[13] For example, Jiang Xueqin, "New Reports Add to Picture of Corruption in Chinese College Admissions" in *Chronicle of Higher Education*, 7 September 2001; and "Diploma Forgery Goes Electronic in China" in *Chronicle of Higher Education*, 21 September 2001.

[14] Li Lanqing, quoted in "Improve Party Work Style, Push Higher Education Reform: Vice Premier," in CERNET, 31 December 2001 www.edu.cn/20011231/3016002.shtml

[15] "Universities banned from offering top students cash," *South China Morning Post*, 14 March 2003.

Budgeting The move from a planned system to a market economy is quite evident on the financial side. Today, key universities receive about 30 to 50% of their annual operating budgets from the state; apparently the allocation of those funds to departments and programs is the decision of campus leaders. With the majority of financial support coming from sources other than MoE, universities have as much freedom to use those funds as the donors will give them. Nankai University, for example, has accelerated its own fund raising to the level of Y2 billion ($250 million) per year, allowing the university to make significant improvements in facilities, living conditions, and faculty salaries. As a result, department chairs and others are busy recruiting talents scholars, both domestic and foreign, to come to Nankai. (It is hard for American educators to realize that in the not so distant past university administrators were forbidden to raise outside funds.)

Sichuan University is changing its financial management system to give greater autonomy to academic departments. Each department will get a fixed target amount each year that covers all forms of income (state subsidy, number of students, adult classes, and so on) and all forms of expenses (base salary, bonuses, research support, supplies, etc.). The dean or chair can then spend these funds according to her or his priorities, including hiring additional part-time faculty and supporting experimental courses.

The freedom of campus officials to spend government funds according to local priorities extends to special support as well as annual appropriations. Several years ago, Peking and Tsinghua Universities [16] received sizeable special grants for enhancement as two leading institutions in the country. (There is a great desire to have some world-class universities in China and many people look to these two campuses as the most likely contenders.) I was told that campus officials were allowed to allocate the funds based on their own sense of priorities. At Peking University some went to facilities, some to enrollment issues, some to faculty enhancement, and some on special projects. When I asked about accountability, I was told that MoE would look at the uses of these funds; some of the factors for "expert review" include educational philosophy, staffing, facilities, administration, and teaching quality.

Today, both national and local governments support higher education; the goal is to have the same amount of funding from both the state and the province/municipality. In Tianjin, however, the local government has not participated in this plan, although in other parts of China, universities have received significant support form their local governmental bodies. (Zhongshan and Fudan Universities were mentioned specifically as beneficiaries of local support.) Beida gets only a tiny fraction of its annual budget from the municipality, although with special support from the central government it may be less needy even than other key universities.

The section on funding in "From public to private" gives more detail. The simple point here is that universities are in a much different position than they were even ten years ago with much greater ability to determine the uses of the funds they receive from both public and private sources.

[16] Peking and Tsinghua Universities are among the oldest and most prestigious universities in China. Under the *pinyin* system of writing Chinese words in Roman letters, developed after 1949, their names would be Beijing and Qinghua Universities. Somehow these two institutions were permitted to continue to use their traditional names, perhaps in acknowledgement of their long history relative to other institutions.

More academic choices for students

The tradition in Chinese higher education since the formation of the Peoples Republic of China came from the European/Soviet model; students applied to a specific discipline and, once admitted, followed a given program of courses in lockstep fashion. Students typically followed a totally required curriculum; all history majors would take the same courses in each semester, and if they had a problem or got sick they had to wait another year for that bundle of courses to come around again—or perhaps even drop out. Most Chinese students today follow this same process, although many key universities offer greater flexibility and choice—on some campuses for all students and on others, for a small proportion of top undergraduates.

One key reform is a relaxation of the requirement to choose a specific major at the time of application. At Beida, for example, about 100 specially selected students are chosen for a program that allows them to enter the university without a major and take a series of broad courses in their first year of study. Only in the second year of this select program do students choose a specialization. The Nanjing University has been doing something similar for more than ten years. Just recently, Beida changed its policy to allow most students to enter a college and then choose a specific major later, and I expect that other universities will relax their entrance requirements in some fashion in the next few years. In the meantime, however, I had the sense that the majority of students at Chinese institutions follow the traditional model of applying for a particular program.

Also, some universities allow students to pursue double majors (Zhongshan University, for example) or to change from one major to another. What is good for individual undergraduates, however, may cause problems for the institution. As student interests shift and society's needs change, universities have a right to allocate and adjust access to different majors but the greater freedom for students to choose courses and programs makes such allocations more difficult. For example, the person with whom I was having this discussion (at another university) told me that Fudan had 200 students changing majors last year. He was shaking his head at such flexibility—perhaps over the fickleness of today's youth as well as the institutional chaos such movement caused. I interpreted his dismay as an indication that market forces were still quite new in higher education, with relatively little internalization in the thinking of many academics.

Almost every institution I visited has general education requirements in place. The pattern is similar to American universities, in which students choose courses from a long list of approved offerings in order to fulfill expectations of a broad array of courses covering a range of disciplines or topics. Similarly, students now have electives available to them on most campuses. The goal of these changes is broader knowledge and greater social interaction among students. I wonder, however, if some of the motivation to institute these changes was a fairly blind imitation of American higher education: the U.S. has some of the best universities in the world, almost all have general education and elective courses, therefore Chinese universities should do the same. As one American professor commented, the best programs in the U.S., taken wholesale, might be terrible for China.

With greater freedom of choice for students, especially the freedom to change majors, the balance of disciplines within universities is becoming skewed. Savvy young women and men are looking for programs with strong occupational value; thus computer science, business, and foreign languages, especially English, are high in popularity. Many fewer students want to

major in history, sociology, or philosophy, although the trend away from basic disciplines and toward market-oriented majors has been an issue ever since China's opening up in the 1980s. I was surprised to learn that many of the natural sciences, such as chemistry and physics, are also unpopular, although I'm not sure if the issue is job relevance or lack of intellectual appeal. In any case, the professors in less popular disciplines seem demoralized by the low quality of the students in their majors.

Students also have the freedom to choose their own jobs after graduation, a change made about a decade ago from the policy of the state assigning all university graduates to lifetime positions. This freedom brings with it considerable anxiety, however, just as it does for many American college graduates. The problem of finding a good job is exacerbated by the fact that the higher education system was dramatically expanded in 1999 and each year since then, with the first wave of those additional graduates coming on the job market in July 2003. I learned specifically at Fudan that the university has established a center to assist graduating seniors with the job search, with more than 60 government agencies and private enterprises participating in the program. It sounded much like the placement side of an American career counseling office.

Because of the policy of expanding enrollments, which began in 1999, the first bulge in new college graduates is exiting the universities in July 2003. *People's Daily* reports that as many as a million students nationwide may not find jobs after graduation.[17] The labor market in China simply cannot absorb all these new job seekers even in a strong economy, especially with the impact of SARS (severe acute respiratory syndrome) and the contraction of the state sector. State enterprises are closing and more senior workers are being laid off, adding to competition for jobs. Like their counterparts in other developed countries, Chinese first-degree students are giving serious thought to graduate school in large part to gain more credentials for the job search. The students with whom I spoke all talked a lot about the difficulties of finding jobs—in fact a tremendous change from the situation under the traditional elite model of education in which a college degree was a guarantee of a good life.

In my interviews, I heard relatively little about the non-academic side of student life, although I was told that academic departments are often the locus of social activities as well—not the dormitories and Greek organizations that often dominate American college life. An exception to this rule was a report by a senior administrator at Zhongshan University mentioning the expansion of student organizations, extracurricular activities, and counseling, all designed to support students' personal development.

One change that wasn't mentioned often, but has enormous implications for students, is the institution of a credit system. In the U.S. the credit system is a necessary element for students transferring from one institution to another. In China, where transferring is virtually unheard of, the creation of a credit system provides much greater flexibility in students' progress towards their degree. In the traditional system, where students entered the history major or the chemistry major as a cohort, they took a required program of the same courses each semester, and graduated together. With a credit system, however, students must fulfill a certain number of credits and requirements for a degree but with greater flexibility in which courses to take in any

[17] The number of new graduates in 2003 is estimated to be 2.12 million, up 46% from the previous year. On 3 June 2003 Vice-Premier Huang Ju told a national video conference that generating jobs for college graduates "closely concerns social and political stability" in the country. *People's Daily* on line, 12 June 2003. One professor told me that employment of new university graduates is the "number one project" for the national government right now.

given term. Students can also extend their studies for more than the normal four years as long as they complete the required courses for their specific degrees.

Apparently only a few universities have instituted a full credit system. If students switching majors is a bureaucratic headache, flexibility in progress to degree must be a nightmare for a system accustomed to prescribing all aspects of higher education and having students do whatever it took to get a degree. At Chuanda, where I was told that the credit concept was first implemented, I learned that the introduction of this reform generated considerable complaint in the first few weeks. The examples were technological (students couldn't get on line to register properly, and so on) rather than philosophical, although I assume there were more fundamental disagreements as well about the wisdom of the reform.

Today students have many more choices in their university life than did their older siblings. I wondered, though, as I listened to these explanations of reform, if administrators and faculty thought carefully about all the implications of such changes—for faculty workload, for efficient use of campus resources, for relationships among different categories of individuals within the university. The law of unintended consequences may well work overtime in this arena.

FROM ELITE TO MASS EDUCATION

Student numbers

The Chinese government is expanding higher education dramatically to provide more highly trained workers for the knowledge society, to develop human capital, but also to meet the demands of urban families in particular who desperately want their daughters and sons to have a university education. Also, with tuition payments required, more families must withdraw from their savings to pay for university education, thus stimulating the economy—although one professor who studies social policy said that the goal of economic stimulation has not been realized. One group of postgraduate students thought that increased enrollments are a form of compensation to the Cultural Revolution generation; they were denied education but their children now have greater access to universities.

Talking about expansion of enrollments in China involves huge numbers. A highly reputable scholar gave me the following statistics: 10 million college students in 2003 and 23 million by 2010. In 1998 Sichuan Province had 150,000 college and university students, while today the enrollment in higher education is 410,000. In Guangdong Province, enrollment has increased by 30% per year since 1999, and nationally the numbers of students has increased by almost two-thirds in four years, perhaps the fastest growth rates in higher education anywhere in the world.

Table 2. Admissions and enrollment, 1998 and 2001

	New students admitted 1998	New students admitted 2001	Total enrollment 1998	Total enrollment 2001	Percentage increase Admitted/ enrolled
All higher education institutions	2,846,700	4,807,100	7,422,600	12,143,800	69% / 64%
Undergraduate students	2,754,500	4,642,100	7,189,100	11,750,500	69% / 63%
Postgraduate students	92,200	165,000	233,500	393,300	79% / 68%

From information supplied by the Ministry of Education.

As noted above, China has achieved its goals of 15-20% participation among young people well ahead of schedule. The expansion of higher education in China is probably the most rapid—and most dramatic—in human history. One observer commented, however, that the current participation rate could be looked at in several ways. If you subtract adult education programs, correspondence courses and other self-study programs, the percentage of the age cohort in university education today (by more traditional definitions) is less than 10%. This is still a big increase, however, from the 3% to 4% participation rates in the not-too-distant past.

While this report focuses on key universities, China is looking to several different mechanisms for increasing capacity. One is increasing the quota at existing universities and allowing the institutions to figure out how to accommodate the larger numbers of students. Community colleges are a new (for China) type of institution being encouraged by MoE. Other models are branch campuses, lower division campuses, the creation of university cities, separate adult education institutions; including distance learning and radio-TV universities; new providers for associate degrees, and *minban*[18] universities. The quite recent approval of foreign universities operating within China is in part a response to the desire to increase enrollments, as well as a formal action by government to comply with WTO requirements for open access to service providers.

Some universities have readily accepted the challenge of moving from an elite to a mass system of higher education. These schools have expanded their campuses, admitted more students, and increased class size. One professor complained bitterly about having more than 100 students in a class when the number was around 20 undergraduates just a few years ago.

Other universities are bucking this trend toward greater size, however, arguing that as top universities they must protect quality at all costs. On two different campuses I heard of resistance to governmental pressures for increased enrollments; in both cases the president was seen as a buffer, even a hero, for protecting his institution from pressures to expand. And these were both very top universities where quality issues would be a powerful argument. These anecdotes also suggested to me that the balance of central control and local autonomy can be

[18] *minban* means "run by the people" but in fact it is more accurate to describe such institutions as private rather than publicly supported. Sometimes things aren't so clear. An article in the *Chronicle of Higher Education* quotes the founder of Haidian University as saying, "It's not mine. I don't know whose it is." *Chronicle of Higher Education*, 9 March 2001.

personal as well as policy-driven, and that there is room for maneuvering by at least some key institutions.

Expansion of enrollment is one obvious way for universities to raise more money. Since the historic student/faculty ratio has been quite plush, some institutions have leeway to add students without needing to increase the size of the faculty. With special consideration for fully self-supporting students and the inevitable bending of the rules for officials' children or the offspring of donors, the integrity of the university admission system has been questioned as a revenue-generating operation rather than maintenance of academic standards. One person told me that students from wealthy families can get an additional 50 points on their exam scores in qualifying for entrance, which could be as much as a 10 or 20% boost. Others told me that self-paying students with poor scores could offer to pay several times the stated tuition in order to be admitted—no receipts issued.

A different form of "back door" enrollment comes from business leaders and government officials who want degrees but lack the credentials to enter the university. I was told that, in addition to lacking adequate academic preparation, such individuals often don't even have the time to attend class. The person recounting this situation didn't say this, but I inferred that such applicants put pressure on the university to enroll them and credential them—maybe in the form of cash payments, maybe in the form of subtle threats.

Different universities face different circumstances and pressures. At Shanghai Jiaotong University, for example, the administration seeks to recruit the most talented students. For that reason they want to control the size of the university by admitting 3000-3500 new students per year, numbers quite close to the current intake. At the present time, the administration is focusing on the postgraduate program, with the goal of becoming more like MIT and Harvard.

Among the entering student body at Shanghai Jiaotong, about one-third are from Shanghai and two-thirds from surrounding provinces; few come from more distant locations. The administration would prefer 20% to 25% from Shanghai in order to be more selective in admissions but they recognize the need to be responsive to the demands of the Shanghai government, which provides substantial financial resources to the university. As this administrator said, "Government money means government control." I inferred that the quota was negotiated between university and municipal officials rather than simply being imposed upon the institution.

Other Shanghai universities also face demands for higher local quotas. This explains a seemingly perverse phenomenon—that the chances of being admitted to a good university in Shanghai are greater for local residents than for rural residents. The same is true in Beijing. My egalitarian instincts led me to think that there might be special consideration for bright young people from disadvantaged backgrounds, or at least strict neutrality in which admission is granted solely on the basis of the entrance examination, regardless of the students' hometowns. But money talks, in China as elsewhere. Local officials are pursuing a policy of raising the educational credentials of the Shanghai work force. And in other interviews, people with whom I spoke simply assumed that quotas based on geography are appropriate, even when no local money is involved.[19]

[19] Not everyone accepts the status quo. In 2001, three women from the northern city of Qingdao in Shandong Province filed a lawsuit accusing the government of discriminating against them. The students scored well enough on the national entrance examination to have been admitted to one of the best universities in Beijing—if in fact they had been residents of that city. The

Perhaps one saving grace for Shanghai universities in the medium term is the fact that the municipality is experiencing a decline in the absolute numbers of young people. The one-child policy is working! Already the elementary schools have excess capacity; soon this demographic downturn will hit universities. The advantage will be less pressure for access to higher education in the future, allowing institutions to look more broadly for bright applicants.

Already in Shanghai the proportion of high school graduates entering universities is quite high. I was surprised when told that in major urban areas more than 60% of the 18-22 year age cohort is already in higher education. The population of 18-22 year olds in Shanghai is 920,000, of which 110,000 are high school graduates, and 90,000 of those graduates are admitted each year to some form of tertiary education in the municipality. By the year 2008, however, the number of young people is estimated to be 880,000, the beginning of the downturn in young adults. I suspect that the pressure on Shanghai universities will continue to be high, however, since many students from other provinces want to study in the municipality. There are a number of high-quality universities in Shanghai, plus top students are often given good jobs and residency permits in the city after graduation. A lot better than going back to the countryside!

These urban statistics suggest that enrollments in the interior, and in smaller cities and rural areas, must be very low. It is a reminder that China has huge gaps between rich and poor, urban and rural, east and west. And the gap between the haves and the have nots is continuing to widen.

Although Shanghai universities would like to select more students from around the nation, they recognize the realities of their local situation. Shanghai Jiaotong University, for example, is doing all it can to appeal to top students from the area. The university sends its best faculty members to give lectures at local secondary schools and to speak with teachers and students there. The plan is to make three or four visits each year to the best feeder schools to encourage good students to choose Shanghai Jiaotong over other universities. At another university the office for student enrollment spends a lot of effort publicizing the prestige and quality (and employment success of its graduates) to persuade college-bound students to choose that university over others at application time.

I had only one conversation that mentioned institutional influence over who attends. In the traditional admissions system, applicants are able to list their choices of preferred programs and campuses. I had assumed that MoE simply assigned students to different institutions based on scores and stated preferences, but apparently it is more complicated than that. One administrator said that if a student with good exam scores listed his university as a first choice, the student would be accepted eagerly. However, if the student listed Beida and Tsinghua first, and his university lower down the list, he would not want this applicant—his institution didn't want to be second best in the mind of its students. This was the first time I had heard of an individual university having some say in who is admitted.

Other universities had different conditions affecting student body size. Some campuses I visited have a quite generous student-faculty ratio so increasing the annual intake is not especially difficult. Others, however, feel that they do not have the teaching staff to accommodate a larger student body. Nanjing University, for example, is raising its expectations

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quota for Qingdao students was limited, however, and therefore required a much higher score to be admitted. The three students couldn't meet the higher standard, thus the basis for the legal complaint. "Students Accuse China of Regional Bias in Deciding Academic Ability," *Chronicle of Higher Education*, 27 August 2001.

when it hires new professors to replace retirees; there are some difficulties in finding good people who meet these higher standards so student enrollments are not rising much. At Fudan, the amount of dormitory space is a limiting factor in enrollment size, but in a few years, as new residences come on line, this reason will no longer exist.

A long-time professor and graduate of Nankai University described the difference between the campus in 1978, when he arrived as an undergraduate, and today. Then there were 2000 students and 800 professors, teachers, and lecturers; today there are 20,000 students, and nearly 2000 faculty. He predicted that student numbers would increase gradually to 22,000 to 25,000 in five years. On the faculty side, numbers would expand from 2000 to 2200, with a shift to more full professors and fewer lecturers, a quality move. At another campus, a faculty member was unhappy about the impact of growth. His department traditionally enrolled about 20 postgraduate students annually; now the intake is closer to 100 postgraduates but with the same number of faculty. He went on to say that the administrative ranks were growing rapidly—a complaint often heard on American campuses as well.

At the key universities I visited, the general trend was to expand postgraduate enrollments while maintaining undergraduate quotas at something close to their current levels. With increased pressures for research and scholarship, the postgraduate emphasis makes sense. For example, Beida intends to increase the number of postgraduate students from 3000 to 10,000 in five years; the comparable numbers at Fudan are 5000 to 8000. Several institutions stated a goal of having equal numbers of postgraduate and undergraduates on campus. Also, virtually everyone I spoke with discussed concerns about quality. In several cases I was told, with a touch of superiority, that other lesser institutions were expanding too rapidly; one example was a provincial university that increased from 2000 to 7000 students in a period of five years.

Apparently MoE is willing to hold undergraduate enrollments at these elite campuses to something close to the current levels in an effort to maintain quality. Such stability will allow key universities to focus on postgraduate education and other priorities. In several cases I was told that institutions envisioned themselves as smaller universities; Nanjing University, for example, takes Princeton and Carnegie-Mellon Universities in the U.S. as its models of fine institutions of relatively small size for their reputation. While other campuses are larger, the quality issue seems to be much on the minds of both faculty and administrators.

