

**Story 6: Xiao, retired teacher**

*My husband and I came to Shenda and worked here until we retired. Both of us had grown up and been educated in Shanghai. We met at university, and we expected to stay there throughout our careers, to teach and raise a family. In 1957, at the behest of Chairman Mao, we offered opinions on strengthening China. During the so-called anti-rightist movement that followed, we were severely criticized and were forced to leave Shanghai and teach in the remote Northwest. My wife had written on participation and democracy, ideas that are correct from the point of view of today. Back then, however, she was branded a rightist. We were separated for several years, and then I was allowed to join her. None of her colleagues would speak to her. During the Cultural Revolution we were again criticized and we spent eight years living in a remote village as farmers and laborers. In 1979 we were “rehabilitated” but could still find no way to return to Shanghai. When the ad for teachers for Shenzhen University appeared, we applied.*

*We were older than most of Shenda’s teachers and held positions of leadership during our career here. We live a comfortable retirement, trying to make up for a life of hardship. One of our children lives abroad, and we have been able to visit. We like to visit, but we of course miss China. Foreign people ask us why, after all our suffering, we still prefer to live in China. Perhaps, one must be Chinese to understand. As intellectuals, we love its culture and tradition. We are not exceptional; generations have suffered before us, and we do not dwell on the past.*

*Neither of us misses teaching at the university. We are not visited by our former students or faculty colleagues, although we sometimes keep in contact with the students we had before we came to Shenzhen. Retirement is comfortable. We receive slightly under what we received in our last year teaching. The university gives us ¥500 each year toward travel, and there’s an office we can go to if we have any special problems. We qualified for purchasing a flat; with our pensions we live quite modestly.*

*Looking back on the Shenda experience, we see a dream unfulfilled. The university went through a traumatic and difficult period, after which the quality of students, teachers and administrators fell. It may take decades for the status of the school to return to what it was in its early years, before the leadership changes, murders and corruption. It is quite sad to see what has happened. We no longer care to follow university politics; anyway, we had our fill of sadness.*

## 4. Knowledge structure

As in universities elsewhere in the world, the teaching department in Chinese institutions is the basic operating unit. Academic departments, of course, are not equal. They vary in terms of wealth and prestige. Most important, they vary in terms of quality of students.

A university needs good students in order to establish and sustain both overall high quality and a good reputation. In China, universities are judged primarily by student quality. Freshmen scores on the college entrance exam for any year determine how an institution is categorized on the preference forms used by students the next year. These scores play a large role in the rankings of universities that appear in Chinese publications. It is possible for schools to move between categories, but continuous adjustment is unlikely because scores shift only by small increments and few schools are on the margins of the categories. SZU, for example, in 1989 came closest to becoming a *de facto* “key university” of Guangdong as determined by entrance scores; yet in that year more than 30% of the entering class scored *below* the key score line. That figure should be 0% for key universities.

Good students define good universities. Good teachers and researchers who are attracted to these schools command national and international respect and are able to tap research resources. Thus, quality teachers and superior facilities follow good students, not vice-versa. Hindsight suggests that any attempt by SZU to become a key university was probably doomed from the start by the approach it took: initially hiring good teachers and building state-of-the-art facilities, and *then* hoping to attract good students. In its rush for creation in 1983, the university enrolled its entering class of over 200 students in the few months prior to opening a temporary campus. Although data are not available, it is unlikely that many of this first class scored above the key-score line. In its first three years, many students were taken on the basis of recommendations rather than test scores. Decisions based primarily on exam scores did not occur until 1986. In the years that followed, the city government, in forcing SZU to give priority to lower-scoring local students over higher-scoring students from elsewhere in Guangdong Province, ensured that the university could never become “first rate” as defined by student input. The city also required SZU to emphasize *zhuanke* at the expense of *benke*. These shorter cycle students scored below regular *benke* undergraduates, demanded less of teachers, and were enrolled in majors that were somewhat vocational/technical in nature. Together these

**Table 4.1: Arts entrance examination scores, ranked by major and year<sup>1</sup>**

major (department)	1991	1992	1993	1994	1995	1996	1997	average
International Finance (Int'l. Finance & Trade)	1	1	1	1	1	1	1	1
Accounting <sup>a</sup> (Economics)	3	3	2	3	2	2	3	2
International Trade (Int'l. Finance & Trade)	2	2	3	2	5	4	6	3
SEZ Accounting (Economics)			4					4
Public Administration (Public Administration)	4	4	8	9	4	6	2	5
International Economic Law <sup>b</sup> (Law)			9	4	7	12	4	6
Law <sup>c</sup> (Law)			6	5	9	8	11	7
Transportation (Economics)	5	7	10	7	6	3	9	8
Enterprise Management <sup>d</sup> (Management)				6	9	5	9	9
Real Estate Management (Management)	8	6	5	11	8	10	5	10
Chinese <sup>e</sup> (Chinese)	7	10	11	10	3	11	8	11
Advertising (Chinese)	6	5	12	8	12	7	13	12
English (Foreign Language)		9						13
Statistics (Economics)	9	8	6	12	11	9	7	13
Taxation (Economics)	10							15
Japanese (Foreign Language)					13		11	16

Notations <sup>a</sup> through <sup>e</sup> In Endnote 1.

factors negatively affected the academic prestige of the institution, making it less appealing to professors who might consider transferring in.

Just as universities differ in terms of prestige—an imprecise indicator that reflects the quality of students, teachers, and facilities—academic departments within an institution vary along the same variables. One of the few variables at the department level that can be accurately measured with available data is admissions scores. Tables 4.1 and 4.2 present the entrance score data for the arts and sciences tracks for the years for which information is most complete. Using these data requires caution. Scores for the distinct sciences and arts tracks must not be compared because tests taken by sciences students historically are marked on a lower point basis than those taken by arts students. Comparing scores between years, even within a department, is also not appropriate because the scores are not standardized over time.

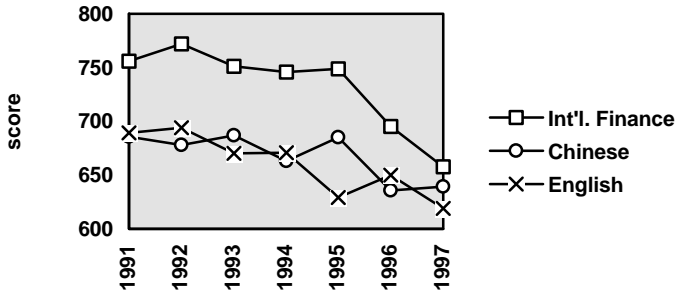
**Table 4.2: Science entrance examination scores, ranked by major and year<sup>2</sup>**

major (department)	1991	1992	1993	1994	1995	1996	1997	average
Int'l Finance (Int'l. Finance & Trade)	1	1	1	1	1	1	1	1
Computer <sup>a</sup> (Electronic Engineering)	3	4	4	2	3	2	2	2
Int'l. Trade (Int'l. Finance & Trade)	2	2	3	3	2	3	11	3
Taxation (Economics)	4							4
Accounting <sup>b</sup> (Economics)	5	3	2	5	4	5	6	5
Int'l Eco. Law <sup>c</sup> (Law)					5	4	5	6
Radio Technology (Electronic Engineering)	6	5	6					7
Architecture (Architecture)	7	6	7	4	6	7	4	8
Labor Economics (Economics)		8						9
Optical Elec'l. Tech. (Physics)					9	13	3	10
Electrical Eng. (Electronic Engineering)	13			8	7	6	12	11
SEZ Accounting (Economics)			10					12
Transportation (Economics)				10	8	16	8	13
Enterprise Management <sup>d</sup> (Management)	8	7	9	14	12	17	8	14
Math <sup>e</sup> (Math)		9	17	6	11	10	13	15
Construction Man'g (Civil engineering)		11						15
Civil Eng. <sup>f</sup> (Civil Engineering)	12	13	7	7	10	9	20	17
Mechanical Eng. <sup>g</sup> (Mechanical Engineering)	13	9	13	15	14	13	10	18
Applied Physics (Physics)	11	12	15	9	14	21	7	19
Real Estate Dev.(Civil Engineering)			5	11	17	19		20
Real Estate Management (Management)			11	12	14	15	16	21
Automation <sup>h</sup> (Mechanical Engineering)	10	16	19	13	12	8	18	22
Industrial Design <sup>i</sup> (Architecture/Design)	15		13					23
Statistics (Economics)		14						23
Eng. Supervision <sup>j</sup> (Civil Engineering)			12	16	20	12	10	23
Advertising							14	23
Applied Chemistry (Chemistry)	12	17	16	16	16	18	15	27
Food Chemistry (Chemistry)	9	15	17		19	19	16	28
Public Admin. (Public Administration)				19	17	10	21	29
Compatriot Law <sup>k</sup> (Law)				18				30

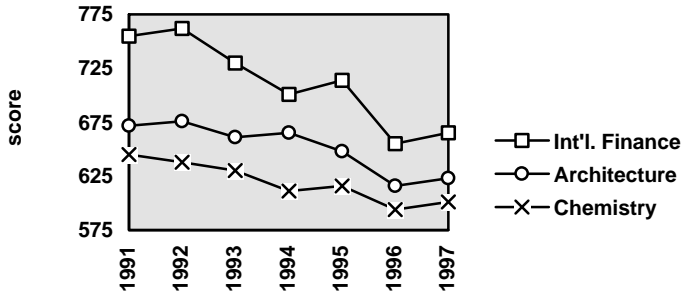
Notations <sup>a</sup> through <sup>k</sup> In Endnote 2.

The U.S. Standard Achievement Tests (SAT or College Boards) taken by American high school juniors and seniors are, as their name implies, standardized so that a score of 552 in 1963 is equivalent to a 552 in 1991, for example. In contrast, the Chinese college entrance exam varies in difficulty from year to year and until recently has not drawn on a bank of test questions

**Figure 4.1: Entrance exam comparisons,  
arts**



**Figure 4.2: Entrance exam comparisons,  
sciences**



of approximately the same difficulty. Since 1988, test scores in Guangdong have been calibrated on a 900 point basis and by a ranking system so that the top test score (even if questions are missed) receives a 900. Students take several tests, each of which is scored on a 900 point basis.<sup>3</sup> The final score a student receives is the average of all the tests taken. Comparison within tracks permits for a ranking of departments for each year, as indicated in Tables 4.1 and 4.2.

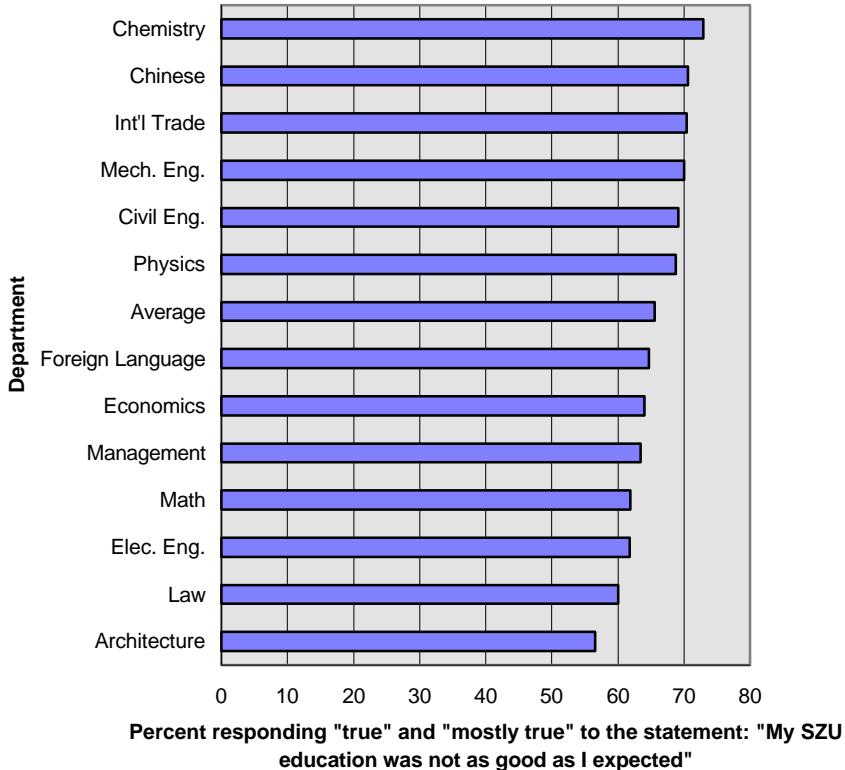
Some of the data from Tables 4.1 and 4.2 are portrayed graphically in Figures 4.1 and 4.2. Although entrance scores at SZU relative to Guangdong key universities dropped over the period 1991-1995, the ranking of SZU departments remained relatively in place. Business majors continued to

**Table 4.3: Department *benke* student population flows, 1988-1991<sup>4</sup>**

department	1988			1989			1990			1991			total
	in	out	Δ	in	out	Δ	in	out	Δ	in	out	Δ	
Electronics	99	94	-5	55	49	-6	65	56	-9	70	57	-13	-33
Architecture	29	29	0	72	58	-14	44	36	-8	25	22	-3	-25
Mechanical Engineering	39	33	-6	32	28	-4	30	26	-4	42	35	-7	-21
Chemistry	32	32	0	61	50	-11	47	46	-1	44	37	-7	-19
Law	26	17	-9	23	22	-1	21	19	-2	21	22	1	-11
Physics	23	23	0	23	20	-3	20	22	2	27	21	-6	-7
Civil Engineering	43	39	-4	27	28	1	30	26	-4	50	50	0	-7
Chinese	41	35	-6	34	31	-3	27	30	3	54	44	-10	-16
Math	30	24	-6	na	(17) <sup>a</sup>	na	20	22	2	25	24	-1	-5
Foreign Language	33	42	9	34	34	0	37	33	-4	35	35	0	5
Management	107	103	-4	35	37	2	32	36	4	40	40	0	2
Int'l. Finance & Trade	122	120	-2	64	79	15	67	69	2	70	72	2	17
Economics	83	93	10	74	110	36	96	94	-2	67	78	11	55
total	707	684	-23	534	546	12	536	515	-21	570	537	-33	-65

<sup>a</sup> To prevent distortion parenthesized data are not included in totals.

**Figure 4.3: 1993 seniors' opinions of SZU education by department**



be the most prestigious; traditional disciplines like language and natural science attracted lower scoring students. These students, of course, are by no means dull; they are still among the élite of China's secondary school graduates!

To their teachers low CEE scorers often appear just as intelligent as their high-scoring peers, and their relative low overall test scores may be attributed to their lower abilities at exam-taking or poor performance on any one of the six tests that make up the entrance examination score. A sciences track student's ability in English, for example, might decide whether he qualifies for a business major or must accept a place in the natural sciences. An arts track student's poor showing on the math component of the entrance exam may disqualify him/her from management studies, forcing the selection of advertising as a course of study. Differences in test scores may also re-

flect to a large degree secondary school students' diligence and drive. Nonetheless, the point spread between departments is taken by members of the campus community as a surrogate for student quality; it defines prestige among departments.

The prestige ranking of SZU majors by entrance exam score appears consistent with what is happening in other economically developing parts of China. Practical subjects that are training *rencai* for the market economy wax in popularity while traditional subjects in the curriculum wane. An empirical study of admissions scores at Nanjing University for 1992-1995, for example, showed that the majors of law, computers and international economics/trade rose in popularity while history and geography declined over the same period. In fact, the rate of decline has accelerated, indicated by the fact that the average admissions scores in history and geography have fallen further from the university average each year.<sup>5</sup> The same study found that admissions scores in popular majors at second level universities surpassed the scores of the less popular majors in first level (i.e., key) universities, leading to the conclusion that applicants pay more attention to majors than institutions.

Another way to compare departments is to examine students' satisfaction with the education they received. Students' academic experience is confined mostly to their major and courses taught by their department; thus, student satisfaction is an important indicator of a department's success, at least in the view of the students. Figure 4.3 presents the views of the 1989 students who graduated in 1993, as reported in a question on my 157-item survey.<sup>6</sup> In terms of college entrance scores, the year 1989 had the best scores of any class to enter SZU. On the whole, teachers with experience over many years at SZU confirm that the 1989 students were the highest quality students they taught. The data suggest that overall the 1989 students were quite disappointed with the education they received; the degree of disappointment varied by department.

An earlier chapter presented data that showed that more students graduated from SZU than had been formally enrolled as freshmen. These figures also varied between departments; in 1988-1991, for example, Economics and International Finance and Trade had large increases; Architecture and Electronic Engineering had big declines. Table 4.3, which indicates these changes, reflects various factors at play: out-of-plan enrollment, attrition due to poor performance or emigration for overseas study, as well as interdepartmental transfers. An understanding of these dynamics requires an examination of each department.



Tables on the following pages present descriptive data by department on various attributes of the departments: size (Table 4.5), professional rank of teaching staff (Table 4.8), gender (Table 4.4), age (Table 4.6), faculty per capita publications (Table 4.7), student fail rate (Table 4.10), and student gender (Table 4.9). These and other comparative data presented above will be analyzed more closely in the remainder of this chapter, which describes each of SZU's academic departments. Attitude data from the 1993 *benke* seniors (who entered SZU in 1989) will also be used.

