

Story 12: Yang Fang, as told by Cao Zhichang

[This is an extract of a story that appeared in a local Shenzhen newspaper¹]

I will tell a story about a boy from the time before he took the college entrance exam until after his graduation. I start with his college life, then reflect back to the time before his education.

A Law Department student Yang Fan and his college classmate Zhu are lounging on the lawn and discussing Yang's having failed Customs Law and the fact that he must take a make-up exam. Zhu laughs rather than comforts him because Yang always studied very hard. Yang feels he has been wronged. He talked with the associate professor who taught the course. Yang says his exam answer was based on the work of a professor at China's University of Law and Administration. Yang says he went deeper than the course teacher, but the teacher did not buy this argument. The professor kept silent, then commented: "I correct the paper based on my own lecture material, but you only went to one of my classes." Yang was so angry and asked: "Wasn't the original purpose of Exploration University to train students with pioneering and creative minds? If I blindly embrace the knowledge given by others, how can original ideas emerge?" Student Zhu disagrees: "It's useless for you to work so hard. Follow me and I will teach you business." So they went to the Green Dream Karaoke, but they did not go in because the admission price had risen. Yang did in fact fail the exam. He had gone to the department head, who sympathized with Yang's view because he was more open-minded. But the department head could not help. He was caught up in his own battle with Yang's law professor and he lost. Yang believed that if the dean had won, he would have passed the course.

Discouraged, Yang let Zhu eventually teach him about business, so that Yang earned ¥1,000. Later Zhu set up another business. He smoked a drugged cigarette given to him by his business partner, who robbed him and then beat him up. Yang Fang visited him.

Before Yang took the college entrance exam, he had a girl classmate named Binbin [ice-ice]. She was not good at English and her father, who headed the county court, asked Yang to tutor Binbin in English. He worked hard and Binbin improved. They fell in love. Before they filled out the college preference forms, they discussed their university choice. Yang chose Law and Binbin Chinese, both at Golden Hill University, a key university. The Law Department was more competitive, so Yang did not get in,

but Binbin entered Golden Hill's Chinese department. Yang was stuck with his second choice: Exploration University. Binbin's father's attitude changed; he was promoted to a provincial job; he did not want Yang to bother his daughter any more, because the father had already gotten what he wanted.

In his four years at university Yang Fang has earned more than ¥20,000 in business, and he also does a good job in study because he has developed the skills of exam-taking. He had failed the earlier one, despite hard study. Now, he does not have to study and his time is freed up to do business. Yang has many job choices because of his good academic record. But his friend Zhu has problems finding a job. Student Zhu has developed good skills in business but has a poor academic performance. So Zhu asks Yang to introduce him to Binbin's father so he can help him find a job. Yang says: "Although the SEZ and provincial capital are very attractive to me, I hope that I can return to my hometown where bamboo and plum blossoms exist and where I can contribute my skills in law and business before my soul is further corrupted by money and unhealthy phenomena." According to Student Zhu, Yang was still mis-directed. "But I like being mis-directed and I want to make the decision to go back to my hometown before I become like everyone else in Shenzhen."

7. Output

Whereas throughput in education examines process, output in an institution of higher learning more concerns product. This takes various forms. There is staff research, which primarily includes articles and books published as well as items patented. Figures for research, as provided by SZU, are reported in Table 7.1. There is also non-scholarly output, which includes consultancy or the marketing of products that are developed (e.g., chemical compounds, building designs/blueprints, mechanical instruments, computer software). Vis-à-vis students, output takes the form of *rencai*—graduates who have been trained to contribute to China's economic development.²

Departures

Staff and students who leave SZU may also be viewed as an output. Over its first dozen years SZU lost about 30% of its teaching staff, virtually all voluntary departures for reasons other than retirement. Data on student departures are less transparent, for they are obscured by late enrollment that occurred outside the state-plan. Also, SZU after 1989 stopped keeping track of its alumni who left China. The university's first (and only) alumni directory showed that 5.1% of *benke* students who graduated from 1983-1985 had emigrated by 1990.³ They came largely from Architecture (18.5% of the department's students), Foreign Language (17.4%), and Electronics (8%), with these three departments accounting for over half those who were reported to have emigrated. The peak emigration period appears to have been the early 1990s. For example, about 20% of the Foreign Language Department students who entered in 1987 had left China by 1995. In 1995 SZU processed passports for 62 current students, which represents 2.6% of *benke* students. All these statistics seem to suggest that from 5-10% of SZU's alumni over the university's history no longer reside in the PRC.

Research

Chapter Four, which described academic departments, relayed the extent to which research declined among various SZU teaching units. Data at the university-wide level, unfortunately, are not presented in university publications in a way that permits full time-series accounting. Personnel figures are suf-

Table 7.1: Reported research output⁵

<i>social science</i>					
	papers		books		
	total	awards	total	awards	
1983-'91/6	540	20	140	18	
1983-'93/9	705	24	184	21	
1994	205	1	28	4	
1995	229	na	33	2	
1997	350	na	27	na	
<i>natural science</i>					
	projects	papers	books	patents	awarded
1983-'91/6	na	na	na	10	37
1983-'93/9	103	252	14	16	54
1994	94	na	na	na	11
1995	na	na	na	na	2
1997	na	194	6	2	na

ficiently disaggregated for only 1987 and 1993-1995; the other years fail to note the exact number of professional staff in research institutes. In 1987 per capita research output was .34 items; in 1993, 1994, and 1995, the corresponding figures were .26, .69 and .59. This doubling of output over eight

Table 7.2: Ratio of research to teaching staff⁶

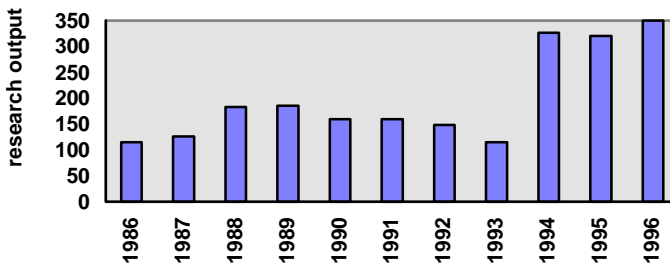
year	researchers	teachers	ratio
1987	25	348	1:12
1993	49	394	1:8
1994	62	410	1:6.6
1995	85	462	1:5.4

years was due in part to a three-fold expansion in the number of professional staff earmarked for research. Over these years the teaching staff also expanded. The ratio of full-time researchers to full-time teachers rose from 1:12 in 1987 to 1:5.4 in 1995 (see Table 7.2). (The SEdC's recommended ratio was reported to be 1:2.⁴)

Given SZU's substantial growth in teaching staff over those years, much of the increased per capita output must be attributed to teachers, rather than to full-time researchers. During the 1986-1995 decade the size of the teaching staff steadily increased; if per capita output had remained constant, research output would have nevertheless risen to reflect staff increase. This is not what happened. Figure 7.1 indicates that aggregate output peaked in 1989, declined for several years, and then rose after 1993. In the early 1990s, research output at SZU did not compare favorably to that of other

universities in China, according to an analysis in a SZU staff study.⁸ Using 1992 data for 522 Chinese universities similar to SZU—those offering *benke* and *zhuanke* programs in both the humanities and social sciences—the study found that SZU published 63 research papers in those fields, compared with the national average of 105. In the fields of science and technology SZU published 60 papers, compared with the national average of 114.

Figure 7.1: Total research output⁷



The dramatic rise in research output from 1993 to 1994 (284%) is due to something more than the addition of teaching and research staff. In major speeches and directives in 1993, President Cai implored teachers to undertake more research because, he said, publishing would be one of the criteria on which SZU would be judged in the 1995 SEdC accreditation. Staff carried out Cai's instructions to publish, probably sending to journals work that they had left uncompleted during their non-productive years. As a result, a most feverish research assault occurred in 1994, the year immediately preceding accreditation. Data on research per capita output for the four available years appear in Table 7.3.

Table 7.3: Research per capita output⁹

year	per capita output
1987	.34
1993	.26
1994	.69
1995	.59

The data presented above address only *quantity* and do not concern *quality*, which is a separate issue. Only about 8% of SZU's research output (see Table 7.4) appeared in international journals, compared to about 22% for Beijing University.¹⁰ About one-third of all articles from 1986 to mid-1993 were published in SZU journals and maga-

zines. In-house publishing often accepts a lower quality standard, and this is especially the case with the *Shenzhen University Journal* which published

the work of *only* SZU staff. Most of the remainder of staff publications appeared in journals published by other Chinese universities or institutes. Research published in the PRC journals, however, generally does not meet levels of international publishing.¹¹ Submissions are often accepted on the basis of relationships; independent refereeing seldom occurs.

Until 1988 SZU leaders viewed research as a function separate from teaching. This thinking, ironically, was out of harmony with the national reform strategy that attempted to integrate teaching and research as a way to “upgrade curricula, improve instructional quality, and raise the scientific level of research work.”¹³ In contrast, SZU teachers were encouraged to undertake research on teaching, but they were not prodded to take on other academic research. For that purpose the university by

Table 7.4: Where research was published (1986-1993)¹²

where published	%
in-house (SZU)	33.0
elsewhere in China	58.8
Hong Kong/Taiwan	3.0
Foreign	5.0

1986 had set up six research institutes. By 1988 only two of these had fixed staff (20 in New Energy and five in SEZ Economics). The remaining units had to rely on regular teaching staff who were permitted to work part-time at the institutes to help them execute their research agendas. In 1987 the university pleaded with the Shenzhen government for more research funding, noting that the quota for full-time researchers was only one-quarter of that recommended by the SEdC.¹⁴ SZU’s leaders felt the university was falling behind in research due to insufficient funding by the municipality. Apparently, the plea fell on deaf ears, and by 1988 it became apparent that the municipality was not going to fund the institutes to the extent SZU desired. The SZU leadership then instructed the teaching staff that they, not just the full-time research staff, were expected to undertake academic research. Published research would be the major criterion for promotion. Teachers were told that their endeavors were to emphasize the practical and that the revenue their research generated could be used to improve teachers’ welfare. As noted in Chapter Four, Chemistry became the exemplar for applied research, developing such sundry products as dust-free chalk and anti-AIDS potions.