A more pragmatic reason for focusing on graduate education is student need. As mentioned above, with the increase in undergraduate enrollments, the job search is quite intense. The 2003 graduating class represents 2.12 million new BA and BS students entering the labor market, up 46% over last year[20] while China already had 700,000 unemployed college graduates from previous years.[21]

Americans are familiar with the idea that new graduates might not get good jobs immediately, but they tend to believe that eventually college-educated young people will find work appropriate to their educational level. For Chinese students and families, however, the situation in 2003 represents a huge shift in expectations. For years the government has talked about the shortage of skilled workers in the society; in the past, once students were accepted into a university they were virtually assured of attractive employment options. The idea of not

[20] "Path from university to workforce is not an easy road," *South China Morning Post,* 7 April 2003.
[21] *People's Daily Online*, 12 February 2003.

having a job at graduation is a shocking change—and an unexpected consequence of the expansion and increasing marketization of Chinese higher education.

Several postgraduate students in education told me that when they began their college careers in the mid-1990s they expected it would be easy to find jobs relevant to their majors when they graduated. Today that is not the case. Even with a teaching credential, they are likely to find positions only in such unappealing (to them) subjects as Chinese, math, or politics. Thus many students are continuing directly from bachelor's to master's programs—to stay out of the labor market longer and to develop more competitive credentials. With graduate degrees in higher education, they expect to find jobs in administrative work in universities, plus they still have the option of being classroom teachers.

On other campuses, the job situation seemed less intense. At East China Normal I learned that students were optimistic about their chances for employment at good salaries—which meant Y4000 to Y6000 ($500 to $750) per month. Students were turning down offers for less money because they are confident of their chances. But once again the situation varies with circumstances. Students with degrees in such fields as history and philosophy find it difficult to get good positions. Even at the master's level, I was told, an MA in education (as compared with a teaching credential) is not a high-demand degree. At Huashida, the students with the best prospects are those trained to teach Chinese as a foreign language; this program gets students with the highest scores on the university entrance exams—520 as compared with the Shanghai average of 450, I was told. Once again, the pragmatic values of the marketplace are evident.

In several places women students said it was harder to find jobs; employers prefer men with the same credentials and experience. One reason is the likelihood of women to get married and get pregnant, adding to the costs to the employer who provides health care, housing, and education for employees' children in most cases. (How ironic that market forces are contributing to an increase in gender inequality.) Government jobs, which teaching jobs are, are deemed to be prestigious by these students although the salaries are not as high as those in the private sector. On the other hand, non-government jobs with their higher salaries are less secure.

Some faculty and administrators are concerned about employment of new graduates for a different reason. One factor in the annual national rankings of universities is the percentage of students with jobs. Between the bulge of new BAs and the decline in recruiting efforts in spring 2003 because of SARS, many universities are likely to show lower employment rates, perhaps skewing the league tables in the future.

Although my campus visits focused on key universities, the very best institutions in China, the movement toward mass education is occurring largely in other sectors of higher education. The government is encouraging private and foreign universities to set up operations in China. One person told me that 1.5 million students study on line; another official mentioned that 45 distance education institutions serve 630,000 students. Another vehicle for credentials for adult learners is the exam system administered by the National Steering Committee of Self-Taught Higher Education. Also, there are adult education branches or affiliated campuses of major universities as well as freestanding programs serving older students. Huashida has 4000 students on line, for example, and Beida has an affiliated software college. It is to these expansion plans, regardless of the level of students targeted, that I turn my attention next.

New campuses

The growth in enrollment requires new facilities to serve these additional students. Since many universities are located in urban settings where expansion is difficult or impossible, new campuses are the answer to expansion. In addition, universities have affiliated or spin-off institutions, some of them for profit. University cities in Guangdong Province and elsewhere are locations at which many different institutions provide teaching and research services to local people. Fully autonomous *minban* (private) universities are another way of accommodating the increasing number of students (see the section on the *minban* phenomenon below).

A number of the universities I visited have built or are in the process of building new campuses. Sichuan University, like many institutions, has created a suburban campus with facilities for first year students and selected departments (arts, chemical engineering, construction and environmental sciences were mentioned specifically). At Fudan the new campus will provide significant numbers of dormitory spaces for students, with some classrooms and offices as well. I was told that the living accommodations would be run by a private corporation rather than the university—outsourcing in the American vernacular.

East China Normal is planning a new campus in the town of Minghang in the suburbs of Shanghai, immediately adjacent to Shanghai Jiaotong's new campus, allowing for collaboration between the two institutions. Many of the science departments at Huashida will move to Minghang and allow more space on the old campus for the humanities, social sciences and other activities, including the international student programs. I had the impression that these expansion efforts, especially when they involve consolidation of several different universities, are an economic development strategy for the suburban town as well as a necessity for the academic institutions.

Nanjing University has a satellite campus across the Yangtze River to the north of the city where first and second year students are housed. (Zhongshan University has a similar arrangement.) Although I didn't visit the Nanda satellite campus, I was told by several people that it has classrooms and offices but little in the way of library and laboratory facilities. As one undergraduate put it, "We studied very hard in our first two years because there was nothing else to do in the desolate place." Perhaps just gossip, but one person told me that the province gave Nanda an undesirable piece of land because it was a national rather than a provincial university. In addition to the lack of amenities, the lower-division campus also suffers from transportation problems. Bus service takes 45 to 60 minutes and often more when traffic becomes stalled on the one bridge going across the Yangtze River in the direction of the new campus.

Beijing Normal has two expansion plans, including a new campus near the Great Wall (the second is a separate piece of land on which university factories and enterprises can go). I was told that the idea of a suburban campus was a mutual decision of the university and the municipal government. The scholar with whom I spoke said that Beishida is considering three options for the Great Wall campus; the first is similar to Nanjing's campus for first- and second-year students while the second would move the entire undergraduate division out of the center of town. The least attractive of the three, in this person's opinion, would be to put the liberal arts departments on one campus and the sciences on the other. "That would make the division between the two cultures much worse."

Some universities have affiliated campuses that are partly autonomous. One example is Peking University Software University, a spin-off of the high-tech faculties at Beida. Regular

faculty teaches the courses (some of which are approved by the university) but it is clear that the bachelor's and master's graduates are not regular Beida products. The people who described these branch campuses were quick to tell me that the diplomas have both the name of the specific campus as well as the home university, giving graduates the satisfaction of a degree from Beida or Zhongshan, but with the clear recognition that it isn't a regular degree from these prestigious universities. Thus the Software University is financially independent through tuition charges but linked legally to the main campus.

An interesting hybrid of public and private is the phenomenon of *minban* universities affiliated with traditional institutions. Siyuan *Minban*, for example, is attached to Xi'an Jiaotong University; the name honors the founder of the original campus of Jiaotong University in Shanghai.[22] Independent in finance with student fees and other outside income required to pay all the costs of operation, Siyuan *Minban* University gets no government funding. Furthermore, it must pay 15% of all its income to Xi'an Jiaotong for the higher status of granting bachelor's degrees. While the "mother" university oversees the admission process and holds some of the seats on the board of trustees, the *minban* enjoys substantial autonomy.

One of the most interesting developments is the creation of university cities in several parts of the country. The clustering of branch campuses in Minghang outside Shanghai is one form of academic concentration; one higher education researcher told me that there are five or six such educational metropolises being created around Shanghai. In several places, I learned, the suburban areas donated free land and infrastructure improvements for the area in which the new institutions are being built. The scholar who described this phenomenon to me made the comparison to the land-grant university movement in 19th century America, in which the federal government gave land for the founding of universities of engineering, agriculture, and other practical subjects.

Yet another form of university city is the building of totally new campuses to house satellite programs from many different universities from around China. Shenzhen University City is focused largely on technology development, with business incubators, special courses in software technology, and branches of more than twenty established universities installed there. As Shenzhen seeks to move beyond low-wage manufacturing to a more sophisticated economic base, the building of an intellectual infrastructure is important. The provincial government wants to attract smart people to south China in part, I assume, to compete with coastal cities further north where the most prestigious universities are located.

A planned university city in Panyu is aimed at establishing Guangzhou as a southern educational center to rival the elite institutions of Shanghai and Beijing. As reported by *Hong Kong IMAIL*,[23] the new complex is envisioned to be the largest university complex in the country, involving five universities enrolling 200,000 students. About 30,000 employees of high-tech research and development organizations would also be located there. Guangzhou University will be the first to move into the new city but planners hope that top universities from throughout China will set up campuses in the new educational hub.

I was told that the governor of Guangdong Province is a strong proponent for the university city as a force for economic development of the region. He was a driving force behind

[22] In 1952 when Chinese universities were reorganized, some departments of Shanghai Jiaotong University were moved to Xi'an in Shaanxi Province in the interior—hence the similarity of names.
[23] Hong Kong IMAIL, 19 January 2002, item 2W84131750798.

the amalgamated form of Zhejiang University, a merger of seven separate campuses into one of the largest universities in China. In the short term, the new facilities created construction jobs since the first buildings opened for classes in the fall of 2004—a very short time for the opening of a new campus. Anecdotally I learned that local universities are not enthusiastic about the expansion (or dilution?) of their programs but feel that they have little choice but to participate.

One experienced administrator observed that university cities have their problems. Institutional management is more difficult with multiple campuses, especially when the distances are substantial. The presence of several universities in one district causes administrative problems for the district. Also, people must make the adjustment to living conditions in the new place; it isn't the center of the municipality. There are many good reasons for these expansion efforts but they are not without their headaches.

Quality assurance

The entrepreneurial forces being unleashed by the reform movement naturally raise questions about quality. In particular I heard concerns about the lowering of academic standards as larger numbers of students enroll in higher education, with special worries about institutions more eager to attract students' tuition payments than to provide high-quality education. The other concern was that the imperative for outside funding from corporations, donations and university enterprises could lead some institutions to "cross the line" as one person put it, beyond acceptable university ethics to chase money rather than institutional enhancement.[24]

As the state grants more autonomy to individual institutions, its direct control naturally weakens. Also, the form of control changes as the relationship between center and periphery changes. The Ministry of Education no longer approves every activity before it goes forward. Instead, universities are being asked to report annually on their financial and programmatic activities, with MoE scrutiny after the fact. MoE quality assurance, therefore, is shifting from front-end measures to a greater focus on results. In other words, MoE is no longer asking, "Did you buy the materials for your library as we specified?" but rather, "What research was facilitated by the materials you purchased with MoE funds?"

The Ministry is using a series of evaluation measures that sound familiar to my American ear. Teams of professors and administrators conduct site visits to campuses under MoE direction, five to seven days in length, much like accreditation site visits in the U.S. Visiting teams look at both "hardware and software" according to one official. In the early years the quality assurance effort was more quantitative: How many professors do you have? Are there enough classrooms for the programs you offer? What is the availability of computers? Now, however, evaluation emphasizes the final results: "What is the quality of your student body? What is the response of society to your programs? How do businesses, government agencies, and NGOs use your products—both content of your discipline and employment of your graduates? What is the satisfaction level of your students?"

Since 1993 the Ministry has evaluated 250 institutions. Recently MoE established a five-year cycle of review based on the success of these early efforts. According to an article

[24] When I returned home after these interviews on Chinese campuses, I read reviews of the latest book by Derek Bok, former president of Harvard University, who was addressing the same danger in American higher education. Derek Bok, *Universities in the Marketplace: The Commercialization of Higher Education* (Princeton University Press, 2003).

from *China Youth Daily* in April 2003[25] the Ministry has concluded that institutions under review tend to improve their campus and teaching facilities, closely monitor their teaching quality, and put extra emphasis on teaching. These positive results have led to the formalization of the review process.

At the campus level, too, the attention to quality assurance has increased. Peking and Tsinghua Universities, among others, have established specialized units for evaluation and quality control. On every campus I visited, every time the discussion turned to evaluation and quality issues, I heard about the same approaches. Student end-of-semester questionnaires are commonplace; faculty personnel evaluations now include teaching quality as one of the factors for assessment.[26] Similarly, graduates are asked to complete surveys about teaching quality, electing the best—and worst—professors at their universities. What would happen at an American campus if there were an officially sanctioned list of worst professors!

When I pushed a bit further, I learned that colleagues sat in on one other's classes as a form of peer evaluation (no one mentioned the American anxiety around academic freedom that comes with this practice). Newly retired professors mentor recently hired teaching staff. And, with the greater freedom of choice enjoyed by undergraduates, enrollment patterns can be seen as an indication, at least of popularity, if not a proxy measure of quality. If a professor cannot attract students, he or she may suffer in the next round of evaluation.

Another form of quality assurance is the evaluation system for research grants. Support from the central government research foundation is determined by a strict research evaluation system; proposals are judged on academic criteria with little room for non-intellectual judgments. It sounded much like the review processes used by the National Science Foundation or the National Institutes of Health. Similarly, MoE special project funds have had clear expectations attached. For example, in the 211 Project, government specified the ways in which the money was to be spent. One professor told me that a certain amount was earmarked for scientific equipment and only that purpose; as a result, his university bought a lot of equipment that now sits unused. But, he continued, the government now realizes that such earmarking is not productive. Instead, individual institutions should determine the best use of funds for local needs and then be held accountable for the results. This shift is one more example of moving from a state-planning model to a more market-driven model.

Research projects funded by local government or businesses, usually for applied research, tend to be much less restrictive in how the money is spent. In addition, the evaluation and accountability system is more relaxed. Basically, the sponsor is buying results with relatively little concern for the strict evaluation methods of government-funded research.

One scholar of higher education even told me that the move toward autonomy had gone too far. He was concerned about both efficiency and quality; in his opinion the current system of review was not tight enough to be sure that the money was being spent wisely. He told me that there was too much flexibility granted to individual universities; he felt that future funding should be tied more directly to the results of previous uses of funds. I had the sense that he was

[25] Reported in the Wah Ching newsletter, 14 April 2003.

[26] An American Fulbright scholar working in China is somewhat skeptical about faculty evaluations as they vary widely from campus to campus and are open to abuse. This person's opinion is that in most universities the basic requirement for a good evaluation report is a positive personal relationship with the people doing the judgment.

referring especially to research grants, but probably to the general state funding as well. He said specifically that poor results should mean no money in the future.

Another form of accountability is public transparency, an approach quite inconsistent with the traditional Chinese penchant for "state secrets" and limited information sharing. For example, the 211 Project brought Y1.2 billion ($150 million) to Fudan University; the Shanghai government provided another Y6.0 billion ($750 million) and the university administration determined the allocation of those funds. At least according to one professor with whom I spoke, there was no overall statement about how the money was being used. Certainly people at the university could see the results when a particular department received support or a research project was funded. For example, the philosophy department at Fudan received an infusion of support, probably as part of the effort to strengthen basic disciplines.

In U.S. universities, too, administrators guard their discretionary funds jealously. But for funds of this magnitude, the American academic community would expect at least general statements about allocations, if only to signal policy directions. I assume that such openness may come, although slowly, to Chinese schools as well.

MoE is proposing another form of public accountability. The Ministry has created a database containing much information on various factors for each university. I assume these are quantitative factors—number of faculty and students, books in the library and so on—more than qualitative results of the evaluation exercises on individual campuses. I will be interested in the impact of public data sharing; American colleges and universities have fought hard to keep the details of evaluation and accreditation private.

Also, given the frustrations American institutions have with rating and ranking systems, whether by *U.S. News and World Report* or governmental entities, I would predict that Chinese university presidents might also regret the move toward greater transparency—not that they have much choice if the Ministry decides to move forward. It takes the interpretation of institutional statistics out of the control of campus administrators, or even knowledgeable officials, and gives the information to anyone for any purpose. American college and university administrators often deplore the misuse of statistical data, especially for spurious institutional comparisons, but in general they accept the problem as one cost of working in an open society. It will be interesting to see how this issue plays out in the continuing effort to make evaluative judgments about the quality of Chinese higher education.

FROM SPECIALIZATION TO BREADTH

One of the overarching principles in Chinese reform efforts is comprehensiveness. It appears in the initiation of degree requirements outside of students' majors; the interest in interdisciplinary programs; and teaching methods that foster creativity and integrative thinking. Today faculty members are expected to be all-around scholars who contribute to both teaching and research rather than specializing in one or the other. The merger of specialized universities into broader institutions is a different type of implementation of the drive for comprehensive educational programs.

General education and other curricular reforms

The undergraduate curriculum has been an important area for reform in recent years. In general these changes have followed the themes of broader education and increased student choice. (It isn't hard to increase student choice when the old system had virtually no choice at all.) One observer said that these changes must happen gradually since the society is still oriented toward specialization, but the universities I visited all seem to be committed to providing a broad foundation of knowledge on which students can develop their major fields.

One scholar of higher education described the situation as three interlocking trends:

- more freedom for students to choose the curriculum they preferred
- basic subjects (general education) to widen students' knowledge
- a reduction in the number of credits for graduation

General education Most of the universities I visited have general education programs for their students, usually in the form of a certain number of courses or credits outside the major field. The general outline of these distribution requirements was quite similar from one campus to the next, although the details differed on the categories and the courses that would fulfill them. On some campuses I was told of academic dissatisfaction with the highly specialized programs that had dominated Chinese universities in the past. Others told me of the need to have science researchers in particular develop a strong foundation in cognate disciplines such as mathematics. I had more than one person say, in almost identical words, "During the era of the Soviet model, we had very narrow academic programs. That was fine for that time; we needed people with specialized training. But today with a global economy we need people with a broader education. That is why we instituted a general education program."

On occasions the rhetoric surrounding the move to general education requirements sounded almost exactly like the arguments made by American general education advocates. Several times I heard that reformers studied high-ranking universities worldwide and sought to determine the factors that made them successful. In at least one case a key faculty member said, almost this bluntly, "U.S. universities are the best in the world; if we want to be the best we should do what they do."

Perhaps the most interesting story is one that also might be apocryphal. More than a decade ago, a high-ranking minister looked at engineering education in China. He was concerned that these well-trained graduates had an excellent knowledge of chemical engineering or bridge-building requirements, but they lacked the breadth to be inventive beyond their educational backgrounds or the insights to work collaboratively beyond their disciplines. Thus he began to make speeches about the importance of broader education for engineers in order to improve the quality of the people entering the field. Quite a surprise to these American ears to hear the case for general education coming from engineering!

I also did not expect to hear that general education was motivated by pressure from employers and others outside the university. Several people told me that employers want broad knowledge in new employees. I find this interesting in light of the American experience where employers seem to focus more often on job-related studies that permit new employees to

contribute to the work almost immediately. At times broad education seems less highly valued by U.S. employers.

Another source of motivation for general education and other undergraduate reforms has been the return from abroad of increasing numbers of Chinese graduate students who bring back with them the experiences of teaching and studying in European, Australian, and North American universities. With their first-hand knowledge of academic models abroad, they become impatient with Chinese traditional approaches. Thus they push for all sorts of changes, including general education requirements.

Some specific examples: All students at Nanjing University are required to fulfill general education requirements of 14 points, although the details vary from major to major. In general, however, students in the arts and humanities are expected to take a minimum of four points in the sciences, while science students must take at least eight points in the humanities. Some of the course titles sound very much like an American general education course list—Introduction to Music, International Relations after World War II, Chemistry and Modern Society, Economics, Social Psychology, Folklore, General Astronomy, Aesthetics of Chinese Calligraphy, National and Cultural Prejudice: On Comparison of Chinese and Western Culture. Writing and communications skills are emphasized throughout the general education program.

Fudan's general education program requires six areas of study: humanities, art, social science, behavioral science, natural science, and mathematics. The entire undergraduate curriculum consists of three components: integrated studies courses (about 44 credits), arts and sciences foundation courses (about 30 credits), and specialization courses (about 70-80 credits). Beida expects all students to take at least two credits in each of six fields for a total of at least 16 general education credits: mathematics and natural science, social science, philosophy and psychology, history, linguistics, and literature and art. Before this reform, Beida students took approximately 90% of their undergraduate coursework in their majors; now the percentage is closer to 70% with the balance in general education. Chuanda liberal arts majors must take at least 10 credits in science while science majors must take at least 8 credits of liberal arts courses.