**Table 4.4: Department female teaching staff (percentage, 1994)<sup>8</sup>**

Chemistry	42
Foreign Language	39
Math	38
Economics	37
Int'l. Finance & Trade	37
Architecture	30
for all departments	29
Social Science	27
Chinese	27
Physics	25
Management	24
Law	23
Mechanical Engineering	23
Public Administration	23
Electronics	22
Design	22
Physical Education	15
Civil Engineering	10

**Table 4.5: Department fixed teaching staff size (1994)<sup>7</sup>**

Design	10
Law	13
Public Administration	13
Physical Education	13
Social Science	15
Civil Engineering	15
Mechanical Engineering	16
Physics	20
for all departments	20.7
Int'l. Finance & Trade	21
Management	22
Architecture	23
Economics	23
Math	25
Chemistry	28
Chinese	31
Foreign Language	31
Electronics	33

**Table 4.6: Age of departmental teaching staff, ranked by departments (1994)<sup>9</sup>**

department	mean	std dev.
Law	46.2	10.8
Architecture	44.5	12.8
Chinese	43.0	10.5
Mechanical Engineering	42.6	10.4
Management	41.8	12.3
Physics	41.7	10.5
Social Science	41.7	9.4
Electronics	41.7	10.7
Math	40.8	11.6
for all departments	40.8	10.6
Civil Engineering	40.3	14.1
Economics	39.8	8.6
Public Administration	39.6	9.5
Foreign Language	39.3	9.7
Design	38.6	10.2
Chemistry	38.1	8.3
Int'l. Finance & Trade	37.8	10.3
Physical Education	33.5	7.8

**Table 4.7: Per teacher research output, 1988-1992, ranked by department<sup>10</sup>**

department	annualized per capita output	
	1988-1992 (rank)	1994 (rank)
Chinese	.78 (1)	.74 (3)
Physics	.72 (2)	.55 (8)
Int'l. Finance & Trade	.72 (2)	.62 (7)
Foreign Language	.62 (4)	.74 (3)
Law	.60 (5)	.77 (2)
Management	.60 (5)	.50 (9)
for all departments	.56	.52
Electronics	.56 (7)	.64 (6)
Economics	.56 (7)	.44 (10)
Chemistry	.52 (9)	.14 (13)
Architecture	.48 (10)	.70 (5)
Mechanical Eng.	.48 (10)	.31 (11)
Civil Engineering	.44 (12)	.07 (15)
Mathematics	.42 (13)	.24 (12)
Public Administration	.38 (14)	1.0 (1)
Design	-	.13 (14)

**Table 4.8: Professional rank of departmental teaching staff (1994)<sup>11</sup>**

	mean	std dev.
Architecture	1.7	1.0
Physics	2.3	.8
Mechanical Engineering	2.3	.7
Chinese	2.3	.8
Law	2.3	.9
Social Science	2.4	.7
for all departments	2.5	.8
Foreign Language	2.5	.6
Public Administration	2.5	.8
Economics	2.6	.5
Management	2.6	.7
Electronics	2.6	.8
Math	2.6	.8
Civil Engineering	2.7	1.0
Chemistry	2.7	.6
Design	2.7	1.1
Physical Education	2.7	.7
Int'l. Finance & Trade	2.9	.8

**Table 4.9: Student gender by department (percent female, selected years)<sup>12</sup>**

department	3-year average	1989	1992	1993
Foreign Language	75	70	73	81
Economics	58	55	55	62
Chinese	55	50	57	59
Public Administration	50	-	-	50
Int'l. Finance & Trade	41	38	37	46
Law	39	38	35	44
Architecture	36	33	40	35
for all departments	34	33	30	40
Chemistry	34	28	21	54
Math	26	25	24	28
Management	21	10	18	35
Electronics	16	16	15	16
Physics	13	9	21	14
Mechanical Eng.	12	13	7	15
Civil Engineering	10	7	14	7

**Table 4.10: Student fail rates, 1988-1990 entering *benke* classes (percentage)<sup>13</sup>**

department	6-year average	1988	1989	1990	1991	1992	1993
Architecture	31	44	21	33	27	28	4
Mechanical Eng.	31	21	32	27	43	35	54
Electronic Engineering	30	32	22	32	33	33	33
Physics	22	30	25	9	24	14	21
Chemistry	21	13	26	22	24	42	17
Math	21	21	18	5	38	33	41
Management	20	19	41	0	20	26	20
Economics	20	20	17	16	28	16	18
for all departments	19	24	22	16	13	23	22
Civil Engineering	18	26	21	23	0	30	36
Int'l. Finance & Trade	17	21	29	12	6	6	15
Law	11	12	5	21	5	19	14
Chinese	10	14	16	0	10	18	17
Foreign Language	9	14	9	9	3	5	0

### ***Architecture department***

“Architecture is the best department in our university.” This summary evaluation has become an accepted truth among faculty and staff at SZU. When SZU approached the 1995 SEdC accreditation, President Cai Delin instructed departmental leaders to “learn from Architecture.” Heads of departments were advised to visit Architecture and use it as a model for reshaping their own departments. Why was Architecture viewed as a model?

First, it was the wealthiest academic department and its teachers were well off, relative to their colleagues in other departments. Although data on departmental remuneration are not available, the average income of teachers in this department was commonly believed to be the highest on campus. Teachers, as well as students, were involved in designing buildings in Shenzhen. The department’s annual remittance to the presidential discretionary fund, through its affiliated Architectural Design Institute, dwarfed that of any other department. As the richest department, Architecture became a model for philanthropy. In 1994, it organized donations for Project Hope, a China-wide non-governmental program that provides financial aid to

underprivileged school children. The department, itself, contributed ¥3,000 (US \$430) that year. The department's high level of resources gave its leadership leverage in dealing with the university leaders, who allowed the department greater autonomy than given other departments. The importance of Architecture was clearly stated by SZU in the 1995 evaluation self-appraisal, in which the university proposed the creation of seven colleges (*xueyuan*) within five years. Architecture would have its own college, incorporating into it civil engineering and design.<sup>14</sup>

Second, the department was run by a domineering leadership in a relatively transparent manner. At least from 1991, very clear rules prohibiting teacher moonlighting were set. Staff, including non-teaching architects, were required to hold their positions on a full-time basis. No side-businesses were tolerated, and staff were not permitted to supplement their departmental income with private work. The problem of teachers' disengagement from academics that plagued other departments did not touch Architecture. Its management over the years has been relatively open, as evidenced by the fact Architecture published more statistics on its operation than any other academic department. Dissimilar to other SZU departments where teachers were often not consulted before the leaders assigned teaching loads, from 1994 Architecture teachers advised their leaders on what courses they felt best able to teach.

Third, the teaching and learning quality was considered the best at SZU. Although the students viewed their five-year education as a bit too practical, they were considerably less dissatisfied with their SZU experience than their peers in other disciplines.<sup>15</sup> Faculty were pleased with the students, most of whom worked diligently in the drafting labs, late into the evenings and on weekends. Students in other departments confirm that their peers in Architecture had more demanding and challenging courses. The student fail rate was the highest at SZU, fixed at a minimum of 10%. In 1989, for example, 20% of the students failed their graduation designs. These students were allowed to redo their projects, but in that year 10% of the graduates were still denied bachelors degrees. In 1991 the department proposed the "compulsory elimination teaching system," in which 20% of the students would be forced to discontinue their study after three years, at which time they would receive a *zhuanke* or Bachelors of Industry certificate. Those in this group who wished to pursue a Bachelors of Architecture would be required to work for two years and pass a re-admittance test. This plan was never implemented, having failed to receive approval from school leaders as well as municipal personnel and planning authorities. That the plan was

proposed indicates Architecture's resourcefulness in coming up with ideas to improve student quality.

Perhaps because of their long hours together, Architecture students tended to be slightly more collective and less individualistic than their peers.<sup>16</sup> They were also slightly more material-minded than the average SZU student.<sup>17</sup> The students worked long hours—longer than their peers in other departments, and Architecture treated its students well. In 1995 it created a scholarship fund that sent the top three students in design to Hong Kong Polytechnic University for training.<sup>18</sup> Also in 1995, all juniors went on a field trip to Hong Kong, during which they visited university faculties of architecture as well as many of Hong Kong's famous buildings. Students who could not raise the ¥3,000 (US \$360) required for the trip were lent funds by the department.

The students, in turn, enhanced the department's reputation. At the Fifth Conference on Modern Chinese Architectural Research in 1991, a jury of 14 renowned architects from China, Hong Kong, and Singapore unanimously gave first prize to a SZU student's work. Another student received seven votes for second place. A student admitted in 1989 designed a 32-floor, 30,000 square meter (m<sup>2</sup>) hotel in 1993. A 1991 student won fourth prize in a national architectural sketching contest and won the Chinese Students Trans-century Development Prize, one of only 100 awarded in the nation. A 1993 student won second prize in a provincial contest of student extra-curricular inventions. In 1992 four students used their graduation design to earn the commission to design Shennan Gardens, a mixed-use structure about one kilometer from the university.<sup>19</sup> Its principal designer, Duan Jingyang, stayed on to work for the institute; as an award he was allowed to attend the Asian Architecture annual meeting in Pakistan, a few months after his graduation from SZU in 1992.<sup>20</sup> Another famous student architect was Zhu Xiaofeng who won the competition to design the logo of the IBM-funded International Software Development Company.<sup>21</sup> He also designed SZU's student affairs administration building which was built in 1996; he later went to Harvard to obtain a masters degree. As part of the 1995 accreditation effort, Architecture was the only department to present an impressive exhibit of students' work. Over the years awards and prizes bestowed on students from Architecture totaled more than all other departments combined.

Fourth, Architecture was well resourced and its facilities were well maintained. Located apart from other teaching departments, Architecture was situated on the sixth floor of the SZU library, a naturally lit area that allowed sufficient space for student drafting (The department also occupied the fifth floor of the library until that space was returned to library in 1991).

Much of the income generated by its design projects was plowed back into the department. In the late '80s the department started a computer-aided design (CAD) center that by 1988 was the most advanced center of its kind in China. The center, the software and hardware specifications for which were based on recommendations of an American academic who served as visiting professor, cost about US \$250,000. Over the years technology was constantly updated (it had 40 CAD micro-computers in 1995) so it remained state-of-the-art; it did not suffer the technology time-lag that characterized the Computer Center, Library and Audio/visual Center. Architecture was often praised for its exemplary use of multi-media in teaching.

Fifth, Architecture made the most of foreign resources. In 1995 the departmental library subscribed to over 90 original foreign periodicals (the largest of any architecture school in China) and kept a large bank of slides and photographs of non-Chinese architecture, as part of its collection of 21,000 books (up from a reported 13,000 in 1991) and 20,000 slides (1991).<sup>22</sup> It employed overseas teachers who were architects and planners. They taught courses that were a fundamental part of the curriculum; they were not hired merely to teach non-demanding oral English courses, considered by many SZU students as just "recreational."

Sixth, politics did not interfere with departmental management. The two-track system (Party and administration) ran smoothly, much as it does in many state-run companies. The Party did not involve itself in either architectural teaching or design work. In 1989, after Party branches were set up in teaching units throughout the university, the new Architecture Department head, Xu Anzhi, concurrently held the position of Party vice-secretary of the department. He was also appointed head of the Design Institute. The Architecture Party secretary held the post of deputy head of the institute. This intermingling, which allowed leaders to experience mutual benefits, did much to alleviate conflict between the units, and it permitted them to act in a single direction. In such a way, Architecture avoided the factionalism that plagued several other teaching units. By 1992, a reshuffle resulted in a new departmental Party secretary and vice-secretary. The former Party secretary became deputy department head for 1993 and was replaced the following year by a Party cadre, not an architect. Other reshuffles in 1994 and 1995 changed the sub-leaders of the Design Institute; throughout the changes Xu Anzhi continued his concurrent position as institute leader. The department's official publications highlighted the importance of Professor Xu's leadership:<sup>23</sup>

Professor Xu has a profound understanding of the theories of modern architecture, especially in design of highrises and superhighrises. His publications of architectural articles and essays are on the lists of international conferences and enjoy a good reputation. Under his leadership and coordination of staff and faculty, much progress has been made in teaching and design.

Architecture was among only three of SZU's teaching units which received both "advanced Party organization" and "advanced work-unit" classifications in 1995.<sup>24</sup>

Finally, the Architecture Department had a unified sense of direction, driven by market demands. Its sense of purpose was not interrupted by leadership changes—it had three heads of department before 1989. In the words of one faculty member: "We know what we are about." Clearly, the department focused on meeting the architectural and human resource needs of the SEZ. Courses emphasized highrise design, something that was the locus of much new commercial and residential development in Shenzhen. As local demands increased for interior and industrial design in the early 1990s, however, these new areas received more attention in the class plan. One path that was pursued from the department's founding was directed to obtaining SEdC approval to offer masters and Ph.D. degrees in architecture. New universities in China must wait for five years before they can apply for permission to award higher degrees. Luo Zhengqi had been told informally in early 1989 that SZU could apply; his post-Tiananmen departure prevented an application at that time. The department had wanted to apply in 1992; it actually applied in 1996, after a year's worth of effort had gone into improving facilities. Architecture received permission to enroll upper degree students beginning in 1997.

From its inception, the department faculty members, spurred on by President Luo, himself a trained architect, wanted to establish Architecture's reputation as one of the best design schools in China. In August 1990 and again the following year, it passed provincial evaluations; from then it set its sights on state-level approval. In November 1991, the four best Chinese architecture schools (Qinghua, Southeastern, Tongji and Tianjin) passed a state-level evaluation by a team that included overseas judges. At that time, the department had hoped to pass the second-round evaluation, scheduled for 1993, but this was not to happen. The department submitted its self-evaluation to the provincial higher education authorities and learned that it lacked sufficient academic achievements. As a consequence more emphasis was put on research; output increased, and the department advanced five places in research output rankings (see Table 4.7). The department compiled



and published a book on highrise design in 1995, and other research projects were undertaken. In 1995 architecture theory/design engineering was included among SZU's five strategic keys for science and technology development.<sup>25</sup> Research was directed to focus on seven areas: broad and flat beams regulations, highrise design theory, design theory about buildings near water, planning of mid- and small- size cities/towns, design theory of civil architecture, architectural and environmental protection, and land use planning. Province-level research grants were obtained for highrise design (¥160,000 [US \$19,200]), hospital architecture (¥60,000 [US \$7,200]), big-scale building complexes (¥90,000 [US \$11,000]), and waterside sub-tropical construction (¥80,000 [US \$9,600]), making the department/institute one of SZU's top grantees. Its research received various municipal and provincial awards.<sup>26</sup>

Architecture also maneuvered in China's academic politics to push its case for getting the right to grant higher degrees. In 1994, the Guangdong higher education authorities granted SZU the right to train ten masters students in joint programs with other provincial universities. Architecture received one of the students from South China Polytech. As part of a public relations offensive, the department head escorted President Cai to visit universities in Hong Kong and then to Beijing, where they made the necessary rounds in influential educational circles. Architecture successfully bid for the right to host, jointly with Huanan Polytech, the 1995 meeting of Chinese architectural faculties, which would offer "a good opportunity to publicize the department."<sup>27</sup> In 1994 it set accreditation as its goal for 1996, earmarking ¥2 million (US \$230,000) of its own funds to build a physics laboratory and upgrade its other facilities. It formally applied in July 1995 to the State Council's Degree Committee for the right to teach masters students, filing its self-evaluation report in October 1995. It was included in the third round of architecture schools for the 1996 accreditation. Accreditation, good for four years, was granted in the summer 1996. SZU's was one of 14 Chinese architecture departments which passed the 1996 accreditation round; altogether there are 61 architecture schools in China.<sup>28</sup>

## History

A department of architecture was not in the original plans for creating SZU. Guangdong's response to the city's idea of creating a Shenzhen economics college called instead for founding a comprehensive university. The provincial report mentioned architecture as a major from which *rencai* were needed

for the SEZ, and the municipality’s report back to the province obediently listed Architectural Materials Engineering as one of 16 majors. In May 1983 the Founding Committee listed architecture among six majors, but this arrangement was not firmly in place by July when Huang Xinbai, the deputy minister of education, visited Shenzhen. Huang had said: “Whether or not SZU should have an architecture major needs further study by experts. This issue should not be determined by individual leaders.”<sup>29</sup> The issue had apparently been settled by September; Architecture was among the university’s five departments (along with Foreign Language, Law, Commercial Economic Management and Electronic Engineering). By 1986 Architecture had 21 teaching staff, 13 of whom held first or second level qualifications (one professor, five associate professors and seven senior engineers), the most of any teaching department. In that year architecture was considered a “hot major,” which had more qualified applicants than places, a distinction it shared with only International Finance, Management, and Electronics. Adult education established an architecture major in 1984, but there is no record of any student having gone through the program via the part-time *zhuanke* night school.

About a half dozen architecture professors from five of China’s famous schools of architecture were initially involved in setting up the department.

**Table 4.11: Teacher senior ranking (percentage)<sup>30</sup>**

	SZU average	Architecture
1986	13	62
1987	29	55
1988	na	38
1990	34	na
1991-2	24	na
1993	36	na
1994	47	70
1995	41	na
1996	na	87

The department then hired teachers from China’s leading universities, and it had considerably more senior ranked teachers than other SZU teaching units (see Table 4.11). About 40% were from Qinghua; 37% of the faculty have returned from overseas study. The department developed through several stages, the first of which emphasized architectural engineering and technology. Then, from 1989 the focus and scope of the department expanded to include interior design, environmental design and computer appli-

cation. In 1994 architects and designers numbered 120, including 34 professors, associate professors and senior engineers. That same year there were 20 lecturers and engineers, 18 post-doctorates and masters, eight visiting scholars returning from abroad and two foreign teachers. By 1996 all faculty had been to Hong Kong or Macau more than once, and 80% of the teaching staff had traveled abroad.

Given the nature of its work, the Architecture Department has been highly visible. Several of its teachers from Qinghua had worked on the overall campus design at the behest of Luo Zhengqi. By 1986 Architecture had designed various buildings on campus, including the Yue Hai Men Hotel, Block E lecture building, the bus depot, the Yunge faculty dorm, and the Ziwei women's dorm, which won a municipal design prize. Affiliated with the department was the Architectural Design Institute which, through its buildings in Shenzhen, gave additional visibility to the department. Backbone teachers in the department were encouraged to work at the institute in order to improve teaching quality and ensure richness in teaching. The architectural work of the institute was also supposed to contribute to teaching.<sup>31</sup> The institute, which was founded two years after the department, provided a part-time work place for students in the second or later year of their study. Seniors could place their senior design project there. Students in 1987 produced designs for Huang Bei Ling, a Shenzhen residential area in the Luo Hu district, which is notorious for housing the mistresses of Hong Kong lorry drivers. In that same year four student projects were selected as excellent designs at the provincial level and two at the national level.