The head of SZU’s Science and Technology Center, which oversaw research, complained of there being “few academic achievements in areas that are badly needed in SEZ, such as agriculture, economics and industry. We have achieved little in the electronics field. Enterprises in Shenzhen do not have confidence in us and dare not entrust their research needs to us.” Not-

ing that some teaching departments did not even make a single application for state-level research funding, the director of research lamented that “teachers think it is more profitable to teach than to do academic research.” In addition, research was made difficult by the lack of laboratory equipment as well as the absence of graduate students who could serve as cost-effective assistants.¹⁵

SZU’s concern that *all* (not just *some* or even *most*) research be of the applied nature contrasts with what happens at China’s research universities, which encourage a mix of theoretical and practical research. In its official brochure, Beijing University, for example, says it “pays much attention to the transition of research achievements into actual production” and points proudly to the fact that 46.6% of its research output results in applications.¹⁶ SZU did not present comparable statistics, but its leaders’ rhetoric suggested that a similar percentage would have been considered too low.

SZU aspired to improve its research output, but it did not wish to commit much of its own discretionary funding for this purpose. Instead, it adopted a set of different approaches. The Personnel Office drew up a mechanism by which departments could apply to the university for temporary funding for research staff. SZU would agree to take care of the salary

Table 7.5: Research funding¹⁷

year	research funding (¥)		source of funding (projects)			
	SZU-funded	upper level funding	SZU	state	province	city
1986	150,000	140,000		na		
1987	100,000	na	na	12	2	6
1988	100,000	260,000	na	5	13	6
1989	100,000	na		na		
1991	200,000	522,000	53	7	65	na
1992-1993	400,000	840,000	56	17	27	55
1994	500,000	1,615,000	na	6	18	12
1995	800,000	476,100		50 total		
1996	4,484,000	na		na		
1997	na	3,418,000	na	11	26	36

for only six months, after which the teaching unit would have to pay salaries.¹⁸ SZU also operated a loan program; from 1987-1988 the university signed 20 “reimburse and profit-sharing contracts” with teaching depart-

ments. For a one-year period, beginning March 1988, the university waived the requirement that departments pay part of their profits from research into the president's discretionary fund. It attempted to make side-courses less profitable. The *Shenzhen University Journal* was told to change its direction to propagate the research achievements of SZU staff. The academic journal was supposed to start taking advertisements and "become a commercial journal that propagandizes SZU and its research."¹⁹

Falling back on a time-honored Chinese tradition, SZU chose a model for the entire campus to observe: the New Energy Institute. This negative exemplar was given a "yellow card" for its slow performance and was assigned new leadership. Wang Lifang, who was appointed to turn the institute around, was told that if the institute's output did not improve within 12 months, it would be dismantled and taken over by the Reflective Materials Research Institute.²⁰ Wang had come to SZU in 1987 from the prestigious University of Science and Technology, Beijing (USTB), one of the premier research institutions in China. (In 1997 USTB employed 98 Ph.D. supervisors compared to SZU's one, and it maintained a steady research per capita output of .4). Research at USTB focused on applied science and engineering, but Wang had been frustrated there because "although some of my articles had attracted attention in a very small circle, I had no idea when they would be put into production." So he had decided to "jump out of the ivory tower and face the challenge the commodity economy posed to science and technology."²¹ New Energy suffered from low staff morale because, according to Wang, unproductive staff who had been warned felt they had been wronged and then become depressed. Wang succeeded in turning the institute around. It marketed a fire retardant it had developed, and it acquired enterprise-funding to develop a solar energy powered fruit dryer. "We now pay attention to marketing and dare to lose face." For its turn-around, New Energy was designated an advanced work-unit at the state, provincial and city level in 1991.

By 1991 fixed assets for research totaled ¥16 (US \$3) million (up from ¥3.6 million in 1986). These investment efforts to improve research, however, did not persuade ordinary teachers to change their ways. For the most part, teachers preferred to open training classes and side-courses rather than to take on applied research. This phenomenon sparked an on-going confrontation between the post-Tiananmen leaders and the teachers. By 1990 the Scientific Research Office (formerly known as the Science and Technology Center) was directing teachers to "pay equal attention to economic and social efficiency."²² SZU's Communications Technology Institute and Life

Sciences Research Institute were praised for their marketing successes. Between the lines of the discussion, the importance of the institutes was seen to rest in their revenue-generating capacity.

After post-Tiananmen rectification the university in 1991 embarked on a new research strategy which focused on what it called "backbone units." Only five institutes were to receive special attention (New Energy, Communications Technology, New Technology, Life Sciences, and the International Software Development, Co., a IBM joint venture).²³ Five others received fixed staff (SEZ Economics, Applied Nuclear, Bio-chemistry, Petroleum Research and Hong Kong Law). Other research units (Population, Higher Education, Comparative Literature/Aesthetics) received only formal approval; they were given no fixed staff. Borrowing from past rhetoric, the leaders told the campus community "to enhance ties between research and teaching and between research and application." University staff were directed to establish relations with enterprises in Shenzhen and to obtain at least one research project.²⁴ The general policy drive was consistent with the major purpose of university research units (apart from money-making), which was to serve as bridges for technological transfer between higher education institutions and enterprises.²⁵

Published data in narrative reports by leaders did not clearly reveal the amount of research funding SZU received. Funding for projects that overlapped years was often reported in its entirety for each year the project existed, thus substantially inflating statistics (see Table 7.5). According to a summary report, by 1993 SZU had received 18 state-level grants (12 natural science, ¥1.1 million; six social science, ¥38,000), 49 provincial-level (14 natural, ¥1.16, 35 social science, ¥161,000), and four municipal grants for ¥80,000. SZU itself had funded ¥400,000 each for natural and social science. Thus, for SZU's first decade, research had been funded for about ¥3.3 million.²⁶ These figures suggest, as would be expected, that natural science projects were fewer in number but more expensive than social science research undertakings. Overall, grant recipients, as would also be expected, tended to be relatively higher ranked academics, mostly professors and associate professors. From 1992 the project funding lists indicated that many grants went to department heads, in areas in which they themselves had neither the time nor, in some cases, the expertise to tackle the research. They received funding in their capacity as leaders, not as researchers. In addition, top-level leaders (Cai and his vice-presidents Ying and Zheng) each had their names attached as principal investigators to projects in which they did not

actual research, although they may have been consultants to the endeavors. It was in their names that funding was received.

Both external and internal research funding improved under Cai Delin, and various structural adjustments were made. One of Cai's Ten Reform Measures in 1993 addressed research structure. Three research technology groups were formed: civil architecture and construction; communication and electronics; bio-chemistry. Cai, through his inherited vice-president Ying Qirui, whose portfolio since 1986 had included research, continued previous lamentations: lack of a close relationship between teaching and research; research achievements not resulting in products; and researchers' lack of initiative in marketing their research. Referring to the Shenzhen Science and Industry Park, located just a few kilometers from campus, Ying employed an especially vivid idiom: *ji qian zhi sheng xiang wen, lou si bu xiang wang lai*—the two villages are so close one can hear dogs barking and chickens clucking but the people themselves do not visit each other.²⁷ The park's leadership, interviewed in 1992, revealed to me that their companies preferred to work with researchers from prestigious inland universities. SZU's teachers were viewed as less-serious minded than their inland peers.²⁸

In the lead-up to the 1995 SEdC accreditation, Cai decided to use more than the usual rhetoric in an attempt to improve research. He took more direct control of research than had his predecessors, who had relied on their vice-presidents. Cai transferred the Chemistry Department head to manage SZU's Academic Research Office, whose staff were party cadres not scholars. This was the first time that an academic had been put in charge of research (before coming to SZU Ying had been a computer technician, not researcher), and the move indicated Cai's concern that SZU's continuing low research output would negatively affect accreditation. The new head reshuffled staff in the Research Office and prodded his academic colleagues across departments to seek research funds and encourage their own staffs to publish. As a result SZU realized substantial increases in upper-level funding, as indicated in Table 7.5. Research output also increased, as noted earlier. SZU reported that in 1994, 56% of teachers participated in some sort of academic research. This fell short of the nationwide figure, which can be computed at 72.1%.²⁹ Rephrased, teachers at SZU undertook about 30% less research than their counterparts at other universities in China. Still, in the university's first 11 years, it had received grants for 22 "8-63" or other state level projects³⁰ and 38 ministry/provincially funded projects. Altogether, phases of 141 projects had passed state level evaluations.³¹

In 1995 the Finance Office, for the first time, disclosed the status of SZU's Academic Research Fund, an accounting device that had not been

Table 7.6: Academic research fund³²

	1994	1993
income	3,252,500	2,530,000
from SZU	500,000	400,000
from upper level & enterprises	2,752,500	2,130,000
income unspent		
from SZU	220,000	
from outside	1,302,400	

included in previous year-book discussions of university budgeting. The fund indicated the amount of research money that the university had received but which had not yet been expended (see Table 7.6). These data suggest that research at SZU operated annually at about a ¥2.5 million funding level. This was about average for a university of SZU's size and non-technical nature. For example, Yantai University, Shandong Province, is similar to SZU in age (1984), nature (comprehensive, 13 departments, 24 majors) and size (4,223 full-time students, 427 teachers). As reported on its homepage in 1997, Yantai had a ¥25 million investment in research facilities, and its research expenditures for 1996 were put at ¥2.7 million. In contrast, China's research universities substantially outpaced SZU and other smaller comprehensive universities in research. Hefei University of Technology, one of China's most famous research universities (and former work-place of astrophysicist/dissident Fang Lizhi) reported 1994's research funding at ¥42.2 million, more than 15 times that of SZU.

Story 13: Lu Bing, overseas student, clinic-basher

People sometimes ask me why I came to the United States to study. I have a stock answer: Because in China even the best university would only be a third-rate one in America. People in the States like that answer. It makes them feel that their country is superior to China, although I don't think most Americans need to find reasons to feel superior to China!

Really, just about anyone who graduates from Shenda can come to the States for graduate school. All you need is money—even if you are a virtual illiterate some school will accept you (and your tuition). In my case, my scores were good and my family could give me some money, but most of my tuition I had earned myself working in a Shenzhen export company for three years after graduation (I was one of very few business-women among Shenda graduates). In America you can pick up odd-jobs and part-time jobs—I made good money as a waitress in a high-class Chinese restaurant. At first I was afraid the immigration people might come in and grab me, but then all my friends told me that raiding Chinese restaurants violated my human rights and I had nothing to fear. I have since become a great supporter of human rights in America. If China gets human rights, we'll never get rich.