MoE does not control these curricular changes, although it does maintain two requirements for all universities—physical education and moral education. The latter, comprising 5% to 10% of a students' undergraduate program, includes material on Mao Zedong-Deng Xiaoping-Jiang Zemin thought. At Chuanda, at least, these political studies courses have become more academic (something akin to American civics or government classes) rather than purely ideological study, although the balance seems to be a topic of continuing discussion between party leaders on the one hand and professors on the other. Also I learned that compulsory military training for new students now takes place in the summer rather than the first month of the freshman year, as had been the case in the past.

From the outside, at least, these general education programs seem almost interchangeable with American undergraduate requirements. I thought more than once of the old critique of the American model—that students approach general education in the same way that they order a meal in a Chinese restaurant, choosing one from Column A and one from Column B. (Sorry, I couldn't resist that one.)

Other curricular reforms Zhongshan University uses a different approach to general education by offering a lecture series on outstanding cultural achievements and outstanding

discoveries in science and technology. Open to all students, these lectures are designed to broaden students' education.

Several universities now permit students to enroll in double majors as well as sub-majors, probably a way to allow these bright undergraduates to pursue more than one area of interest. In the U.S., double majors are popular as well, often allowing students to earn a credential in a job-related field while also studying an "impractical" field such as philosophy or history.

On several campuses there seemed to be a concerted effort to offer more courses taught in English. Shanghai Jiaotong is even offering special language training for professors who wish to improve their English skills. One Fudan administrator estimated that 10% of the courses on his campus are currently being taught in English, with the clear implication that the number would be higher in the future. Chuanda is also offering English training for faculty, especially in disciplines where the most desirable texts are not in Chinese—computer science, for example.

I also learned about a national project to reform the teaching of English, a project still in the recommendation stages. If the goals are accepted and implemented, the impact will be enormous—moving from an emphasis on grammar to a priority on oral and written communication. The proposed recommendations include a heavy dose of multimedia instruction as well as a huge effort of teacher training and retraining.

I also heard about programs to get bright students into research settings much earlier than before. Especially in science-oriented universities, professors told me about opportunities for the most talented students to join research groups as apprentices and junior scholars, with the implication of tracking them early toward careers in basic research. It sounded much like the undergraduate research initiatives popular on American campuses for more than decade, although the U.S. experience goes beyond the natural sciences.

Fewer courses for graduation One change that surprised me was a reduction in the total number of courses required for an undergraduate degree. At Beida, for example, most departments have expected students to complete 150-160 credits to graduate, with the each program having its own specific number based on program needs. The university has asked departments to drop the number of required credits to 140-150, presumably coming out of the courses needed for the major.

On another campus I was told that many majors used to require 180 credits over the four-year program, with a gradual move to about 150, but the target today is 130-140 credits for graduation. The motivation seems to be dissatisfaction with a curricular scheme in which students spend all their time in the classroom and doing their homework, but with little opportunity for discussion and reflection. One professor said that he hoped the change would give students more free time to learn outside the classroom. Others told me that the change should give students more energy to devote to research and thesis work as well as discussions. No one provided any evidence that this is really happening; I suspect a student survey would be required to see if the desired results are being achieved.

I can't imagine that this reform is popular with faculty members. American professors usually want their students devote more time, not less, to their specializations; many majors in U.S. universities are adding disciplinary requirements rather than reducing them. In my mind I am envisioning a group of grumpy Chinese academics saying to one another, "First they introduce these general education courses and distract our students from the discipline, and now

they want the number of credits in the major to be reduced as well. How can we produce well-educated [fill in the blank of your favorite major]?" Mind you, no one said anything like this in my campus visits, but I am sure that some professors have had such thoughts.

While the number of credits is declining, the overall number of courses and majors is increasing on many of the campuses I visited. Zhongshan University, for example, is developing more programs in high demand and "socially beneficial" fields such as law, finance, and management. Over the last 20 years Nanjing University has gone from 40 academic majors to 68 programs, with an increase in the number of specialties in applied fields. Enrollment increases and new faculty probably account for some of the new offerings, while the virtual explosion of knowledge in some fields is part of the reasoning as well. At Fudan, the growth from 1500 to 3000 courses was explained as the result of a renewed emphasis on undergraduate teaching; professors who might have taught one course a semester in the past might now be expected to teach three.

Special programs In my campus visits I heard about several initiatives for top students. The Department of Intensive Instruction at Nanjing University recruits about 50 students each year for a special program that requires additional coursework and a thesis above and beyond regular undergraduate degree requirements. About half of the students enter the science track while the other half focus on the humanities. Unlike regular students who declare their majors at the time of application, DII students make no academic commitment beyond the choice between the two tracks. At the end of the first year, students are expected to choose a general branch of science or humanities; at the end of the second year they declare a specific major. When they finish the program, they will have taken all the required courses for a biology or history or astronomy major, but also a group of additional courses designed to provide breadth and interdisciplinary connectedness.

The goal is to cultivate elite scholars prepared to engage in high quality research. In fact, most graduates of DII continue directly to postgraduate study, with many of them gaining automatic entry to postgraduate programs without having to take the further entrance exams. Of the four seniors with whom I spoke, one is going to the U.S. for a PhD in physics, one is remaining at Nanda for biology, one is heading to Beida in Chinese literature, and one is entering a second undergraduate degree in law.

The program began in 1989 after a realization that Nanda graduates were not winning national academic prizes as they had been in earlier times. The university looked internally for the reasons why (an unusual thing to do, according to my source) and focused on student-faculty interchange. The trend toward big classes diminishes the interaction between professors and undergraduates; professors rarely know their students' names much less something about them. The standards for promotion do not encourage interaction between students and faculty. The creation of branch campuses further reduces the opportunity for student connection with professors, since teachers go to the branch campus for class but do not remain there for informal interactions with students. The DII program is designed to counteract all of these shortcomings.

Since this experimental program began in 1989, 60% of the students have gone to the United States for further study, evidence of success in the eyes of program faculty. Many are now in research careers in China as well as foreign countries. Although there are no specific plans to expand the program, professors told me that they would like to see larger enrollments in the future.

Student recruitment for DII presents an interesting alternative to the national examination system. Nanda contacts principals at secondary schools around Jiangsu Province that have sent strong students in the past. At each of the chosen schools the principal can nominate one student for the arts track and one for the sciences. Nominees then go through an application and screening process that results in the entering 50 students annually.

The Yuanpei program at Beida (named for Cai Yuanpei, a distinguished president of the university in the early twentieth century) is quite similar. Begun in September 2000, Yuanpei engages about 100 students each year in special studies. Students are selected directly from leading high schools nationwide on the basis both of both ability and foundational knowledge.

The director of the program told me that students and parents think they know the correct academic path for their children but in fact they really do not. The Yuanpei program gives them time to choose an appropriate major by allowing them to explore different fields of study before selecting their specialization, much as Nanda students do in DII.

The university has selected 28 professors from different departments who work closely with the students as tutors and mentors. Every week there are special sessions on how to study, how to select appropriate majors, and so on. Sometimes these professors give lectures on their specialties; at times the program has weekend activities as well. The tutorial professors have office hours in which they consult with students.

When I asked about faculty willingness to participate, I was told that this was not a problem. Senior professors are chosen for their high level of knowledge as well as their commitment to teaching and general education. Although they only get a small stipend, about Y2000 ($250), they participate in the Yuanpei program because of inherent interest.

Student evaluations give high marks to the Yuanpei courses. Some students are already working in professors' laboratories where, I was told, they work hard, learn research skills, and "make papers"—which I took to mean that the students contributed to published research. The success of the program will be the extent to which students enter and succeed in postgraduate study.

Will the Yuanpei program expand? "It depends upon the situation," I was told, although the program is not that much more expensive than regular offerings. Administrators feel that it is an ideal size right now so it will remain at this level for several years. The administration needs some time to "solve the problems associated with the program" among which, I inferred, is the continuing recruitment of senior faculty.

At least two elements of DII and Yuanpei are spreading beyond these elite programs. Shanghai Jiaotong, East China Normal, Fudan, Nankai, and other campuses are allowing a portion of matriculants to enter without a specific major and to choose their specializations later. Also, several other universities are adopting the strategy of recruiting directly from the most successful "feeder" secondary schools.

With multiple methods of admission rather than reliance solely on the national entrance examinations,[27] universities have more opportunities for flexibility. "Creative ambiguity" was

[27] In addition, students may choose to take provincial-level entrance exams instead of the national exam, I was told; there is an equivalence of scores to allow application nationwide.

the term used by one observer. Also, I suspect there may be additional paths into the university in the future, allowing further creativity—and perhaps more room for abuse as well.

At the postgraduate level, Beida is looking at the entrance exam system as an area for reform. Today, about two-thirds of the students are accepted for postgraduate study on the basis of their resumes and letters of recommendation instead of exams. According to the administrator who described this change, moving away from allocations based only on scores is an opportunity to improve the quality of the student body. "We need people with practical talents and the ability to express ideas; these skills are more important than knowledge at times."

A related innovation is a streamlined path for excellent students, all the way from first year to PhD. Top undergraduates are permitted to bypass the entrance exams for master's and PhD programs. The goal is not shortening the time to degree but rather eliminating the extra hurdles of exams. Good students can remain focused on developing a strong academic foundation for postgraduate study rather than cramming for entrance tests. While no one said this to me directly, I suspect the streamlined path may also be a good recruitment device to appeal to top students who would like the assurance of access to higher degrees.

A different kind of "pathway" innovation is occurring at Beijing Normal, where students have more choice in combining major requirements, professional education programs, and apprenticeships (practice teaching). Now students can choose among different options based on their career goals:

> 4+0 is now the program at Beishida. At the end of the third year, students can take a series of professional education courses and internship for a BA or BS in teacher training. Alternatively, they can continue coursework in their major field (history, biology, etc.) for their final year and earn an academic bachelor's degree comparable to that awarded by comprehensive universities.
>
> 4+2 leads to a Master of Education; Beishida undergraduates accepted into this program need not take the national exams for postgraduate study.
>
> 4+3 nets a Master of Arts or Master of Science in the subject field if students pass the national exams for entrance. Otherwise they leave the university with the same credential as the 4+0 students.

Beishida instituted a new policy for the 2003-2004 academic year in which students will not be classified at the outset as teacher training or academic; all entrants were treated the same for the first three years, at which time they can make their career decision as above. The university hopes that this plan will attract better students, give teacher training programs a stronger foundation, and transform the university to a more comprehensive institution while retaining its focus on teacher preparation.

These experiments on many campuses, whether general education for all undergraduates or special courses for selected students, suggest a lively environment for academic reform. One education professor told me that many of the changes in curriculum and pedagogy came largely from enterprising presidents rather than government officials or the teachers themselves.

I did hear one example of faculty involvement in the change process (and in retrospect it was remarkable as the only example of faculty engagement in the governance process that I

gleaned in my interviews). About four years ago a small group of Beida professors, about 15 in all, began talking about the reform of higher education in China. They held regular meetings to pursue this inquiry. Among their conclusions was the fact that the educational system is not consistent with the development of society; universities were not meeting the demands of science, technology, and social change. The group discussed the systems of education in the U.S., Russia, and Europe and compared these models with the system in China. The conclusion of the group was that Beida must change. "We collected ideas from other universities; we examined educational theory as well," I was told. One result was the Yuanpei program.

But, as seems to be the case often, there is more than one story. When I asked someone else about the process that led to the creation of the Yuanpei program I was told that the campus planning office consulted with the professor committee (which sounded like a standing committee of senior faculty members, not the group engaged in discussion of education reform) and then conducted an investigation. Investigation here, I inferred, was more of an effort to develop a position paper or a draft plan rather than an academic research project. Then a proposal went through the subcommittee and full planning committee structure that exists at Beida. "Scientific study will avoid a wrong decision by the president," said the administrator who provided this explanation of the decision process.

Liberal arts Early in my reading I was surprised by the use of the term "liberal arts" when describing programs and even entire institutions. Since I think of liberal arts as a western term originating with the ancient Greeks, I became curious to understand its meaning in a Chinese context. Often it is simply a descriptor for non-science courses—i.e., *wenke*, "humanities and social sciences." The interest in offering less specialized, more comprehensive programs, one knowledgeable American explained, links to such terms as *boxue*, "broad study" and *quanke*, "all subjects." Other times it included an inference to such concepts as *suzhi*, "quality"; *quanren*, "whole person"; and *boya*, "broad and cultivated" with the concern for students' character. More often than not, however, I felt it was a phrase used to describe a portion of the curriculum rather than a goal for students—thus not encompassing all the nuances that liberal arts can mean in American colleges and universities.

Relatively few individuals whom I engaged in discussion of the meaning of liberal arts approached it as anything more than the non-science part of the curriculum. One exception, however, was quite intriguing to me. A scientist with significant experience in American higher education applauded the efforts of Chinese universities to "grow" the liberal arts on their campuses, but in his opinion the mindset on most campuses is wrong.

He explained it this way: The engineering mentality is very much "within the rules"—there are facts about the requirements for constructing a bridge, for example, and an engineering student must learn those rules. In the experimental sciences, on the other hand, the goal is to go beyond the rules, to have students think beyond what the professor says. That is the spirit of science: to be a creative thinker. Unfortunately, there are more people with an engineering mentality on his campus that a science mentality; even among liberal arts faculty, he continued, the "rules" mentality applies. Too many of the liberal arts courses are taught strictly within disciplinary boundaries.

"We lack teachers in the liberal arts," he lamented, by which he meant both content and pedagogy. "In our efforts to rectify this shortcoming, we have recruited faculty in such fields as

law and management—the applications of knowledge to human society—when we should be hiring more historians, philosophers, and literature scholars."

In reflecting upon the meaning of liberal arts in the Chinese context, I noted that no one in my campus visits spoke about education for citizenship or education for character development, two goals of undergraduate study that are frequently mentioned in the U.S. as justifications for general education requirements. I realize that all university students in China are required to take moral education courses but these seem to be more focused on political ideology than personal and professional ethics. This is a subject that needs more work, if only because of the slippery language problems of getting just the right words to ask the question and then have just the right ability to understand the answer.

Impact When I asked faculty members for any evidence of a broader outlook on the part of their current students because of general education, I was told that it is too early to tell. And it probably is. The few undergraduates with whom I spoke, all participants in various honors programs on their respective campuses, certainly gave fluent testimony to the reasons for and advantages of general education. I'm also quite sure they liked having more freedom of choice in their undergraduate years, especially on campuses where most students are still in predetermined academic programs.

Several individuals commented on the gap that exists between promise and reality in these reforms. I suspect that is true in any effort to make substantial change. Some people focused on logistical problems—not enough courses in the general education sequence and thus not enough choices for students; insufficient classroom space to permit a sufficiently wide range of offerings. Others with whom I spoke acknowledged continuing faculty skepticism, or even hostility, to these academic reforms.

One professor couched his comments in terms of history and context. Although he was not involved directly, he spoke approvingly of the Yuanpei program as a positive influence toward greater flexibility. "Beida wants to create Harvard or Yale College," he told me, "but it will be difficult." In these prestigious older American universities, he analyzed, the institutions were colleges first that grew gradually into comprehensive universities. Beida already has major professional schools so the developmental model must be different. I had the sense that this person, at least, would be wary of too-simple acceptance of curricular models from other nations without a careful look at adaptation to Chinese circumstances.

Since most of these reforms are designed to enhance student learning, breadth of understanding, and ultimately creative and critical intellectual habits of mind, I asked if these programs had evaluation plans. The answer I always received was "yes" but I didn't sense that my Chinese colleagues were any better at assessment of student learning than most of their American counterparts. No one cited anything other than student and parental satisfaction, support from top administrators, and the reassuring comment that "the direction of the program is no doubt correct."

A professor at Shanghai Jiaotong told me that the number one responsibility of a professor is to arouse students' interest. More than transferring information, professors should get students involved so they can learn for themselves. He also believes there are benefits for the teachers as well. "I can learn from my students," he declared, "just as they can learn from me." But another professor was dismissive of seminars and other methods of engaging undergraduates.

"Students have little access to basic texts," he told me, "so they don't know very much. It is useless to discuss with them." Besides, he continued, they expect their professors to lecture.

One official at MoE admitted that it is hard to evaluate the impact of the emphasis on general education in recent years. The traditional teaching method in China, he said, was "read and repeat." Now, however, more courses are encouraging communications and innovation. Professors must go beyond traditional styles, he continued, to instill in students the ability to learn how to learn.

I agree. I've often said that the way in which a course is taught may be more important than its content when considering the value for liberal arts education. Literature and history can be taught with dry, pedantic techniques while accounting and engineering can be taught in ways that challenge and inspire students to think creatively. So reform of course requirements is only part of the solution; changes in teaching methods are also extremely important.

Changes in pedagogy

More people spoke of general education in terms of course content than teaching styles, but some of the people I interviewed described efforts to create more discussion and seminar classes to engage students actively in the learning process. This is a dramatic shift for both students and faculty, perhaps a bigger change for the professors than the undergraduates. The motivation is to develop critical thinking and problem-solving skills, factors that many people use to explain American economic success. As China becomes increasingly engaged in the global economy, people will need such skills to deal with international expectations.

An example of pedagogical reform is the English Department at Nanjing University. MoE has abandoned its insistence on a national curriculum for basic college English classes, allowing each university to create its own syllabi. Nanda faculty members are encouraged to engage students more actively in required English courses. Rather than doing grammar and vocabulary drills throughout the curriculum, the second semester is based on literature while the third semester involves students working in small groups on topics of their own interest. The program is also moving away from dependence on a single textbook series to allow faculty members greater flexibility to choose among existing published materials, even unique syllabi with elements from different publishers being combined to meet specific course needs. The department has created research centers for textbook evaluation and assessment to aid in this process.

Nanda professors are also creating smaller class sections by putting lectures and PowerPoint material on the web for student self-study to allow teaching staff resources to be deployed instead in smaller classes with more discussion and writing. I was quickly told, however, that not all faculty members were equally enthusiastic about these changes. Sichuan education officials told me of similar efforts to use technology; the student-to-computer ratio is now 8/1. The existence of hundreds of multimedia classrooms throughout the province means that professors must adopt new teaching methods to use these additional resources. (I sensed that, just as at Nanda, the level of enthusiasm varies.)

One professor shared his educational philosophy with me; his goal is to teach students how to know, rather than merely conveying the knowledge itself. The best thing he can do as a

faculty member is to encourage students to ask such questions as Why? What? How do you know this is so? Fostering that curiosity is a very important goal for him.

Tsinghua University emphasizes the following reforms in pedagogy:

- minimize lectures with rote learning, allow students to take a more active role in their own education
- emphasize cognition, research experience, analysis, and problem solving
- discussion in class
- provide more homework that challenges students' thinking (avoid questions with only one answer)
- more project-type assignments

Tsinghua is also giving greater emphasis to education through research. A summer practicum includes training in research skills and practical application of classroom education in the laboratory. The Student Research Training program exposes students to practical issues in their professional fields. In many ways, these reforms sound very much like the innovative undergraduate research activities at MIT and other American universities.

The priority given to undergraduate participation in the research enterprise was consistent across science-intensive universities. If what I was told accurately reflects reality, a goodly proportion of top students are engaged in actual research projects, not cookbook laboratory exercise. This taste of the thrill—and disappointment—of scientific inquiry must be a stimulus to further achievement.

Another reform is linked, at least tangentially, to internationalization. An administrator at Shanghai Jiaotong expressed a sentiment I heard at several schools—a desire to offer more courses in which English is the language of instruction. At the present time, about 100 courses on his campus are offered in English in departments ranging from computer science to journalism. The university also has a program to send faculty to English-speaking countries to build up their abilities in English.

Internationalization has also hit the curriculum in terms of the concepts and textbooks used. For example, one faculty member commented on the changes in the social sciences. Fifteen years ago economics and politics were subjects structured by Marxist theory. Today this professor's department teaches western micro and macroeconomics, using texts with international authors. Postgraduate students use materials almost solely in English; the only Chinese texts are those dealing with explicitly Chinese subjects.

With the expansion of general education, professors must adapt their courses for a wider audience. In terms of content, they must incorporate new achievements of science and technology and include books that present new concepts in the discipline. One faculty member told me that for non-majors, professors must lower the content when teaching general education. In terms of methodology, professors are encouraged to use different media, to incorporate PowerPoint and other technologies to move beyond the blackboard stage.