The department's visibility was local, nationwide and global. Young architects and designers were constantly winning awards, prizes and competitions, including the commission to design the new headquarters of *Shenzhen Tequ Bao* in 1995.<sup>32</sup> Teachers frequently went abroad for conferences.<sup>33</sup> Exhibits of the department's works were also recurrent. From 1987-1992 designers won four state/ministry-level awards, 13 at the provincial level, and 19 at the city level.<sup>34</sup> Two professors helped China secure the hosting of the 1999 World Architecture Conference by designing the logo and brochure.<sup>35</sup> By 1993 SZU architects and designers had received 43 prizes for designs, including 5 national and 13 provincial awards.

The Architecture Department's integration into the community fit right into Luo Zhengqi's philosophy of making education practical and relevant. This pragmatism was a key feature noticed by visitors, including a Montclair State professor of earth and environmental studies, who reflected on the WWW:<sup>36</sup>

The [SZU] Institute of Architectural Design, where I was a guest professor, includes faculty from urban planning and architecture who contract with private developers to build and design many of the subdivisions and commercial areas of this rapidly expanding city. It is among the most financially secure areas of the university because it generates its own revenues from its contracting opportunities. These revenues, in turn, are distributed to the individ-

ual faculty participants in the form of annual bonuses that often double their salaries. In this manner, the university is as entrepreneurial in its relationship with its faculty as the city is to the rest of China.

The Design Institute's profit was ¥8 (US \$2.2) million by 1988. With fixed assets of over ¥3 million (US \$810,000), it had designed over 200,000 m<sup>2</sup> at SZU as well as over one million m<sup>2</sup> in Shenzhen. Its projects included the Shekou Union Hospital, Guangdong Development Bank Building, Zhong Yuan Oil Field Exhibition Center, Da Xing Commercial Building (the institute's first 100 meter high structure), and Wen Jing Mansions, which is a Lego-type construction located on the edge of Shenzhen's Ya Yuan triple-decker freeway interchange. Many of its projects received awards, including the SZU Administration Building and the Dongjiang Reservoir Office Building, which won second and third provincial prizes, respectively. The most famous of the institute's designs was for the 88-story Shenzhen International Economic Trade Center, which the institute submitted in partnership with Skidmore, Owens and Merrill. The bid was won in 1993, but by 1998 the project had not yet begun, as the Chinese partner was embroiled in negotiations with Li Ka-Shing, the Hong Kong investor. Having gained a reputation for skyscrapers, the institute in 1993 was studying the feasibility of three projects each involving over 100 stories. In 1995 Shenzhen municipality ranked the institute as third among the architectural firms of Shenzhen, second among the zone's 37 design institutes, and first in number of awards received and micro-computer application.<sup>37</sup>

Much of the profit from the institute's commissions was retained by the department for materials and equipment purchase. In 1987, for example, the institute provided ¥40,000 (US \$11,000) for the purchase of books from overseas and ¥100,000 (US \$27,000) for CAD. In 1991, it used ¥90,000 (US \$17,000) of its income to purchase televisions, slide projectors and air conditioning. In its first four years, Architecture had invested ¥2 million (US \$540,000) of its own income for departmental construction, a fact that led President Luo to note that some academic departments would inevitably "get rich first," drawing on a concept that Deng Xiaoping had applied to the nation.<sup>38</sup> The division between the department and the institute never forced the units to become mutually exclusive entities. It took several years for teaching and design work to mesh; by 1988 "the contradiction between the two was in the process of being resolved."<sup>39</sup> Further rectification occurred in 1989 after President Luo was fired. At that time, the institute stressed ideological education; some staff "who have harmed socialist public ownership" were punished; and the practice of "people using the institute's name to earn

personal money” was eliminated.<sup>40</sup> After the political storm dissipated, the department and institute became mutually dependent. Departmental teachers worked at the institute, while about one quarter of the institute’s professional staff taught. By 1996 the department employed 13 teachers and a total staff of 16. The institute, in contrast, employed 94 staff, of whom 18 worked in administration. The remaining 76 held academic qualifications, the equivalent of 38 professors, 6 associate professors and 32 lecturers.

The Design Institute had two branches, on Hainan Island and in Shanghai. The latter, set up in autumn 1985, employed over 30 technicians from SZU, including 14 senior engineers and over 10 *zhuanke* architectural students. In its first three years, it brought in fees of ¥4.4 (US \$1.2) million and designed 33 highrise buildings over 18 floors. It designed the Zhejiang PLA Veterans Hospital free-of-charge.

By 1996, the department had graduated eight classes totaling 276 students. Before 1986 10% of the students were enrolled from Beijing, Shanghai or Hong Kong/Macau, the latter colonies accounting for 13 graduates. After 1986 municipal policy required that all students come from Guangdong. Students have received 23 awards in professional competitions. More than 20 graduates pursued overseas studies in North America, Japan, Australia and Sweden. From 1989 entering freshmen were required to take an art test; colorblind or “color-weak” students were not permitted entry.

## Curriculum

The curriculum at Architecture, which generally followed the course arrangements of domestic and international universities, included:<sup>41</sup>

fundamentals of construction, construction blueprints, aesthetics in construction, model making, structure of construction, construction equipment, construction physics, structural design, construction structure and models selection, Chinese and overseas architectural history, computer aided architectural design, theories of construction design, principles of urban planning and design, interior design, architectural economics and regulations, landscape architecture, famous architects and their works, specialized engineering.

In 1988 new courses were added on architectural financial management, architectural criticism and SEZ architecture. The structure for majors has changed over the department’s history. In 1986 two types of courses were offered: architectural engineering (four years) and architectural design (five years). The former took students who did not make the cut for the final year.

For several years the department offered an industrial product design major, but this was scrapped when SZU set up an independent Design Department in 1994. SZU's Ten-year Development Plan formulated in the early 1990s suggested a new major of architectural management engineering, but this was to be under the auspices of Civil Engineering. The same plan listed architecture as one of six majors SZU would stress.<sup>42</sup> The department in 1991 adopted the Qinghua model in which foundation courses occupy a student's first three years, followed by one-half year of work (in SZU's case at the Design Institute), with a final year and a half of course work.

As in all departments, Architecture offered a school-level key course, but the department's course, entitled architecture theory and design, was by 1992 one of only three SZU courses that had also received provincial approval (and ¥200,000 [US \$36,000] in funding) as key courses. The course focused on highrise construction. Architecture was also the only department to receive two funded SZU research awards: one to a professor for combining teaching, research and production; the other for teaching reform in a structures course.

The formal architecture curriculum was supplemented by expatriate teachers and guest lectures from overseas. In the mid-1980s interior design was taught by a professor from Purdue University and architectural design by a registered engineer from the U.S. Both were ethnic Chinese. Architecture held as many as ten lectures by invited outsiders each year, far surpassing other departments. Guest speakers were sought, through personal contacts that had been developed at international conferences or by staff participation in international architectural organizations. Requests to lecture also came from "walk-on's"—overseas architects who visited SZU on their own, to look over the campus design, which had won international recognition as well as first place in a competition in China among 230 campus designs. To further its position in the Chinese architectural community, Architecture hosted the fifth annual conference on Modern Chinese Architectural Research in 1991.

Architecture was also the first (and until the mid-1990s only) SZU department to publish an international journal: *World Architectural Review*, first issued in June 1985, before even the university's academic journal was founded. *World Architectural Review* was not without controversy, contention that resulted not so much from its contents, but due to circumstances surrounding its leaders. One of China's notorious criminals of the 1980s, Hu Xiaoyang, possessed a temporary journalist workcard for the *Review* when he was arrested. Hu, the son of a Shanghai cadre, was executed for allegedly committing over fifty rapes and seductions. His description in

China's media as a "SZU person," according to Luo Zhengqi, damaged SZU's reputation and was the result of the work-unit's loose control over its workcards.<sup>43</sup> Controversy ensued when the post 4 June administration investigated the journal's leader for corruption. The new leadership accused the editor, Zhang Lianjun, of using fake chops and signatures and fabricating a resolution of the journal's board of directors. Zhang was alleged to have incurred a debt of over ¥160,000 (US \$34,000), money that was subsequently returned to SZU. The university confiscated the fixed assets of the journal, including a flat in downtown Shenzhen, two photo-copiers, six air conditioners, an amplifier, and an old BMW owned by Zhang for three years.<sup>44</sup> The matter, which was reported to Public Security, was considered by many in the SZU community to be politically inspired—a way for the new leadership to attack Luo Zhengqi, who had appointed Zhang to his position. Indeed, SEdC official He Dongchang's speech at SZU in 1991 censuring Luo included a critique of the *Review* for being "not academic enough but rather more advertisement-oriented." The *Review* was involved in a dispute in the early 1990s with New Century Company and Southern Advertisement Company. This was settled and the journal resumed publication in December 1991.<sup>45</sup> Its tenth anniversary celebration was attended by dignitaries including the Shenzhen mayor and the minister and deputy minister of the Ministry of Construction.<sup>46</sup> From 1994, the Architecture Department head also served as president of the *Review's* publishing house.

By its very nature, architecture is a practical subject, and its students spent much of their time in labs. The department's computer facilities permitted students sufficient time to develop expertise in computer-aided design. Some faculty have complained that students' drawing and drafting abilities were adversely affected by their over reliance on computers. Students who might otherwise develop superior skills in perspective and aesthetics realize that they can hop over some laborious training and jump right onto the computer. This concerns many of the architectural teaching staff who themselves had become qualified architects before computers were personalized. Drawing classes are still taught at SZU, of course, but faculty worry that the students are not doing sufficient apprentice work to develop their skills. "This is Shenzhen," one admits. "Everything must be done yesterday. The individual is still the basis for design. The computer cannot design; it can only follow instructions. We want to develop students who can create, not just students who can program computers."

## Chemistry Department

In many regards Chemistry lies at the opposite end of the spectrum from Architecture. The exam scores for entering students in Applied Chemistry were the lowest among sciences track majors in 1991-1995, averaging 36 points below those in Architecture and 104 points under International Finance. Whereas Architecture students were the most satisfied with their education, their peers in Chemistry were the least pleased (see Endnote 6). Some students showed their displeasure by quitting the major, with the department losing students each year from 1989-1991 as some transferred to different majors and others went abroad for study. Students were not the only ones leaving Chemistry. Several faculty members hired in SZU's early years left for other SZU work-units, but many new teachers were hired. In the late 1980s the department doubled its student enrollment to accommodate a second *benke* major (Food Chemistry) and a *zhuanke* major. By 1994 Chemistry was the fourth largest academic department in staff number, but near the lowest in terms of average academic rank. Its young teachers averaged about 38 years old. Research output among faculty declined. For the years 1988-1992 Chemistry was slightly below the SZU departmental average in terms of publications and patents, but by 1994 it had dropped to third from the bottom.

Over 63% of the students who arrived at SZU in 1989 to study chemistry had not obtained their first choice of college and major. It is not surprising, therefore, that these students, who entered college disappointed, carried that disappointment with them through their four years at SZU. Some of these students had wanted to go to medical school, others to different sciences track majors such as business or engineering. Chemistry was a fall-back position. In North America, Chemistry departments are often gathering areas for pre-meds, but in China there is no pre-med undergraduate major because medical schools recruit directly from secondary schools.

When they graduated in 1993, the Chemistry majors reported the lowest use of their field of study in their jobs. (Architecture was at the opposite end of the scale).<sup>47</sup> Just as they had entered with disappointment, they left with frustration. In contrast, the Chemistry graduates ranked second only to Architecture in stating that they used their general skills and talents in their jobs.<sup>48</sup> Taken together, these two statements suggest that Chemistry students greatly questioned the value of their tertiary education. As a group, the students in Chemistry were the most cohesive group among all the disciplines. Sixty-five percent (compared with a 54% average) reported that they preferred to be with their classmates than to be with their other friends at SZU.



Perhaps a possible explanation is found in the idiom: misery likes company. Chemistry students felt their studies should be practical, and like their peers around the campus, they felt students should be active in class, but this did not concern them as much as it concerned students in other departments. In fact, they generally believed the teacher (rather than the student) should be the center of the class. Chemistry students were the second most materialistic students (behind Management). In summary, the results of my 1993 survey suggest that Chemistry students accepted and were not greatly bothered by SZU's pedagogy or educational methods. They were just in the wrong field of study...not the field they wanted at the time they enrolled and not the field they would use in their jobs.

The Chemistry Department was established along with Mathematics and Physics in November 1985 when SZU was just over two years old. The department has offered two *benke* majors: Applied Chemistry (sometimes called Material Chemistry) and Food Chemistry, as well as various *zhuanke* programs. Student intake began in fall 1986. About half of the *benke* students admitted in 1987 were *daipei* under contract to the state oil company. Start-up was a year earlier than originally scheduled in a plan that had called for creating Petroleum Chemistry and Food Chemistry majors in 1987. In late 1986 the department wanted to add three major directions: petroleum refining engineering, chemical engineering and precise chemical engineering. The term "major direction" (*zhuanye fangxiang*) is not exactly the same as "major" (*zhuanye*), in that the latter must be approved by the upper levels. Major direction is a way to skirt regulations; the term does not have SEDC authority behind it. Discussions by Chemistry in the university's yearbooks were often confusing because major directions are sometimes referred to as majors, including petroleum chemistry, precise industrial chemistry, and precision polymer chemistry. In late 1986 the department projected an enrollment by 1990 of 400 students. This optimistic prediction was never realized as only about 250 students were enrolled in 1990. The Ocean Petroleum Company stopped sending SZU *daipei* students in the late 1980s, and the *zhuanke* program was suspended for a period after 4 June. Initially, however, the *zhuanke* program outpaced the department's predictions. Instead of the anticipated 40 students in two *zhuanke* majors in fall 1987—a prediction made the previous December—the department enrolled 60 students in a single major. The *zhuanke* programs changed over time. In 1991 it was called chemical analysis; in 1995 three majors were offered: analysis and testing, commodity inspection and applied life science (or bio-engineering). The next year, only applied life science was being offered. The Ten-Year SZU Devel-

opment Plan in 1991 suggested creating a major in chemical engineering, but this did not materialize. Department reports for various years are peppered with proposals that never saw realization. The department's mission, as outlined in 1988, was seemingly all-inclusive: to provide three types of training for students—academic research, industrial development, and technology and trading.<sup>49</sup> This lack of precise mission, as well as the shifts in recruitment and false starts, made for an unsteady path. Such confusion did not escape the antennae of high school guidance counselors, who did not recommend SZU Chemistry as a choice for their best students. That the department lacked a clear vision or sense of direction—factors *inter alia* that set it apart from Architecture—negatively affected student intake, creating a vicious cycle that delimited prestige for Chemistry.

In 1996, the department offered these courses taught by 37 instructors (of whom 28 were fixed staff):

*Applied Chemistry (Material Chemistry):* general physics, inorganic chemistry, analysis chemistry, organic chemistry, physics/chemistry, fundamentals of computer application, equipment analysis, principles of chemical industry, picture making in the chemical industry, high molecular chemistry, high molecular physics, precision chemistry, introduction to material science.

*Applied Chemistry (Food Chemistry):* art of food, food chemistry and nutrition, food analysis, principles of food projects, food project and mechanics, fermentation, micro-organisms and organic matter, management of chemistry enterprise, economic analysis of chemistry technology.

*Applied Biological Engineering (zhuanke):* animals, plants, plant psychology, micro-biology, cells, genetics, biological chemistry, biological chemistry technology, gene projects, cell projects, fermentation projects, moisture equipment analysis.

In contrast to the reporting style of the Architecture Department, reports from Chemistry tend to be short on empirical data and are repeatedly inconsistent with one another.<sup>50</sup> It is unclear from published reports, for example, exactly how many students studied in or how many teachers taught in the department. The Chemistry Department started hiring just at a time when personnel quotas from the municipal government were becoming difficult to secure. During the first years, irregular faculty made up a large portion of the teaching force. In 1986 four out of 12 teachers were described as “part-time,” suggesting they did not have official standing. The following year, the number rose to 7 out of 15. Reports for 1988 put the number of teachers at 17 or 20, which included three teachers who went abroad for doctoral studies (which most departments would not list on the active teaching rolls). The

inaugural department head, a renowned chemist, managed her faculty of young scholars (13 of 15 teachers were under 40 in 1987) in an open manner, a style that characterized many academic departments in SZU's first years. Appointments of laboratory heads and teaching assignments, for example, were publicly bid, in what the department leadership called "administrative democracy."<sup>51</sup> In 1986 the department had what it billed as a speech contest in which teaching staff spoke on the topic: if I were department head. In 1989 the head allowed students to formally evaluate their teachers, a practice that was not instituted university-wide until 1994.

### Marketization and research

The constant change in majors and major directions illustrated Chemistry's constant battle with marketization. Inconsistency became the department's way of responding to the needs of the Shenzhen labor market. For example, one year the leadership perceived Shenzhen to need *rencai* in petroleum processing, and focused teaching in that direction; another year it felt that the zone needed workers equipped to perform chemical analysis for companies. Ironically, the department's diligent attempt to improve "job match"—student's using what they learned at university directly in the workplace—met with, as Chemistry students themselves reported, the poorest job match of all SZU graduates in 1993. Nonetheless, the department's efforts showed its concern for being a part of the larger Shenzhen economy. This concern was also illustrated by the department's research.