On one hand, I was well prepared for American education (I'm after an MBA). My economics, math, accounting skills are better than my classmates'. When we do group projects, I do all the word-processing and spread-sheet work. I help with organizing the group report but I leave the writing to others. On the other hand, Shenda did not prepare me well. I do fair on tests but very poorly on written assignments. Several of the teachers have given me low grades, and they comment "no new ideas" or "don't copy from the text." One teacher failed me on a term paper and made me redo it. Instead of rewriting it, I took a new topic and applied a Marxist approach to the theories he was teaching. He gave me a B- and said that I was being quite creative. Really, I thought I was being less creative, just giving the acceptable socialist line that any middle school student can do. I don't think the teacher knew much about Marxism. In future assignments I always applied Marxism, and only once did I get a low mark. That was from a TA who himself was a Ph.D. student originally from China. His comment: you don't fool me; I know what you are doing!

I miss China, of course. I want to go back holding an American MBA, working for an American company (that gives me a green card), with an

American-sized salary. Another choice is to go to Hong Kong, with a Hong Kong-sized salary and Hong Kong green card. The third choice is to stay in the U.S., get a green card and eventually citizenship. The fourth choice is to return to China and work in Shenzhen. When I went to the States I left behind a boyfriend. We still write and I have been too busy to even think about dating someone else. He wants to come to the U.S., but I am not sure he ever will. He's making too much money in Shenzhen.

I have a lot of good memories of Shenda, not many of them have to do with classes, which were really boring. The political courses were the biggest waste of time. But what I remember most about Shenda is the clinic. I will recount those nightmares.

I visited the clinic quite often because of hay fever or sinusitis. There was a period when I had to go weekly for shots. But I have a strong resentment toward the staff there. First, they try all they can to deter you from being transferred to another better-equipped hospital even if the medical treatment they provided was radically inadequate. I don't exactly know how the municipal health bureau allocated funds for medical reimbursements, but the head physician once told me that the annual quota per student or staff was a scanty ¥50. I have no way of telling whether he was lying. Since all the "people's hospitals" charge fairly and the students, faculty and staff referred from elsewhere will bring back receipts to get reimbursed, they discouraged people from doing this. The students, being at the most vulnerable position in the university community because of the absence of institutionalized grievance-redress procedures, fared worst. I remember almost getting into a fight with the deputy director of the clinic. After great reluctance, I was granted my rightful "privilege" of seeking treatment elsewhere; I brought back a bill for ¥45.30. But he refused to approve the part of the fee that was incurred by the purchase of an imported shot. When I demanded to see official documents that required patients to pay for the portion of medical prescriptions related to foreign-made drugs, he got angry and used abusive language against me. He arrogantly told me that if every student requested to see official documents, they could not get any work done (because of all the time entailed in meeting these requests?!!) and that I was a "disreputable trouble-maker."

My boyfriend once broke his little finger, but the physician on duty failed to detect it. But the pain was so bad that we forced him to seek help at the Shekou Union Hospital. The physician there told him, even before an x-ray, that the finger was broken. The x-ray just confirmed his hunch. My boyfriend brought the bill for treatment (¥40) to the Shenda clinic for

reimbursement and he was told by the same shoddy doctor who had missed the diagnosis, "Since it is for such a small amount, why don't you just pay it yourself?"

The prescriptions the students often get per visit are the cheapest possible stock medicine, costing ¥1-4 per bag/tube/bottle. There are, of course, tablets that cost ¥1 each, but they probably go only to the faculty or to important administrative officers with whom the clinic staff may eventually trade favors. Needless to say, some important personages would be well treated at the clinic, but they, again, probably don't bother going there since it is small and known to be no good. Moreover, I can easily imagine the physicians treating relatives or whomever they want to befriend who are not eligible for free medicine under the school system, by using students' names and ID numbers.

My diatribe does not obscure the fact that the clinic has done a lot of good in treating some minor ailments. But I dare say that no Shenda students have good things to say about the clinic.

Campus business and side-businesses

The previous section discussed teachers' disengagement from research. This section discusses teachers' going into business and examines the side-businesses that the university itself ran. In a sense, the running of non-academic-related campus enterprises was a way the university disengaged from what are thought of as the traditional aspects of the academy, those activities which involve teaching and learning. Spending time on campus enterprises, just like devoting energy to politics and delegation travel, took a large chunk of time out of administrators' schedules. That was perhaps one of the reasons that the thorny issues of pedagogy, as discussed in Chapter Five, never received much of the principals' attention.

The idea of an ivory tower set apart from the real world is not especially applicable to Chinese universities, certainly not to SZU. Universities in China are very much supposed to be part of the social economy. Given their prime directive to train *rencai* (talent), universities in China have organized their curricula into narrow specializations to serve the perceived short-term needs of the nation and have set up on-campus enterprises that turn research into production. Throughout the 1980s and 1990s the state has encouraged institutes of higher learning to become "public entrepreneurs." This is not an attempt to wean Chinese universities entirely off the public purse. It is, rather, a move consistent with a world-wide phenomenon which "includes activating unutilized resources, inspiring and supporting nonroutine behavior, and helping government officials and members of the public to reorient and recombine material and human resources, thereby enabling the achievement of outcomes that had previously been impossible."³³ In China's case, the public entrepreneurial role of higher educational institutions is often left unstated. It does not usually appear in official policy and is avoided in analyses by the government's spokesmen from academia.³⁴ What is stated by the government is the mandate for universities to become more efficient, something that has resulted from increased budget constraints; it is accompanied by a trade-off: the state gives universities more autonomy.³⁵

Almost every university in China is involved in some form of production and service delivery.³⁶ Cooperative arrangements with units of government allow universities to send research staff to production units. Hebei University of Technology (Tianjin), for example, has such arrangements with 29 cities and 23 enterprises. A small school like Ningxia University, which is

Table 7.7: SZU-affiliated enterprises³⁷

enterprise name	notes
Architectural Design Institute	1992 quota: ¥400,000, remitted ¥500,000
Experimental Foreign Trade	1992: ¥1.2 million remitted
Culture & Science Service Co.	1992 quota: ¥300,000, remitted ¥900,000
Information Engineering Co.	
Yue Hai Men Hotel	
Experimental Bank	
Reflective Materials Factory	1993 production value ¥30-million
Shenyang Mechanical Factory	
World Architecture Journal	closed 1990-1993
Experimental General Factory	closed by 1994
Labor service	sent workers under contract to HK, closed 1989
Translation Company	dissolved by 1989

about half the size of SZU, operates 23 school enterprises. Large scale technological institutions are especially well-suited for meshing with production. The homepage of the University of Science and Technology of China (Hefei) lists 16 affiliated enterprises, most of which are technology related (biomedical, electronics, chemicals, pharmaceuticals, etc.). Huazhong University of Science and Technology (Wuhan), which has three times as many students as SZU, operates seven factories and a number of enterprises. The University of Electronic Science and Technology of China (Chengdu) has 25 scientific enterprises under its umbrella. The Ocean University of Qingdao has undertaken 40 joint ventures with businesses. The China University of Geosciences (Wuhan) operates a drilling tool factory and an electroplating company. Xian University of Technology operates more than 30 high-tech enterprises and also houses several state-level testing centers. Institutions with business orientations have also established business ventures. The 28 enterprises of Zhongnan University of Finance and Economics (Hubei) provide legal, accounting, financial consulting and banking services. Other universities delve into areas that are outside their main educational direction. In 1993 Nanjing Normal University, whose main purpose is to train teachers and educational researchers, set up the Industrial High-tech Group Corporation “to realize the commercial transmission between teaching and research on one side and production and trade on the other.”³⁸ In other words, it wishes to take advantage of the high-tech nature of the university and to develop marketable high-tech products. By 1995 the corporation had developed 18 closely-attached and 22 less closely-attached enterprises. They en-

compassed a wide scope: biological and chemical products, hologram printing, land grading and real estate assessment.

Illustrations of combining research and production come from no less an institution than the prestigious Beijing University. In 1986 several Beida teachers and computer center staff developed the Fangzhen laser typesetting system for Chinese characters. Marketed domestically and internationally through Beida's New Technology Center, the product grossed ¥300 (US \$54) million in 1992.³⁹ Beida's Biology Department formed the Weiming ("not yet named") Biological Engineering Company to combine the functions of research, manufacturing, marketing and service. In its first deal the company netted ¥100,000 (US \$18,000), which was reinvested and used to improve staff welfare.⁴⁰ Annually, the university's Pecan Company produces ¥60 (US \$11) million in office automation equipment. In a major, especially symbolic move, Beida in March 1993 razed its southern wall, a 41-year-old 600-meter structure to allow for the building of a modern commercial street. Eventually, buildings were to cover 25,000 m², and the area would be called the Beijing University Hi-Tech Industries Development Circle.⁴¹ The purpose of this construction was to take advantage of Beida's talent and location to attract Chinese and foreign new and high-end technology industries.

At about the same time, SZU experienced a similar wall-razing event along the western perimeter of campus. In 1993 the Culture and Science Service Company, a SZU-run enterprise, drained a small lake and tore down a 200-meter stretch of wall near the west gate. The wall and gate, which were only about three years old, had been constructed as part of the post-1989 rectification that had enwalled the campus. Dubbed "Science and Technology Street," a building was designed and constructed on stilts (after its completion the lake was refilled). The building then housed several dozen shops fronting on the busy Shekou-Shenzhen highway. The shops were expected to provide retail computer services that together would become a sort of electronics marketplace. That was not to happen; a computer market already existed in downtown Shenzhen. Instead, the stalls became occupied by small family-run snack shops and clothing outlets. In the lead-up to the 1995 accreditation, SZU attempted to change the character of the stores. University authorities ordered that the sign "Nanshan Cuisine Street" be removed and that the number of restaurants be reduced in favor of businesses related to culture, science and technology.⁴² The owners of stores that were closed were to receive compensation. After the accreditation was finished, however, the street resumed its snack shop nature. By 1997 it had also become a

popular location for small shops selling automobile parts and items for residential decoration/remodeling.