Examinations, too, must reflect these new goals for students. In the traditional classroom model, written assignments and examinations tended to be repetition of class notes more than creative new analyses of the material. Several schools, including Zhongshan University, are adjusting their testing methods to require students to demonstrate analytical thinking and problem solving skills.

One administrator expressed his opinion that the pressure on teachers to change their classroom style is significant—but it has personal implications as well. As students have more choices in the courses they take, the popularity or effectiveness of the professor can be inferred by enrollment numbers. The pressure on faculty, then, is one of attracting students—something that had never happened under the required curriculum of the past. Certainly the department would exercise peer pressure since basic funding is tied to enrollments. He even suggested that a professor who had no students at all might be fired.

I wonder, though, if a small number of seminars at the university level will be enough to foster the mindset that the reformers seek. The Chinese educational tradition runs deep, more than just the read and repeat model that I mentioned earlier. Because of the great respect that teachers receive in Chinese society, students are reluctant to ask questions at all for fear of looking foolish to their professors, and they certainly would never challenge a professor's point of view. If reformers want students to be more creative and innovative, I think they will need to start well before the undergraduate years in encouraging new styles of teaching and learning. And as long as the entrance examinations are based on traditional models, there will be lots of incentives for lectures, memorization, and "one right answer" rather than independent opinions and innovative educational practices.

Universities, at least the prestigious and wealthy ones that I visited, are providing more help for teachers, especially in terms of methods. Zhongshan will publish newsletters on teaching reforms in order to improve exchange of ideas among faculties, going beyond rhetoric to first steps in practical exchanges on pedagogy. Campuses now have multimedia centers that support faculty in new teaching techniques. In addition there is a movement to equip laboratories with new instruments and to create new exercises that encourage experimental efforts in science. Tsinghua University provides better training for faculty by supporting overseas training in prestigious research institutes abroad.

My impression is that the campuses I visited are struggling with some of the same issues that American research universities are facing. As Chinese schools give increasing emphasis to research, they may want to look at the example of those American institutions that have felt they have gone too far in stressing research and have shifted to a somewhat greater emphasis on teaching. There is no perfect answer, of course, but the example of western institutions could be helpful to Chinese universities if only as examples of what to avoid.

Faculty roles and rewards

The job of university professor has changed dramatically from what it was several decades ago. On virtually every campus I visited I was told about higher expectations for teaching as well as significant new pressures for research. Newly instituted faculty evaluation systems reflect these changes, although I had the sense that the assessment process emphasizes research productivity. Salaries and benefits are also much more favorable today than they were

in the past. All in all, most professors with whom I spoke are working harder but feeling better about their lives.

Teaching Many of the campuses I visited are putting significant pressure on professors to teach undergraduate courses, apparently a significant change from past practice. I had the sense that two forces were at work here—expansion of enrollments requires more courses to be offered, plus there is a philosophical shift to expect everyone to teach undergraduates. This change in professional duties is an additional example of the overall trend toward comprehensiveness rather than specialization.

Not everyone is equally enthusiastic about these changes. Like their American counterparts, some Chinese faculty members prefer to teach majors rather than non-major courses. One person said candidly that most professors, given free choice, would not teach undergraduates, especially in general education. Thus his university has added an institution-wide requirement for promotion that the candidate must teach some general education courses, especially for entering students. In addition, less popular departments are placing their best faculty members in introductory courses in the hopes of attracting students to major in their field.

The *China Education Daily* of 11 January 2003 reported the results of a survey conducted by the Shanghai Institute of Educational Evaluation. In that study, 80% of the professors and associate professors were engaged in undergraduate teaching. Of the academics teaching first-degree students, 17% held PhDs and 39% had master's degrees. (I don't know how to account for the remaining 44%.) The tone of the article was congratulatory, suggesting that these percentages are much higher than a few years ago.[28]

Teaching evaluations have become the norm. At many of the campuses I visited, students fill out course evaluations at the end of each term, with the result, according to one professor, that faculty members must win the respect of their students. The implication, of course, is that under the old lock-step system it didn't matter all that much what students thought of Professor X since they had to take his course no matter what. In addition, evaluation methods include faculty sitting in on one another's classes and older professors mentoring new ones. When I asked about the American problem of professors feeling a need to entertain students or to grade easily in order to get high evaluations, I was told that was not a problem in China. That surprised me since I was also told that teaching evaluations affected salary, promotions, and extra pay, perhaps as high as the 10% level.

The greater flexibility afforded to students has its impact on teaching evaluations. On one campus I was told that departments monitored their enrollments carefully. If a professor did not attract 15 students in a given class, the minimum required to offer a course, he would suffer public humiliation. In addition he would be assigned to undertake six months of training in teaching methods. After a second chance, a professor who did not attract the minimum enrollment would be dismissed from teaching ranks, although perhaps assigned to other duties rather than fired outright.

Beijing Normal has created a program of 100 "famous brand courses" taught by outstanding professors. Those selected for participation get higher salaries and better benefits

[28] The original article was summarized in the Wah Ching newsletter, 17 February 2003.

packages, including better housing.[29] A senior administrator at Zhongshan University proudly announced to the campus that three Zhongshan professors had been named as outstanding young teachers at the national level. Obviously there is a competition to reward classroom performance with recognition, at least, if not tangible rewards.

One observer categorized the faculty at his school into three groups: teaching–oriented professors who spend at least 6 hours per week in the classroom with light research expectations; another group with a balanced approach to teaching and research, involving about 4 teaching hours per week; and the research-oriented faculty who devoted two classroom hours per week to teaching and the rest to research. But, my informant quickly said, the university's reputation is made largely through research much as is the case in American universities. Therefore many teaching professors would prefer to be engaged more heavily in research because the results are more obvious and more highly rewarded. Also, high quality research faculty develop rapidly while excellent teaching faculty develop more slowly.

A draft policy paper at Beida is calling for division of faculty into two groups: those focused on teaching only and those involved in both teaching and research. In addition, the traditional practice of hiring primarily Beida graduates will be abandoned. More significantly, professors who fail to be promoted within a certain number of years will have to leave the university. In other words, the "iron rice bowl" of guaranteed employment will no longer be in force.[30]

The long-term strategy at Nanjing University is to develop qualified teachers from its own ranks—but this won't help much in the short run. Nanda has a priority on increasing the size of its professorate although it has not been successful in finding enough people of the quality it seeks. In the meantime, it is offering a larger number of internet courses but, according to the person explaining this situation to me, information technology is not the answer to the university's problems.

Other universities are not as heavily into faculty recruitment. At Fudan, the student/faculty ratio is 9/1, similar to other key universities but not bad when compared to provincial or local institutions where the ratio can be as high as 40/1. The stated goal from MoE is between 13/1 and 15/1, although on one campus I was told that the target was moving up to 16/1 or even 19/1. Even if the overall ratio is acceptable, however, many universities have internal distribution problems. For example, only certain professors are identified as PhD advisers and eligible to teach PhD students. A few faculties at Fudan have as many as 15-20 PhD advisees, which in the opinion of the professor with whom I spoke, was too heavy a load of PhD students. Also, on a number of campuses the most popular subjects have insufficient staffing while other departments have excess capacity. Thus within the student/faculty ratio there are inequities and problems.

I asked if institutions shifted positions from one discipline to another to reflect changes in demand across departments. On one campus at least, retiring professors are automatically replaced in the same department. Student demand is so high, I was told, that there is little reason to move positions; every academic program gets a full quota of undergraduates. Apparently

[29] Traditionally all students and staff lived in university residences, although this pattern is declining with the availability of housing in the private market outside the campus.
[30] Linda Yeung, "Peking University to break 'iron rice bowl'" *South China Morning Post*, 28 June 2003.

students would rather enroll in a key university, even in a less desirable major, than attend a lesser institution.

Research If the pressure on faculty to teach more is strong, then the pressure to conduct more research is even more intense. As noted earlier, university professors as researchers is a relatively new phenomenon. Freestanding institutes have been the locus for most of the research being done in China. Many key universities have decided that if they are going to catch up with western institutions, the most visible way is through publications in international journals. That is where many schools have focused their efforts in the last decade.

An indication of the intensity of the research focus comes from a chemistry professor who told me that in 1993 his department collectively produced 39 articles in international journals. Last year the output was 450 articles with the same number of faculty. In addition, he said, the quality of laboratory equipment is much better than it was a decade ago. On another campus a mid-level teacher is entering a PhD program, presumably to allow her to teach more advanced courses and perhaps to ensure her position if personnel reforms continue. Her program expects that she will publish at least one article in a top journal in her field while she is completing her doctoral program. It almost sounded like a requirement for the degree. I doubt this would have been the case even a few years ago.

This shift to an international definition of research is not consistent with what one person called the old style of research. The former model, he said, was one in which the individual worked alone on his projects without much communication with peers. Thus a traditional scholar often lacked a research community; research resided in the person and the knowledge disappeared when the person died. In the current model as exemplified by younger faculty, there is a community of scholars. Also, a more scientific or empirical approach is required now, as compared with a more ideological style of research in the past.

At the same time that institutions are encouraging basic research, universities are also responding to societal pressures and market forces demanding applied research as a service to society. With the decline in central government support, more than one person told me, universities could no longer isolate themselves as ivory towers. Rather, they must pay more attention to the needs of local governments, business leaders, non-governmental organizations, elementary and secondary schools—entities that have become significant sources of financial support. Research on teaching will also be recognized, one administrator told me.

The traditional disposition toward basic research is still evident, however, One professor of English told me that colleagues in other departments were critical of foreign languages as merely skills training, not "real" academic pursuits. Somewhat defensively the professor acknowledged that the first and second years of the undergraduate English major did have a heavy skills component but that such work was necessary before students could move on to literature, linguistics, and culture courses at the upper division level.

Financial support for basic research is available through the central government research foundation but the competition for those grants is keen. As a result, many faculty members turn to applied research topics out of necessity. In addition, professors usually get a portion of research funds, regardless of source, as a salary supplement, so availability of funding is a very significant factor in academic life today.

On many campuses people bragged about dramatic increases in research funding. For example, at Sichuan University the support for science and technology efforts has increased from Y70 million to Y250 million ($8.8 million to $31 million) in just a few years. Once again, I heard much more about the sciences than other parts of the university. Chuanda has built a new museum, its largest investment in the liberal arts, along with some small-scale research projects in the social sciences.

One professor provided details for his university by describing two kinds of research grants—vertical and horizontal. A vertical project is one funded by the central government; the faculty researcher gets an additional 5% added to her or his salary. A horizontal grant is one funded by local government, business, or other enterprises; in this case the investigator gets 10% to 15% added to base salary. These salary supplements are most obvious in the social sciences where applied work has direct market value. And I should think that a 15% salary increase would be a serious inducement for faculty to shift their research interests to new topics. But the motivation is even more fundamental. One professor commented that it is essential for academics to get research grants from whatever source because, without them, individuals tend to be out of touch with theoretical changes and hot topics in their fields.

Research is also essential for promotion. On one campus at least, an assistant professor may apply for promotion after five years in rank. Within each department a special committee decides which applicants to promote; the standard is almost entirely research output, I was told. A university level committee then reviews all the departmental recommendations. MoE regulates the total number of professors at each level but the campus decides which individuals will occupy which slots.

Some institutions provide significant help for their professors in the search for research grants. Beida, for example, has established a social studies unit that, among other duties, functions as a grants office. Services include matching faculty research interests with funding sources, helping professors write competitive proposals, and providing financial support for publication of research results. I suspect this is another example of "the rich get richer" since most universities probably do not have the resources to support their faculty in this way.

Some of the wealthier universities are also striving to provide private offices with fast computer connections for all faculty. A few of the faculty with whom I met had individual offices but more were shared with colleagues and sometimes with postgraduate student assistants. I was told that many faculty members work at home (a surprising comment given the size of most Chinese apartments), hoarding library books and making office hours difficult. I also heard that many professors have to pay by the minute for internet connections from their own pocketbooks if they don't have a research grant or departmental support.

In the past it has been easy for professors to establish research units. On one campus I was told that an institute or a center could often be nothing more than a single professor and a brass nameplate. In contrast Beida has ten key national research institutes, a point of pride for the university since the central government has identified only 100 key research institutes nationwide. Right now those ten are all in humanities, although the goal is to develop some equally strong institutes in applied social sciences, law, and economics. The next time there is an application process to name key research institutes. Beida hopes to submit competitive proposals in the social sciences. I would wager that other key universities are planning the same thing.

Several campuses I visited are actively recruiting star researchers through the Changjiang (Yangtze River) Scholars program funded by a wealthy Hong Kong donor. Beida has about 50 such professors out of the several hundred total at key universities. These researchers, many of them from foreign countries, spend three to six months in China at salaries much higher than regular professors. For example, Tsinghua just appointed a Purdue University professor to head its new industrial engineering department. Gavriel Salvendy, a member of the American Academy of Engineering, will receive a salary of US$100,000.[31] Apparently some of the Changjiang Scholars are part-time one-time appointments, while others are more permanent. These expensive international scholars are one more indication of the importance of research on Chinese campuses today.

Faculty salaries One significant financial reform in Chinese universities is salary enhancement. In the past, faculty wages were based solely on years of service but now an individual's salary is determined by a number of factors, including academic field, quality assessments, and research grants. Geography also matters; urban universities, especially on the east coast, have more money and therefore can pay their professors more. I was told that the differential could be as much as 400% when comparing individuals in different circumstances.

In the early years after the Cultural Revolution, professorial wages were extremely low; one would read stories about faculty members selling snacks on the street to supplement their incomes. As a result, a number of academics left the university to "jump into the sea" of private enterprise. In the 1990s, however, salaries have risen to comfortable levels, in part to counteract the brain drain phenomenon. I suspect that another motivation was the Tiananmen incident, which demonstrated the unhappiness of students and faculty with their personal circumstances as well as their political desires. Government officials, desiring stability (and complacency?) among intellectuals, placed high priority on salary reform.

One person told me about his own experience. In the 1980s, a faculty member could expect to have one room to house a family of five persons. Thus when he became a lecturer in 1982, he hoped that in his 50s he might have an apartment of 45-50 square meters, the typical housing allotment for his senior faculty mentors. In 1982, he said, he earned Y97 ($12) per month. But now, at age 45, his apartment is 160 square meters, beyond his goal at the start of his career; his salary is 45-50 times greater than his initial wages. "The development of society is much better than we had ever expected," he explained. On the other hand, he thought that academics were a bit lost, in part because their students were doing so much better financially; some of his own recent graduate students in the private sector were making double his salary.

Several senior faculty members told me that faculty salaries have increased significantly in recent years but the gap between the top and the bottom has widened. Today teachers are organized by ranks—Grade 1, Grade 2, Grade 3, and so on—although each campus has created its own ranking system. Salary is standardized, but benefits vary widely by rank and by institution. One administrator estimated that 30% of faculty on his campus could now be considered middle class, with top salaries around Y100,000 ($12,500) annually.

Faculty salaries are divided into several parts—the basic salary (which I inferred is determined by years of service and therefore consistent across individuals) and the variable

[31] "Chinese Top University Woos Overseas Professors," news article on CERNET, 19 October 2001, www.edu.cn/20011019/3005838.shtml

portion based on evaluation. Among the factors assessed are articles in top journals, number of postgraduate students produced, and results of teaching evaluations by students and peers. As note above, faculty also get salary supplements through research grants.

There is a serious problem, I was told, of faculty members in many disciplines becoming focused on income-generating activities rather than paying attention to their basic responsibilities. It can be hard for professors to conduct research and also contribute to their units' night classes, government advisory projects, and business enterprises—actually requirements for the department to support the academic programs it seeks to offer. But without research productivity, faculty members will not be promoted. Another professor told me that many of his colleagues are more interested in consulting and various forms of moneymaking rather than serious research. So the individual professors are caught in a system of increasing demands—more time with undergraduates, more research, and more contributions to non-traditional activities. No wonder several faculty members told me that they felt stretched and stressed.

East China Normal has a unique relationship with some of its faculty through a tenure system. (Technically it is a system of contract renewals every four years but acts as *de facto* tenure.) The system was created to guarantee security to highly qualified persons to prevent their leaving for other jobs. At Huashida, 62 professors now have tenure out of 1600 faculty altogether. (The individuals who described this system to me were among the 62.)

One American observer noted that the creation of a tenure system is, among other things, a way to increase institutional assessment of faculty. This person wondered about the likelihood of tenure leading to greater academic freedom, concluding that the process might not end upon the same place as American tenure systems have.

In the last twenty years, and especially in the last ten, the compensation for professors has improved dramatically. Through increased salaries and incentives to earn outside income, professors are living much better than they thought possible when they began their academic careers. But they are also working harder in return.

Academic departments Most professors' lives are organized around their departments and/or institutes. With the creation of schools and colleges, departments must now deal with an intermediate level in the organization rather than reporting directly to the university administration. As noted above, some of the people with whom I spoke felt this was a diminution of departmental power and authority.

The work of the department hasn't changed much, however. All the concerns of enrolling students, having enough classes, recruiting new faculty, and supporting research projects continue. As one departmental administrator told me, a faculty member who takes on an administrative role is assuming a significant set of duties on behalf of the departments, including scheduling, monitoring performance, reorganizing course offerings, and the like. Three years is often the term of office, which means that professors in administrative roles have little time for research except evenings and weekends.

Top scholars are appointed as department chairs in recognition of their accomplishments. In the eyes of at least one faculty member, however, this is a poor policy because it takes the university's best professors away from teaching and research and assigns them to administrative tasks instead. This person suggested two tracks for department members—a research track and an administrative track so that top scholars would not be distracted from their intellectual work.

I suspect there would be complaints about this plan as well, as there is in the U.S., saying that bureaucrats rather than real academics were making all the important decisions.

This person's critique focused on the educational and scholarly aspects of departmental life, but academic units have significant financial concerns as well. Some departments are doing well and others are not, depending in large part on the relevance of their respective disciplines in the marketplace. Subjects such as economics provide more opportunities for extra income because those departments can generate research projects, training programs for private enterprises, and special degree programs offered at night and on weekends. The additional funds are divided among the university's central administration, the school, and the department, with the originating department retaining between 45% and 50% of the funds, at least on one campus.

In addition to affluence, departments also vary by culture. A senior administrator explained that his university tries to give support to all departments, but those with good systems and positive culture improve faster. When the unit has a friendly atmosphere, people are more likely to stay, be satisfied, and produce good results in teaching and research. For the less satisfactory departments, he said, the "benign neglect" strategy is often employed (my terminology, not his). Weak departments with little prospect for improvement are not punished but they aren't given extra help either.

Not every professor is in a department; some have appointments jointly with research institutes and some are solely affiliated with institutes. On one campus I met a group of faculty members involved in a relatively new institute for public policy, an interdisciplinary program that operates much like a think tank. However, it has also created a master's in public administration degree, which is now enrolling postgraduate students in a program seeking to replicate Berkeley's public policy school. The professors involved are planning joint degrees, research, and training programs as part of building toward a school of public policy—a hot new subject in China these days. This was direct evidence that research institutes can offer degrees, just as departments are now engaged more heavily in research.

The public policy institute is collaborating with different schools within the university to look at such issues as educational management, land use, public administration, and health care, using evidence-based policy as opposed to ideology-based decision-making. The group hopes to integrate Chinese tradition with western theory so that, in the future, they may export Asian ideas on social issues. This was one of the rare occasions in which someone mentioned Chinese values—although in the subsequent discussion I didn't hear much that struck me as uniquely Chinese. Maybe I would need to learn more about the research plan about families or rural health care to see the integration of East and West.

These entrepreneurial young faculty, all trained in western doctoral programs, are seizing every opportunity to create a high-quality program to benefit society, and to give themselves maximum freedom as scholars and policy practitioners.

Campus climate As I learned about these changes in faculty life, I often asked professors what difference the reforms had made for them personally. Almost everyone responded first with "much busier than before." When people elaborated, they often mentioned two things—the higher expectations for both teaching and research, plus the difficulty of keeping up with new developments in their disciplines at an international level. When I asked one scholar who had recently returned from abroad how he would characterize the workload in comparison with his American colleagues, he quickly replied that the Americans still worked harder.