The SZU community considered Chemistry a success in one regard: the practical nature and marketability of its research. Even in 1986, the second year of the department and its first with students, Chemistry described itself as an "important consultant service work-unit."<sup>52</sup> That year it undertook a peanut oil production techniques project, investigated Shenzhen industrial pollution (for which it later received two municipal awards), and took on joint research and exchange projects with universities outside China. In 1984, even before the department was founded, SZU had established the Bio-Chemistry Institute with the express purpose of "developing tonics and other products that strengthen health and postpone aging."<sup>53</sup> Most of its research focused on food additives and electron cleaning agents; it created the Bibaoling natural honey soda drink and a mineral water containing bee pollen, neither of which apparently became commercial successes. SZU's Oil Technology Center, set up in 1986, evaluated the physical properties of oil products. Its research also focused on ways to combat the corrosion of oil

field equipment; it looked at failure analysis and safety assessment of pipelines, storage tanks and petrochemical equipment, and energy conservation technology. Funded in large part by the China National Oil and Gas Company and petrochemical companies, the center enjoyed a close relationship with Beijing's Petroleum University. It served as one of that company's *de facto* research and development units, and few of its six staff were taken from SZU's fixed staffing quota.

By 1987 the department had received one state-level funded research project, and two each from the province, municipality and university itself. In addition, four contracted projects that same year brought in ¥160,000 (US \$43,000), or ¥12,000 (US \$3,200) for each of its researchers.<sup>54</sup> SZU's research development strategy for the turn of the century proposed further advancements in SZU's chemical technology, especially in leather processing, aluminum processing lubricants, and edible fungi. Areas for further development in bio-chemistry included electric chemical materials, textile dyes, water treatment, health and medical products, rot-proof technology, new coatings for architectural materials, and high magnetized mechanical equipment.<sup>55</sup> Over its history, no other teaching department accomplished so much research or consulting, save for Architecture. To propagate its successes, the department hosted the second international conference on Chinese chemistry (in other words, chemistry done by ethnic Chinese, including those living outside the PRC).<sup>56</sup>

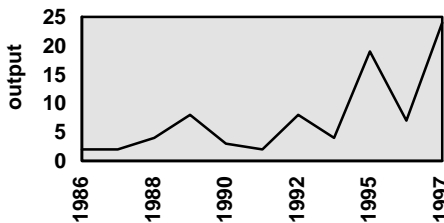
In 1988, Chemistry's research funds exceeded ¥300,000 (US \$81,000). It had developed a technique for keeping Shenzhen leeches fresh, enabling the export of 1,000 kilograms of fresh fruit to Japan the following year. It developed random testing programs for government agencies, including the Commodity Inspection, Customs and Railway bureaux. Other research involved the process of recycling the silver discharge of photo processing, the Dayang brand liquid paper correction fluid, long-lasting non-fading ink, a leather polisher, waterless hand-washing lotions, cleansers, toilet deodorizers, a water free cleaner for oil stains, and dust-free chalk. The silver recycling process was bought by a Shenzhen company, which agreed to share its profits with SZU.

Chemistry worked closely with its research institutes. The Shenzhen Personnel Bureau had approved few fixed staff for SZU research units, and Chemistry's teachers spent much of their time developing commercial products for the institutes. In turn, institute staff sometimes offered courses in Chemistry. Though SZU's Bio-Chemistry and Life Sciences research institutes, the department developed several products to meet the changing needs of the 1990s. Life Sciences undertook five research projects in 1989, in-

cluding a state-level 7-5 project.<sup>57</sup> The institute collected sea specimens as part of an investigation of the South China Sea living environment. It developed a tonic designed to kill the hepatitis A and B viruses, as well as liver tonics, vegetable cleansers and insecticides. One of its four anti-virus liquids was the *Aile ye* (literally, love pleasure liquid), intended to combat the spread of sexually transmitted diseases (STD). Citing an endorsement from China's National AIDS Research Institute, its inventors claimed that the liquid at 2% density could kill the AIDS virus within one minute and render harmless other STD as well.<sup>58</sup> The *binjiangui* (literally, guest returns healthy) liquid was also developed for combating STD.

The development of institutes relating to chemistry was not effected according to the original plan. To supplement Bio-Chemistry (established 1984), the department in 1986 had set forth a time schedule for developing several more institutes: applied chemistry (1989), food chemistry (1989),

**Figure 4.4: Chemistry**  
Department research output<sup>62</sup>



bio-chemical engineering (1990) and precise chemistry (1990).<sup>59</sup> By 1991, however, only three institutes relating to chemistry existed: petroleum, bio-chemistry and life sciences. The latter had been categorized as a SZU “backbone” research institute in 1989, which entitled it to funding

priority. The division between the Chemistry Department and its related institutes remained blurred over the years. The institutes' coordination with Chemistry was on an *ad hoc* basis; general communication between the entities was nearly nonexistent except when economic links were present. Each institute was managed by a single individual, initially those for whom the institute had been created. The reputation of an institute rose and fell with the accomplishments or tribulations of its leader. The department of Chemistry exercised little power over them.

In 1988, when officials at SZU were concerned over the university's idleness in research, Chemistry was praised for successfully securing 12 research projects. The SZU Research Office at that time admonished other academic departments and research units that “research should not just pass

inspections but that it should be turned into commodities. These commodities should circulate in the market; researchers themselves should pay attention to social and economic efficiency.”<sup>60</sup> These latter terms refer to products’ improving society as well as producing a profit for their developer. Not all research ran smoothly, however. A 1990 contract signed between the chemistry departments of SZU and Beijing University called for cooperation on shrimp food processing and the establishment of a SZU bio-chemical factory. According to the SZU partner, “the contract was signed but cooperation between the parties has not been smooth and nothing has been done.”<sup>61</sup> While most research out of Chemistry was practical and applied, the faculty also published in academic journals. The department’s academic output followed the general SZU trend in volume. Publications/patents peaked in 1989, dipped in the early 1990s, and rose again in time for the 1995 accreditation (see Figure 4.4).

## Outside linkages

As part of its research efforts, Chemistry developed overseas academic links, in addition to its governmental ties inside China (with 30 bureaux by 1990). Early on, relationships were developed with the Chemistry Department of Manchester University as well as with an Austrian institution. The Manchester exchange involved joint research and in 1986 there were plans the next year to jointly recruit graduate students (this never materialized). In 1987 the head of SZU Chemistry, who had been recruited by Luo Zhengqi earlier that year, visited Manchester; a reciprocal visit by a Manchester professor followed. In 1988 the British Council funded the Manchester scholar’s two-week lecture visit at SZU. In September 1990, the Chemistry head revisited Manchester for a longer stay, and through her efforts the following year, the British Council donated chemistry books worth £2,500 to the SZU library.

Chemistry also obtained SZU’s first sizable private donation. Shao Yifu (Run Run Shaw), a Hong Kong film entrepreneur, gave the university HK \$2 million (US \$260,000) for setting up a 17,000 m<sup>2</sup> equipment testing center. The Shaw name appears on the buildings of many tertiary campuses in Hong Kong; this overseas Chinese is also widely recognized in China as his name appears on numerous *kung fu* Cantonese-language films.<sup>63</sup>

## Teaching quality

Concerns over teaching quality in Chemistry surfaced in the early 1990s. In general, the post 4 June administration criticized SZU teachers for spending

too much time on non-teaching work, and this admonition certainly applied to Chemistry, where teaching had never been the chief task of the department. The major tasks there had been applied research and laboratory development. Until 1990 none of the annual reports by the department's leaders even mentioned curriculum development or teaching reform. The new leaders in 1990 replaced the department head, whom Luo Zhengqi had hired as both department head and presidential assistant. At various times, the new SZU administration had mentioned that young teachers needed guidance from their more experienced peers. This advice applied to Chemistry, which had one of the youngest staffs (the first department head had been told explicitly not to hire anyone over 40).<sup>64</sup> In the SZU 1991 work report, priority in allocating teaching funds was to be given to several departments, included Chemistry, an indication that its young teachers were being warned to improve. Chemistry was also one of the disciplines for which the university nationally advertised to recruit renowned professors. In 1995 the SZU leadership suggested that four departments, including Chemistry, send their leaders and cadres to the student dormitories to ensure they complied with dorm discipline.<sup>65</sup> Teaching issues continued to trouble Chemistry. In late 1996 the department head summoned all class leaders and study representatives (*xue xi wei yuan*) to report on their teachers' teaching.<sup>66</sup> In contrast with problems in the department's administration, the Party structure was considered exemplary, and in 1995 Chemistry was awarded as an advanced grassroots Party organization. That same year, the department was one of five academic SZU units that held Party Constitution study groups, resulting in further praise by the university leadership.

In sum, Chemistry's *benke* students did not especially want to be there; their teachers were more interested in applied research than teaching. From the start, the department had wanted to recruit graduate students. The Chemistry Department, in fact, wanted to be a research institute dressed in teaching clothes. In 1986, it reported a desire to recruit Ph.D. candidates by 1990.<sup>67</sup> Graduate teaching in China is permitted in two sorts of units: those with very strong undergraduate programs or non-teaching professional institutes. The Chemistry Department at SZU fit neither bill. To further complicate matters, the department's teaching energy was split between the regular *benke* and *zhuanke* students and the older students who took courses in the night school.

In December 1994, the department was evaluated for three days by an expert group from the SEdC. This department-level evaluation was a precursor to the SEdC's planned 1995 overall accreditation of the university.

The selection of Chemistry for a demonstration had little to do with Chemistry itself; some department had to be selected, and Chemistry was chosen by the university leaders, perhaps because it was considered a problematic department. One purpose of this mini-evaluation was to inform and educate the campus leaders about the accreditation process. None of the points raised in my preceding analysis of the Chemistry Department, however, was mentioned in the SEdC review, which praised the department for having a young teaching team, good teaching conditions and a teaching plan that conformed with the SEdC model. The inspection team also complimented the department on its use of computers, English and audio/visual equipment and commented positively on periodic checking of students' work and quality examinations. Short-comings noted included dated laboratory equipment and an absence of quality in graduation theses.<sup>68</sup> Chemistry benefited from being a guinea pig in one major way: the university allocated special funds to upgrade its lab equipment.

The SEdC mini-evaluation belied the department's true situation—one that was addressed by university leaders through several administrative reshuffles, with new department heads appointed in 1991, 1994 and 1995. Publicly, however, Chemistry was reviewed as a successful department. In the preparation for the 1995 accreditation, for example, President Cai Delin described Chemistry as having "a small but able team." The department, he noted, did not have full-time laboratory staff. Instead, Ph.Ds in Chemistry conducted their own lab sessions. For that, according to Cai, the SEdC had deducted a point in 1994 because this contradicted national lab standards. The president suggested that the earlier evaluation had missed a major point: that SZU's departments could have their own characteristics that fell outside of SEdC guidelines.<sup>69</sup> Certainly, Chemistry illustrated such individualism.

## Chinese

From a shaky foundation, SZU's Chinese Department has been redefining and rediscovering itself throughout most of its existence. Many SZU teachers consider it one of SZU's most innovative departments, being the first in China to offer certain majors: Public Relations in 1986 and Tourist Culture in 1991 (both *zhuanke*).

The preparatory document from the provincial authorities that conceptualized SZU did not include Chinese as a field of study among the half dozen it listed. The municipal government's response to the document enumerated



16 majors, of which Fine Arts was the only one which covered any of the areas traditionally thought of as encompassed by Chinese departments. Neither document mentioned language, literature or culture. Consequently, when the university opened in September 1983, Chinese was not included among SZU's first five departments. Chinese was formally established on the university's first anniversary, along with Electronics, Mechanical Engineering and Civil Engineering, as authorized by the municipal government in late 1983.

In contrast to Architecture, which was created through a collaborative effort, Chinese (like Chemistry and most other departments) was largely the product of one individual, in this case Professor Yue Daiyun, an internationally renowned comparative literature scholar from Beijing University. Yue set three major directions for her department.<sup>70</sup> The literature focus would include both Chinese and western works. The linguistics focus would be on Chinese character information processing, such as creating multi-functional computer index systems. A third focus—journalism/secretarial work-skills—would emphasize applied computer, Chinese and English typing, interpretation, short-hand, driving a vehicle and other practical skills used by Chinese executive secretaries (positions of some importance in the work place as their holders often served as gate-keepers for powerful leaders).

The choice of a comparative literature specialist to set up the Chinese Department of a new university was problematic because the field of comparative literature in China is itself a subject without a departmental base. Large universities in the U.S., which can tap on vast resources and hire staff interdepartmentally, sometimes have units offering comparative literature. It is more common in China, however, to include a specialty of world literature as one of 10 or so foci within a Chinese Language and Literature Department.<sup>71</sup> Comparative literature academics in China are often looked down upon by scholars who read texts in their original language and who are usually situated in language departments. Professors in Chinese Departments are not generally interested in literary comparisons of works not originally written in Chinese. Consequently, the best work in comparative literature in China comes out of foreign language departments. In any case, SZU set up a mixed department. The inevitable conflicts between linguists, literature scholars, culturalists and comparativists required a most skilled politician who understood the dynamics of how these specialties played off one another. Yue accomplished her given task—establishing the heterogeneous Chinese Department—and then returned to Beijing in 1987. What she left

behind was a collection of six inter-related (or unrelated, from another point of view) entities:

- The Department of Chinese Language and Literature, with 25 teachers by 1986, offered several majors to *benke* and *zhuanke* students. It was also responsible for the full-year course (College Chinese) required of all entering year students.
- The Public Media Training Department, set up in 1985, did not have upper level approval as an academic unit, but it nonetheless offered certificates for three majors: public relations, television arts and television advertising.
- The Institute of Chineseness, founded in 1984, was operated by eight researchers from the Chinese Department. This institute was established to examine the cultural history of China's thoughts, to prepare comparative studies of oriental and western culture, to review Chinese studies made by foreigners, and to computerize Chinese classics. By the early 1990s the Institute of Chineseness had evolved into the Foundation for the Compilation of Chinese Classics, which was integrating five ancient, big dictionaries to build the 'Grand Book of China,' which would include on laser disk the entire aggregation of Chinese characters.<sup>72</sup>
- The Comparative Literature and Aesthetics Institute, founded in 1986, allowed six scholars to further the study of comparative poetry, Chinese/Hong Kong/Taiwan aesthetics and art aesthetics. With Yue Daiyun's support, SZU hosted the first meeting of the newly formed Chinese Comparative Literature Association, attended by 150 guests, including the province's lieutenant governor.
- An Institute of Hong Kong-Taiwan Literature in 1986 worked with Jinan University to host the third Taiwan-Hong Kong-Overseas Literature Conference.
- The Chinese Language Center worked on promoting *putonghua*. As in the case of the other institutes and the Public Media Training Department, its staff were fixed staff of other units, borrowed mainly from the Chinese Department in this case.

The Chinese Department's affiliated units, like those linked to Chemistry, were non-teaching; they undertook special projects which were often interdepartmental in nature. Such units often ran semi-independently, obtaining their own grants and marketing their products. Of the two institutes affiliated with the Chinese Department, only one fit this description (and then only the first part). The Chinese Language Center hooked up Chinese literature scholars with computer technicians to computerize and index several classi-

cal Chinese works. By the early 1990s some of these software had been marketed and exported; but given the world's inclination toward CD-rom based information retrieval, the technology that went into these products quickly became outdated. The products themselves retained little commercial value over time.

After Yue Daiyun departed, management of the department was turned over to Professor Hu Jingzhi, Yue's former colleague from Beijing University. Hu was an advocate of cultural interchange and received media recognition for his efforts to build scholarly ties between Mainland universities and their counterparts in Hong Kong.<sup>73</sup> A master of public relations, Hu received much respect in China (even if he received little from his colleagues at SZU). In 1993 he became the first SZU fixed staff empowered by the SEdC to tutor Ph.D. students.<sup>74</sup> A scholar in aesthetics, Hu oversaw the 1988 merger of Chinese Language and Literature with the Public Media Training Center into the renamed Department of International Culture and Media. More than the department's name changed. In an effort to train more versatile students, the department began to offer courses in photography, drivers' education, and English typing.

In 1987 the first *zhuanke* major was offered. It was entitled Chinese Secretary and was intended to "train ordinary secretaries with satisfactory knowledge in theories and culture, who possess solid skills in secretaryship, know office automation such as computers, strong public relations skills, and satisfactory foreign language level."<sup>75</sup> The courses taught in this two-year major started to resemble the first two years' curriculum of the *benke* major, which was still titled Chinese Language and Literature. Language and literature classes began to be replaced with more practical courses involving advertising, public relations and the like. In 1989 and 1990, a second *benke* major, Enterprise Culture, was added. This major intended "to instruct students how to deal with business administration (so-called internal relations) and public relations (external relations)."<sup>76</sup> Also in 1989, a *zhuanke* major exclusively for fee-paying students was planned. Entitled Chinese Character Information Processing, this major involved desk-top publishing. By the decade's end, the department had also enrolled over 30 graduate students from city bureaux to study SEZ culture, although no SZU unit was empowered at that time to bestow masters degrees. Then, in 1991, the name of the *benke* Chinese Language and Literature major was changed to Chinese Secretary, and the Enterprise Culture major was renamed Advertising, a subject taught in the former Public Media Training Department. The students had persuaded the department that these name changes would enhance their job

prospects. For the years 1988, 1989, and 1990 SZU was probably the only comprehensive university in China not to have a department with the word *Chinese* in its title; in 1991, 1992 and 1993 SZU was probably unique for not offering a major titled Chinese Language and Literature. In 1994, however, the Chinese Secretary *benke* major reverted in name to Chinese Language and Literature, in part because its former title had never been approved by the SEdC. It had nonetheless operated under the unapproved title for three successive years.