These several dozen shops located on the western perimeter of campus were not considered SZU-run enterprises; they were just tenants of a university-owned building run by the Culture and Science Service Company. In all, the SZU umbrella covered about a dozen affiliated businesses, which are listed in Table 7.7 according to size/estimated value. Some of these had relationships with academic departments, as discussed in Chapter Four. This listing, however, does not include services run by the General Affairs Company (which was known as the Life Services General Company in 1988) such as the canteens, clinic, bus service, sanitation, water/power, communications, property, furniture and gardening.

The university-wide post-Tiananmen rectification that so affected all aspects of SZU influenced the operation of SZU-affiliated businesses in several ways. While recognizing the economic importance of the enterprises and recommending their expansion, the new university leaders made an effort to set up a more clear organizational division between enterprises and the university's main function—teaching and research. At the same time, they wanted the work of the on-campus enterprises to be tied closer to SZU's teaching and research. After a multi-year review, 14 businesses were closed in 1991, and four were cut from the university altogether. Several of the businesses that were closed had been run by close associates of sacked president Luo Zhengqi, including the Ghost House, a famous campus eatery and art gallery.⁴³ The Experimental General Factory, which was set up in 1989, was also dissolved by 1994. Some of its enterprises (Reflective Materials and Shenyang Mechanical) remained SZU-affiliates but were loosened from the university tether. Others (e.g., auto repair, furniture factory, printing) were absorbed under the General Affairs Office. As part of the wider rectification, more formal accounting procedures were instituted to ensure the university received its fair share of the companies' profits. In 1994 SZU prohibited personnel transfers from the enterprises to SZU teaching and administration units as a way to minimize demands on welfare subsidies. In total, by the mid-1990s there remained about 50 on-campus businesses. These included the enterprises listed in Table 7.7 which had fixed-staff quotas, about ten companies run by GAO, and about 30 businesses operating on university property (barber shops, markets, restaurants) that paid the university rent and contracted with SZU Security Office for protection.⁴⁴ In preparation for the 1995 accreditation, as noted earlier, many of the businesses in the latter category were closed.

SZU's enterprises congregated near the university's west gate, and they had almost no relationship with the teaching and research that occurred on center campus. The enterprises employed about 200 staff in 1993 (or about 20% of SZU's total). That year their fixed assets were ¥50 (US \$8.7) million, 150% over 1991. Remittance payments and rents were reported at about ¥10 (US \$1.7) million a year,⁴⁵ an amount equivalent to about 10-20% of the university's operating budget. It is unclear from the university's budgets how much of this remittance went to teachers or even entered the university accounts. The accounting was apparently included in an off-budget fund initially handled by the Enterprise Management Office and from which funds were turned over to the Finance Office to be dispersed to staff. Given ¥400 per month payments to about 1,000 SZU fixed-staff eligible for subsidy from the enterprise profits base, the university should have distributed about ¥5 million (US \$600,000) in 1994. But enterprise remittances were reported to be twice that amount. The problem suggested by this arithmetic was an on-going concern of the Finance Office, which in 1991 even argued for the right to manage enterprise remittances itself. The SZU leaders, including vice-president Zheng Tianlun whose portfolio covered the enterprises, decided to leave remittance collection and distribution with the Enterprise Management Office. Despite non-transparent accounting procedures, some funds were earmarked to improve teachers' welfare, and subsidies were increased from ¥400 monthly to ¥600 (US \$46-72) (US \$230,000) in August 1995. The amounts are generally not reported in the Finance director's annual narrative financial statement. Among its duties in 1995, the Enterprise Management Office loaned ¥2 million to five enterprises and helped two companies expand their factories over 400,000 m². The same year it reclaimed 2,000 m² from an enterprise that owed SZU money. It was one of 13 SZU units to receive advanced Party designation in 1995.

To a degree, teachers' work in SZU institutes and university-affiliated enterprises supplemented the income they earned from teaching. These activities, in general, allowed faculty to complement classroom teaching with practical experience; as long as the moonlighting remained supplementary, it did not come into conflict with teaching duties. Enterprises and institutes, however, provided work for only a small number of teachers, perhaps no more than 10%. The major recipients were architects and, to a much smaller degree, teachers in Electronics and a few engineers in other fields. The rest of the staff looked elsewhere for part-time activities that could generate income, especially after 1988 when teachers were notified that they would need to supply a ¥50,000 downpayment in order to buy an apartment. In the

1980s SZU teachers realized that their salaries were far below those of other Shenzhen people holding university diplomas, not to mention those with graduate degrees. One full professor was “chagrined to learn that his salary was the same as that of his son, who was just out of college and working at his first job with a joint venture company in the Special Economic Zone.”⁴⁶ By the 1990s, fresh SZU graduates were hired at salaries that exceeded those of their teachers.

Fortunately for SZU staff, the SEZ offered various types of part-time jobs for intellectuals. For the most part, these second jobs did not complement teaching and had less to do with applied scholarship than just making-money. Some teachers went into commerce, opening up retail outlets. Engineers, lawyers and business faculty took on consulting work. Other staff ran small factories. A number of foreign language teachers became fully engaged in translation work. The phenomenon of intellectuals going into business is called in Chinese “jumping into the sea of business”—*xia hai* (going down to the sea) for short. The situation has caught the attention of the Chinese media because, in part, it concerns the general issue of low salaries for intellectuals. A book entitled *Great Tremors in China’s Intellectual Circles* published in 1993 by the Chinese Society Publishers focused on this phenomenon. Subtitled “An overview of intellectuals floundering in the sea of commercialism,” the book itself is more a journalist than a scholarly account,⁴⁷ but it argues fairly convincingly that *xia hai* is extensive in Beijing and Shanghai universities. The book’s anecdotal evidence strongly suggests that university teachers in China to a large degree are disengaging from teaching and research duties. *Great Tremors* recounts the tale of a professor, the Party secretary of the English Department of the Beijing Forestry University, who received notoriety for selling meat pies at the school’s main gate. Other cases of *xia hai* involved professors from several of the capital’s prestigious universities operating a flea market and one scholar who went door-to-door to sell copies of her recently published monograph. Many of the side-businesses appear, in fact, to be closely related to teachers’ fields of expertise, including various “professor companies” that provide economic consulting services.

To what degree the *xia hai* phenomenon in Northern universities has caused teachers to de-emphasize their teaching is unknown. Clearly, this happened at SZU. From the beginning of SZU, over one-third of the teachers lived off-campus. By the completion of Shenda Village faculty housing in early 1993, almost all senior faculty had moved off campus into the new complex located downtown, a 30-minute commute from campus. Ordinary

teachers were required to be on campus only during their assigned teaching hours or for any required departmental meetings (usually on Wednesday afternoons). Teachers did not keep office-hours, for ordinary teachers were not given individual offices. Instead, they were assigned in groups to rooms that included desks that covered two-thirds of the floor area. In any case, there was no need for office hours, for the standard pedagogy meant that all teacher-student communications could be contained within the classroom. This seemed to bother neither students or teachers. All in all, communication between teachers and students at SZU was minimal, and many teachers showed their supposed disciples little respect (see Story 5). Despite the negative effects of faculty disengagement, *xia hai* was often seen as a positive aspect—even a defining characteristic—of SZU. At the time of the tenth anniversary, for example, a leading higher education magazine published by the SEdC featured SZU for its cover story. Commenting favorably, an article referred to the remark of one teacher: “We are on the seashore and you cannot avoid getting your feet wet. Although we never formally go into the sea, almost everyone of us has the experience of walking in the surf.”⁴⁸

Xia hai implies teachers’ going into business, and for this reason it is not the correct term to describe a major type of the money-generating activity undertaken by SZU teachers. From about 1988 to 1994 many SZU teachers taught in training classes that fell outside the officially approved teaching plan for SZU. They engaged in extra teaching, not business per se. The Wei-Wu and Cai administrations’ concern with “random” opening of courses and awarding of certificates has been discussed elsewhere in detail.⁴⁹ On the one hand, the leaders were concerned about the educational value of these courses, but on the other, they appreciated the source of revenue. The side-business courses varied greatly in quality. One course that was administered directly by the Academic Affairs Office in 1993 was a joint undertaking with the Shanghai International Studies University (formerly known as the Shanghai Foreign Languages Institute), one of China’s prestigious language schools. Teachers from that institution came to SZU and taught in a *zhuanke* program for fee-paying students. According to participants, the course successfully trained students at about the same level as other *zhuanke* English programs (e.g., Edmonds). That same year, the Foreign Language Department set up a program with the SZU Audio-Visual Center. It was not overseen by the AAO. About fifty students were enrolled in a two-year English learning curriculum, which was taught by two young, inexperienced teaching assistants, one who graduated from the FLD the previous year. Students were admitted without an entrance exam and they were permitted to

enter at any time during the term. Students paid ¥1,200 (US \$140) tuition each term for 24 hours of class a week for about four months. Thirty percent of the ¥56,400 (US \$6,500) in tuition fees was remitted to the university. The remainder was split between FLD and Audio/Visual. The latter unit's total contribution consisted of providing a single classroom. Neither department took on substantial expenses in the program other than paying the two teaching assistants ¥20 (US \$2.40) per hour. In fact, when the course ran short of text books to sell to the students, one of the teachers suggested a book be photocopied. Neither of the two departments would permit this expenditure (or even allow the copying to be done on the department's photocopier), and the students had to arrange for the photocopies themselves. Whereas AAO's course with the Shanghai institution was perceived at SZU as a serious undertaking by those involved, the FLD-A/V course was viewed by virtually everyone as a purely income-generating effort. SZU is apparently not unique in China for offering training courses that provide marginal academic education and are characterized as "scams" with little more substance than their "tantalizing advertisements."⁵⁰

Student achievement

The boundaries in education between throughput and output are sometimes rather blurred, but for argument's sake, student performance will be considered here as an output (pedagogy is the corresponding throughput). Academic achievement takes several forms, most notably grades, which should lead to a graduation diploma. The phrase "achievement orientation" relates to students who work primarily for results (i.e., grades). Underachievement, in contrast, is a term that applies to students who perform more poorly in school than one would expect on the basis of their mental ability.⁵¹

American studies on underachievement

Most of the published studies on academic underachievement relate to U.S. secondary school students. A landmark study by Robert McCall in the early 1990s debunked a number of myths about who underachievers were.⁵² Prior to that investigation, studies had not been especially rigorous in terms of methodology. McCall's study was based on a sample of over 6,000 secondary students in the state of Washington, and its methodology permitted comparisons between underachievers and their peers across a range of men-

tal abilities, as measured by I.Q. tests. Some of the findings of the research that might be relevant to SZU students were:

males were twice as likely to underachieve as females; underachievers came from all socio-economic classes; marital status of parent, number of siblings, birth order, family size and size/location of hometown were not relevant variables in defining underachievement; school counselors were not adept at identifying underachievers; underachievers had poorer self-concepts than their peers; they had markedly lower educational and occupational aspirations and expectations; they participated less in extracurricular activity groups and tended to date more extensively.