Another observer commented that, although most universities have large numbers of academic staff, fewer people in fact are actually doing the work of the university.

Also, the competition among faculty is becoming more severe. One person told me that promotion is no longer a sure thing these days; the major factor in career advancement is research publication, although evaluations consider teaching as well. This individual felt that his university focused more on the number of articles than their quality. Several thoughtful faculty said, however, that research and teaching could and should be complementary rather than competitive aims. Several administrators cited the positive development of more top faculty teaching undergraduates as a way to enhance the academic experience for those students. As one professor stated, "Talented students can be an inspiration to faculty, just as research can fruitfully be brought into the classroom." He went on to say that China needs a diversity of institutions, which I interpreted to mean a variety of missions and priorities that are not present now.

One professor at a very highly ranked university told me, "We don't acknowledge ourselves as a research university at the present time; we are a combination of teaching and research." Then he asked a partly rhetorical, partly genuine question: "How do we balance the two?" The combination of teaching and research may be a new phenomenon in Chinese universities but their American counterparts are not doing a whole lot better in finding the right balance.

Another professor said succinctly what I heard or inferred in many of my conversations. "There is a tendency toward greater bureaucratic control within the university. Traditionally professors took the lead in decision-making on his campus—they knew what to do. Today, however, decisions are more often made in the administration." He quickly acknowledged, though, that this trend toward bureaucratization is a worldwide phenomenon, not a uniquely Chinese experience.

The genuine desire for efficiency may also have negative consequences for morale. I will repeat what one unhappy professor told me, although I cannot vouch for the accuracy of his description. Several years ago, he said, the senior administration on his campus announced, "Here are the positions available; anyone can apply for any position." The implication was that the total number of positions listed was smaller than before. Applicants were evaluated and assigned to jobs, in some cases to their previous jobs and in some cases to new responsibilities. In addition, some lost their jobs or retired, either voluntarily or unwillingly. (My source was one person who was not reappointed to his old position but was assigned elsewhere in the university, so he had reason to feel disgruntled.) The plan is to repeat this exercise every four to five years.

The process has been similar in faculty ranks, he continued. There was a 15% cut in the number of academic staff in every department, in part to provide the funds for the substantial salary increases that faculty have received in recent years. (Additional funds from the central government have also contributed to improved compensation.) Some departments have met their new, lower quotas by assiduously seeking opportunities for research leaves, study abroad, and visiting professorships elsewhere since people on leave apparently do not count against a department's quota.

The professor who was the source of this story ended by saying, "Five years from now I may no longer be at this university; I may decide it is not a good place to work anymore. We used to be the core of the university but now we are just employees."

I think he is an exception. In general, the professors I met seemed committed to their teaching and research, even as they are working harder and differently than before. They are earning salaries much higher than they could have imagined when they began their careers. The key universities I visited have lofty ambitions for improvement, which certainly must please those professors who want to develop international reputations. While no system is perfect, overall I would say that reforms in faculty roles and rewards are a success story.

Institutional mergers

One quite visible reform in recent years has been the merger of previously independent institutions. The stated reason is a desire to create more comprehensive universities that will cultivate broadly educated people with knowledge of several disciplines. An official at MoE also said that this consolidation would support the national goal of world-class universities.

The merger phenomenon also has a practical angle. When various ministries were combined in an effort to streamline the bureaucracy, the central government sought to transfer responsibility to local governments but the local entities didn't necessarily have the funds to support the universities. Thus specialized universities sometimes became orphans. Institutional merger became a necessary result of bureaucratic change as well as a philosophical goal for more comprehensive education.

In an eight-year period, reports an official at MoE, 556 universities became 232 consolidated institutions, a reduction of 324 previously separate universities. Some examples: Fudan and Shanghai Medical University; Jilin University absorbed Jilin *Gongye* (technical institute), Bethune Medical, Changchun Science and Technology, and Changchun Institute of Postal and Telecommunications; Nanchang University was created through the merger of Jiangxi University and Jiangxi *Gongye.* The merger of Sichuan University and Chengdu University of Science and Technology in 1993 was the first amalgamation of two key institutions. One professor told me that this merger was the biggest change on his campus since the reorganization of the 1950s.

I observed one interesting aspect of mergers in my visit to two normal schools that had been officially declared as comprehensive universities with a special focus on teacher training. That designation opened up the possibility of creating new programs well beyond the institution's traditional role in teacher education. But regardless of past experience, many Chinese universities seem to have more flexibility in adding new programs. For example, many schools are creating programs in such popular subjects as management; others are adding institutes of education to capture the interest in and growing demand for schooling. After the merger with a technical institute and a medical school, Chuanda is actively pursuing biomaterials and other applied research projects with scholars from all three formerly separate campuses.

I had a sense of a "bigger is better" mentality. People seemed proud of the fact that their campus, or a nearby campus, now enrolled 30,000 or 50,000 or 70,000 students. In fact, one government official told me that, without quantity, there is no quality. He went on to say that too much emphasis on quality issues would derail progress toward the country's goals. I suspect that university administrators, many of whom would like to rein in rampant growth, have difficulty with such pronouncements.

In only one or two cases did people mention the difficulties associated with mergers, especially when the institutions in question are not physically close to one another. One department chair spoke candidly about the headaches involved in dealing with more faculty, ostensibly in the same discipline but coming from different institutional cultures, and having different levels of training and professionalism. In most cases, when I asked senior faculty about the impact of mergers on their daily lives, they noted that day-to-day life continues more or less unchanged. When I asked about the effect on students, one person commented that students have experienced a lack of identity as the university's size and scale has increased.

When people spoke to me about changes on their own campuses, or in the nation more broadly, I tried always to ask, "Who made that decision? At what level? Did you need permission from higher authorities?" Institutional merger was an obvious area for such questions. I was told that merger of national universities was determined by the central Ministry of Education. If provincial or local universities merged, they still needed the blessing of MoE. Since many of the mergers I learned about involved combinations of institutions under the control of different government entities, I can only imagine the bureaucratic conversations that must have arisen.

I assume that these mergers were almost entirely government driven. If Chinese academics are anything like Americans, they are not eager to give up their institution's name, history, and special role to become part of a larger entity. Even the "host" university, the one receiving the additional units, doesn't necessarily benefit from having more people, more students, and more boxes on the organization chart. One professor told me that the administration of his university was less efficient since merger because the relationship among disciplines has changed. In addition, many of the positions on his campus have been shuffled and their occupants changed—a big problem in a society in which personal contacts mean a lot.

Perhaps the greatest beneficiaries are the faculty members at the smaller or specialized institutions that merged with a high prestige university. Suddenly they become professors at Tsinghua or Nankai rather than university X with only a local reputation.

I heard only one example of intellectual or academic advantage to merger. In Shanghai, several smaller teacher training institutions were merged with East China Normal, bringing new programs in pre-school education and special education to Huashida. These training programs are a good match, one professor explained, with the university's traditional emphasis on professional education for the schools.

One very interesting observation came from an American scholar who described the merger phenomenon as a centralized approach to greater decentralization. Was that the intention? A lucky outcome? But it makes sense, and certainly fits with the other trends I encountered on my campus visits.

Has the merger phenomenon accomplished its goals? Certainly there are fewer specialized universities and more comprehensive institutions in China today than a decade ago, so on that criteria the results are positive. Have academic programs become more comprehensive as a result? Hard to say? Have mergers contributed to the creation of world-class universities? Certainly the best institutions encompass a wide array of disciplines, but I am not sure that being comprehensive in and of itself will contribute to international status. On the other hand, highly specialized universities certainly would not rank at the top of the pecking order. Like most reform efforts, in China and elsewhere, the results are mixed.

FROM PUBLIC TO PRIVATE

The trends from public to private appear in several dimensions. One major change is the shift in financing of higher education from a state-funded system to one that requires all universities to rely more and more on private funds. This policy includes the expectation that students will also depend largely on private financing for their education. A second trend is the creation of private schools and universities—*minban* institutions, not created by or under the direct control of government officials for education. And a third dimension is an expanding role for foreign educational institutions to participate in the growing market for education in China. This shift toward private funding and private institutions led one observer to remark that higher education is one of the least regulated segments of Chinese society today.

Sources of funding

University budgets The financial situation of Chinese universities has changed dramatically in recent decades. From totally government-funded enterprises, key universities are now expected to raise most of their operating funds from other sources. By the early 1990s, it was clear that the central government would not be able to provide all the money needed for higher education reform, so universities began to "face the market" as one colleague explained. Although the total financial support from the central government continued to increase, public funds represented a smaller fraction of the institutional budget. Universities sought other sources of funds from contracts and university-run business enterprises to adult education programs and student tuition charges.

One university administrator described his institution's budget as 3-3-3—one-third from MoE, one-third from tuition, and one-third from local governments and other sources, including research grants and donations. On another campus the budget pie was estimated differently—25% from MoE, 25% from tuition, 10% from grants, and 40% from funds raised by the institution from a variety of sources including local businesses. I was told that universities under local control could expect to receive about 60% of their annual budget from local governments. Most of the people with whom I spoke were guessing at these budget numbers; an institution's financial picture is not shared widely.

Shanghai seems to be the political entity most willing to support the on-going costs of higher education; virtually every Shanghai institution I visited received about the same amount of money from the municipality as from the central government. In other cities the local contribution is smaller to nonexistent. When I asked several universities in Beijing about municipal funds, the estimate I received was 1% or 2% of the annual operating budget, although Beijing Normal had received a one-time grant of Y600 million ($75 million), partly in cash and partly in land for a new campus north of the city near the Great Wall. In Tianjin I was told that the university has asked the city for operating support but had received very little.

The only place where I heard about donations playing an important role was Zhongshan University, where I was told that alumni, especially overseas Chinese, were quite generous. Beida has recently established a non-profit foundation in the United States in an effort to solicit donations, although its 30,000 alumni in the U.S. are still relatively young. In the future, however, donations may become a larger part of the financial picture at Beida.

The merger of universities and the reduction in the number of institutions under the direct control of the Ministry of Education looks in part like an effort to concentrate state funding on a few high quality institutions. Certainly that has been the effect. The 211 Project, to develop 100 top universities for the 21st century, produced keen competition among institutions nationwide to be included; not only was prestige involved but significant financial resources as well. The institutions chosen for the 211 Project were more likely to flourish with additional financial support while the rest were basically on their own to find the money they needed to continue.

Several key universities received special three-year grants for quality improvements in 1998 after President Jiang Zemin announced the goal of building world-class universities in China. For example, Beida and Tsinghua each received Y1.8 billion ($225 million); Fudan, Zhejiang and Nanjing, Y1.2 billion each ($150 million). Zhongshan University received Y300 million ($38 million) from the central government and Y900 million ($113 million) from the province. The scale of these infusions explains why universities are so eager to be included among the top ten or, in the case of the 211 Project, the top 100 universities in China. Only a few at the top have a chance for special funding from the states; other universities are on their own. It is a return to elitism with a vengeance.

In general, institutions used about one-third of these supplementary funds for salary enhancements for their professors with two-thirds going to infrastructure, land purchases and facilities. When I asked how the universities intended to maintain these higher salaries once the special grants had ended, more than one person said, "We will ask the Ministry of Education for another three-year grant." In my administrative life I am very careful to separate long-term commitments such as salaries, which require base budget funding in my sense of institutional finance, from one-time expenditures such as facilities or equipment purchases, which seem more appropriate to me for fixed-term grants.

These special grants represent a significant increase in available funds for a given university. Beida's annual operating budget is approximately Y2 billion ($250 million), so this infusion of Y600 million ($75 million) annually has allowed the university to do many things that were otherwise not affordable. I surmise that Beida and a handful of other schools can stake a claim on special support year after year in order to achieve world-class status.

Special grants also come from the central government to pursue objectives of high priority to the state. Fore example, MoE is encouraging the development of 37 software education and training institutions around the country; universities compete to receive support for the creation of these new schools. The same phenomenon is happening with central support for biotechnology.

As Chinese universities come to depend more and more on private funds, the pressures around finances are substantial. One professor, while acknowledging the fact that privatization is a worldwide phenomenon, expressed regrets that public universities are becoming something close to for-profit enterprises. He feels that Chinese professors and staff are becoming quite aggressive about becoming the best—not because of intellectual excellence but because of the desire for more money. Even the students have caught the bug, often calling the teacher "boss" instead of professor.

More than one person provided examples of institutions crossing the line of acceptability in the search for money. Even when the funding mechanisms are fully legitimate, however, the amount of time devoted to fundraising is a major distraction from educational matters. Of course,

the same is true for university administrators in other nations, but usually they aren't operating factories or service operations unrelated to the academic mission of the institution. In China, all too often, they are.

Student tuition Tuition seemed to be a sensitive subject with many of the individuals I interviewed. The actual amount a university can charge is proposed by the institution but finally determined by MoE taking various factors, including geography, into account. I was told that in the west—Lanzhou, for example—tuition is Y2000 ($250) per year while in Shanghai and Beijing it is Y5000 ($625). At Sichuan University it falls in the Y3500 to Y4000 ($440 to $500) range for undergraduates with the highest tuition at Y8000 ($1000) for the arts. Advanced professional students in the biggest cities usually pay around Y6000 ($750) while *minban* universities can charge up to Y10,000 ($1250).

One scholar of higher education estimates that it costs about Y19,000 ($2375) per student per year at Shanghai universities. The average tuition paid by students is Y5000 ($625) and Shanghai municipality provides Y7000 ($875) per student. That leaves another Y7000 ($875) to come from other sources.

Tuition is a significant part of some universities' budgets while a small part of others. At Beida, for example, tuition provides about Y50 million ($6.3 million) per year of a Y2 billion ($250 million) budget, a proportion much lower than I would have guessed given my knowledge of tuition-driven institutions in the United States. At Beishida, tuition revenues are Y40 million ($5 million) in a Y100 million ($12.5 million) annual budget. The range I heard on different campuses, from guesses to in-the-know statistics, was 10% to 40%. Since tuition is fixed and the number of students is controlled by MoE, tuition as a percentage of a school's annual budget is really a factor of the institution's ability to raise other funds.

But for all college students, tuition is a major expense. I was told that education is the largest single item in most families' annual budget. This is a significant change from the elite model in which the few students who scored very high on the entrance exam got a free education courtesy of the state. When I asked students and faculty at East China Normal about a typical undergraduate's annual expenses, the consensus was: tuition Y5000 ($625); housing on campus Y1020 ($128); food, books and incidentals about Y5000 ($625), making the total bill a bit more than Y11,000 ($1375) annually. For a point of comparison, the average family income (not individual income) in urban areas is about Y15,000[32] ($1875) so higher education is a significant sacrifice for many Chinese families.

At Sichuan University about 15% of the students are poor and 5% are very poor so financial aid is essential for their continued attendance. A well-connected professor at Sichuan University told me that about 15% of the graduating class have not paid all their tuition charges; in aggregate they owe Y40 million ($5 million) to the university. Campus officials have worked with these students to arrange bank loans with a five-year payback scheme. Postgraduate students are increasingly able to get teaching and research assistantships to help with their academic and living expenses.

The central government established a student loan program in 1999 so that needy students would not be deterred from higher education. I was also told, however, that most

[32] Urban family income in 2002 estimated from statistics provided in "Basic conditions of urban households in 36 cities" on www.china.com.cn

students pay for education from family resources, a statement that led my thinking in several directions. One is that more families have the ability to pay than was the case in the past; another is the possibility that students from poor families withdraw from the educational system early so never consider university attendance.[33] In any case, student loans are still a small part of the whole financing system.

One source said that in 2002 approximately 590,000 students (out of 12 million students enrolled) received loans from commercial banks totaling Y5.1 billion ($6.4 million). These loans, however, can only be used for tuition so needy students still have the problem of money for living costs, books, and other expenses. Also, many students are often unwilling to borrow money, in part because of a cultural distrust of banks and loans.

The central government also provides scholarships in addition to loans; in 2002 the program run by MoE and the Ministry of Finance distributed Y200 million ($25 million) to students from poor families and rural areas. Administrators at East China Normal told me that about 50 centrally funded scholarship students are assigned to Huashida each year. In addition the university provides scholarships based on academic achievement that provide a 10% reduction in tuition; about one-fifth of the student body receives such awards. In the past, students in teacher training programs attended university tuition-free (with stipends for meals and pocket money) although they then assumed an obligation to teach afterwards. At Beijing Normal, at least, that plan is being abandoned so that all students regardless of major or career intention will pay the same amount of tuition. The funding pattern at Beishida is likely to change significantly as a result.

When I raised the American concept of out-of-state tuition as a possible mechanism for supporting a broader geographic spread of students, I was told it was not a good idea in major urban areas on the east coast. Already the costs in places like Beijing and Shanghai are higher than expenses in other students' home territories. The Shanghai government provides Y60 million ($7.5 million) for extra support for poor students, although the implication was that the need is much greater. If fees were raised the problem would only be exacerbated. Upon reflection, however, I have a hard time reconciling this response with the fact that many families, not only in the two major cities, seem able to pay for higher education; not every student outside the two major cities comes from a poor family although some certainly do. I suspect that the idea of differential tuition based on geography is just too different from the way Chinese education has worked up until now.

Postgraduate education has a different funding mechanism. At least at one university the general support coming from the central government includes a stipend of Y300 ($38) per month. Although the university feels this amount is less than required for a reasonable life, it cannot use other funds to supplement MoE stipends. The institution has been able, however, to create teaching assistant positions at Y800 ($100) per month using university funds. The person who described this situation said that the university was just beginning to pursue the idea of research assistants (presumably supported with university funds comparable to TA positions). It seems that there are different regulations and requirements with different sources of funding.

[33] Several people commented to me that the quality of education in many poor and rural areas is so weak that even students who complete twelve years of education are unlikely to have the academic background to pass university entrance examinations. And many rural children drop out of school long before, or do not have access to upper secondary education in their villages.

When I learned of the funding patterns for postgraduate education, I began to wonder about the emphasis being placed on expanding this aspect of university academic life. All the people who spoke of expansion of postgraduate programs discussed their plans in terms of intellectual development, needs of society, faculty desire to have more postgraduate courses to teach, keeping students out of the labor market, and so on. No one mentioned the fiscal implications for their institutions. But if I understand the current financial situation correctly—postgraduate students pay no tuition and the funds from the central government are inadequate—then there is a big problem looming for many universities in China, one that they seem unaware of as far as I could determine.

Overall, the fiscal patterns in Chinese higher education are ones of privatization. Universities must look beyond government for most of their financial support; students must rely on private sources for tuition and fees. In this regard, China is no different from most of the countries in the world, since virtually every nation is shifting responsibility for higher education funding away from the state toward students, their families, and other entities in society.

Development of *minban* education

Minban schools are institutions run by non-governmental organizations, usually social organizations or individuals, with a non-public budget. As the discussion below suggests, there are many different types of *minban* schools, some of a hybrid nature.[34] China's encouragement of private education is part of a worldwide phenomenon, especially in Asia.[35]

I was told that there are approximately 1200 *minban* institutions in China operating at the tertiary level, enrolling 1.5 million students or 39% of all college and university students in China.[36] Only 133 institutions, however, can grant bachelor's or associate degrees; the rest offer certificates, self-study courses, or other forms of education and training. Government controls enrollment numbers through the regular entrance examination system, although students in *minban* institutions often gain acceptance with lower scores than would be admissible in traditional universities.