Behind the constant renaming was the desire to attract better students and retain the students it admitted, in other words discourage them from leaving the department, something that had been a problem from 1988-1991 (see Table 4.3). Along with Foreign Language, the Chinese Department took high school graduates from only the arts track. Even the departments of Law and Public Administration had permission by the mid-1990s to take in some sciences track students. The rest of the departments enrolled science students, a group which accounts for about two-thirds of all university students in China. Departments which taught economics and business took in the highest scoring arts track students, and Chinese realized by the late 1980s that it needed better students. As indicated in Table 4.1 and Figure 4.1, Chinese has run neck-in-neck with Foreign Language and appears to have surpassed it by 1997 in terms of acquiring higher scoring students.

Course offerings in the department greatly expanded over the first decade of its history. The number of teaching staff tripled in the first four years (from 10 to 30), and 90 different courses were offered over this period; in 1989-90, 30 new courses were planned. Courses in the department were set for particular groups of students (majors in advertising, public relations, etc.) and students generally did not take courses outside their specialty. Nonetheless, students in Chinese felt less hemmed in than their peers in other departments, where curriculum more-or-less followed the Soviet system's rigidity wherein all students in a major took the same courses.

One of the Chinese Department's major tasks was to teach the College Chinese course for SZU freshmen. A service department like Foreign Language, Mathematics and Physics, it assumed this role dutifully, but teachers forever complained about students' deteriorating writing standards. The grumblings became public in 1993 when the department reported on the results of the annual writing contest which involved 119 authors from all teaching departments:<sup>77</sup>

This contest showed many problems, including students' poor grammar foundation. A lot of sentences read incorrectly. Many students lack the ability to organize their thoughts. Some articles are disorganized and say little. Stu-

dents do not have broad knowledge or vision. Most articles lack new ideas. However, about half of the pieces say something and are well organized with acceptable penmanship.

### Academic vibrancy

By all accounts Chinese has been a vibrant department, with many sub-fields represented so that the exchange of ideas was the most kaleidoscopic at the university. Much of the department's reputation was based on the scholarship of its four leading professors, who formed their own committee to "promote the work of the department."<sup>78</sup> One served as an associate editor of the College Chinese textbook used throughout Guangdong Province.<sup>79</sup> The department also had an array of personalities, including artists, film directors, poets, pedantic textualists, and literary critics. Many of these scholars were innovators; for example, the Public Relations major at SZU was the first in China, called a "solitary blooming flower" (*yi hua du fan*).<sup>80</sup>

This environment of diverse opinion in part accounted for why the Chinese Department's students were considered by both themselves and their teachers as among the most critical and creative thinkers on campus. This sheds light on a finding from the 1993 graduates survey which suggested that the department's students were the second most dissatisfied at SZU (see Figure 4.3). Another explanation of the survey findings, suggested by a Chinese Department faculty member, was that it indicated that the students were just doing what they did best: think critically. The same survey revealed that more Chinese Department students had selected SZU as their first choice (85%) than any other *benke* freshmen entering in 1989. It is possible, of course, that they were among the most disappointed students, but this contradicts a large body of anecdotal evidence. Chinese Department classes were among the most popular on campus; many Chinese teachers permitted students from other departments to take their classes as electives, and some of these visiting students reported that Chinese lectures put their own department's teachers to shame. Chinese Department faculty rarely read from texts (as in International Finance and Trade), did not "beat the text to death" (as in Foreign Language), and had a sense of humor, a trait students found lacking among teachers almost everywhere else on campus. Xiong Yuanwei, a prize-winning playwright, gave especially entertaining lectures.<sup>81</sup> Several of the Chinese teachers developed reputations for giving high grades as well as for delivering entertaining, well prepared lectures. One teacher in particular had developed a reputation for telling the same jokes—actually good jokes—

year after year. Another professor gave lectures on television, as part of Shenzhen's television university. Truant students could follow the lectures on television, although with a several week delay. The interpretation of the survey results that suggests that Chinese Department students were critical rather than dissatisfied is also supported by other data collected in the same survey. On most questions, Chinese Department students' opinions reflected the norm, and there is no other indication of an especially high level of dissatisfaction.

The constant name changes in the Chinese Department belie the fact that the content of the principle *benke* major has remained virtually unchanged over a ten year period. Almost from the beginning, courses stressed "application":

*1986 Chinese Language and Literature*: writing, foreign language, modern Chinese language, ancient Chinese language, calligraphy, Chinese and English typing, cultural exchange, current events, secretary, public relations, Chinese literature, foreign literature, ordinary linguistics, HK/Taiwan and overseas literature, comparative literature, aesthetics of art, western literature criticism, Chinese literature criticism, literature, computer operation, data base management, Chinese word processing and various courses on different academic subjects.<sup>82</sup>

*1996 Chinese Language (Chinese and English secretary)*: modern Chinese, ancient Chinese, contemporary Chinese literature, ancient Chinese literature, general introduction to literature, western literature, art and aesthetics, basic writing, documentary writing, secretaryship, applied knowledge of computers.<sup>83</sup>

In 1986 the major stressed language in its first two years, then secretaryship, comparative literature and applied language. By 1996, the courses remained the same but the major itself had been redefined "to train high class secretaries with solidly based theoretical knowledge on literature, secretaryship and culture, with proficiency in Chinese and western language, good writing skills, familiarity with office automation and expertise at public relations."

*1996 Advertising (Public Relations)*: principles of public relations, management, principles of communication, study of body language, advertising planning and creativity, practices in public relations, enterprise culture, marketing, office automation, methods of social survey.<sup>84</sup>

A second major, first called Enterprise Culture and later Advertising, was added in 1989 to attract students less interested in the traditional curriculum. Its goal was "to train high class public relations specialists with basic theoretical knowledge in public relations, communications and management, who

can conduct and perform public relations activities, who can make use of various communication media to undertake public relations, and who possess strong social skills and have mastered one foreign language.”

Ironically, students in this new major scored higher than those in the traditional listing in only one of the five years for which data were reported. Thus, one of the intended side-effects of opening the new major—to draw higher scoring students away from SZU’s business offerings—did not apparently occur.

*Chinese Secretary (zhuanke)*: basic applied computers, basic writing, documentary writing, introduction to Chinese culture, introduction to Western culture, office automation, secretaryship, contemporary Chinese literature, ancient Chinese literature.

*Tourist Culture (zhuanke)*: art of being a tour guide, writing travelogues, management of a tourist agency, management of tourist hotels, marketing of tourist hotels, development of tourist resources, western tourism, tourist English.

Two two-year *zhuanke* programs admitted lower scoring students. One of these, Tourist Culture, intended to “train specialists in tourism who possess professional and theoretical knowledge in tourism with a strong work ability, high cultural skills, knowledge of office automation, and a good foreign language level.”

The merging of teaching units and the constant discussions on curriculum development resulted in a faction-ridden department. By 1992 Hu Jingzhi had been replaced as department head by Zhang Bigong, a classical scholar, who was being groomed by the post 4 June leadership for Party chores. Zhang, a superior administrator, ridded the department of its factionalism by building and mending fences and wisely distributing patronage. One of the major hurdles to departmental unity, in addition to the existence of so many sub-fields, was its sheer variety of programs, the teachers of which each had particular vested interests. In the department’s first five years, the number of students enrolled as *benke* majors totaled around 200. But by the department’s own admission, in 1988, the department had taught over 1,000 different students. In addition to the *benke* and *zhuanke* programs, there were part-time students in night school and graduate classes; other offerings were found in the department’s numerous nooks and crannies. It ran a nationwide correspondence course, which gave students little value for their tuition. One departmental staff member was assigned to open mail

sent to the correspondence course office, extract postal money orders, record the data, and discard any essays submitted as part of the course requirement. No essays were ever assessed, and a transcript indicating passing grades was sent to anyone who paid fees. Fortunately for undergraduates, this cavalier attitude did not extend to the department's *benke* courses.

## An active department

Throughout its existence, the Chinese Department has been keenly aware of the importance of marketing and public relations, two subjects the department itself taught. It hosted campus-wide gatherings, one of which was attended by 400 students of the department, foreign students studying Chinese and students enrolled in various joint-degree programs that the department ran with domestic and overseas institutions.<sup>85</sup> It organized outings for its own students and teachers, such as a 10-day visit to a Project Hope site in Guizhou Province for 51 1993 students and their teachers during a summer holiday.<sup>86</sup> Chinese was the leader among departments for meeting with students' parents, having held six meetings by 1997.<sup>87</sup> It held one such meeting at the end of the 1992-1993 school term to allay parents' concerns over an on-campus murder that had occurred in May 1993.<sup>88</sup> It also held routine student conferences in which short introductions were given for teachers and their research interests highlighted.<sup>89</sup> More than other academic units, Chinese strove to maximize student activities. Consequently, its students picked up more than their share of awards and prizes at campus cultural and sports events.<sup>90</sup> Through the Chinese Association, the department sponsored more academic lectures than other units.<sup>91</sup> Its Party branch was also active, largely influenced by Zhang Bigong, who in his capacities of department head and later vice-president advocated a leading role for the CCP, for which he received praise by university leaders.<sup>92</sup> It was not unusual for general Party meetings to include 70 members or probates.<sup>93</sup> The department attempted to make political activities as interesting as possible. In 1992, for example, 33 students from the 1989 entering class took their week-long social investigation field trip to Henggan Township in Baoan County, a thriving factory town employing tens of thousands of immigrant workers. This town was at the time listed among China's 100 "star" townships, so named for being one of China's top money generators among towns and villages (The town's 1991 income exceeded ¥223 [US \$41] million.)<sup>94</sup>

In 1985 the department recruited as a student Shi Guangzhu, a blind veteran of China's brief war with Vietnam a few years previously. A nationally recognized battle hero, Shi was featured in several newspaper articles and by



1990 had been honored as one of China's "Excellent Youth of the 1980s."<sup>95</sup> He published four collections of poetry and received the 1991 Guangdong Lu Xun literature award as well as the 1994 state-level literary progress award. Shi returned to SZU several times to have his picture taken with school leaders.<sup>96</sup> Another famous student in the department was Yu Xiu, the daughter of Yu Longyu, the Chinese Department's own resident scholar on Indian literature and culture. An overseas student in the Chinese Department's twinning program with Edmonds (discussed in Chapter Six), the younger Yu, while still in secondary school, had written and later published a very popular novel, *Flower Season, Rainy Season*, about the life and times of high school students.<sup>97</sup> In 1998, the novel was released as a motion picture. Another famous graduate of the department was represented by Luo Zhengqi as the embodiment of the part-time *zhuanke* program for SZU staff. Fang Xibo, 43, a chef who managed a campus canteen, was in 1987 the oldest night school graduate. With an overall average of 81.7, Chef Fang ranked fifth academically in his department, and while working at SZU, he had been promoted from grade #3 chef to grade #1 chef. He caught Luo's attention because he had turned down offers from two Hong Kong-funded hotels who wanted to hire him away from SZU with a salary of HK \$8,000 (US \$1,000) a month. He remained at SZU for ¥200 (US \$54) per month.<sup>98</sup>

### **Civil Engineering**

There was a joke on the SZU campus (and perhaps in academic corridors around the world) that civil engineers were architects' poor cousins. According to one civil engineer:

When you look at a building and it is beautiful, you praise the architect. But if something goes wrong, the civil engineer is the one to blame. The architect never gets blamed; the engineer, never praised.

Civil engineers earn neither as much money nor glory for designing bridges and roads instead of the shiny skyscrapers that bring architects fame and fortune. Indeed, Civil Engineering is one of SZU's invisible departments, attracting little attention from those outside or even inside its own field. A small department—a 15-person teaching staff made it only half the size of the largest departments—it was not very demonstrative in academic circles, neither hosting conferences nor publishing research. In fact, its research output was the lowest of any SZU academic department, with the average teacher publishing an article only once every two or three years.

In the 1990s the department made several attempts to become more active. It undertook a land use survey and appraisal for the Shenzhen government which won provincial and ministry-level recognition as an advanced achievement.<sup>99</sup> In 1991 it began cooperating with the Structural and Engineering College of Shanghai's Tongji University and the Nanjing Chemistry Industry College on joint research. Other co-operative agreements involved the civil engineering departments of Victoria University of Technology, Melbourne, and Qinghua, the latter for training its graduate students in construction economics. In 1994 the department trained five groups of supervising engineers for the Ministry of Construction. The next year it cooperated with Dalian Polytech University in a research project that won an award given by the China branch of the United Nations technical information service. In July 1995 the department founded SZU's Construction Supervision Institute with the purpose of serving as a job practice base for students. An earlier institute, the Structural Engineering Institute founded in 1984 to develop CAD applications in construction, had never received fixed staff and had virtually ceased to exist.

The students of Civil Engineering obtained average or below average scores on their college entrance exams, relative to SZU's other sciences track freshmen. Civil Engineering, the traditional major, placed in the middle of the scores, below business subjects but above Enterprise Management (Economics), Physics, Mechanical Engineering and Chemistry. Scores for entering students in other majors offered by the department fared poorer, in part because these majors were new. High school seniors generally steer away from new subjects that do not have proven track records. Influenced by their guidance counselors, they fear that if their year's intake were unique—in other words, afraid that the major would be discontinued after they arrived on campus—they would be left floundering. In fact, that is exactly what happened to the students in the Construction Management major of 1993. The major was not offered in subsequent years and was replaced by the Real Estate Development and Engineering Supervision majors. Consequently, the 1993 students were forced to take classes that had been designed for other majors; their teachers were unwilling to put much effort in developing courses just for them that were to be only one-shot affairs.

Although Civil Engineering students scored consistently lower than their peers in Architecture, there is no evidence to suggest that these students had really wanted to be architects in the first place—that, having failed to score sufficiently high for admittance to Architecture, they had settled for Civil Engineering. Actually the 1993 Civil Engineering graduates overwhelmingly reported (81.5%) that SZU had been their first choice, a percentage second

only to Chinese Department students in this regard. Part of the explanation is that students who chose Civil Engineering did indeed want to be engineers not architects; they fully understood the differences between the disciplines. This was different from Chemistry, where students who did not really want to be chemists felt trapped in their department although it had offered them a university "safety net." In general, the surveyed 1993 students, who entered SZU in 1989, might have chosen SZU in part because it was located in a special zone perceived of as being safe from 4 June repercussions. The students who entered Civil Engineering, therefore, may have applied to the top engineering programs in Guangzhou, Shanghai or Beijing had it not been for political events. For recruitment purposes SZU Civil Engineering was a third category institution and as such accepted students with lower scores than those who entered, for example, Qinghua and Tongji (first rank) or Zhongshan (second rank). Some of the civil engineering students who came to SZU in 1989 qualified for admission to first or second rank institutions. They might have gone to them if they had listed these "superior" institutions as their top choices. This contrasts with the situation in 1987, when applicants were scarce. That year about one-third of its students were *daipei* (contracted to future employers) suggesting the difficulty the department initially faced in recruiting regular students.

The 1993 survey showed Civil Engineering students to be a bit cliquish, preferring to stay with their classmates rather than with students they did not know. They reported a below average use of their study field in their jobs, and they were near the bottom end in expressing satisfaction with their education. Many of their teachers were young and inexperienced. Enrolled in this small department, the students had many of these teachers for more than one class, something that inevitably caused boredom despite the fact the teacher was teaching different subjects. Since the students of a major took their classes together, the dynamics between teacher and student, once set, remained unchanged, despite different subject matter. Still, more strongly than any other major, Civil Engineering students agreed with both statements: that the teacher should be the center of class and that the students should be active. These results are not surprising. Civil Engineering is a practical subject that requires much laboratory practice, in which both students and teachers participate. Of all students, Civil Engineering majors reported they were least concerned with money as an important factor in job choice. Taken together with the other survey findings, this suggests that Civil Engineers very much wanted to practice their profession; they had chosen SZU as the place to learn to become engineers and acquire skills for the

workplace. That they did not find jobs that used their skills was a phenomenon not unique to their major; for SZU graduates job mismatch was as much the rule as the exception.

The Civil Engineering Department's history fits into two phases, separated by 1989. Founded in 1984, the department took in its first students in 1985. It offered a single *benke* major to 30-40 students each year. Civil engineering departments in China usually have the characters *tu mu*, literally soil wood, at the start of their name (Traditional construction involved soil and rock for walls and wood for roofing). This is the case in Qinghua and Tongji, the most renowned civil engineering schools in the nation. When the SZU department was founded, however, the name omitted *tu mu* because the SZU leaders felt that since the new department was to offer only one major—civil and structural engineering—the department's scope was too narrow to be worthy of the standard nomenclature. The new department followed the traditional curriculum of civil engineering. After interviewing Shenzhen work-units involved in civil engineering to find out what type of graduates they wanted, the department revised its teaching plans and training targets in 1986 in order to better serve the needs of the SEZ.

In the early years, most teachers were assigned to the department on a temporary basis. By 1988, with several years of experience, the department had a full-time staff in place and launched an innovation that was picked up a few years later by Architecture. A new teaching plan called for 2½ years of course work, followed by a half year in off-campus, full-time employment with a work-unit specializing in design, construction management or academic research. After that, students would return to SZU for an additional year of study that offered specialized training. It is unclear to what extent this pattern was fully followed, but at least some students were allowed to work off-campus, and all were in fact required to complete their graduation designs in work-units; evaluation by the work-unit accounted for 60% of the design's grade.<sup>100</sup> The department structured the curriculum around seven packages of courses: structural engineering, civil engineering, architecture, construction management, computer-aided design, equipment, and real estate. In addition, students were recommended to take a minor in a related field such as architecture, design, electronics, computers, enterprise management, or mechanical engineering.