The underachiever at college became a fashionable topic for educationalists in the United States during the 1960s, with at least 23 studies that examined treatment programs for underachieving college students.⁵³ Articles appeared mostly in journals concerned with student counseling and psychology. At that time in the U.S. there was also a great deal of emphasis placed on intelligence testing. Students who tested high but did poorly in school were labeled underachievers. Educational psychologists and school counselors were called to address the needs of this group of problem students. As IQ testing fell into disrepute in the 1970s and 1980s, however, educators began to favor a more behavioral approach that paid attention to motivation. Most articles that later appeared in academic journals examined primary school and secondary school underachievers. The study of college underachievers went out of vogue. Nevertheless, one study from the 1970s is quite insightful for it identifies two separate clusters of college underachievers:⁵⁴

relatively practical, achievement oriented, conservative, controlled, science-oriented, adjusted, non-intellectual, traditional

relatively theoretical, liberal impulsive, artistic, humanities-oriented, non-traditional, deviant, verbal.

In applying this model to SZU, it seems like the majority of SZU students appear to populate the first group: more practical than theoretical-oriented, achievement-directed (although not necessarily academic achievement-directed), conservative, adjusted, non-intellectual, traditional. No evidence suggests that many SZU underachievers diverged from this norm. Observation verifies that SZU underachievers fit the first, not second, category of the American study.

Some more reflection on underachievement in the American context may help in understanding what happened in SZU. American university admis-

sions expanded in the decades following World War II until the baby boom generation flooded the tertiary sector. The stereotype (as portrayed in the movie *Animal House*) was the bright, but hedonistic (“gimme drugs, sex, and rock ‘n roll”) and extremely lazy student who could squeak through the higher educational system by cracking the textbooks a week or so before exams. He invariably attended a small, mediocre liberal arts party school. This stereotype had replaced the more positive stereotypes of achievers and overachievers of previous generations: the Great Depression East European immigrant making straight A’s, on scholarship, working spare time in the family store. After WWII the stereotype became the returned GI, supporting wife and child, attending night school and achieving a diploma perhaps more through diligence than sheer intelligence. Using stereotypes serves a purpose but requires care. The stereotype should not be intended to represent the average, but rather the perception of the average. As an indicator of what can be defined as perceived reality,⁵⁵ it represents how a segment of the public is viewed by the public at large. Since ‘the average’ is not qualified by ‘the standard deviation,’ the representation alone cannot characterize the entire picture. At SZU underachievement was both perceived and real.

Underachievement at SZU

Given its multi-layered system of merit-based examinations which allows schools to stream students, China’s education is very much achievement-oriented. The general consensus seems to be: the harder you work, the more you can achieve.⁵⁶ It is not surprising, therefore, that underachievement at university raises eyebrows because the public assumes that pupils who make it to tertiary education have sufficient intelligence to graduate. As noted earlier, however, about 20% of all SZU *benke* students from 1988-1991 failed to meet graduation requirements and had to settle for certificates rather than diplomas. Comparable statistics for other Chinese universities are not readily available, but conversations with various educators in China suggest that SZU’s figure is way above the national average, which may be as low as two or three percent.

It seems to be commonly acknowledged at SZU that students fail not because they lack intelligence or are inept at taking tests. Why then do so many fail? The answer given by teachers whom I talked with over six years is that failing students did not try very hard; many just did not care. Many were willing to accept a mere passing mark (60%); many were willing to accept a fairly high risk of failure because the consequences of failure were not

severe. As long as they made up their failed courses, all students could obtain a graduation certificate, which had about the same value in Shenzhen as a bachelors degree.

In general, underachievement in Chinese higher education is sufficiently present that a term has been coined: “long live 60” (*liushi fen wansui*). The phrase incorporates an idiom of extreme praise, traditionally reserved for the emperor who should live 10,000 (*wan*) years (*sui*). These “60-worshipping” students who squeak through with passing marks often show little interest in learning per se. They are not even interested in learning as a means of achieving a goal (getting a good job). They were unwilling to play the academic game, and consequently many of them often “achieved” more than the two permitted failed courses. Good grades were not seen as a prerequisite for getting a good job, either. Elsewhere in China, before job allocation was terminated in the 1990s, some students—especially those without well-placed connections in the job allocation process—were motivated to study, for high marks could well earn them a coveted assignment, such as one with a central-level ministry. Poor performance, in contrast, might mean they would be sent “to the grassroots,” such as to a city in an undeveloped area or even sent to a rural region. This reward-punishment system did not exist at SZU. From its inception, the university had never practiced job allocation; even the first graduates in 1987 found jobs on their own. As more classes started to pass through, it became clear that SZU graduates were hired for various reasons; good grades served but as a single criterion for getting employed. After a few years, it became apparent that some graduates who had had poor grades were getting just as good jobs as those with high achievement. This occurred for a simple reason. The mid- to late 1990s was a period of high economic growth for the SEZ, and SZU graduates were in high demand. By virtue of their SZU enrollment, they all automatically possessed a Shenzhen residency permit (*hukou*); thus, they became more desirable than their peers from universities outside the SEZ—which meant all other universities in China. Companies and government agencies that hired Shenzhen *hukou*-holders did not have to worry, at least initially, about providing their new recruits housing (most had families or relatives in Shenzhen); they did not have to use up part of the precious quota they were allocated for *hukou* transferees into Shenzhen. All in all, it was just simpler to hire a SZU graduate. The employment system, in fact, abetted underachievement.

Employment after graduation

Training the SEZ's immediate *rencai* was SZU's *raison d'être*. In contrast with other universities, few of SZU's graduates went on for higher degrees. The university did not track its alumni and thus did not maintain reliable data on graduates who continue their studies. Nevertheless, for the 1995 accreditation it estimated that 42 graduates from 1992-1995 (or 1% of the *benke* and *zhuanke* graduates for those years) had become graduate students. Virtually all of these would have continued their studies abroad. Among graduates, 5-10% left China and another 5-10% chose to work outside the SEZ, usually elsewhere in Guangdong. Thus, 80-90% of all graduates remained in Shenzhen, participating in some way in the zone's development. This figure was confirmed by the 1993 graduates survey which indicated that 87% of the new graduates working at the time of graduation were employed in Shenzhen. Only 1.3% of graduates whose homes were in the SEZ worked outside the zone, yet 29.8% of those whose families lived outside the SEZ took jobs in Shenzhen. Graduating seniors begin to take jobs during their last term of study. After they return from the mid-year break, which occurs around the time of Spring Festival (Chinese New Year), seniors complete their graduation thesis or design. At the same time, they distribute resumes, apply for jobs and take interviews. Then they take jobs on a "practice" or trial basis. When the trial period is over—it often lasts six months—they sign contracts and arrange for the proper transfer of their *hukou* and *dangan*.

Because many students were working or at least preoccupied with finding a job before they completed their theses, the writing of the graduation paper was often not a serious undertaking. This is another instance in which the employment system (letting students work before they formally graduate) contributed to underachievement. In other words, students prone to underachievement may have been more serious if they had been forced to devote full time to their graduate theses/designs.

Dangan and hukou

The *dangan* (personal file) along with the *hukou* (residency permit) are types of geographic control, which itself is a vestige of China's half century experiment with communism. Although household registration has its origins in the Qing Dynasty, it became pronounced in the 1950s when the Chinese state implemented a policy to restrict urbanization by controlling the flow of peasants to cities.⁵⁷ The mechanisms of this policy consisted of *hukou*, food

coupons, and the housing welfare benefits provided by a person's work-unit. The administrative policy persists to the present day, but it is no longer used as an effective tool for restricting population migration. For example, in 1996 only 29% of Shenzhen's residents held official residency, in the form of a *hukou*. A *hukou*, however, is still important, for without it, a resident in Shenzhen is not eligible for a marriage license, subsidized housing loans, the right to bear a child, or to send the child to school. SZU students who resided in the SEZ experienced no change in *hukou*. Full-time *benke* students whose families lived outside the SEZ received Shenzhen residency when they first enrolled in the university. They were put into SZU's collective *hukou* account. At the time of graduation, they had to go to the local Public Security Bureau and retrieve a chopped certification so that their *hukou* could be removed from SZU's account. Those who wished to remain in the SEZ with legal residence had to ask their new employer to include their *hukou* within the new employer's collective account (Not all employees, especially those who lacked *hukou* quota, agreed to this request). Or graduates could find a relative, or just friend, who would permit them to have the *hukou* attached to the family's account. When graduates got married, they had to set up their own individual *hukou* account, which could include spouse, child, and whatever other people the local Public Security Bureau permitted. Given a high amount of discretion among the individuals involved in the process, transferring *hukou* could require negotiations and *guanxi*, but it usually tended to be a smooth and inexpensive procedure, since it was so commonplace in Shenzhen.