An example of the size and scale of *minban* institutions at all levels comes from Sichuan Province. A recent booklet published by the education commission there describes the private education phenomenon in that province (see table 3):

The *minban* phenomenon is linked to several broad trends in Chinese society. First is the movement to a market economy. Some *minban* were created by entrepreneurs explicitly to make a profit; the successful enterprises tend to have a clearly vocational curriculum in high demand fields such as computer science, business management, and English language. One scholar of higher education told me that corporations make donations to *minban* universities for staff development, perhaps akin to the American custom of offering internships in order to get an early look at top students. Thus these private institutions are contributing to the economic

[34] A research group in the graduate school of education at Beida is doing a major study of *minban* schools at all levels. The results, tentatively entitled "The study of *minban* education institutions: organizational and institutional perspectives" should be published in autumn 2003.
[35] David Cohen, "The Worldwide Rise in Private Colleges," *Chronicle of Higher Education*, 9 March 2001.
[36] "Private colleges carve a niche in China," Xinhuanet news item, 12 August 2002.

development of the nation by providing explicit training in fields that are needed as China integrates more closely with the world economy.[37]

Table 3. *Minban* institutions in Sichuan Province

	Number of institutions	Number of students
Pre-school institutes	8,478	390,000
Primary schools	1,726	121,300
Middle schools	100	35,800
Technical secondary school	13	10,000
Higher institutes	52	46,000
Other	1,287	362,200
TOTAL	11,656	1,130,000

From "Sichuan Education Faces the World," published by the Sichuan Provincial Education Commission, no date.

Interestingly, in a recent multi-national study of educational finance, China is one of the countries with the highest proportion of education funding coming from non-governmental sources. Private financing, including individuals and families, accounts for 44% of China's spending on education at all levels, second only to Chile. The average for developed countries is just 12%. The report also states that China and Paraguay have the highest tertiary education fees relative to GDP per capita.[38]

The impression in many Asian countries is that government universities have high standards although substantial bureaucracy, while private institutions are lower in quality and more prone to corruption. Although China is only recently moving toward private educational institutions, I suspect these impressions have already seeped into the social fabric. Certainly the lower admission standards at *minban* universities reinforce this attitude.

Some *minban* institutions are once created by local government entities or local collectives. I was given more examples at the elementary and secondary level; in some cities, parts of public education have been transferred to the *minban* model. Financially strapped local governments are willing to allow schools to charge tuition in return for greater autonomy. (No one told me what happens to the students when this change occurs, but presumably the children of poor families drop out when they cannot pay school fees higher than the prior assessment.)

Some of the university branch campuses incorporate elements of *minban* education. Beijing Normal, for example, has operated a branch campus in Zhuhai (just across the border from Macau) for several years. This campus works much like a private university with a focus on applied fields; it has its own leadership, own admission standards, and own enrollment numbers determined by local government and MoE. Technically and legally it is independent

[37] I was interested to read a short news article saying that private universities in Beijing predict that their enrollment numbers may drop by half for 2003-04 because SARS, since travel restrictions limited recruiting trips by *minban* officials. *Beijing Youth Daily* quoted in *South China Morning Post*, 23 June 2003. Obviously private institutions engage actively in recruitment to stay in business.

[38] *Financing Education—Investments and Returns* published by the Organization for Economic Cooperation and Development (OECD) and the United Nations Educational, Scientific, and Cultural Organization (UNESCO), 2003.

but operates under Beishida supervision. Students get a Beijing Normal diploma but with the Zhuhai name so the difference is clear.

"We were a little naïve," my source said, about going to Zhuhai. The goal for Beishida is to make a profit; the tuition charge on the Zhuhai campus is double the Y5000 ($625) tuition charged on the main campus. So far, however, there are no profits in the offing, although the home campus doesn't invest much except in personnel—but since salaries and benefits are the major expense at most universities, this "except" is a big one. Beishida tried to get a business loan for its Zhuhai operations but "we didn't speak the same language as the lender," said the professor. Now the main campus supports the Zhuhai branch with funds from the central administration, although naturally senior administrators are eager to end the subsidy.

Minban universities of whatever sort contribute to the stated national goal of increased enrollments in tertiary education. In fact, these institutions are expected to pick up much of the expansion called for by the central government. It is no surprise, then, that the *minban* phenomenon seems to be more developed in the west of China where traditional universities are not as plentiful. In Xi'an, for example, six *minban* universities have enrollments of more than 10,000 students each.

Moral support from the central government can be inferred from a recent ceremony in Beijing naming "Excellent Graduates of Private Universities" for a merit award.[39] Sponsored by *China Youth Daily*, MoE, and the Communist Youth League of China, the annual awards are designed to promote private education—suggesting that *minban* universities are in need of such endorsements.

In Sichuan I was told that the top 10% to 20% of *minban* graduates are permitted to enter four-year degree programs at public universities, an incentive benefit to *minban* institutions—plus the only mention I heard in any of my interviews about student transfers from one institution to another.

One sophisticated observer commented that, while *minban* universities will be the main channel for increasing enrollment in coming years, there is no good mechanism yet for handling this expansion. This person recommended that an NGO for this purpose would be a better strategy than direct government involvement.

I asked my usual "Who gets to decide what?" question when discussing *minban* universities. An MoE official told me that Ministry approval is required for all four-year degrees; the process involves a review committee and a site visit. Local government can approve programs of two or three years' duration without going to MoE. The Academic Degree Office under the State Council approved 80 institutions last year, presumably for four-year degree programs.

In Sichuan Province I was told that the criteria for approval of a *minban* school includes 150 *mu* of land (about 25 acres), a minimum of 80,000 books in the library, appropriate facilities for the programs offered, correspondingly appropriate staff, and financial guarantees. The institution must also pass an on-site inspection. In fact, this official told me, the requirements for *minban* institutions are the same as for government-supported schools, although it is difficult for

[39] "Star graduates of private universities rewarded," Xinhuanet news item, 20 August 2002.

institutions without public funding to achieve these requirements. To be approved for degree-granting status is a further hurdle; I was told that "it takes time to develop that level of quality."

Minban universities sponsored by governments typically charge tuition of Y2000 to Y5000 ($250 to $625), while those run by private businesses charge Y10,000 to Y15,000 ($1875) per year. There has been a big debate about allowing educational institutions to make a "reasonable profit." I am not clear if the debate is about whether profit is appropriate at all in education, or whether the discussion is about what constitutes "reasonability" in such circumstances.

Minban institutions at all levels, especially those being run for a profit, provide an interesting example of the larger trend of state/public capital being transferred to individuals.

Minban universities may provide a new form of competition in Chinese higher education. One senior professor believes that the current university system will not be broken (which he believes would be good) until a private university emerges that is better than Peking, Tsinghua, and Fudan Universities. When good students choose a private university over these top key schools, the competition will force dramatic changes in the public system. Otherwise, said this faculty member, reform efforts will remain superficial.

I have the sense that *minban* phenomenon is the wild wild west of Chinese education. At one level, these private institutions are meeting a real need in Chinese society for education and training for a sector of the population not served by traditional means. On the other hand, there is little agreement about what role the government should play in the *minban* sphere, particularly in terms of quality assurance. Control over the number of admitted students, the core of government authority it seems, does not address quality issues or even basic consumer protection. Apparently almost anyone can create a *minban* with very little government oversight as long as the institution does not grant formal degrees; that is where formal approvals are necessary.

I suspect that China will need to grapple with some of the same issues that American officials have confronted when dealing with for-profit career colleges. How does a country create a policy framework for dealing with a type of social organization that until now has not existed in any significant way? How does China allow expansion of private education while also ensuring quality? How far should government go in consumer protection, preventing unscrupulous educators from taking students' tuition and fees without offering appropriate programs—or any programs for that matter—in return? I sense that many of the students in *minban* institutions are less sophisticated than their counterparts in traditional universities so possibly more vulnerable to scams and misrepresentation.

Yet *minban* institutions may be the most effective way for China to meet its goals of extending education to a broad population. Such institutions may represent the best hope for creative new educational programs to meet the needs of a rapidly changing society—an area of education well worth watching in the years ahead.

Joint ventures with foreign institutions

With limited funding for higher education from central government, there is real enthusiasm for academic collaborations between Chinese and foreign universities. The hope is that these new hybrid programs can enhance quality, raise standards to international levels, and also ease the enormous demand for spaces that are being placed on traditional universities.

One person told me that there are 700 joint venture schools formally recognized in China, but only a small percentage of them have MoE endorsement for degrees. The rest presumably are offering certificate or diploma programs or coursework with sufficient appeal to attract tuition-paying students.

A scholar who has studied these joint programs told me that in 2002 there were 149 joint projects with foreign universities in Shanghai, 60 at the university level. The most prevalent partner is Australia with about 25% of the programs currently in place. Next is Singapore, in which joint venture education is seen as a form of trade. Singapore programs, this scholar said, tend to be more focused on applied fields, including English language instruction.

In my campus visits I heard about several joint programs. East China Normal, for example, has such an arrangement with Latrobe University in Australia in which students in business, financial, and English take two years as Huashida and then two years at Latrobe, earning a degree that is issued by both universities. I also was told about a joint PhD program between Huashida and Paris Normal University in which students do two years of graduate work in China and a third in Paris. Other universities are still in the negotiation stage for programs with Belgian, French, and German institutions for programs in subjects ranging from teacher training to foreign language instruction. A different model of collaboration is the distance education work that Beishida has in place with the Universities of Nottingham and Manchester in Britain.

One person comments that key universities may be at a disadvantage in joint ventures because they must seek approval from MoE, while many provincial and local universities are not subject to such requirements. Given the capitalistic nature of local governments, he continued, these institutions may have a competitive edge because they can develop programs that national key universities are not permitted to offer.

Degree programs are not the norm, however; many of the joint offerings are advanced professional and career-oriented programs. "We have enough of these," I was told, while the person describing the situation to me said the need was greatest in areas of technical training. In Shanghai, the municipality is interested in programs that support such local industries as finance, logistics, and trade.

International collaboration can also happen in smaller increments. I learned of a course at Fudan in which Chinese students are taking a course via technology with counterparts at Yonsei and Keio Universities in Korea and Japan, all taught in English. Together the three schools have 10 lecturers and 50 master's degree students in one course studying regional security and governance issues in East Asia.

Sichuan University has a joint program with the University of Washington in which 30 students on each campus in such majors as geology, materials science, biochemistry, and environmental sciences collaborate by email as early as their first year of undergraduate study. Faculty members prepare joint assignments that require the Chinese and American students to work together. In the junior year the Chinese students travel to Seattle while the American students go to Chengdu. This is one of the few programs I know of that focuses explicitly on the sciences, as compared with language and culture study.

Perhaps the area of greatest success in foreign offerings is the MBA. (I can vouch for the number of foreign universities offering MBA and executive MBA programs in Hong Kong, so I

assume that similar programs are being offered in major cities in China.) One of the most successful foreign academic programs is a collaborative effort with the European Union, the China-Europe International Business School (CEIBS), offering an MBA in Shanghai. Established in 1994, the program is comparable to private universities and MBAs offered in other countries. The British *Financial Times* considers it the top business school in Asia and #39 in the world.[40]

It has more autonomy than joint programs with Chinese universities because it doesn't want official certification from MoE; it operates outside the traditional educational system. There are some government checks on its operation but the institution is fundamentally independent. "It has the green light of the market," I was told. CEIBS sets its own tuition at an astronomical Y25,000 ($3125), an amount approved by the Price Control Bureau.

I heard very little about joint programs involving American universities, although I assume that U.S. institutions are offering professional degrees in such hot—and lucrative—subjects as management and law. One exception, however, is the Hopkins-Nanjing Center for Chinese and American Studies, founded in the mid-1980s as a joint venture between Johns Hopkins and Nanjing Universities to offer a one-year certificate program to graduate students from the U.S., China, and a smattering of other nations.

Several times I was asked variants of the question, "Why doesn't Harvard come and open a branch in Shanghai?" (You can substitute names of other prestigious American universities and other major Chinese cities.) The question was motivated in large part, I inferred, by a sense of local pride that China and Chinese students were certainly good enough to be affiliated with Harvard.

I tried to explain that Harvard or any other major U.S. institution would probably have very little self-interest in opening a Chinese branch. It already gets the cream of the crop of students from China, especially at the graduate level. Expanding in size would only dilute quality, and there is little evidence that a campus in China would generate substantial new revenues greater than the costs of such an enterprise. In a culture in which size is a virtue—and certainly the recent experience of university mergers was justified in part by the positive aspects of size—Chinese academics find it hard to understand that many American universities and colleges don't want to expand. Private institutions in particular have few incentives for growth for its own sake.

In March of 2003 the Chinese government promulgated new regulations on foreign education providers. My first reaction was "hurrah!" that China was opening its doors to American and other academic offerings. The regulations cover legal principles and other issues, with the goal of encouraging Sino-foreign cooperation in running higher education or vocational schools.[41] One motivation for these regulations is probably the WTO requirement that member nations must admit foreign service providers—financial institutions, insurance companies, and the like, including universities—to enter one another's economy without excessive barriers.

One person with whom I spoke described the regulations as MoE lifting restrictions on the nature and scope of such programs; in the past joint programs were permitted only in certain

[40] "Business school ranked No 1 in Asia by Financial Times," *South China Morning Post,* 30 May 2003.

[41] The regulations were announced in *China Education Daily* on 24 March 2003 as well as other publications; they were summarized in the Wah Ching newsletter, 14 April 2003.

subjects but now universities can develop offerings on any topic. Another observer, however, told me that the regulations are really codification of current practice more than a new policy direction. The regulations are designed to guarantee quality by spelling out in detail the rights and obligations of the various parties involved.

One official expressed concern about opening up China's educational market to foreign providers. Under the new regulations, outsiders can offer programs, mount exhibitions, give entrance examinations, conduct research, and create joint programs. This area is moving so rapidly that the pace of change outstrips the government's ability to regulate it; even the newly published policies are already out of date and in need of amendment. More importantly, this official said, the access to Chinese markets presents a serious conflict with the traditional way of thinking about higher education—and perhaps caused him some personal anxiety as well.

As I listened to discussions of joint venture programs, I thought about the situation in Japan. When I traveled to Japanese universities as a Fulbright scholar in 1992, the push for internationalization was well underway. We visited several campuses run solely by American universities or in partnership with Japanese counterparts. I think the motivation then, from the American side at least, was to offer a U.S.-style education to Japanese students and to tap this seemingly infinite and wealthy market.

Of course, now that the Japanese economic bubble has burst and the demographic downturn has hit higher education,[42] smaller and newer programs have become quite vulnerable. I was told that only one American institution, Temple University, continues to operate in Japan, and even it is struggling. Many of Temple's difficulties seem to stem from government regulations and traditional ways of doing business. Japan has been a member of WTO for a long time but its government officials interpret the rules in such a way as to cause headaches, at least for the Temple administrator with whom I spoke. The same thing could well happen in China; the guidelines in the official printed regulations and the ease of doing business "on the ground" could be quite different.

Joint venture degree programs are the most formal of relationships between Chinese and foreign universities. I heard much more about less complicated programs, including exchange relationships for both faculty and students.

FROM NATIONAL TO INTERNATIONAL PERSPECTIVES

China was closed to the outside world for a number of years, so naturally the frame of reference was internally focused. Universities competed with one another for resources, prestige, and status; the goal for most institutions was to be as high as possible in the pecking order of Chinese campuses. As China opened up, however, administrators and faculty broadened their sights to a larger perspective of higher education worldwide. China has moved rapidly to "catch up" with trends in more developed countries by sending its best and brightest to study overseas,

[42] In November 2002, while in Japan giving a series of lectures on international education, I was told that the birthrate has fallen so sharply (and the higher education market has expanded so rapidly) that by 2010 there will be the same number of high school graduates as places in all of Japan's colleges and universities. Of course the competition for admission to the most prestigious institutions will continue to be keen, but the "exam hell" that has been part of the Japanese educational mystique need no longer dominate.

by welcoming foreign students and scholars to Chinese campuses, and to build world-class universities in China.

Chinese students and scholars abroad

Much of the reform movement has initiated outside of the university structure and often outside of China itself. For example, as China becomes increasingly integrated into the world economy, the nation requires more trained people with knowledge of current technology, modern business practices, international law, and foreign languages.

After the Cultural Revolution and during the 1980s, waves of Chinese students were sent to study in various western countries, supported by scholarships from the Chinese government. After the Tiananmen Square incident, the already significant numbers of these students remaining in their host countries increased dramatically. This brought about a reduction in the number of government-sponsored study abroad students, coinciding with the general policy of not providing full subsidy for university students.

The numbers I gleaned from my interviews include the following statistics:

- 580,000 Chinese students have studied abroad between 1978 and 2002. Of these, 150,000 have returned, while of the remainder about half are still studying overseas and half remain outside China.
- Presently the central government provides 2000-3000 scholarships annually for study abroad, usually for one or two years of research rather than an entire degree program. I inferred that the preference is for individuals further in their careers rather than recently minted college graduates.
- Undergraduates are discouraged from study abroad, in part because of the difficulty of coordinating foreign programs with their Chinese curricula.
- 180,000 Chinese students are currently enrolled in foreign universities, financed by those institutions or by students' families. On one campus, an administrator estimated that about half the students can afford study abroad from their own resources—a figure much higher than I would have guessed.

The China Scholarship Council, a government-affiliated body, supports Chinese faculty in scholarly research abroad. Each year the CSC announces a different academic focus, suggesting to me that an individual professor's chances of getting support vary widely from year to year. In addition to the several thousand scholars on government scholarships, many others are going with support from their home campuses. For example, at Beijing Normal, approximately 100 faculty were involved in long-term study abroad of a year or more; 30 were supported by CSC while, I inferred, Beishida provided support for most of the rest.

Every university I visited has dozens, even hundreds, of exchange relationships with foreign universities. Some are large programs bringing dozens of international students to Chinese campuses and sending student abroad, especially with other Asian universities. Other relationships seem to be based on an individual professor's contacts with scholars in her discipline, with little impact beyond that professor and possibly her graduate students. Once I

realized how modest some of these exchanges really are I became less impressed with statements about the number of exchange programs a given university has.

But even with that caveat, the amount of international exposure is substantial. At Nankai University, for example, about 300 faculty annually go abroad, usually for study and joint research projects. Of the 300, about 60% were short-term lecturers or conference attendees and about 40% remained abroad for one or two semesters. Comparable numbers at Huashida are 200 faculty traveling internationally per year, also primarily on short-term visits.

The issue of Chinese students returning to the mainland is a touchy issue. In recent years there has been significant debate about the wisdom of supporting international study. It has been quite controversial in recent years, especially in light of the low rate of return. But, said one researcher who studies these issues, "We have asked ourselves how students abroad can serve China." Two answers are that such individuals can promote economic relations and they can bring high technology to China. Thus, he continued, "We are all in agreement now of the value of study abroad." The desire to have world-class universities in China may be part of the reason for supporting study abroad since world-class seems to mean, in part, international recognition.

Also, the number of returnees has increased in the past few years, in part through active recruitment by the Chinese government. For example, in February 2003 He Guoqiang, a member of the Central Committee of the Chinese Communist Party, exhorted overseas Chinese attending a symposium to "return to serve their motherland and carry out their own research to contribute to the rejuvenation of the Chinese nation." [43] The phenomenon has become sufficiently significant in academe, business, and the professions to have a name: *haiguipai* or "sea turtles."

There may be several reasons for the change of heart: scholars' decisions to return to China may be influenced in part by of the burst in the technology bubble in Silicon Valley and elsewhere, and in part because the economic situation in China has improved, especially in places like Shanghai and Shenzhen. I met several individuals with foreign PhDs who have recently returned to China after a decade or more of living abroad. While I didn't grill them about their decisions, I sensed that they felt the quality of professional and personal life in the big cities of China is now quite attractive. Also, returnees with degrees from foreign universities can be stars in Chinese universities, while they do not necessarily have much prestige in the institutions that awarded their postgraduate degrees. I also learned that these returnees are getting very good packages of salaries, benefits, research support, and the like; at least on one campus they are exempt from the evaluation procedures being instituted for professors with Chinese advanced degrees.

In addition, some of the early international students have assumed leadership positions in Chinese universities, bringing an openness to foreign ideas and practices on their campuses. Currently more than half of all Chinese university presidents and vice presidents have studied abroad, I was told; 81% of the scientists at the Chinese Academy of Sciences and 51% of the administrators at Chinese colleges and universities have study abroad experience.[44] Thus the influence of European and North American educational systems is infiltrating Chinese higher

[43] "He Encourages Chinese Scientists in Other Countries to Return Home," *People's Daily* on line, 15 February 2003.
[44] *Ibid.*

education indirectly, in addition to specific reform efforts taking educational practices in the west as a model.