These plans were short-lived, for the department head under Luo Zhengqi was replaced by Yu Pingjing, a teacher selected by the post-Tiananmen administration.<sup>101</sup> Yu took control to establish, in her own words, a "sunder and more upright system."<sup>102</sup> Her annual reports, as reprinted in the SZU *Yearbooks*, are a mirror of policy handed down by upper-level lead-

ers. Yu was an exemplar of political correctness: she served as both department head and Party branch secretary—the only academic department head to hold the positions concurrently from 1993-1995.<sup>103</sup> In 1990 she wrote about establishing a five-person anti-corruption task-force to ensure financial probity. She discussed the development of a teachers team, and the review and revision of the teaching plan to ensure flexibility of course setting so that new courses could be added depending on the needs of the SEZ. Short on details, her 1990 report repeated the rhetoric handed down to her by the leadership. The following year, she personalized the account:<sup>104</sup>

As the people's teacher, a scientist, and a CCP member, my ideal is communism, which has been deeply rooted in my mind. Since childhood, I have believed that only socialism can save China. I firmly believe in the leadership of the collective. We must care for the students. I often talk to them about revolutionary ideals and the purpose of study, especially with the women. We must teach students to love the Party, to love socialism, and to have confidence to change China's underdevelopment. We must especially be against adoring foreign things...

She ends the 1991 account again on a personal note, with a self-criticism:

My shortcomings are that I seldom go to the students' dorms, and I don't care enough for the students, which is different from two years ago when I was deputy head. I did not respond in time to the problem of insufficient number of teachers. I have not visited students and teachers often enough.

By 1991 the department's curriculum had three major directions: the traditional approach that dealt with the structural aspects of construction; an emphasis on infrastructure, which included water supply, drainage, air conditioning and power supply; and thirdly a focus on construction project management, which also included construction supervision and real estate development analysis. The situation in Shenzhen was believed to require graduates to have a broader knowledge than what most civil engineers in China possessed. SEZ civil engineers were not to be restricted to engineering and structure knowledge.<sup>105</sup> The SEdC curriculum was adhered to the first two years, after which students would take courses in their specialties, such as management, budgeting or appraisal. Students were encouraged to take more than one major direction, and in this way they could become generalists by acquiring more specialties. In 1992 the department's name was changed to include the characters for *tu mu*.

The department generally took its directions from above. In her 1991 report, Yu discussed at length the need to improve financial management of side-businesses, a particular worry of SZU's post-Tiananmen administration. She discussed the revision of the teaching plan, another recommendation from above. Yu reported modifying the teaching plan to comply with those used by Qinghua and Tongji University. She listed the department's four teaching directions: industrial and civil construction, infrastructure, construction monitoring and real estate development and the need to develop a complete teachers team within three years. She discussed the new Construction Management Engineering major which the department was pursuing as a major direction while it awaited formal approval by the SEdC. That approval, in fact, never came, and the major was abandoned after one year.

As much as any other department, Civil Engineering was greatly concerned that its graduates met the *rencai* needs of the SEZ. Professor Yu further developed a policy of "cooperative education" that had existed since 1989, which she also called "inviting in and going out."<sup>106</sup> Practitioners from the outside were invited to the department to lecture and instruct students. Students were encouraged to take part-time jobs in engineering firms and design institutes, where they would complete their graduation design. These designs were to serve as the students' best letters of introduction when they looked for jobs. Forty-one students from the 1988 entering class, for example, were sent to 12 firms for ten weeks. Graduation designs were defended before a panel that came from a pool of 19 professionals, including teachers and engineers and designers from ten local firms.

Professor Yu's report in the *1992-3 Yearbook* was one of eight departmental reports that year to follow a similar format: leading off with the need to improve moral education, followed by discussions of improvements in teaching, teacher team construction, adjustment of majors, and concluding with academic research.<sup>107</sup> Her reports in other years were much the same: citing instances of implementing upper level policy, such as building Cai Delin's Four Keys, and developing activities to learn from Shenzhen citizen Chen Guanyu, a grandmother in the selfless mold of Lei Feng, China's model volunteer.

By 1994, the department had restructured itself into three groups of teacher teams for civil engineering, construction management, and real estate development, and it established teaching-research offices in each area. Teachers were appointed directors for each major, coordinated by a teaching secretary who held a masters. In the same year, the teaching plans underwent a "thorough revision" so that they complied with SEdC national criteria. The department continued to address the side-income issue, asking

teachers' opinions on how department-generated income could best be used. All these policy initiatives reflected the interests of President Cai Delin.

In 1995 the department again revised its teaching plans, in what by then had become an annual occurrence, and focused on laboratory improvement. In preparation for the 1995 accreditation, it used some of its own income as well as ¥1 million (US \$120,000) allocated by the university to rebuild its labs. Although the labs had passed a tough provincial evaluation in 1992 (one-third of labs in Shenzhen failed), they were further improved.<sup>108</sup> By then the department had developed Five Emphases (which were not enumerated in the annual report).<sup>109</sup> This appears to be the extreme case where the department head confirms adherence to policy (in this case that departments should have emphases) without mentioning the substance of that policy (e.g., what the five were, why they were chosen, how they related to one another, how they reflected what was done in other institutions, etc.).

In any case, by 1996 the department offered three majors.<sup>110</sup> Construction Projects Supervision had the goal of "training high class project technicians with basic engineering training who can perform structural designing of architectural projects, building techniques and management duties." This major attracted the interests of an eight-person delegation of Hong Kong engineers who visited the department in 1992.<sup>111</sup> Real Estate Administration and Management was intended to "train high class specialists with economic theories of real estate market, familiar with professional techniques of real estate, and familiar with construction project knowledge who can perform real estate price evaluation, development and administration." Project Management related to the supervision of construction projects, "training high class specialists who can perform social supervision or governmental supervision duties with a knowledge of construction projects, building design, economics, law and management."<sup>112</sup>

The department's curriculum for these three *benke* majors offered in 1996 was as follows:

*Construction Projects Supervision:* four courses with physics, structural course, steel structures, study of building houses, construction process, construction economics and management, earthquake resistant structures, structure of tall buildings, road and bridge projects.

*Real Estate Administration and Management:* structural physics, structure of construction, residential construction, construction process, construction project, economics and management, general introduction to real estate markets,

price evaluation of real estate, economics of real estate, marketing of real estate, network planning techniques, management of land, urban planning.

*Project Management:* physics, construction structure, construction building, construction project economics and management, general introduction to the supervision of construction projects, network planning techniques, quality control of construction projects, investment control of construction projects, contract management, bidding and tenders.

Although it seems unfair to describe Civil Engineering at SZU as Architecture's poor cousin, it appears appropriate to comment that the department was "searching for its own identity," in the words of one former student. It certainly lacked consistency in curriculum. Majors and class plans were forever changing. As a substantial number of older teachers began retiring in the early 1990s and were replaced with recent graduates with little teaching experience, the department lost the sense of direction it had had early on. Its curriculum, listening to many voices, drifted towards the type of over-specialization in China that characterized the setting of majors during the Soviet-influenced era. This path was taken in order for the department to better address the Special Zone's needs, a fulfillment of rhetoric that filtered down from above. Ironically, students who graduated in 1993 felt that they did not much use their field of study in the workplace. This finding alone questions the wisdom of the department's direction—a matter never raised in its public reports, which appear to be written for the sake of political correctness and to please their intended audience: leaders at the upper levels.



**Story 7: Li Laoshi, visiting after 10 years**

*Amazing. Extraordinary. Incredible. Inconceivable. Even these vocabulary fail to do justice to the senses I felt as I returned to Shenzhen and to Shenda after a ten-year absence. When I taught at Shenda in the mid-1980s, it was uncertain how much support the Special Economic Zone would continue to receive from the central government. Deng Xiaoping was getting old. If he died suddenly on a Monday, perhaps the zone would start to wither on Tuesday. As it turned out, Deng lived for another ten years; the zone prospered.*

*I had returned to China several times in the years between 1987-1997. On my visits, I had witnessed great changes occurring in Beijing and Shanghai—improvements in urban infrastructure as well as improvements in people's lives. Citizens no longer dressed in drab blues and grays. Shenzhen had always been richer; few people had ever dressed like their northern cousins. Arriving in 1997, however, I saw a great modern city, many of whose inhabitants carried pagers or mobile phones. Shenzhen's smartly dressed businessmen and women would not seem out-of-place on the streets of Hong Kong. The streets were packed with privately-owned vehicles.*

*When I taught at Shenda, we preferred to go to Guangzhou for entertainment. There was nothing in Shenzhen except a lot of dirt, whirled up by the around-the-clock construction of buildings. It was not a pleasant downtown to visit. Guangzhou, despite its crowds, was a culturally rich and energetic, lived-in city which offered something for everyone; Shenzhen offered little to anyone. By the time it was a fledgling child of five, China's premier new town had become an architectural nightmare. Some of its buildings had been built to human scale (seven floors maximum) while random skyscrapers appeared occasionally along Shen-Nan road [connecting Shenzhen-Nantou]. Returning in 1997, I saw the results of ten-years of non-stop construction. I realized that Shenzhen was no longer a cultural wasteland. I visited what is probably one of the largest and best-stocked bookstores in China; I saw billboards advertising various cultural events. In the decade I had been away, the commercial sections of downtown had been taken over by skyscrapers; only a few of the three- or four-story structures from the previous years had survived. The impressive Shen-Nan road was now flanked by glistening skyscrapers of various tints, mostly bank-owned buildings. (Whether Shenzhen replaces Shanghai as*

China's banking center remains to be seen, but the SEZ is clearly the nation's center of banking buildings). One of the few vestiges of the past, the Dongmen [east gate] old section of town, in summer 1997 was being raised as part of an urban renewal project. About the only low-rise building in that section which was not under the threat of the wrecking ball was Shenzhen's (and China's) first MacDonald's. Perhaps this house of the Big Mac should be preserved as one of Shenzhen's historic and cultural structures! I did not even recognize Nantou. Where dusty roads used to be were now paved streets, and the highrise district administrative building (I was later told) looked like some corporate headquarters found in downtown Chicago or Boston.

I took an air-conditioned no. 113 daba [big bus] west from downtown Shenzhen to Shenda. Air conditioned city busses had not existed the previous decade. This particular bus was run by a private company. When I was a teacher, we had often traveled by minibus, which displayed signs for their terminus but had no route numbers. Back then, mini-busses selected their routes largely upon the request of the riders. I remember once having to get off a bus because a crowd of new passengers had persuaded the driver to change directions; the bus made a U-turn, and I was given back my money and told to find another bus. Now, the mini-busses all displayed route numbers and stuck to their pre-assigned routes, a clear indication that China was adopting the rule of law on some basic levels.

The bus to Shenda took Shen-Nan Road, which was now a six-lane limited access highway with elevated pedestrian/bicycle viaducts. I recognized some familiar sites along this major east-west corridor, including Honey Lake amusement park and the Shenzhen Golf Club. The latter was the first set of links in Shenzhen. Back when it was built, we wondered if it could ever get enough members to pay for fairway and greens upkeep, much less make a profit. It must be succeeding; another golf course was built just down the highway. We passed by three tourists spots that were built after I left. I had read about miniature Splendid China, Minority Cultural Villages and Window to the World, but I had no idea where they had been built. In fact, they are adjacent to one another. They were located around the Shenzhen Bay Hotel, which when it was constructed in the mid-1980s, had been surrounded by vegetable fields, rice paddies and fish farms.

The bus dropped us off at the east gate of campus. When I left Shenda, it was an open university—literally. There was no wall or gate. Now, we walked through the gate, past the guard who did not look up from the newspaper he was reading. Despite its wall, Shenda still seemed very much an open campus.

*The startling difference (one that I had not prepared myself for) was the fact the campus looked so mature. The trees were full-grown, not the saplings of a decade earlier. The campus was darker; there was a lot of shade where before one could hardly find retreat from the blazing sun. When I had left, the science building and the amphitheater were still under construction. Since then a sports center and student management center were completed, along with two sets of faculty residences, housing hundreds of staff. The campus now had some decent restaurants (for a good meal we used to have to go to the Xinan [Southwest] Restaurant in Shekou), and the lake had been redesigned for human use. There was little feeling of newness. Whether the school was still innovative could not be discerned by physical appearance.*

*One of the reasons I came back was to see what Shenda had become, but I also had two specific tasks: to reclaim the things I had left behind in 1986 (mostly books) and to return the ¥3,700 [US \$1,000] I had borrowed from the university for my trip to the U.S. I went to the caiwuke [accounting division] to return the money and it took them a while to find the IOU. I saw some two dozen IOUs, some of which went as far back as mine. I recognized one of the people in the office and she said she also recognized me. Then I went to look for the fangchanke [property division]. On the way I stopped by my old apartment (510 Yunpeng Lou). I knocked on the door but nobody answered. I stopped by a grocery shop (new) and had a cold drink. Saw a lot of new apartment buildings and the muddy beach seemed to have disappeared. At the fangchanke the guy in charge said he had no idea where my luggage might be since it had been 11 years. I pleaded with him to let me have a look at their warehouse, saying that I had come all the way from Sichuan to collect my books (I had several hundred). He finally agreed to let me wait for the guy with the keys. Then we walked to a student dorm and looked at several storage rooms but didn't see any of my things. I thanked the guy and went to lunch at a nearby student canteen where I used to eat. I had fish and some vegetables which were certainly no better than the food there back in '86. I recognized the guy selling pop, and he said he also remembered me.*

*Then I stopped by a (new) bookstore near the canteen and bought a copy of Yu Dafu's autobiography. The stock was not particularly scholarly. I went to my former department and saw Teacher Lin, the secretary. We chatted for about 20 minutes and she told me that some 50 people had come to and left the department. Some had retired. Now there was hardly anybody there I knew. She told me about one old colleague who was now*

*in the U.S. and another who was in Germany. A bit tired, I lay on the ground in the open space beneath the teaching building. A security guard came by and asked where I had come from and told me not to lie there as it was inappropriate for the area. Then I went to the library, which was still under construction when I left. It was very spacious and well lit, less crowded and closed-in than one in a U.S. university. I browsed the areas in my field. The Chinese collections seemed fine but the foreign section was thin. I had a better collection of philosophy books in my office back in the U.S. (But then Shenzhen is not a place for philosophy).*

*In returning to Shenda, I wanted to contact some of my former colleagues. Several had left to set up businesses in Shenzhen. I was especially sad when told that another had died of illness. From colleagues I visited, I learned of the school's ups and downs—five administrations in 14 years. The university had suffered a great loss of prestige; corruption had been rampant. Political leaders had procured fortunes for themselves, making decisions based on self-interest. When I was at Shenda, the prevailing attitude among Party members was “What can I do for the Party and what can the Party do for China.” That attitude had been subverted into: “What can the Party and China do for me.” All this saddened, but did not surprise, me; it is what I feared, having received hints of the school's demise from personal correspondence and published reports. Under these conditions, there is no incentive for people like myself ever to return to Shenda, except for brief visits. Will Shenda ever return to its golden years of the latter 1980s? Only time will tell.*

## **Design**

The Department of Design, along with the Department of Bio-chemistry, was founded on 4 January 1994, about a half year before it would start recruiting students. It developed three *benke* majors: Industrial Design, Fashion Design, and Environmental Design.<sup>113</sup>

This was not the first time design had been taught at SZU. Mechanical Engineering offered some courses in industrial fine arts (packaging design) as early as 1986, but most design was taught in Architecture. Thirty Fine Arts students in an Architecture night school *zhuanke* program were admitted in 1984 and were graduated in 1988. In winter 1987 these students worked for the Honey Lake Entertainment Park in Shenzhen making 300 ghost statues for a haunted city. About ten teachers and students took on the job and finished the work within 20 days, a time considered too limited by professionals who had refused to bid on the project. Earlier the same year the Fine Arts majors had successfully bid on a decoration project worth several hundred thousand yuan; they also designed Ming Dynasty furniture for a local furniture factory and produced many of the miniature figures for the Splendid China theme park.<sup>114</sup> The Architecture Department, of course, also taught other types of design: urban design and building placement, interior design, and landscape design. Its students and teachers had occasionally won awards for creating logos and package designs. In 1988 Architecture started offering an Industrial Product Design major, which that year took in 20 students and had four full-time teachers. This major focused on product and packaging design, but it was scrapped several years later. The planned intake had been around 20 students each year, but fewer were admitted than the plan had called for. In 1993, for example, nine students entered at the time of formal enrollment although the plan had projected 16. Students were all taken from the sciences track; their exam scores were in the bottom third, slightly above Physics.

The creation of an Industrial Product Design major under Architecture in 1988 was part of an on-going expansion in majors. Design was one of four new majors that were created that year. In 1992, the Academic Affairs Office, following the interests of the municipal government, raised the idea of creating new majors in apparel design, interior design and urban design, along with several others. Architecture was unwilling to take on this job; it was reluctant to teach areas unrelated to its main focus and felt itself unqualified to undertake such a diversification. The municipal government,

however, was enthusiastic about the subject, so a new department had to be created. Thus, in 1994 SZU set up an independent Design Department, at the city's insistence.

In its first recruitment, the Design Department reviewed applications from 478 students, of whom 34 were given places. It set up laboratories for apparel and packaging design, in part funded by a municipal Planning Bureau ¥1 million (US \$120,000) grant. It redecorated corridors in the teaching building and set up a gallery to display students' work. The task of setting up the Design Department incurred cost overruns which were largely responsible for an unbudgeted outlay that exceeded ¥1 million, according to the General Affairs Office.<sup>115</sup>

Curiously, the data presented by the Academic Affairs Office in 1994-6 on entering students' exam scores exclude the majors of Industrial Design and Fashion Design. These students came from neither arts nor sciences, but from fine arts, a track that existed in the SEZ's technical/vocational secondary schools. Their scores were much lower than those in the other tracks as these types of schools did not in general prepare students for tertiary education. Indeed, when the scores were finally published, for 1997 admissions, the fine arts track scores were 150 points below those of arts students.<sup>116</sup> The poor foundation of these students led to the realization that students in the design majors would be unable to keep up with their university peers in SZU's public courses such as College Chinese, Public English and politics. The issue came to a head within months after the students began classes. In a November 1994 meeting, students told the department head and the head of AAO that they hoped the university would understand that, while they were good at subjects within Design, they were admittedly weak in other courses, especially language study.<sup>117</sup>

This situation was not unexpected as Design students had been admitted by a different standard from that used for other *benke* majors at SZU. They were more at the academic level of students who entered Shenzhen Polytech, the zone's higher vocational/technical college, which commenced operation in 1994 and offered 19 majors by 1996.<sup>118</sup> It is unclear why design studies were not placed under Shenzhen Polytech, which was established the same year SZU created the Design Department. One possible explanation was that SZU had recruited a design professor as part of its nationwide 1993 recruitment of academic "dragons." Without the Design Department, the professor had no home-base, as Architecture did not want him (He was not a dragon by Architecture's standards). Having just recruited him amidst national and local media hype, the university could not force his transfer to

Shenzhen Polytech, an institution below the academic level of SZU. Consequently, a SZU department was created for him.