Students' *dangan* recorded their university life, including grades, disciplinary record, student's annual self-assessment, with notations from the department head and CCP branch secretary, and materials relating to CCP activities. All Chinese, except the young, are supposed to have a *dangan*, a term which is often translated into English as *dossier*. This latter term has a rather negative connotation, which is not intended in the original Chinese. In any case, the dossier functions as a way for the state to keep tabs on the population.⁵⁸ At SZU, department-level leaders can submit positive as well as negative comments about students, something that might have given Student Xie (Story 9) a cause for alarm. The *dangan* was not an open file: it could not be viewed by the student. In fact, it could not even be perused by the potential employer, until after the student was hired and formally transferred to the work-unit. At that time, the student personally carried the sealed and chopped file and surrendered it to the work-unit. But the file could be used by school officials, like department leaders, class advisors or

placement officials in the job search process. In a 1985 experiment conducted by Shanghai Jiaotong, class advisors were given access to the *dangan* so they could serve as a “bridge” between students and potential employers.⁵⁹ At SZU, however, the *dangan* was not used in the job search process. This was due to several reasons. The files were kept in a special locked office, and retrieving them required initiating a bureaucratic procedure that most leaders preferred to avoid. Obtaining the file was likely to incur costs on the seeker’s behalf in that s/he was likely to have to repay the favor at some future date. Second, career counseling at SZU ceased to exist after 1989; from then the job placement office provided no counseling, and no staff within the academic departments served as job advisors. Unlike what occurred at Jiaotong University, SZU abandoned the class advisor system—these so-called bridges—in the late 1980s. Third, examining the *dangan* was associated with political activity which, at SZU, was generally proscribed except for certain events, such as the point where student self-assessments were reviewed by leaders and then included in the files. The political process took place at specified times, by schedule—at the student’s university entry, during annual review and periodic special reviews, and prior to graduation. Thus, if a leader were to make a special request for a student’s *dangan*, his/her stated reasons and sub-surface motives could be examined. S/he would have had to make a formal request. According to one of my informants, political actions out of the ordinary were often suspect and had to be taken with great care. This caution was especially practiced by officials who lived through the “ten years of chaos” known as the Cultural Revolution.

When students were hired by state-run firms or government bureaux, they retrieved their *xuesheng* (student) *dangan*, which by that time was about a half-inch thick. Graduates who worked for private Chinese firms, joint ventures or foreign-funded companies made other arrangements for their *dangan*. At various times SZU has agreed to let the *dangan* remain in the university for a fee, payable when the graduate came to finally remove the dossier. Some graduates put their *dangan* with the Shenzhen Labor Bureau, also for a fee, reported by graduates to range from ¥800 and up per year. Other students found state-run companies willing to hold the *dangan*, even though the graduate was not actually working for the company. In these cases, fees were negotiated. In still other cases, employers agreed to pay the Labor Bureau for retaining their employee’s *dangan*. The *dangan* was important because it carried along with it *ganbu* (cadre) status, which was automatically conferred upon *benke* students upon graduation if they took public sector jobs. State employees who wanted to climb the career ladder

Table 7.8: 1994 Graduates Working at Graduation by Gender⁶⁰

Working	Male	Female	Total	%
Unemployed	53.3	39.2	336	48.1
Banking/Finance	15.6	31.8	150	21.5
Real Estate/ Construction	7.4	7.5	52	7.4
Business/Trade	16.0	16.1	112	16.0
Government Bureau	7.7	5.5	48	6.9
number	443	255	698	
percentage	63.5	36.5		100.0

needed cadre status, as reflected in a *ganbu dangan*. Graduates who worked for governmental units or state-run companies, as well as those who filed their *dangan* with the Labor Bureau or inside state companies, retained cadre status. Most, if not all, SZU graduates who worked in Shenzhen treated their *dangan* as just described.

In a sense the *hukou* and *dangan* process also contributed to underachievement. The right to work in Shenzhen had nothing to do with academic performance. Whether holding a degree or not, a graduate could become part of the Shenzhen workforce if the *dangan* and *hukou* could be arranged. A job depended on those (except for some jobs in the private sector). In the newly developing labor market, SZU students were not guaranteed jobs. Under the old allocation system, however, students who underachieved were not likely to obtain good assignments. Poor grades could translate into poor jobs. This was not the case in Shenzhen. Students had little incentive to get good grades as far as job procurement mattered. This is due in part to the importance of relationships in the job hunt, a topic discussed below.

Where did SZU graduates work? The 1993 graduates survey found that 73% of the seniors worked for state-affiliated companies or government agencies, 11% in joint ventures, and 8% for companies solely foreign-owned. About half the students who graduated in 1994 had found jobs before commencement exercises. Graduates (1994) worked in businesses that dealt with finance, trade, real estate or in government agencies (see Table 7.8). Changing jobs often occurred. About 30% of the students who graduated in 1993 had taken a full-time job which they quit *before* they had even formally graduated from SZU. Once in the work-force, graduates tended, on average, to change jobs every 2-3 years for the first five years they were out of uni-

versity. They found their initial jobs through a variety of channels (30% by campus recruitment; 22% by themselves; 5% by public advertisements, and 36% by introductions involving various amounts of *guanxi*). Relationships were most important for landing jobs in state-run companies or government agencies.⁶¹

Public perception of student underachievement

The public saw SZU students on the whole as underachievers. This perception seems to be borne out by a damning article which appeared in October 1992 in the *Shenzhen Special Zone Daily*, the area's leading daily newspaper. Entitled "Mis-directed Yang Fang," it told the story of a Law Department student who had been diligent in high school, but whose pursuit of knowledge was corrupted when he attended university. The people in the story were misidentified; the school itself was called Exploration University, located by Bigfoot Lake. Historically, SZU's Wenshan (Knowledge Hill) Lake had been known as Smallfoot lake. There was little doubt that the account referred to SZU. SZU's Party secretary himself labeled the piece a "sarcastic and mean article."⁶² The essay, which is extracted in Story 12 immediately preceding this chapter, explained student underachievement in terms of the rigidity of the education system and the students' preoccupation with doing business. There is no way to know if this perception was widespread, but a personal anecdote lends support to the validity of the perception.

As part of the research for my dissertation, I spent ten days in Shanghai where I visited various university job placement offices. One afternoon on the campus of the Shanghai International Studies University, I was walking with my assistant, then a senior at SZU. He struck up a conversation with two female students who offered their perception of SZU. The school, they said, was heaven for students, who lived in co-ed air-conditioned dorms, having to share a room with only a single roommate. They suggested that students spent much time dating (with a snicker to suggest sexual activity); they were not required to attend classes, could start their own businesses and make fortunes. In fact, SZU dorms were neither co-ed nor air-conditioned (but classrooms were both); two-to-a-room was normal; before 1989 class attendance was indeed optional; most students did work in part-time jobs, but few made fortunes. I cannot say if these women's misperceptions of SZU

students were representative, but I have heard these stereotypical descriptions on more than a few occasions.

In conversations I have had over a decade with various Shenzhen people, the school has often been characterized as a country club, a four-year reward given to those who do well in high school. In this respect, it resembles tertiary Japanese education where “[most] of the university students have more interest in extra-curricular activities than real hardworking study...Their most important interest in school life is just to graduate.”⁶³ Another indication of the public’s negative perception appeared in a 1993 article from the *Shenzhen Legal Newspaper*,⁶⁴ a publication that may be described as somewhere between investigative journalism and tabloid exploitation. According to the article, SZU had “a first rate environment, third rate teaching and study management and ninth rate students.” In their lengthy piece, the investigators reported that “only 80% of the freshmen bother to attend classes and for seniors the figure is below 50%...the library is 80% underused...learning how to make money and enjoy life is the students’ key aim.” Again, the accuracy of these views notwithstanding, they appeared to be valid as perceptions. In addition to reflecting public opinion, an article like this greatly shaped public opinion. The authors referred to “long live 60” as a “well known student phrase,” noting that students believed that “good or poor study results will not bring a deserved profit.” The *Legal Newspaper* saw student underachievement as one of the university’s most serious problems.

SZU student underachievement

SZU’s pre-1989 educational reforms may well have inadvertently encouraged academic underachievement. During the university’s first six years, class attendance was optional. Students could become engrossed in the second or third classrooms. (Participation in employment or extra-curricular activities, however, may also be viewed as achievement substitution). Some diligent students enrolled for concurrent classes and studied on their own in order to pass the final exams. Less diligent students realized that they, too, could skip class. Since final tests were not very demanding, many students recognized they could manage a pass if they crammed during the few weeks before exams were given (Exam period was the final two weeks of an 18-week term). After rectification, attendance was made mandatory, but the Wei-Wu Administration’s rules were often not enforced by teachers; absent students found ways to be counted as having attended classes (see Story 9).

Absenteeism in many Chinese universities is serious. *Great Tremors* called it “one of the outstanding problems in many institutions of higher learning today.”⁶⁵ Absenteeism, of course, relates to more than just whether attendance rules are enforced (which was SZU’s solution to the problem). It involves a broader phenomenon. According to *Great Tremors*, an inertia among some students sets in because the system is perceived to be “hard to enter, easy to leave.” Also, why study when an “iron rice bowl” is bestowed upon graduation? Some students are too busy with their part-time jobs. Other students are preoccupied with romance. Both of these situations occurred at SZU. One of my students sung in nightclubs and rarely made any of his morning classes. A female student became so paralyzed by a failed love affair that her parents eventually withdrew her from university for a year. But for each of these cases, there were dozens of students I knew who held demanding on-campus jobs and had a love life and still managed to attend class.

Before 1989, many students took part-time jobs, but there is little evidence to support the argument that even a sizable minority suffered academically because of their jobs. The situation at SZU in the 1980s appears to resemble today’s American campuses where many students work 10-20 hours a week. University students who get poor grades could well be achievers in extra-curricular activities/sports or successful in part-time jobs. Regarding the former, SZU students participation in voluntary campus associations mostly occurred before 1989 when dozens of clubs and societies dominated extra-curricular activities. In the 1990s almost all extra-curricular activities were channeled through Communist Party and Youth League mechanisms; but SZU students generally disliked this type of participation for it was too “political.” The *News Briefs* during the Cai years were filled with items about various departments sending students to old folks’ homes or to visit places of historical or political importance (such as the famous spot where opium was burned in the Qing Dynasty). But these generally were not voluntary activities; they were not something students “achieved.”