I was intrigued by one different model of study abroad that isn't technically "abroad." Zhongshan University in Guangzhou is establishing partnerships with several universities in Hong Kong to send 20-30 students each semester to study in the special administrative region. I didn't hear of any return flow but I assume the exchange toward the mainland may be less active.

Today, then, the study abroad phenomenon is alive and well, especially for graduate students and faculty members. Government sponsorship seems to be focused on shorter-term research and collaborative ventures, while people seeking foreign degree programs must pay their own way or earn scholarships from host universities.

The flip side of study abroad, of course, is the presence of foreign students on Chinese campuses. That is the focus of my next section.

Foreign students and faculty in Chinese universities

Every university I visited has programs for international students. Most of them are short-term programs of a semester or an academic year at most, concentrating on language and culture. I had the sense that these programs were a combination of "yes we are internationalizing" plus a positive cash flow that comes with tuition-paying students from western countries. Degree-seeking international students, on the other hand, tend to come from other Asian countries, especially Korea and Japan. This is an area that most universities wish to expand.

Increases in foreign students depend mostly on facilities; formal permission is not needed from government authorities. Nankai University, for example, expects thousands of international students each year, with long-term students, mostly from East and Southeast Asia, and short-term students from Europe and North America. Beijing Normal has more than 1000 foreign students on long-term programs, with Koreans more likely to be degree-seeking students. More than 10% of the Beida student body is international, although most of them are in short-term programs.

The financial aspect of international study is quite positive for the host campus. One institution shared the following statistics: While Chinese undergraduates pay Y5000 ($625) per year in tuition, American students studying language and culture will pay US$3000, much more than local students but still a bargain by U.S. standards. Some students from developing countries get grants from MoE so presumably bring something closer to Chinese tuition levels to the host institution but also offer prestige.

Japan seems to be a preferred nation for both incoming and outgoing student exchange. In general, Japanese students come to China for short-term study rather than degree programs. I saw a large group of them in a handsome facility at Nankai that was built, I learned, with funds and encouragement around a long-standing and large exchange that brings 125 undergraduates each year to Nankai. On at least one campus, the school of Chinese language and culture is an independent entity with considerable flexibility in student recruitment and management. It also keeps its own tuition revenues, an unusual policy since on many campuses the departments for short-term foreign students are similar to other academic units.

Most institutions also have a regular program of foreign faculty, although almost entirely short-term visitors. With the exception of language professors, these international scholars come for lectures, short courses, and collaborative research lasting a few days or weeks. Often these visitors are invited by individual departments, not the university's foreign affairs office, so their campus impact is limited. Even longer-term foreign faculty such as Fulbright scholars or participants in the German Academic Exchange program often live within the narrow confines of their department. I did learn that a handful of Chinese institutions, including Beijing Normal, no longer need the approval of MoE for the international faculty they bring to campus. Based on the success of this experiment, the policy will be extended to another 20 universities next year and presumably more thereafter.

I did not have the sense that international programs figured in any important way in the planning of the universities I visited. International students are important but a sidelight to the main business of educating Chinese students. And, since many of the foreign students are enrolled in short-term language programs, they probably don't interact very much with Chinese undergraduates anyway.

I was intrigued by the fact that I didn't hear anyone describe an institution-wide international strategy. Certainly every campus I visited had a large number of formal and informal relationships with universities in other countries; they sent large numbers of faculty abroad, mostly for short-term conferences and research experiences; and they invited foreign experts to lecture and to teach in China. But it all felt a bit haphazard—as it would on an American campus. Each department could choose to bring international scholars and apply for campus funds to do so; individual professors could ask for travel money to attend international meetings in their specialties; and so on.

I also did not hear any discussions about internationalization beyond sending students and faculty abroad and receiving foreign students in return. I asked if the number of courses with international content had increased, or if the presence of these students reflected a desire to have a more diverse university population. On one campus I was told that international students provided insights for Chinese students, but otherwise it seemed to be an unimportant issue.

Given the emphasis on achieving world-class status, however, I was expecting to hear a senior administrator somewhere say something like this: "We want to make a dramatic increase in the research published in foreign journals by our faculty. That requires having up-to-date theoretical knowledge and cutting-edge research techniques. Therefore each year we will identify (ten, twenty, a hundred) of our faculty with the greatest potential to achieve such international status and we will invest in their intellectual development by sending them to the top universities in their fields for a semester or a year. Therefore within ten years we expect to see this investment return in a 100% increase in articles in top journals, collaborative research with foreign scholars by at least half of the people we send abroad, better name recognition for our university."

To be fair, many American universities could not articulate a strategy for foreign study either—other than happily taking the tuition of international students coming to their campuses. And today, with the increasingly strict controls on issuance of American visas to foreigners, even that model may be reduced. Leading institutions in the U.S., however, have the satisfaction of already having achieved world-class status. Even in the "wannabe" Chinese universities, however, I had not been privy to conversations about internationalization of this sort, although

such discussions might well be taking place. It's one thing to want to be a first-ranked university; it's another to have a plan for getting there.

Becoming a world-class university

Virtually every person with whom I spoke mentioned "world-class universities" as an important goal for higher education reform. At the most prestigious campuses, my interviewees wanted their institution to become a world-class university. Other people spoke of China's overall goal of creating several institutions of international stature. This is yet another way in which China seeks to be respected by other nations.

But when I asked people for a definition of a world-class university, I usually got a somewhat sheepish smile, a shrug of the shoulders, and the comment, "I really don't know." Were they waiting for someone in government to provide a definition? Were they not well informed about the characteristics of foreign institutions? (That seems unlikely, given the number of professors and administrators who have studied at western universities.) Were they unwilling to venture their ideas to a visitor? Probably some of all of these reasons.

One faculty member mentioned that top Chinese universities are looking for specific foreign universities, most often American, to take as models. Thus Tsinghua wants to become more like MIT; Beida, Harvard; Fudan, Berkeley; and Chuanda, Michigan State or Penn State.

When I asked for more details about the details of world-class status, I received similar answers on most campuses: more publications, more research, more buildings, and more money. Some went a bit further to say, more scholars publishing in international journals, not just Chinese publications. Laboratories of international standards. Recruit star faculty—which meant, I inferred, top professors from Japan, Australia, Europe, and North America.

The people who mentioned a kind of strategic action were either scholars of higher education (not front-line administrators or faculty) or outsiders from Hong Kong or western countries. One said, "A world-class university requires a strong liberal studies program." Another offered the idea that a first-class university required "disciplinary construction" by which he meant strong programs in different fields of study—something akin to the American "peaks of excellence" approach. And only one person posed the question, "Under changing conditions, how does a university position itself?"

One thoughtful professor said that China wants to create something similar to the vitality and energy of American universities. The government is not proposing wholesale copying of U.S. higher education, but Chinese academics find the American model is more attractive than others. "We are now in a time of practicality," this faculty member observed, with the implication that American higher education speaks more effectively to that practical bent. Also, Chinese academics have more exposure to American models and more connections with American scholars than counterparts in Europe or Australia.

An echo of the practicality theme came from another long-time faculty member who told me that Chinese officials have no clear idea of goals for higher education, just a desire to try and learn from experience. An American scholar with long experience in China described it as *mo shi guo he*—groping for stones while crossing the river. People are trying to maximize their opportunities in a fluid environment but without a definite sense of where they are going.

Beida is proposing a dramatic change to its personnel policies in an effort to achieve international standing. A draft plan recommends that new appointments be appointed on a contract basis and all staff undergo a more rigorous evaluation system with underperformers being dismissed from the university. President Xu Zhihong is quoted as saying, "Our present mechanism for assessing staff's prospects for promotion does not work. We need to ensure continual improvement among our teaching staff. If not, the problem of having a sterile team, which is common in a planned economy, will remain."

Apparently the 1800 assistant professors and professors at Beida exceed the size of faculty at foreign universities with the same number of students, suggesting that this review exercise is also designed to reduce the teaching ranks. Presumably retiring, and dismissed professors will be replaced, over time, with persons of higher credentials and performance. President Xu noted, "What the university lacks at the moment are internationally acclaimed scholars."[45]

The issue of what it means to be a world-class university, in addition to better faculty, is also on the minds of other university leaders. In March 2003, Tsinghua University hosted a symposium on building a world-class university. Both administrators and higher education scholars attended from leading institutions, especially with a technological bent. Among the questions that were considered at the symposium were: What is a world-class university? Why should China take this as a goal? How far are we from this goal? Also, the president of Tsinghua spoke about his university's twenty-year plan for enhancement as a case study

I sought other definitions of a world-class university. A senior administrator at a Hong Kong university provided three characteristics of a great university, characteristics that have relevance beyond the boundaries of Hong Kong. First, he said, a great university has faculty regularly publishing their research in the top "defining" journals in their respective disciplines. Second, the postgraduate student body is truly international in origin. And third, the graduates of the university are employable anywhere in the world—which means bilingual or multilingual capacity, including excellent English skills.

Ruth Simmons, president of Brown University, published an article on the qualities of a world-class university. Some of her comments, while based on the American system, make an interesting counterpoint to the discussions I had in China. Here are a few excerpts:

- There is no formulaic approach to forming a first-class university system….We should think first of the goals of the societies in which they are located and understand that universities are just another way to help societies further these goals.
- The bedrock of university quality in the United States is peer review, a system in which standards are set by leaders of the field and those leaders are themselves challenged and judged by this process.
- Universities promote the capacity of scholars to develop original work that is not immediately applicable or useful. What is not useful today can be useful in the next generation or the generation after that. Great universities are not only useful

[45] Linda Yeung, "Peking University to break 'iron rice bowl'" *South China Morning Post*, 28 June 2003.

in their own time but in preparing for future times. What allows a great university to do that is as little interference from the state as possible. The role of the state is to provide resources but to give wide latitude to universities leaders to decide how scholarship is to advance.

- Education should never become an assembly line. Once it does, you may have a certain level of production, but you will never get the volume of creative thinkers that make a democratic society work.[46]

One administrator at Beida cautioned that it would take a long time to become a first-level institution, perhaps 20 years or more. Another said that the goal of international recognition is "just a slogan." A third person observed, "It's hard to know where we are going." He felt it was inappropriate for Chinese universities to copy foreign institutions directly. Instead, he felt that Chinese academics needed to study experiences abroad and then adjust foreign models to the specific situation at home.

Several faculty and administrators felt that Chinese universities can build modern buildings and buy state-of-the-art equipment, but creating a world-class university is a long-term proposition. Although the quality of the professorate is rising, great universities in their opinion create an international ethos through nourishment of research teams and investments in young scholars. Another faculty member applauded the efforts of Fudan and other universities to strengthen basic disciplines in addition to responding to pressures for more applied work. I had the sense, though, that there simply wasn't enough money to do all the things these academics felt necessary for real quality enhancement.

Several people also mentioned a generation gap—between old and young professors, and between professors and students. These disagreements slow the process of institutional development because everyone is not envisioning the same goals. Overall, the more thoughtful individuals with whom I spoke said that world-class status would not happen as soon as some people think. University leaders need more money from government so they talk of becoming a world-class university as a way to entice more financial support. But in the minds of some academics, it isn't possible to accelerate the academic process as fast as the political system would like, since there are such high expectations for higher education in China today.

WHAT I DIDN'T SEE AND HEAR

This report presents the results of my visits to a number of key universities in China, mostly describing what I was told by the individuals I interviewed and some of that I have learned from other sources. I find it helpful, though, to reflect on what I didn't see, what I didn't hear, in those interviews. The question, of course, is why my conversations didn't touch on some of the subjects I mention below. Given the relatively short time I spent on each campus and the small number of people I interviewed, I simply may not have hit upon the right people and places for some of my interests. On the other hand, I think some of the lacunae are quite telling about the situation in Chinese universities today.

[46] Ruth Simmons, "How to Make a World-Class University," *South China Morning Post*, 18 January 2003.

Institutional uniqueness

I was very surprised that people, especially top-level administrators, did not talk about the ways in which their university is different—and better—than others. Perhaps my surprise says more about my American penchant for individual identity and differentiation from the mass, an assumption that is not as relevant in the Chinese situation. I had expected, however, that I would hear people tell me about interesting reforms they were considering to enhance quality above the level of sister institutions. Instead, I was surprised at the similarity of responses that I received from one campus to the next. MoE may be letting a thousand flowers bloom but they are all the same species.

Since the Ministry is granting more autonomy to individual institutions, I had expected that campuses might go in different directions. Not so in my direct experience. I inferred that there was a fair bit of exchange among campuses since the categories of reform were quite similar; only the details differed. In several instances I was told, "We were the first to initiate this program and then University X copied it from us." The tone was often one of pride, not resentment, especially when the institution doing the imitation was higher in the prestige pecking order than the originator.

I also had the sense that savvy administrators checked with officials at MoE before making dramatic changes, just to be sure they wouldn't get in trouble later. I suspect, although I have no way of knowing, that highly visible universities in Beijing have closer relationships with the Ministry than their counterpart institutions in other cities. Not only are they more easily scrutinized by the bureaucrats, but they also may have more flexibility to negotiate experiments to their own benefit. I was told that leading university presidents have real influence at the Ministry, suggesting that governors and governed have a reciprocal and mutually beneficial relationship. As one might expect, then, decision-making is an iterative, jointly determined process rather than a strict top-down issuing of edicts.

Another factor promoting similar programs across campuses is the MoE role in providing guidance. The Ministry commissions study groups to look at the status of different disciplines (physics, mathematics, English, and so on) and different aspects of the curriculum (general education, for example) to lay out best practices and desired objectives. I inferred that campus administrators looked carefully at these reports and followed their recommendations. I was also told that MoE sets minimum requirements for academic majors, perhaps ten courses that form the core of the discipline with the remainder to be determined locally.

A speech by a top official can be taken as evidence of a new direction to be pursued faithfully; especially in less open times in Chinese history, people studied official speeches and promulgations like Talmudic scholars to look for subtle changes in government policy. While the study groups may have been created in an effort to assess the conditions of a discipline, or to bring the nation's best minds to bear on various academic issues, they also have the role of exercising indirect control over higher education. I am not sure whether this is an example of the unintended consequences of good deeds or a very effective way of maintaining direction in an increasingly decentralized system.

Also, from an outsider's perspective, there seems to be a cultural tendency in China to be more like the group, to be harmonious, to blend in. A famous aphorism is "The nail that sticks out must be pounded down." So in many subtle ways, Chinese people are socialized <u>not</u> to differentiate themselves too much. American individuality is not the Chinese way.

Only one person on one campus talked with me about mission and strategy—a senior faculty member at one of the normal schools I visited. With China's policy to make higher education broader and more comprehensive, some normal universities have been declared to be research-oriented comprehensive universities with a special focus on teacher training. At both Beishida and Huashida, more than half the students are now enrolled in programs other than teacher preparation. Many faculty and students, however, have found the label "normal" to be a stigma; even top students in excellent departments are not considered for the best jobs, and professors in non-education fields are not judged to be good scholars because they aren't in a "real" university.

At the same time, I heard an anecdote that reflects the value of being considered as a high quality teacher-training institution. Apparently the developers of a new housing complex being constructed near Beishida erected a large billboard advertising, "Live close to Beijing Normal University, and give your child the best education." The three secondary schools attached to Beishida are considered to be excellent. So in this one instance, at least, being a normal school is a plus.

The professor with whom I spoke, however, wondered if his university would lose some of its special edge by trying to be more things to more people. "We are tops in teacher training but we are not tops in most areas of research. Without a special identity, will MoE continue to provide extra funding or include us among the most prestigious universities in the country?" Apparently the faculty at normal schools have had significant debates on this subject. Nowhere else, however, did anyone talk with me about a mission other than being a leading research institution.

"What is the strategic vision of your university?" I asked bluntly at one of the most prestigious schools in China. Strengthen education and research was the first reply. Compete with top universities in the world. Reform the personnel system; "we are putting pressure on faculty to do more." All fine goals, but any university I visited could have said the same things. At another school an administrator told me that his university encouraged high quality departments to apply for government "key" designation, after which these programs were likely to receive additional funding. This approach, however, leaves institutional direction in the hands of the bureaucrats awarding "key discipline" or "key laboratory" designation, rather than campus level decisions.

I used my "there can be only one Oxford" line on one campus to ask if this institution has a special niche in Chinese higher education. My source told me that the natural sciences at his university are the best in the country; they must be maintained and enhanced. In materials science, for example, there is a new research center in nanomaterials. The university is also emphasizing interdisciplinary programs combining fundamental sciences and medicine. "In biomedical subjects we are behind other countries but there are lots of new possibilities."

I pushed again on the idea of unique programs. I received a lukewarm response concerning such traditional disciplines as literature, government, archeology, and ancient history; not much enthusiasm on the part of the administrator with whom I was speaking. He did say that society needs to emphasize culture and history since Chinese students do not learn much about their own history. "Taiwan has been much better about maintaining Chinese culture."

I came away from my campus visits with a sense that Chinese universities are changing fast and improving rapidly, but in a somewhat haphazard way. Perhaps American practicality

has taken hold too much? I find the "groping for stones to cross the river" analogy to be an apt one.

Rethinking strategy for global competition

In the shift from national to international comparison, however, these cultural tendencies toward similarity may be less useful than they are in a national context. When the goal is to be one of China's key universities, or to have a good program chosen as a key national laboratory, the competition is clear within a fixed universe and a fixed cultural milieu. But now, with the desire to create world-class universities, the competition is quite different. Top Chinese institutions must compare themselves with Oxford and Stanford and the Sorbonne. How do they do that? They can't simply strive to outdo these famous institutions in terms of research publications or star professors. Some of the world's best universities have many centuries of history that China simply doesn't have. And certainly China isn't rich enough to suddenly give one or two or three universities the financial resources that the top international universities have accumulated over the years. Thus, in my opinion, becoming a world-class university will have to involve a kind of strategic thinking that I did not hear in my admittedly brief visits.

From time to time in my interviews I have commented that there can only be one school at the top of the research university list, suggesting that American universities—and Chinese institutions as well—might be better off looking for other measures of quality. People nodded but then proceeded to tell me about their plans to become a research university, or more intensely research focused. In my experience, limited as it was, no one talked about becoming known for the quality of teaching although people did give many examples of greater emphasis on teaching. Similarly, I found that efforts to increase applied research were being pushed by administrators and local governments more than by faculty.

To be fair, many of these same trends exist in American universities. "Publish or perish" is the watchword, even at regional state universities whose major role is undergraduate and master's level education. But the best American institutions have tried to carve out a niche for themselves, as an urban university serving its metropolis, or a public liberal arts institution offering the advantage of a small college at a public tuition price, or a private institution that guarantees personal attention and graduation in four years. Much of this search for identity is market driven as universities compete, sometimes quite fiercely, for enrollments. Also, some campuses have worked hard to prove their worth to the legislatures and tax-paying citizens of their jurisdiction, a savvy move in times of limited resources.

The move from a national to an international perspective, the talk of internationalizing or of becoming a world-class university implies that Chinese universities want to look more like western universities. It was a reflection to me of the danger expressed by Philip Altbach and others that we are developing only one model of higher education worldwide—a western, perhaps predominantly American model. The combined impact of the WTO, World Bank loans for higher education, and the dominance of the west on developing countries all have pushed China and other non-western nations to emulate their more affluent and prestigious brethren. It's a form of intellectual colonialism that some commentators find dangerous. In my opinion, it perpetuates a kind of inferiority complex among Chinese academics that seems unhealthy to me.

Humanities and social sciences

In the "what I didn't hear" category, I was surprised at the overwhelming emphasis on the natural and physical sciences. Certainly that has been China's priority for decades, but with recent pronouncements about more attention to the humanities and social sciences, I had expected to hear that priority echoed on campus.[47] On several occasions I learned of substantial funding going to the philosophy department on campus A or the international relations program on campus B (usually from someone else at the institution whose department was not as well supported) but no one spoke of an overall effort to enhance the humanities and social sciences or a desire to balance the curriculum in some new equation.