These problems notwithstanding, the department proceeded. Twelve teachers were hired in 1994; the total reached 24 in 1995. Students' work was exhibited at local and national competitions; various students won prizes. The department experienced financial irregularities. SZU's Audit Office reported in 1995 that Design, along with Foreign Language, violated various university financial regulations, but specific details were not released (as they were in the case of Foreign Language).

*Environmental Art Design:* pen and ink drawing, colors, picture composition, design fundamentals, design presentation, live drawing, material selection and usage, architectural design fundamentals, interior design fundamentals, project evaluation, CAD, garden design, environmental art design, environmental lighting, urban tree planting, residential design, furniture design.

*Clothes Design:* pen and ink drawing, colors, colors of clothes, clothes picture drawing, study of clothes materials, aesthetics, history of clothes in China and abroad, techniques of clothes, drawing, designing of clothes accessories, designing of clothes structure, clothes manufacturing, clothes design, knitted clothes design.

*Industrial Design:* pen and ink drawing, colors, history of Chinese aesthetics, design techniques, three factors of development, design sketching, history of industrial design, techniques of design presentation, material selection and usage, marketing, CAD, brand name designing with computer imaging, aesthetics in designing, management, product packaging, product advertisement, product design.

A complete four-year curriculum was developed for each of the three majors, although in 1995 Design was still one of three SZU departments that lacked all SEdC recommended courses for its majors. The Environmental Art Design major had as its stated purpose to “train high class specialists who can perform environmental and architectural designs and planning, indoor or outdoor designs, and garden designs, and who can teach and do research in enterprises, specialized design departments, schools, and research units.”<sup>119</sup> Its landscape architecture courses duplicated the offerings of the Architecture Department. The major in Clothes Design intended to train “design specialists familiar with the history of clothes in China and abroad, familiar with specialties of different clothes, familiar with trends in the clothes markets in China and abroad, clothes design techniques, and the functions of clothing

materials.” Graduates from the Industrial Design major were expected to have the “ability of comprehensive analysis and adjustable technical skills, who have mastered fundamental theories, specialized knowledge and techniques of industrial design and who can perform industrial products design, teaching and research.”

All in all, SZU teachers considered the inclusion of the Design Department as downgrading the academic quality of the university. Around campus it was believed that such vocational/technical training better belonged in a lesser grade institution, such as Shenzhen Polytech, not in a comprehensive university.

### ***Economics***

The Economics Department at SZU has been one of three departments that teach business courses. Although its courses are more theoretical in nature than those taught in either Management or International Finance and Trade, its approach is very much one of applied economics. From the start, its prestigious major was Accounting, always attracting among the highest scoring SZU entrants, vying with the Finance and Computer majors for this honor. The department’s majors were constantly in flux as the leadership attempted to meet the perceived (and forever changing) personnel demands of the SEZ. As indicated in Table 4.12, several majors have been offered sporadically. Some new offerings were unable to attract top-scoring students, which may have been a factor leading to their abandonment (see Tables 4.1 and 4.2).

In 1983 the Economic Management Department was one of SZU’s six inaugural academic units. In April 1985 that department was closed and in its place the Economics Department and the Management Department were founded. At that time, Economics offered two majors, International Finance and Financial Accounting, to some 500 students, making it one of the university’s largest departments. Classes were large; the teacher-student ratio for Economics was 1:25.<sup>120</sup> Then, two years later in November 1987 the International Finance and Trade Department was created, thereby removing from the Economics Department all the teachers in the specialties of trade and finance.

In part, these administrative adjustments had to do with personality conflicts, especially the inability of junior and middle rank staff to work with the senior professor who was in charge. The structural modifications were necessitated by the unwillingness of teaching staff to build a cohesive depart-



**Table 4.12: Economics Department specializations**<sup>121</sup>

year	'85	'86	'87	'88	'89	'90	'91	'92	'93	'94-'97
finance	x	x								
trade	x	x								
accounting	x	x*	x*	x*	x*	x*	x*	x*	x*	x*
taxation						x	x			
SEZ accounting									x	
transportation										x
statistics		*	*	*	x	x		x*		
labor economics						x		x		

x= *benke* major; \* = *zhuanke* program offered.

ment in a discipline that held various theories that conflicted with one another. In other words, the Marxist-educated economists, self-taught free-market economists and those who took a business administration approach were unable to resolve their theoretical differences to a degree that allowed them to share the same departmental roof. These conflicts were not unique to SZU, nor indeed to Economics. They have existed for decades in many disciplines throughout the world's universities. Conflicts are rarely resolved to everyone's satisfaction; resolutions require compromises and tolerance on the behalf of teachers, scholars and researchers. Still, most universities have only one department of Economics, which is composed of various factions and whose academics tolerate and are civil to one another. SZU, in contrast, took a more expedient and less bumpy road. Rather than force the academics to confront the fractious nature of the discipline in order to work out their own problems through compromise, the SZU leadership permitted fragmentation. The result was three departments of economics under three different names. Issues basic to the debate over knowledge structure no longer needed to be confronted.

One might argue that SZU, in splitting the department, took the easy way out. Yet, one might also argue that SZU found a practical solution for an age-old problem. The solution had no public opponents, and probably few in the campus community opposed it. Placing courses relating to international finance and international trade into a separate department, of course, meant specialization. The supposedly abandoned Soviet system of specialization, continually and frequently criticized by the nation's educationalists, was in fact very much alive at SZU. The establishment of three separate economics departments supported the widely held view that economics should be the

major focus of SZU and, accordingly, require more than one department. Recall that the city leaders, in setting up the university, had originally wanted only an economics college. Dissuaded from this by provincial authorities, they went about creating a comprehensive university that very much had the feel of an economics college. The first detailed plan, issued in January 1983, called for an initial five majors, three of which were economic in nature (industrial economic management, commercial economic management, finance).

Creating new departments involves academic expansion (what is sometimes pejoratively called *fief-building*), providing a way to reward and promote some staff while isolating others. In SZU's early years, no teaching department was as factional as Economics. Almost all of China's economists at that time had been educated under Marxist doctrine. Some were better able than others to apply economic theory to Deng Xiaoping's modernization drive. Others had to fall back on their Marxist training to produce convoluted rationale for a "socialist market economy." The teachers in the Economics Department divided along the lines of adaptability to market theory. It was widely perceived that the senior professor/department head was unable to do more than repeat official rhetoric; he made no significant contributions to the body of emerging knowledge, and he was being outshone by others. One luminary was SZU's initial vice-president, Fang Shen, a renowned market economist. Fang was not actually placed inside the Department of Economics although he was put in charge of the Institute for the Study of SEZ economics. While at SZU, Fang undertook research that would later make him one of the nation's leading market theorists. When Fang returned to People's University in March 1986, Luo replaced him with Vice-president Zheng Tianlun, an economics professor. By 1987 Zheng had successfully lobbied for subdividing the Economics Department, and Luo appointed Zheng the first head of International Finance and Trade, a position he held concurrently with the vice-presidency. By 1991 the conflicts in Economics had become a subject of open discussion as the inaugural head was in the process of being replaced. The deputy department head and Party branch secretary, in the department's 1991 annual report, referred implicitly to the earlier conflict, when stating:<sup>122</sup>

In terms of political ideology, we have implemented upper level policies and maintained a stable situation, coordinating leaders so that those with different opinions work together, regardless of personal conflicts and hatreds.

In a thinly veiled reference to previous autocratic management, the report continues:

I am willing to assume responsibilities and settle problems fairly. I have never attributed all good to myself and faults to others [*lan gong tui guo*, pull in goods, push away faults]. I myself never participated in out-of-plan side-courses and have never done anything that harms the public in order to benefit individuals. My shortcomings: my work has not covered everything. Although I know about the side-course problem, I have not taken effective measures against it. Sometimes, I am bad tempered, not patient enough.

President Cai appointed a new department head in 1992. He chose Li Mengmei, a labor economist, who had served Cai as the deputy head of Academic Affairs. Thus, the department continued to be headed by an individual whose scholarly endeavors were heavily influenced by Marxist economics and who had not herself been greatly exposed to non-Marxist economic theory. With Li in charge, Economics took the lead among academic units in political activities. The *News in Brief* is replete with Economic's emulation of Lei Feng and with award meetings for students' social investigations.<sup>123</sup> Under Li's guidance the department continued to emphasize short-cycle accounting programs, including joint programs with Edmonds Community College, Seattle, and Victoria University of Technology, Melbourne. The department also convinced the Tax and Management Association of Australia to award the best accounting graduate. The off-campus Peixin Accounting Consulting Office, set up by the department in 1995, earned money for teachers and served as a job practice base for 10 students.<sup>124</sup> To boost its prestige, Economics hired as an honorary professor Yu Guangyuan, a member of the Chinese Academy of Social Sciences, who had visited SZU in September 1983 and December 1987.<sup>125</sup> It also placed importance on political work, resulting in its CCP branch being awarded as a SZU advanced Party organization. By 1996 a new dean took control of the department. Younger than his predecessors, he had published widely on China's market economy.

After trade and finance courses had been removed from the department, the Economics curriculum was left with a sizable void. Finance, followed by Trade, had been the most popular major in 1986. After the split, Economics offered only accounting at the *benke* level; it had no economics major, per se. No major adopted a curriculum that began with a macro-micro sequence as taught in economics departments outside China. Both the Management Department and International Finance and Trade offered more solid foundation courses, with the latter department even offering Western Economics as its key departmental course. The Accounting major in Economics trained

“accountants who could use Chinese, English and computers and who were familiar with economic theories, management theories, intensive accounting, foundation for accounting, various practices in accounting, bookkeeping, and auditing.”<sup>126</sup> The department experimented with various other majors—Statistics, Labor Economics, Transportation Economics and Taxation—but none of these was long-lived or considered indispensable to the knowledge structure. For example, in the mid-1990s, at the insistence of the municipal government, Economics offered a major in transportation economics, designed to “train management specialists in the economics of transportation who possess a solid economics foundation, extensive theories in transportation economics, master accounting, finance and trade, and who were familiar with transportation activities in ports, railways, highways and air transport.”<sup>127</sup> In conformance with the Soviet notion of specialization, city authorities felt that the SEZ needed more and better qualified personnel in this field, especially with the construction of Shenzhen’s Yan Tian port. After the specialization was set up, the teachers reviewed enough transportation economics to be able to teach their students. One teacher remarked that the new major had a very simple history: a city official who had been caught in a traffic jam on the way to SZU had complained to the university leadership that they should be working harder to solve the zone’s transportation problems. Although such an analysis borders on the whimsical, it makes two apparently valid points. First, decisions on major structure generally came from upper levels. Second, majors at SZU were not carefully thought out in terms of knowledge structure. The curriculum for the *benke* majors follows:

*Accounting (International Accounting)*: fundamentals of accounting, financial accounting, cost accounting, management accounting, auditing, financial management of companies, accounting info. systems, international accounting, financial accounting (in English) and financial analysis auditing (in English).

*Transportation Economics*: principles of transportation economics, shipping and transportation, enterprise management, transportation and shipping, international shipping and port economics, containers and international multi-mode transportation, transportation transactions and agencies.

As a business program, Economics took secondary school seniors from both the sciences and arts tracks. Two-thirds of Economics *benke* students had put down this major as their first choice. The 1993 survey revealed that the graduating seniors were relatively satisfied with their education, much more so than their peers in International Finance and Trade. The department gained students (see Table 4.3), but this appears to be due to an entire extra

class being added after formal admission had ended. Other data extracted from the 1993 questionnaire reveal average scores on most indicators. The graduates reported a low use of skills on the job (fourth from the bottom) but a high use of their field of study on the job. This suggests that their jobs were located in economics-related enterprises and bureaux but that the specific skills they had acquired, such as accounting or statistics, were not being used. This finding argues for more general and less specialized education; it further suggests that students would have been more pleased with a general economics education like those available in North American bachelors programs. The students in the Economics Department were fairly active on campus. They formed two associations: the Readers Club and the SZU Students' Finance and Economics Association, the latter which published a periodical.

The department offered a *zhuanke* program in accounting for SEZ secondary school graduates whose exam scores fell below the cut-off for *benke* majors. The curriculum for this two-year program was a streamlined version of the four-year course-work. Many of the same courses were offered in condensed versions, for example half-year rather than full-year. In 1986 (after the split with Management but before International Finance and Trade's departure), more students were enrolled in the *zhuanke* program (470) than in the *benke* majors (410). In that year some students were admitted into *zhuanke* based on their exam scores, but many students were part of cadre training programs, first set up in July 1985, that did not require students to take the uniform entrance exam. By 1987 there were 1,075 students and 38 teachers in the department; its sheer size required a more streamlined and effective management; downsizing was accomplished by the jettisoning of Trade and Finance. The following year, after the separation, Economics focused even more on *zhuanke* programs. The 20-person fixed staff taught about 1,000 students in various enrollment categories. Large classes allowed for teachers to enjoy a relative low average weekly work load of 9.3 hours.<sup>128</sup> This expansion incurred a cost. Many students in the *zhuanke* programs were undisciplined, especially *daipei* students who had a guaranteed job upon graduation.<sup>129</sup> By 1993 the situation had exacerbated. Most of the students involved in a May 1993 campus murder were from the business departments, with one of the ringleaders being a second-year self-financed *zhuanke* Economics major. After that point, the department started to emphasize moral education and de-emphasize night school courses; enrollment dropped to 548 regular students in 1995, of whom 330 were *benke*.

Economics never found a unique niche in the university, except perhaps in its accounting program. Economics theory and applications were taught in no fewer than five SZU departments. International Finance and Trade and Management each offered Bachelors of Economics degrees. Law offered a major in International Economic Law; political economics, a required public course, was taught by the Public Administration Department which was also responsible for required and elective foundation courses such as national economic management, world political economics, and the SEZ economy. The Math Department taught econometrics, math statistics and economic forecasting courses and offered a major, Management of Economic Information. One Economics course received special attention. Special Economic Zone Economics was selected in 1993 by the university to be a key university-level course. In 1994 it became one of SZU's three key provincial-level courses, for which the department received ¥100,000 (US \$12,000) in research funds. The course was expected to serve as a model for other universities which wanted to teach a similar course. Accounting, however, remained the department's nucleus. Shenzhen city earmarked ¥1 million (US \$120,000) for setting up a computer accounting lab in 1994.

By the late 1980s, while it still attracted high-scoring *benke* students and a few graduate students in non-degree programs, Economics had become a rather undistinguished department in terms of research quality. Plum state-funded research grants—such as two “7-5” projects in 1986—related to the study of trade and finance and no longer came to the Economics Department. In 1988 teachers worked on input-output models of the Shenzhen economy and economic and population forecasting for the year 2000, which in hindsight have proved disinformative. They also undertook a survey of visitors to Sha Tou Jiao (then called China-U.K. street town), a border village whose main street separated the Mainland from British-controlled Hong Kong. For the most part, the department's teachers were not on the frontiers of research, although Economics was affiliated with the university's SEZ Institute, which had been established shortly after SZU's founding. The institute had received provincial level approval as a research organization in 1986.<sup>130</sup> Fang Shen, as institute head, organized a one-month research project that involved 34 economists, many from key universities, who investigated the special zones and published a book. Soon afterwards, however, Fang Shen returned to Beijing and the institute lost its leading theorist. Thereafter, the institute's research mostly featured compilations; few new data were gathered, and sophisticated analytical techniques were not employed. China's key center of research on the special economic zones was located at Jinan University, Guangzhou; the SZU institute made few research contributions. As a per-

manent fixture of the university, however, the SEZ Institute was not subject to merit-based evaluations, and it was held in low regard by members of the university community. The university's own Research Office complained in 1988 that SZU had "few research achievements in areas that are badly needed in the SEZ—agriculture, economics and industry."<sup>131</sup> That is not to say the institute was idle. In 1991 it took on six research projects and hosted an international conference on stocks and securities. A paucity of published research continued until, in advance of the 1995 accreditation, Cai Delin beefed up the institute and gave it a publishing mandate. From 1986-1992 the institute's output had averaged about 2.5 publications per year; under the new directive, it published 28 articles in 1994 alone, with 18 more in 1995. In 1994 the institute was bestowed the university's highest accolade: advanced work-unit. One expert in the field, however, considered the institute's recent output to be of "exceptionally low quality," relative to other SEZ research in China. Other research institutes in China, including the Jinan center and the Development Institute of Fudan University, continued to provide more insightful studies on economic issues in the special zones. Teachers in Economics, however, received occasional recognition, such as the three faculty members in 1992 who received an award for their work on stock market reform. By the mid-1990s there were signs that the Economics Department was strengthening itself academically. Teachers edited a book called *Appreciation Accounting* which represented the only provincial level book-funding SZU received in 1995. Economics was designated an advanced work-unit at the university level in 1995.