Great Tremors suggests a high degree of *xia hai* among tertiary students.⁶⁶ There is some evidence that this was an extension of the “overheated business management activities” that occurred in the late 1980s.⁶⁷ After Tiananmen, rectification probably curtailed business activities for at least a brief period. But, without politics to draw their attention as it had in spring 1989, students again became bored with studies and turned to business. Cases reported in *Great Tremors* concern Beijing students’ involvement in stock speculation, public relations work, commercial film-making, arbitrage

in retail wear (buying jeans cheap in the provinces and selling them in the capital), or serving as business representatives for hometown enterprises. Moonlighting by actors and film-makers in Beijing's art institutes had become so pronounced that classes were desultorily attended. In contrast with the professor-selling-meat-pies case, much of the students' extra-curricular pursuit engaged their academic disciplines. An economics student was reported to have published eight books and more than 20 articles, and several computer students set up a consulting business. One student patented a formula for bleaching bamboo and sold the technique to over 100 manufacturers. Many students undertook home-tutoring, earning from ¥60 to ¥300 (US \$10-50) monthly. The book also reports cases of students who had experienced failed business ventures or had been ripped off by employers and also discusses a student from a poor family who spent her spare time addressing and stuffing envelopes for four fen (¥.04 [US ½¢]) apiece. The *Great Tremors* section on student *xia hai* concludes with the case of a student at SZU:⁶⁸

Shenzhen has set up a stock market, which makes things very convenient for college students in Shenzhen and Guangzhou. Xiao Hua of the University of Shenzhen uses her father's stocks to do some petty speculating on that market. After several bouts she just about broke even. But when she starts to expatiate on the art of speculation she sounds like an expert. She has recently rented a house near the university and has hired someone to sit beside her fax machine and a direct-line telephone. Her mind is always elsewhere when she sits in class, and whenever the beeper on her belt calls, she hurries out to attend her 'important business.'

This case was probably unusual at SZU, but it certainly cannot be dismissed as extraordinary; it is indeed credible. The Shenzhen stock market opening in the late 1980s was immediately followed by a public frenzy due in part to the fact that an insufficient number of shares were made available for sale to the general public. Several hundred SZU students collected money from their families and stood in line with thousands of residents hoping to be selected in the lottery that had been constructed to distribute the quota to buy shares. In 1992 a riot broke out in downtown Shenzhen, sparked by annoyed residents who did not get into the quota lottery. Shenzhen's name appeared in headlines around the world. After the stock system was reformed to enable purchase by anyone who had the required money, student participation dwindled. Investment became limited to a few business majors and some other students (like those in the Chemistry Department) who were bored with

Box 7.1: Students Ding and Xiao, underachievers

Student Ding, through his father's connections, took a job with a state-run import-export company, a prestigious job, the envy of many of his classmates. In his first three years, the company has sent him to Australia for a trade fair; he wines and dines foreign buyers; he and his bride have been given an apartment; he has been able to obtain a good salary and bonus, supplemented by commissions paid by the foreign buyer. Yet, he was one of the weaker students in his SZU department, and he put in less and less effort until the last year, when he almost failed a course.

Student Xiao has worked for three companies, each successive moves up the prestige ladder he has defined for himself. Each job he found through relationships. He started with a municipal bureau, a desirable work-unit because of good benefits, pay, and possibilities for outside income. After working there for less than a month, the job he preferred came through, and he moved to an import/export company. After working there for two years, he moved into a position again with an agency in the municipal government, the employer he wanted from the start. He had earned acceptable grades at SZU while putting in considerably less effort than his classmates. He knew when to work (immediately before assignments were due; several weeks cramming for exams) and when not to work (the rest of the school year). Most of his four years were spent in non-academic pursuits, including organizing students who came from his native area. His college life, he admitted, was spent building relationships, something he expected to come in more handy in his future jobs than all the boring classes he sat through.

their studies and had plenty of time to follow the market. Only a few rumors circulated around campus about fortunes being made or lost, and those rumors concerned graduates, not students. Indeed, probably less than 20% of SZU students engaged in business, as defined by buying/selling or investing/speculating. Many students, in contrast, worked as home-tutors, employed by the parents of secondary school kids who were confronting examinations. SZU students did not resemble the general picture of their Beijing and Shanghai counterparts in *Great Tremors*. That book, for example, reports that beepers “chirped” on Beijing campuses and were held in 1993 by at least one-quarter of Beijing Cinema Institute seniors.⁶⁹ SZU students themselves did not start wearing pagers until about spring 1994; and then they were worn mostly by seniors, who were job hunting. Prior to that time beepers had existed among some staff and a few students, perhaps less than 5%. The university issued a notice in November 1991 prohibiting beepers in the classrooms and another notice in 1994 that reminded teachers not to

carry paging devices to class.⁷⁰ By 1997, about 90% of all SZU students owned pagers. About half of the entering freshman class that year owned such devices, which served as a way to keep in touch with friends. Pagers used by students at SZU served less as business vehicles than as instruments to improve social life, a situation that appears different from the one that *Great Tremors* describes for northern China.

Neither business nor extra-curricular involvement in the 1990s seemed to preoccupy SZU students. Why then was there such low achievement? The overall 20% fail rate contradicts the students' high level of intelligence as measured by their upper percentile achievement on the college entrance examination. Perhaps the major reason was two-fold: underachieving students did not believe their study would be used in their future employment; and good grades were not required to secure a good job if sufficient *guanxi* could be found. Take the cases of two underachievers, Student Ding and Student Xiao, in Box 7.1.

Underachievement and *guanxi*

My survey of 1993 graduating seniors asked them for their class rank. As indicated in Table 7.9, the distribution does not reflect actual class ranking

Table 7.9: Self-reported class rank, 1993 benke graduates⁷¹

quintile	percent	frequency
top 1/5	30.7	134
top 2/5	30.7	134
top 3/5	26.1	114
bottom 2/5	9.2	40
bottom 1/5	3.4	15
total	100.0	437

which should amount to 20% in each quintile. Instead, about two-thirds of the students who should have admitted to being at the bottom of the class elevated their standings when completing the questionnaire. Likewise, the top three-fifths of the class has 40% too many people. The accuracy of these data somewhat in doubt, Table 7.10 neverthe-

less indicates that those who reported they were in the bottom one-fifth and the bottom two-fifth in class rank score used the most *guanxi* in getting a job.⁷² We may assume that those who admitted to being in the dregs of the academic vat must be telling the truth as they would have little reason to claim having poor grades if this were not the case. In the same vein, perhaps some of those who inflated their class standing might tend to lie about other things, such as using *guanxi*. Nevertheless, the highest *guanxi* apparently

went with those who got the poorest marks. Qualitative fieldwork confirms this finding.

For several reasons, the extent of the difference in *guanxi* use between

Table 7.10: Guanxi in job procurement, by class standing, 1993⁷³

quintile	mean	std. dev.	cases
for entire population	5.2	3.1	389
top 1/5	5.0	3.2	122
top 2/5	5.2	3.2	115
middle 3/5	4.7	2.8	102
bottom 2/5	6.5	3.1	39
bottom 1/5	5.8	3.5	11

Scale: 0-12; 0 = least use of *guanxi*; 12 = most use.

would reside in the top part of the class. Thus, Table 7.10 shows only the underachievers who scored low marks. Scoring high on *guanxi* use, Student Xiao would have brought up the average score. If students in the bottom ranks use more *guanxi* in the job search than achieving students, a finding confirmed by field research, then their self-placement in the upper portion of the class inflated the mean score of the top students. For this reason, *guanxi* use among achievers is probably *less* than that suggested in the table.

Males made up about two-thirds of SZU's *benke* students, and they were

Table 7.11: Class standing by gender⁷⁴

standing	male	female	total	%
top 1/5	24.6	42.1	133	30.7
top 2/5	28.1	35.5	133	30.7
top 3/5	29.5	19.7	113	26.1
bottom 2/5	13.2	2.0	40	9.2
bottom 1/5	4.6	.7	14	3.2
column total	281	152	433	
%	64.9	35.1		100.0

perhaps not coincidentally, tended to have lower failure rates than science departments. All in all, female students at SZU tended to be more diligent than males, a finding not dissimilar to that reported for American secondary students.

achievers and underachievers may even be stronger than that reported according to class standings in Table 7.10. Some underachievers, like Student Xiao in Box 7.1, managed to get good marks and would not have appeared in the table as an underachiever. This particular student, for example,

underrepresented in the top ranks in class standing (see Table 7.11). In other words, female students were higher achievers than their male counterparts. Female enrollment, as discussed in Chapter Two, was proportionally greater in arts departments which, per-

Achievement is directly related to motivation, which can be classified into four types.⁷⁵ *Extrinsic motivation* occurs when students carry out academic work because of the consequences, in other words, to obtain rewards or to avoid punishment. The top students at SZU received scholarships during their stay at university. One person per homeroom class got the top scholarship of ¥250, several got smaller mid-range stipends, and about 40% of the students got the basic monthly scholarship of ¥80. Generally, these scholarships were not considered sufficient financial reward to change students' behaviors. "Shenzhen is a rich place. These scholarships can buy you one good meal, not much else," one student explained. Students could possibly be motivated to achieve high grades because some employers seek out the top students. They may ask applicants their class rank or seek recommendations which would provide that information. Few Shenzhen employers, however, requested this information of students; in most cases employers do not review transcripts until *after* the student is hired.

Another type of motivation, *social motivation*, results when students try to please people who are important to them, such as parents. In the case of Chinese education, entry into university is such an accomplishment that, so long as one does not get expelled, remaining in school is sufficient to please most parents. Parents of SZU students, in any case, were not notified of students' grades, except when exams were failed, which happened less than 1% of the time.

A third category of motivation is known as *achievement motivation*, in which students compete against one another because it makes them feel good. This type, again, was not especially relevant to tertiary students at SZU. Students had experienced so much competition during their years of primary and secondary schooling that few chose voluntarily to compete when not forced to.

Finally there is *intrinsic motivation* which describes the situation in which students see the pleasure of performing the task to be more important than the outcome. They learn because they want to; they enjoy it. At all levels of learning, educators find this motivation to be the most desirable. My own teaching experience suggests that most SZU students were concerned with grades, and thus extrinsic motivation applies. Yet, I also found that students—whether high-, average- or under-achievers—learned most when intrinsic motivation kicked in.