China's uniqueness

I was surprised not to hear any mention of what Chinese academics could bring to the world's intellectual discourse. All the achievements that were cited to me were around themes dominated by the west, most obviously in science and technology. Yet China and other non-western nations have some unique insights to offer, especially in such areas as arts, philosophy, and culture. We in the west are worried about the loss of community and the dissolution of traditional family structures; these are strong values in Asian countries. Now I do not expect Americans to embrace Chinese virtues wholeheartedly, but there could be some very interesting ways in which the longstanding traditions of family and community could be reinterpreted for other nations beyond Asia. In a world beset by cultural and political conflicts, can China's long history provide any lessons? I don't mean to suggest that such ideals should dominate Chinese universities, but I would hope that somewhere in the mix such ideas might have a place. Of course, within the disciplinary communities of aesthetics or history or philosophy, Chinese scholars play a leading role. I am thinking more of institutional strengths and Chinese universities' potential to contribute the global academic community. In my visits I heard nothing like this.

Faculty governance

Faculty governance was never addressed directly, in large part because the concept is not a Chinese idea. There doesn't seem to be much of a role for Chinese professors in larger institutional issues, although I did hear occasionally about an ad hoc faculty group here, a standing committee there. And professors do seem to have some say in the business of their own departments. The advantage, of course, is that Chinese professors are saved from the time-consuming and often mind-numbing committee meetings that so many American faculties deplore. The disadvantage, however, is that Chinese professors are more or less powerless in the decision-making process. All things being equal, I suspect that many American professors would prefer the American faculty governance model rather than simply being told from the top

[47] In June 1999 MoE issued the "Plan to Build Up Key National Bases for Humanities and Social Sciences Research in Regular Higher Education Institutions." Current initiatives include the identification of 103 centers of research excellence and strengthening them with both governmental and private resources. According to two higher education scholars, the plan is a "fishing" project (as it is jokingly referred to in Chinese higher education circles) to generate revenue from all possible sources. Rui Yang and King Hau Au Yeung, "China's Plan to Promote Research in the Humanities and Social Sciences" *International Higher Education* (Boston College), Spring 2002.

what to do. But it certainly is not part of the Chinese tradition in higher education or in other parts of society.

The examination system

The fish doesn't think about the water in the fishbowl—it's all around but just part of the environment. Similarly, no one talked with me about the examination system that pervades Chinese education at all levels. For centuries Chinese students have been assessed on what is often described as rote memorization. Certainly one motivation for general education courses is to provide stimulation, critical thinking, and creativity. It is hard for me to imagine that there can be a major reform in the intellectual characteristics of Chinese students as long as the incentive system is based on the kinds of exams that are now present.

Perhaps there are people thinking about alternative systems of educational assessment in China, but I did not learn about reforms of this sort. One person mentioned the possibility of individual exams for each university rather than a national exam but it didn't sound as if the nature of the exercise would be all that different. In addition, one university president talked about trying to change from the current "hard to get in, easy to get out" mentality to an "easy to get in, hard to get out" system. I interpreted this shift as a focus on the rigor of the courses at his university rather than an assault on the examination system. I hope that leading educators tackle this issue for I fear that many of the reforms currently under way may not achieve their lofty objectives without a change of water in the fishbowl.

STRAY BITS AND PIECES

a. China educates 25% of the world's students on 1% of the world's educational budget.[48]

b. The relationship between faculty and students is changing somewhat. I was told about a PhD student who took his university to court because he did not receive his degree due to a mixed and largely negative review of his dissertation—but also a failure of the university to notify him of the decision, according to his complaint. I suspect that the tradition respect, even veneration, by students for their professors would have made such legal action unthinkable in previous generations.

c. I learned something of the planning process at Beida, with a planning committee chaired by the president of the university at the top of the system. This committee has three branches: a discipline committee with responsibility for approving new departments, the integration of programs, interdisciplinary work, and so on; an enterprise committee that determines the desired number of students and faculty; and a campus planning and construction committee to deal with facilities issues.

d. One shrewd professor told me that his institution, while a key university, is not at the very top of the status hierarchy. "That means we have greater flexibility here."

[48] Gerard Postiglione, "China's Expansion, Consolidation, and Globalization," in *International Higher Education* (Center for International Higher Education at Boston College), Summer 2001.

e. I was told that there is a research institute in Guangdong "looking at accreditation" and involved in the ranking of schools.

f. I asked how one university dealt with professors reluctant to change. A senior administrator said that persuasion was the desired method, "we discuss the situation with an individual." Certainly it is better to provide encouragement than force; we work hard to encourage professors to create new classes, especially for general education. Three years ago we had 50 core courses and general education courses; now we have 300.

g. Many students' parents have lost their jobs as state enterprises are closing, leading to a genuine concern about social stability especially in the "rustbelt" regions of heavy industry. In these areas, parents cannot contribute to their cost of their children's educations, possibly leading to lower enrollment rates and/or greater pressure on the students to get good jobs after graduation.

h. MoE is shifting its emphasis from big universities to rural areas. The key universities are almost all in big cities, but in remote areas higher education is very limited. When rural students do attend university, they often remain in the cities and don't return home. MoE is encouraging institutions in rural areas in order to provide two- and three-year programs of teacher training and other professional courses. The Ministry encourages these rural institutions to form partnerships with urban institutions, as well as links with local businesses. Larger universities are encouraged to send professors to the remote areas to provide courses, to make the rural colleges more comprehensive, and to increase enrollments in previously unserved areas.

i. I learned something about MoE's strategic plan. Among the issues on the minds of Ministry officials:

- Academic reform of the curriculum will continue, with emphasis on teaching methods as well as content.
- Quality assurance continues to be important, especially with continued growth.
- The size of higher education will continue to grow but not at the same rapid rate. In the next five years the growth rate will be about 5% to7%, paralleling the predicted growth of the economy. I assume that the turmoil caused by 30% increases has been noted at the institutional and governmental levels. Also, since the economy has not been able to absorb a huge increase in the number of new graduates there is no reason to continue to cause such instability.
- MoE will continue to grant more authority to local levels, meaning provincial and municipal governments as well as institutions. At the same time, however, universities continue to ask MoE, "What is your opinion?" (Historically there have been a number of shifts in government policy over the years and people moving in the wrong direction have suffered. Thus, although official authority has shifted away from MoE, it really seems to be a shift from one method of exercising authority to another, more subtle form of oversight.)
- Government needs to issue more legal documents regarding higher education. The Higher Education Act of 1999 is general legislation, so universities presidents are not sure who decides. With more legislation, these ambiguities can be resolved.

- China needs more NGOs for education. In a market economy, all the decisions should not come from government. For example, there is an association for presidents of Chinese universities. Institutions need more professional administration—better selection mechanisms for top administrators as well as academics with special training for leadership. Chinese university presidents have big power to decide which way their universities should go, I was told. If they make a mistake, their universities will suffer. Thus it is critical for them to have good training.

OBSERVATIONS AND PREDICTIONS

One of the most interesting aspects of a project such as this is the opportunity to speculate—about what might happen, what I didn't see, what might be the most interesting comparisons with other countries, and so on. I indulge myself in some of that in this section.

The absence of a real market in higher education

I began my fieldwork with a special interest in the relationship between the central government and individual universities. Who makes what decisions at what levels? As is often the case, a seemingly simple question generates complex answers. Throughout this report I have provided information about the state/market duality, the relationship between center and periphery. It is not an easy issue to sort out.

One of the individuals I interviewed said, "Change has become the norm" and he is certainly right. In the last twenty years Chinese universities have moved from being totally state-funded and state-controlled institutions to much more autonomous entities. The area of institutional finance is the one in which I saw the most market mechanisms—universities must raise the majority of their operating budgets themselves, separate from state subsidies. As noted in the text above, schools have become quite entrepreneurial by providing services to businesses and local government, selling products of academic inquiry such as computer software, offering adult education classes, running factories, and the like. On some campuses, research grants also pay a large part in supporting professors, laboratories, and the like. In fact, some universities are getting so good at fundraising that people are worried about money becoming the paramount driver, not intellectual or educational excellence.

In other aspects of university life, however, market forces seem much less important. Coming from a private institution in the United States, I am quite sensitive to competition among institutions for students. The Chinese situation is much different. The demand for access to higher education is so great that people are delighted to be admitted anywhere. Of course, students and their families prefer to be higher on the academic food chain rather than lower; the competition is intense to get into the key universities I visited. But even provincial and local universities do not need to worry about enrollments; they have had and will continue to have for the foreseeable future plenty of students to meet their quotas. Thus there is no real need to offer something special in order to attract applicants.

In addition, as long as MoE controls the admissions process, universities are not competing with one another in the way that institutions challenge one another in European or

North American countries. Although key universities are engaged in recruitment and have some flexibility over the admission of a small percentage of their undergraduates, they simply accept most of the students assigned to them.

This lack of institutional control over human resources was somewhat surprising to me. I had expected to hear more about reforms to relax central control over personnel numbers, both students and faculty. I suspect that key universities can negotiate or propose changes but they lack the freedom to make the final decision.

But like any organization, universities can manipulate their quotas. For example, one administrator told me that his unit had been assigned a lower number of faculty positions than it previously, or actually, had. But this department assiduously sought opportunities for research leaves, study abroad, and other faculty development opportunities, not only because they were good experiences for professors but because the people on these leaves didn't count against the quota.

In the U.S. student and faculty numbers are much more in the control of individual institutions. Even at public universities where the state controls the number of "lines" or positions on each campus, local decision makers can often split, recombine, and otherwise manipulate the slots they have. (Perhaps Chinese university administrators can do the same but I didn't learn about that.) State funding to key universities is based primarily on enrollment, as far as I could tell, so I understand the motivation of MoE to keep tight control over enrollments and faculty positions. I did not have the sense, however, that entrepreneurial activity could lead to additional people on what Americans would call "soft money" i.e., grants or outside funding. I suspect the strict regulation of student and faculty numbers is part of the long tradition of centralized control over higher education, and certainly a common phenomenon in many countries in Europe and elsewhere, not just in China.

One significant area for the exercise of market forces, of course, is the creation of *minban* education. These institutions live and die by the market since they have no state subsidy to support them. From the perspective of key universities, however, *minban* schools are not really competition since they serve a different student market.

The absence of a fully operating market in the western sense, especially around enrollments, became clearer to me when I realized how little I heard about financial aid during my interviews. More than a few administrators and faculty members told me that their universities have a policy that no student should drop out because of financial difficulties, but it sounded to me as if those campuses handled problems on a case-by-case basis. The government has recently created a loan program to provide credit for students from needy families, and of course many families have saved significant amounts of money to pay for their children's' education. Once again, to an American policy analyst for whom financial aid is a key government program for higher education, the absence of any real discussion of needy students was a bit of a surprise. It also leads me to think that one impact will be exacerbation of the gap between haves and have nots, urban and rural, coastal and interior.

One of the hallmarks of the American higher education scene—and one of its serious problems—is the use of financial aid in recruitment. U.S. colleges and universities engage in substantial tuition discounting to lure students to attend campus A rather than campus B. Recent

studies[49] have shown that more and more American scholarships and loans are going to middle-class students rather than the most needy; to use economic jargon, there is little impact at the margin. In plain English, these forms of financial aid are just moving students around from one school to the next rather than increasing access to higher education for students who may not otherwise be able to afford it. Such enticements may make sense at the micro level but at the macro level such financial aid is not a good use of scarce resources.[50]

Since individual Chinese universities are slowly getting more control of the admissions process, it might not be long before financial aid figures in somehow. It would be good for scholars and policymakers to look at the negative implications of scholarships and tuition discounts for recruitment purposes before imitating this aspect of American higher education. Once started, the competition for students through financial aid may be almost impossible to stop.

The issue of marketization/privatization may be a classic example of looking at the glass and deciding whether it is half empty or half full. Several individuals told me that the greatest difference in the past twenty years is people's mindset. Today Chinese academics have many choices open to them, many possibilities for their institutions. This broadening of horizons also leads to energy, optimism, enthusiasm, and a short-term time horizon. The reforms I observed are moving at a very rapid pace, whether in the speed of construction of new campuses to the pace of curricular change for top undergraduates.

In contrast, another individual told me that the Chinese mindset was still one of a planned economy. He lamented the lack of strategic planning in Chinese universities. In his opinion, institutions were being reasonably creative and thoughtful within a given campus but not very strategic in the larger framework. The system doesn't recognize multiple forms of excellence, he said; rather, everyone wants to be Beida. China does not yet have a market system in higher education; much of the effort is still managed under the old rubric. So the best response to questions about center and periphery, state and markets may be an equivocal "Yes but…"

Five years from now?

One of my frequent questions on my campus visits was "What do you think your university will be like in five years?" The usual responses were: more students, new buildings, higher research output, and better faculty with a higher percentage of PhDs. Several universities expect to develop their postgraduate programs so that the number of postgraduate and undergraduate students will become equal. I had the sense that this goal of parity was one being encouraged by MoE.

Some institutions are actively planning new programs, while others are focusing on improvements in the offerings already on the books. For example, one school with an environmental studies program envisions a transformation into environmental engineering, a step toward creating a more comprehensive engineering curriculum. Another institution is planning shorter, job-oriented training programs to meet market demands. But on another campus, when I asked specifically about new programs, I got an equivocal, "It's difficult to say."

I received an interesting answer to my "five years" question on one campus. A senior professor said that today's university presidents can speak English, they are most open to new

[49] For example, see "Unintended Consequences of Tuition Discounting," a report by the Lumina Foundation for Education, 2003.
[50] Two scholars who make this argument are Michael S. McPherson and Morton Owen Shapiro; one of their most recent studies is *The Student Aid Game: Meeting Need and Rewarding Talent in American Higher Education* (Princeton University Press, 1998)

ideas, and they are more familiar with the outside world. They are willing to look internationally for examples of what an excellent university should be. In both administrative and faculty ranks, he said, people will be much younger than their counterparts today.

I was especially intrigued by one response at Sichuan University. After lauding the new campus, this individual spoke about "democratic management" involving consultation with key constituencies. He described a process in which draft policies are shared with members of the university community with the goal of soliciting suggestions and criticisms before promulgating final regulations. When I sought specific examples he mentioned the allocation of bonus pay and the distribution of housing as two policies in which consultation was sought.

At a few institutions, predictions for the next five years took more of a student focus. For example, one administrator predicted that his institution would have higher quality students, not just in terms of exam scores but in terms of their ability to do research, express ideas, and get knowledge independently. Another administrator hoped that, in five years, the administrative aspects of the new curricular programs would go more smoothly. He didn't specify exactly what the current problems are, but with as many changes as are underway, he could have been thinking about anything from registering students to cajoling recalcitrant faculty.

Other "five year" predictions include streamlined postgraduate programs of fewer years' duration, a new campus, greater internationalization, individual research facilities for each faculty member, increased foreign investment in China, a larger salary gap between lecturers and full professors, better laboratories and research facilities for faculty, and internet access for all professors. More than one person hoped that his university would <u>not</u> grow any larger.

What I heard, then, is an expectation that five years from now Chinese universities will be doing more of the same, and doing it better.

Window of opportunity—and further study

One colleague observed that the higher education scene in China is very fluid right now, but he predicted that it would solidify in five years. Thus institutions that want to make change, or need to make change, have a relatively short window of opportunity in which to implement significant reforms. This sense of urgency may explain the rapidity with which certain projects are being undertaken—the construction of new university cities, for example—and what looks to me like a somewhat haphazard array of changes without a long-range plan.

Policymakers and policy analysts also must be mindful of this window of opportunity. From my perspective outside the Chinese higher education system, I think of this as an exciting time to raise important questions. Let me posit a few.

* Are Chinese key universities financially stable? Will the strategy of "we will ask MoE for another three-year grant" be sustainable for a long period of time? I assume that the national deficit funding model that has helped to fuel the Chinese economy cannot continue forever. What happens to higher education then?

* Are other types of higher education following the same paths as the key universities I visited? What about community colleges, adult institutions, and distance learning?

* How will the relationship between MoE and individual universities continue to develop? My hunch is that government officials will exercise new forms of control in the future—indirect, more subtle, more sophisticated rather than top-down directives. As is the case in many European countries, government is shifting to a steering function rather than a command and control model.

* What will be the impact of China's membership in the World Trade Organization? Will large numbers of foreign providers of higher education compete effectively with existing institutions? Will that competition have positive or negative consequences? Will the predicted loss of jobs due to WTO market pressures have an impact on employment prospects for university graduates?

* Will universities lose some legitimacy if students can't get jobs? One historical reason for the great respect for education by Chinese people is that learning is the pathway to a secure future for the individual and his family. The traditional Confucian educational system prepared the nation's best and brightest to be government officials; passing the exams brought high status. In the more recent past, education has also been a guarantee of a good job. If universities are turning out literally millions of graduates who cannot find appropriate positions, will the public lose confidence in universities? Will merit become less important—and connections more significant—as jobs are harder to find?

* With further expansion of higher education, will academic standards drop? Will there be more corruption?

*Are there still lingering effects of the Cultural Revolution on curriculum, policies, and personal relations?

* Where is the most innovative thinking happening? In Beijing because people have the connections and know-how to negotiate with MoE? In Shanghai because it has been the locus of many reform experiments before going nationwide? At institutions not at the top of the prestige chart so they have more flexibility? In regions of the country some distance from the capital, i.e., "the mountains are high and the emperor is far away"?

Final thoughts

I am cautiously optimistic about the future of Chinese higher education. I met wonderful, dedicated people who are determined to provide excellent education and to undertake high-quality research, and I am sure that there are thousands more just like them across the country. The degree of progress in the last twenty years is amazing; I doubt that many American universities could have reopened after something as pervasive as the Cultural Revolution and have advanced as quickly as Chinese institutions have done. Certainly the breadth of change—from finances to general education to new salary schemes to interdisciplinary programs to internal restructuring—was impressive. Chinese universities are changing in virtually every dimension in a very short time frame. If academics are traditionally conservative about their own lives and work, they are being forced to shift ground quite dramatically. And I have every reason to believe that universities will continue to be rapid, nimble learners as changes and developments come their way.

Chinese higher education today is fascinating from a policy perspective as well as an academic point of view. The relationship between MoE and individual universities is very much

in flux; the expectations for both students and faculty are quite different than even a decade ago. Universities are expected to interact with the larger society—Chinese and international—in ways that were unimagined in the past. And these changes will continue in the years ahead, in some cases as steady progressions from the current condition but in others respects quite different from the present state.

I wish all the best to the people with whom I met in the course of this project. Their lives are exciting, frustrating, but ultimately rewarding as they educate the next generation of leaders for China. I look forward to conducting further research on reform in Chinese higher education, in large part to stay in contact with these fine educators and scholars.

APPENDIX

Institutions and organizations consulted

Beijing Normal University (nickname is Beishida)
Chinese University of Hong Kong
East China Normal University, Shanghai (Huashida)
Fudan University, Shanghai
Hong Kong Institute of Education
Hong Kong University
Hopkins-Nanjing Center
Nanjing University
Nankai University, Tianjin
Peking University, Beijing (Beida)
Shanghai Academy of Educational Sciences
Shanghai Jiaotong University
Sichuan University, Chengdu (Chuanda)
Tsinghua University, Beijing
Zhongshan University, Guangzhou

Ministry of Education, Beijing
Provincial education commission
Private consulting firm
Private international school
Private foundation
Advanced language program for U.S. students
NGO offering study abroad program for U.S. students

Job categories/generic titles of persons interviewed

President
Chair, University Council
Party secretary
Vice chancellor
Vice president

Provost
Dean/associate dean, academic affairs division
Dean, international studies program
Dean of specific school or faculty
Director, interdisciplinary program (history and philosophy; social development and public policy; American studies; European studies)
Professor, history, English, education, philosophy, chemistry, chemical engineering, public administration, American studies, international relations, economics, political science, communications, sociology, government
Fulbright scholar (American)

Director/deputy director, teaching affairs
Director, student evaluation
Director, selective program for elite students
Director/deputy director, foreign affairs office
Director, study abroad program
Director, international college for short-term foreign students
Deputy director, social science office
Staff member, planning office
Assistant to the president
Research fellow

Director/deputy director, government education office
Director/deputy director, higher education research center

Staff at U.S. embassy in Beijing and consulates in Hong Kong, Shanghai, and Guangzhou