For most of this book the discussion about students has concentrated on *benke* enrollees. The *zhuanke* students who were admitted scored lower than their *benke* counterparts on the college entrance exam (3% for English ma-

jors, 12% for Chinese, 17% for Finance). By this token, these students were either secondary school low-achievers or underachievers. Compared with the *benke* peers, SZU's *zhuanke* students pursued less rigorous academic courses, and more than a few tended to socialize more than study. This became apparent in the case of the May 1993 on-campus murder which involved students enrolled in *zhuanke*, not *benke*, programs prior to or at the time of the incident.⁷⁶

The phenomenon of underachievement at SZU was not pronounced in the university's early years when *academic* underachievers could channel their energies into part-time jobs and extracurricular activities. Also, the Psychology and Behavior Guidance Center was able to help some students with their problems; counseling centers often provide the type of treatments American psychologists recommend to address the problem of underachievement.⁷⁷ As part of post-Tiananmen rectification, however, the Counseling Center was closed and the second and third classrooms were downsized and all but eliminated. Students in the 1990s became dissatisfied with their university experience, which was largely confined to the classroom. Many underachieved.

Concluding thoughts

This chapter has examined various types of university output in order to relate them to the general phenomenon of educational disengagement by SZU's teachers and students. The italicized story before the chapter, which in its full Chinese version appeared in a Shenzhen newspaper, seemed to attribute disengagement to students' dissatisfaction with their teachers' way of teaching. Students turned to business because academics at SZU was not satisfying. This is but one explanation of a very complex phenomenon. Teacher disengagement is at the heart of educational disengagement. The causal relationship (if one exists) is in the direction of first teachers, then students, not vice-versa. By the time the SZU administration faced the problem, the damage had already been done and could not be easily reversed. Assigning blame, however, is not instructive. But in sifting out the various ingredients that went into disengagement, fundamental questions remain: why did the SZU community disengage? Was it just a money problem? Would things have been different if teachers had been given higher salaries earlier, when they began saving up for downpayments on their flats? Or was disengagement just a problem of *anomie*? Some teachers were so upset with the politicization that submerged the university in the second half of 1989 that they

threw in the towel (perhaps part of the reason that one-third of the teaching staff have quit the university during its brief history). Students, also, were traumatized with the post-Tiananmen depression which followed in the wake of pre-Tiananmen expectations. Students took out their anger in a more physical way that did teachers. When the former were forced to change dormitories as part of the implementation of new student management regulations (developed without their input), they trashed their dormitories, literally. Were the teachers also being destructive, only intellectually rather than physically? Student underachievement, this chapter has argued, is also related to structural features of the employment process. Students found that jobs could be secured through connections. A *hukou* and *dangan* were more important than a degree. Why get good grades when all that is needed is a solid network of social relationships?

While the precise causes of disengagement and their relative importance will never be known, the results were clear: student underachievement and a dramatic fall in faculty research output.

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1. Cao, "Mis-directed Yang Fang," 1992. The author uses a pen name, which may produce a chuckle when heard (The surname sounds like a rude word used for intercourse, and the given name sounds like a character for hemorrhoids). "Yang Fang" also sounds like 'raise the sail.'
 2. Another major university output is its reputation, in other words, how it is viewed by those on the outside. That subject, as well as corruption and evaluation, are discussed at length in Agelasto, *University in Turmoil*, 1998.
 3. Computed from name lists in *SZU Alumni Directory* (May 1990).
 4. *1987 Yearbook*, p. 168.
 5. Source: *SZU Academic Compilation (1983-1993)*, p. 1; *Collection of SZU Academic Research Results* (June 1991); *1994 Yearbook*, p. 162; *1995 Yearbook*, p. 192; *1997 Yearbook*, pp. 254-6.
 6. Source: SZU yearbooks.
 7. Sources: *SZU Academic Compilation (1983-1993)*, *1992-93 Yearbook*, *1994 Yearbook*, *1995 Yearbook*, *1996 Yearbook* (excluding Teachers College). Output for 1997 is excluded on purpose. For the explanation, see Endnote 296, page 325.
 8. Zhou, "On the setup of the faculty of Shenzhen University," 1995, p. 103.
 9. Source: SZU yearbooks. Computations include both full-time teachers and researchers (and exclude teaching assistants and non-professional staff).
 10. *Beijing University*, 1993, p. 6.
 11. See Zhong, "Chinese Scholars and the World Community," 1998.
 12. Source: *SZU Academic Compilation (1983-1993)*. Only part of 1993 was cov-

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- ered by the 1,253 items reported.
13. Min, "China," 1997, p. 47.
 14. See, e.g., "Comprehensive report to Shenzhen Municipality, 5 May 1987," *1987 Yearbook*, p. 168; "Report to Shenzhen municipality on SZU efficiency, 7 Oct. 1986," *1987 Yearbook*, p. 174.
 15. Shi Bowen, "Research," *1988 Yearbook*, p. 100.
 16. *Beijing University*, 1993, 33.
 17. Sources: SZU yearbooks. Data in university publications were not consistently presented over time.
 18. Wu Shulian, "Personnel management," *1988 Yearbook*, p. 107.
 19. "Academic research minutes, 17 March 1988," *1988 Yearbook*, pp. 103-4. It apparently never followed this direction and retained the scholarly format *sans* commercial advertisements.
 20. *Ibid.*
 21. Wang Yifang, "Thoughts after the yellow card warning," *1988 Yearbook*, p. 115.
 22. "Report of Scientific Research Office," *1989-90 Yearbook*, p. 97.
 23. "Keys of 1991-92 workplan, 10 October 1991," *1991 Yearbook*, p. 19.
 24. "President's work report," *1991 Yearbook*, p. 30.
 25. Yin & White, "The 'marketisation' of Chinese higher education," 1994, pp. 225-8.
 26. Ying Qirui, "Research," *1992-93 Yearbook*, p. 297.
 27. *Ibid.*
 28. Interview, 14 October 1992.
 29. Min, "China," 1997, p. 52.
 30. Named for the date the research fund was inaugurated, August 1983.
 31. "Self-evaluation report, 12 October 1995," *1995 Yearbook*, p. 52.
 32. Source: SZU yearbooks.
 33. Esman, *Management Dimensions of Development*, 1991, p. 41.
 34. Min, "People's Republic of China," 1994.
 35. See Neave & van Vught, *Prometheus Bound*.
 36. For a general discussion, see Yin & White, "The 'marketisation' of Chinese higher education," 1994. Examples of university-based ventures in this paragraph are taken from WWW homepages.
 37. Sources: SZU yearbooks.
 38. *Nanjing Normal University*, 1995.
 39. Wei, *The Great Tremors in China's Intellectual Circles*, 1993, pp. 44-8.
 40. *Ibid.*, pp. 71-2.
 41. *Ibid.*, pp. 72-3.
 42. "Decision on further clearing out stores on campus, 17 October 1995," *1995 Yearbook*, p. 248.

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43. This episode is covered in detail in Agelasto, *University in Turmoil*, 1998.
 44. In 1993 the Security office reported signing fire-fighting contracts with 19 campus enterprises/factories and 27 *getihu* (independent businessmen) who ran stores and shops: *1992-93 Yearbook*, p. 228.
 45. "SZU self-evaluation report, 12 October 1995," *1995 Yearbook*, p. 50, 61.
 46. Pepper, *China's Education Reform in the 1980s*, p. 152.
 47. Wei, *The Great Tremors in China's Intellectual Circles*, 1993. The book's influence went beyond its press run of 5,000 copies, for selected chapters were extracted in the major English-language journal that focuses on Chinese education.
 48. Di & Xu, "Adapting itself to the market economy," 1993.
 49. See Agelasto, *University in Turmoil*, 1998, Chapter 5.
 50. Wei, *The Great Tremors in China's Intellectual Circles*, 1993, pp. 52-4.
 51. McCall, Evahn & Kratzer, *High School Achievers*, 1992, p. 2.
 52. *Ibid.*, pp. 15-34.
 53. Bednar & Weinberg, "Ingredients of successful treatment programs for underachievers," 1970, p. 2.
 54. Lacher, "The life styles of underachieving college students," 1973.
 55. Lincoln & Guba, *Naturalistic Inquiry*, 1985, pp. 81-7.
 56. Stevenson & Stigler, *The Learning Gap*, 1992.
 57. Cheng & Selden, "The origins and social consequences of China's *hukou* system," 1994.
 58. Dutton, *Policing and Punishment in China*, 1992, pp. 222-6.
 59. *China Education Yearbook 1988*, 1989, p. 218.
 60. Source: 1994 graduates survey. Number of Missing Observations: 57; $\text{Chisq} = 27.5$, $p < .001$.
 61. For more information, see Agelasto, *Social Relationships and Job Procurement by Graduates*, 1998.
 62. *1992-93 Yearbook*, p. 43.
 63. Urata, "A Comparison between the Japanese and U.S. evaluation systems in high education," 1994, p. 4.
 64. Tang, Li & Zhu, "Will Shenzhen University be as shining as before?," 1993.
 65. Wei, *The Great Tremors in China's Intellectual Circles*, 1993, p. 25.
 66. *Ibid.*, pp. 48-64.
 67. _____, "Undergraduates as entrepreneurs," 1988, p. 6.
 68. Wei, *The Great Tremors in China's Intellectual Circles*, 1993, p. 64.
 69. *Ibid.*, p. 50. Data reported for the 1989 class, who were seniors when the book was written.
 70. *1991 Yearbook*, p. 252; "Notice on SZU reaffirmation of teaching discipline, 20 April 1994," *1994 Yearbook*, p. 212.
 71. Source: 1993 graduates survey. Data for 1993 *benke* seniors at time of

- graduation. Missing cases numbered 110.
72. These data and the construction of the guanxi index are discussed in my dissertation, *Social Relationships and Job Procurement by Graduates*, 1998.
 73. Note: Data for 1993 seniors who reported they were working at time of graduation. Total Cases = 547; Missing Cases = 158 or 28.9 %. According to a one-way analysis of variance, the differences between mean scores in two variable groups are significant at the .05 level: top 3/5 and bottom 2/5.
 74. Note: Data for 1993 seniors who reported they were working at time of graduation. $\chi^2=33.5$, $p<.001$.
 75. Biggs & Moore, *The Process of Learning*, 1993, Chapters 6 and 17.
 76. Zhang & Luo, "Thunderbolt on campus," 1993.
 77. Brown, "Effects of structured and unstructured group counseling with high and low-anxious college underachievers," 1969.