One former teacher characterized Economics as a department with squandered potential. Situated in the only comprehensive university in China's premier special economic zone, the department by its very location could attract visiting scholars and lecturers, as did Architecture. SZU had hosted an economics conference as early as December 1984, but most of its later activities were of an entrepreneurial rather than scholarly nature. Some were joint endeavors like the April 1985 course on foreign-related economy, trade and foreign investment that was undertaken with the Beijing Foreign Trade University, the Chinese Economics Association and the International Economics Research Association. The university's Economic Management Cadre Training Center offered a training course for factory heads and senior managers in conjunction with a Hong Kong personnel bureau. These types of projects became less common as the university aged. Still, many delegations of economists traveled to Shenzhen and stopped by SZU for a visit. Japanese groups investigating China's economy were frequent visitors. A

Bulgarian team visited in December 1985 and sent a second delegation in October 1989, a time when China was receiving few foreign visitors. These visits could have provided opportunities for lectures and seminars; few generated long-term cooperation. Language proved a hurdle, but the largest barrier was Economics' unwillingness to pursue serious scholarly endeavors, a similar road taken by Chemistry and other departments. Ironically, SZU offered good research facilities for scholars in economics. In 1994 the university library created a data base for economic periodicals that contained over 8,000 entries. At the same time a special database for articles relating to the SEZ economy was being compiled, with information on 850 articles posted by 1995. The *World Economics Digest* was also being put into a database. The extent to which these materials were used by scholars is unknown.

### ***Electronic Engineering***

The Department of Electronic Engineering (EE) has been among the most prestigious teaching departments at SZU. Applied Computers has been its primary *benke* major, also offered on a smaller scale at the *zhuanke* level. Electrical Engineering at the *benke* level has been offered sporadically (1986, 1988, 1991, 1994-95), as has Radio Engineering (later known as Communications Technology) in 1986, 1987, 1990, and 1991-97. With around 35 teachers, the department oversaw SZU's largest teaching staff and taught 98 courses in 1991 alone. It managed 16 laboratories, merged into six big labs in 1995 (circuits, electronic systems, computer-aided software, applied electronics, signal processing, electronic data analysis). Some teachers were assigned as instructors in the public courses in computer—the fundamentals course required of all non-computer majors and a course in either data-base, cobol, or fortran that each university student took. The department was also responsible for teaching eight courses for other departments and for supervising the unified provincial computer exam that non-computer majors took each spring from 1994 (SZU students scored the best among Guangdong universities). Each year, the graduate designs of over 130 EE seniors were supervised, and job practice arrangements were made for 350 students in lower grades. The EE teachers were lower in rank than in the average department and slightly older. This indicates the relative difficulty for teachers to be promoted, due to increased competition. Computer skills were in high demand in the SEZ, and over the years many EE teachers have left SZU to



work in the private sector or for state-run companies. Others have emigrated abroad for study, including four in the department's first four years.

According to the 1993 graduates survey, students in EE were fairly satisfied with their education despite the department's having one of the highest fail rates at SZU. Students entering the Applied Computer major obtained the second highest exam scores among sciences track students, after International Finance. The Radio major enrolled students with above average entrance scores, and the Electrical Engineering major took students who scored in the middle of sciences track exam-takers. About half the students who entered the department in 1989 chose it as their first choice. Many of the others would have preferred to have gone to institutions like Qinghua University, but this was precluded because they failed to make the cut-off for top category universities. Still others would have preferred to select SZU's trade and finance majors but also failed to make the grade. The surveyed students in EE reported that they preferred to work alone, a quality expected of computer aficionados. They also preferred their classmates to others, which suggested a high degree of clannishness among the majors. Relative to their peers in other academic departments, EE students did not consider themselves to be intellectuals. This suggests that they saw themselves more as technicians than as intellectuals who undertook more scholarly subjects. The graduates from this department used their field of study in their jobs. In this regard, they ranked behind only Architecture. EE students generally experienced the least difficulty finding jobs in Shenzhen since a sizable portion of the zone's industrial production was in electronics.

Much of the computer teaching at SZU has been done by the staff of the Computer Center. The center is separate from EE, but the two units have worked together teaching non-computer majors. Over the years, much of the public teaching burden has fallen on EE teachers, because the Computer Center staff has been short-handed. In the late 1980s, students in public classes were unable to find fully operating computers, and classes overflowed into the areas of the computer center reserved for free (non-class) use. As the center's computers aged and SZU's departments became richer, individual academic units began to set up their own computer rooms. By the mid-1990s, the Computer Center was networked, most computers were operating to standard, and classes did not impinge on non-class operation.

The cooperation between the Computer Center and EE was promoted by several factors. The first head of the computer center, Ying Qirui, was also a teacher in Electronics Engineering. When he moved into the vice-presidency, he fostered continued cooperation between units. For several

years in the early 1990s, Vice-president Ying also served as head of EE. The department and the Computer Center were mutually dependent in terms of working on revenue-generating projects. For example, EE could not offer side-courses without using the Computer Center's facilities. The two units shared staff on contractual work with outside units.

The EE Department was founded in May 1983 and recruited students for classes that began in September of the next year on the new campus. By 1986 the department had become SZU's largest, with 30 teachers, 300 *benke* and 250 *zhuanke* night school students. In that same year it bought equipment for frequency, network and logic analysis using loans from the World Bank. Also in 1986 the Shenzhen Electrical Group Corp. (SEGC) initiated a scholarship which provided certain selected students with ¥70 (US \$19) per month.

By its very nature, EE offered what one observer called "rising sun" rather than "setting sun" majors.<sup>132</sup> In 1987 the department taught 424 *benke*, 49 *zhuanke*, and 400 night school students. Its majors were in constant flux: in 1986 it had offered Applied Computer, Radio Technology, Electrical Engineering, and Automation. Electrical Engineering was dropped in 1987 and a *zhuanke* major in Household Electrical Appliances was added. The following year, a single *benke* major in Electrical Engineering was offered, along with *zhuanke* Household Appliances. In 1990 as the 1986 Radio students were graduating, freshmen were enrolled in Radio and Applied Computer, as well as Applied Computer and *zhuanke* Household Appliances. Both *benke* majors continued to be offered in 1991, but Electrical Engineering was dropped in 1992-1993 and Radio was dropped from 1994. A *zhuanke* major in Computer Information Processing appeared in 1996, and the Automation major offered in 1986-1986 eventually wound up in the Mechanical Engineering Department. The Household Appliances *zhuanke* program ran into some student unrest in the early 1990s. Students of the major objected when some of their teachers were changed and they threatened a boycott. This was solved by the political tutors who undertook a rectification campaign to correct the students' *xue feng* (This major was abandoned altogether a few years later.). The constant change in EE's majors had nothing to do with the personnel needs of the SEZ. Rather, the rationale behind the changes reflected the department's desire to keep its teachers teaching. The instructors in radio technology, especially, would be underemployed if there were no radio major. Thus, the EE major offerings, and indeed the department's curriculum rationale, was based on teachers' needs, not primarily on the needs of either students or their future employers.

## Departmental management

The teachers themselves disagreed over the role of theory versus application in electronics education. Wu Zukun, the acting head in 1986, wanted to “stress students’ ability to do actual work. In the past, there were many cases in which a Radio major graduate could not fix a radio receiver.”<sup>133</sup> Wu, supported by some of his colleagues, advocated a practical curriculum, but found that some staff members’ attitudes proved an obstacle.<sup>134</sup>

Our teachers are used to participating in high-tech projects with funds allocated directly from the state level. They regard household appliances and personal computers as low-level industries or mediocre technologies. This concept has to be changed; otherwise, it is empty talk to say ‘to serve the SEZ.’ There is a lot of work in the household appliances or personal computer fields that looks simple but is actually quite complicated.

Wu was critical of the way Chinese academics in general handled electronics education.<sup>135</sup>

In the teaching of electronics in China more emphasis is put on memorizing book knowledge rather than giving enlightenment to students. In terms of research, more emphasis is put on playing around with mathematical games than on invention and creation. In terms of production, more emphasis is put on calculation in designs rather than on the manufacturing process and quality assurance. In product research and development, more emphasis is put on building whole units rather than developing components and materials.

Given so few students in certain majors in certain years, an excess of teachers prompted the department to establish the Shenzhen Pu Ming Industrial Company, Ltd. for high-tech development and production. The company served as a site for student job practice, where 40 *benke* and 40 *zhuanke* students worked between 1988-1991. Hiring students at relatively low pay helped ensure the economic viability of this departmental enterprise, which built radios and transformers. Most of the department’s teachers were engaged in outside consulting of one form or another. Some of the staff undertook research, with much of the outside funding going to one professor, Yang Shuwen, who had received three state-level projects totaling ¥260,000 (US \$70,000) by 1988.

Professor Yang enjoyed a national reputation, was well-connected in China’s science circle, and was well versed at the art of public relations.<sup>136</sup> She was specifically hired by Luo Zhengqi to head the department for two

years from November 1987 and was told to recruit no teachers over age 45. At the same time, she was employed to head the Communications Technology Institute, which had been founded in 1986 to combine communications and computers. The institute's goal was to adapt technologies developed in western countries to Shenzhen products designed for export.<sup>137</sup> The SZU administration believed that EE would benefit from Yang's prestige if she headed both the department and institute, despite her lack of enthusiasm for administration. Her contract specifically stated:

The president can appoint full-time teachers to be part-time department heads; full-time teachers have an obligation to accept. Teacher who refuse to be thus employed must state their reasons.

Yang's service as head aggregated the unresolved theory-versus-practice debate and resulted in departmental chaos; and by 1990, pervasive factional politics had developed in the department. In the words of Bao Youli, a former deputy head who was appointed to succeed Yang,<sup>138</sup>

Teaching order, lab management, and the financial situation were all abnormal because of conflict among teachers. A few staff could not properly handle the relationship between personal interests and professional interests, and staff were not forgiving of one another, or could not understand one another.

Yang (and her funding) left the department (and the Communications Technology Institute as well). She was relocated to the New Technology Research Center, a unit which was created especially for her. Although SZU had created the institute in 1988, it was not formally approved by the Shenzhen government until February 1990, a delay caused by the post 4 June decision-making lacuna. For almost a year Yang had served ineffectively as the lame duck EE head, and the department's management further suffered. When Yang relocated, vice-president Ying took over leadership of the department to reestablish departmental order. While Ying left the day-to-day running of the department to deputy head Bao, he kibitzed the unit's operations.

Bao confronted departmental chaos head-on. The crisis in EE was of the same magnitude as those that at various times had affected Chinese, Economics and Foreign Language, but in EE's case the issues were publicly discussed. Much of Bao's four-page 1991 report focused on leadership, offering his personal perspective.<sup>139</sup>

The work style of leaders is the key to improving the teaching and study atmosphere. I joined SZU in April 1984; I had worked for many years in grassroots units including a secondary school, wireless equipment factory, and im-

port/export company. For many years at SZU, I was just an ordinary teacher. I have a good understanding of what an ordinary worker or teacher expects of a leader. Each person hopes that the leader will be fair and can work together with ordinary members, rather than sit on high and deliver commands and empty words. In terms of personal interests, leaders should first be strict with themselves. If leaders observe the above, work-units are easily run. This is easier said than done. This reminds me of the situation when I was nominated to be vice-head of department in October 1988 and again in 1990 when I assumed the current position. Twice when it was discussed, teachers complained a lot about my nomination as vice-head. The teaching order was a mess. Laboratory management was in total chaos. Since I believe I am at least a fair and hard-working person, I believed I could get most teachers' support, but I never fantasized that I would get everyone's support. I believe I can put the Electronics Department on the right track.

Bao, with Ying's background support, strove to put the department in order. A new teaching plan covering 186 courses was adopted after 25 meetings. From 1990 a financial management system was installed that required each staff to pay income tax. Side-business courses were closely regulated, and requests to offer some side-courses and cooperative arrangements that would have "smeared the face of SZU" were rejected. Bonuses were distributed according to work load.

Bao, however, had no intention of remaining in the department's leadership. He said he took on the job as part of his duty to the department; by his own admission he had never requested or received extra compensation for being deputy head or payment for the extra work the position demanded. "Because department work took so much time, I hardly fulfilled my job as a husband and father. In the future I hope to work as only an ordinary teacher," he wrote in 1991. Several years later, Bao retired and was replaced by Yong Zhengzheng, a teacher who had been sent in 1986 by the department for study in Canada. Yong was the only SZU teacher among those who had gone abroad for training in 1986 (25 faculty members, six from EE alone) to ever return to SZU's teaching staff.<sup>140</sup> Under Yong's direction, the department continued to develop a relationship with the University of Central Lancashire, U.K. For several years, departmental personnel exchanges had occurred. In the early 1990s, a joint twinning program was initiated that allowed SZU students to study in Britain and receive a B.S. from each school.<sup>141</sup> By 1994 the department's management had improved to such an extent that it was awarded as an advanced educational work-unit by the city government. In the same year, it received several large financial contribu-

tions. The Shenzhen Science and Technology Bureau gave EE ¥1 million (US \$120,000) for building a data analysis research lab, and IBM donated US \$570,000 for a CASE (Computer Aided Software Engineering) lab.<sup>142</sup> It also received ¥200,000 (US \$23,000) in provincial funding for Signal and Information Processing, which had been designated as a key Guangdong course.

## Curriculum

The department's curriculum was aimed at training *rencai* for the SEZ. The Electrical Engineering/Communications major focused on information processing, transmission and electronic system communications. The Applied Computer major was designed to create engineers "who have mastered relevant computer system theories, who can develop and maintain systems and application software, who have been exposed to new theories and technologies in specialized technology and computer science, and who can design and execute research, development and applications in computer software and hardware."<sup>143</sup> The *zhuanke* major in information processing aimed to train technicians, knowledgeable in both software and hardware, and who had proficient programming abilities and skills in office automation maintenance and application. Another *zhuanke* program in Applied Electronic Technology trained "practical persons in communication technology, household appliances, computer application and general electronic technology." The *benke* curriculum (except where noted for *zhuanke*) follows:

*Electronic Engineering (Communications)* (1996): fundamental theories of circuits, signals and system, circuit simulation, digital circuits, feedback and control theory, electro-magnetic theory, microwave technology and antennae, principles of communication, digital system processing, digital communication, microwave circuits and components, communication networks, digital distance-control exchange, digital picture processing, gigantic integrated circuits, CAD and C-language programming.

*Applied Computers* (1996): digital logic and electric circuits, dispersal mathematics, programming, structure of data, principles of programming and translating, construction principles of computers, structure of computer systems, control systems, computer networking, junction and communication, design fundamentals of specialized chips, software engineering, principles of data base system.

*Computer Information Processing* (three-year *zhuanke*, 1996): information processing in Chinese, office automation, computer network, introduction to data base system, structure of data, principles of microcomputers, C-language

programming, combined programming, PASCAL programming, control systems, software development technology.

*Applied Electronic Technology* (three-year *zhuanke*, 1996): fundamentals of communications technology, digital system processing, television receiving technology, fundamentals of microcomputer application, principles of single chip machines, high frequency electronic circuits, mobile communication, video and audio taping techniques, D-base software.

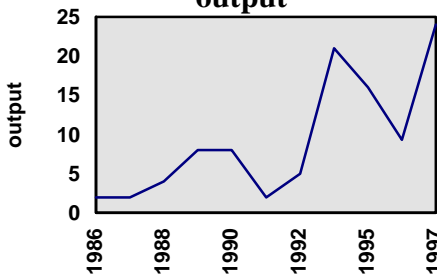
*Communication Technology* (1986): antenna, microwave technology, circuits, digital circuits, high frequency circuits, signal and linear systems, information transmission, signal processing, theory of information and communication, theory of color television, electrical magnetic theory.

*Household Appliances* (*zhuanke*, 1987): advanced math, physics, circuits, engineering, electrical circuit board, high frequency circuits, transmission line and radio transmission, color television theory, stereo broadcasting, electronic acoustics, micro-computers.

*Automation* (1986, 1987): automation control theory, digital control technology, automation control system, information theory, meters, system imitation, system engineering.

In the early 1990s, research output in EE declined as the department teachers shifted from being academics to becoming entrepreneurs. Many worked as computer consultants.

**Figure 4.5: Electronics Department research output<sup>145</sup>**



Another cause of the decline was that most research by department staff was in the area of optical and electronics technology, the focus of the New Technology Research Center, which got credit for the research. The center operated six state-level funded projects in 1991. By then it had finished 20 projects (17

hardware, 3 software), six of which included items put into production. It had obtained ¥1.03 million (US \$190,000) from SZU and had raised ¥339,000 (US \$40,000) for research. Its output included five Chinese patents, and it provided technology to 10 enterprises. The institute, along with

the Architectural Design Institute, was the university's most respected and publicized research unit.<sup>144</sup> To correct its own research shortfall, the EE Department in 1990 started to require all teachers to publish at least one book or paper every two years; in the next few years, the quantity of research improved, including 12 textbooks by 1991 (see Figure 4.5). Department faculty members were responsible for producing national course materials, including textbooks on Pascal programming and high frequency electrical circuits. The department's Pascal course was one of three SZU courses approved as a provincial level key-course in 1994. Its use of audio/visual technology became a model for other departments.

### ***Foreign Language***

Located adjacent to Hong Kong, Shenzhen has stressed English teaching in the period of post-Mao economic reforms. In 1984 primary schools in the Special Zone started to offer English, two years ahead of the deadline given by the provincial authorities. From the third grade, children have taken three hours of English weekly plus another three hours of reading English aloud outside class. The average time students devote to English constitutes about 18% of their total weekly curriculum. Also, a specialized foreign language secondary school opened in Shenzhen in 1990 in which 27% of the total teaching load was devoted to either English or Japanese language teaching. By 1993 the total number of English teachers in the SEZ exceeded 1,300—100 in tertiary institutions, 600 in middle schools and 600 in primary schools.<sup>146</sup> This effort at teaching English, working in tandem with the zone's English language exposure through Hong Kong media, has meant that SZU enrolls students with a high level of English language ability, relative to most other universities in China.

When SZU was founded there were discussions about each department's adopting a five-year curriculum in which the first year would be dedicated to English-language teaching.<sup>147</sup> This idea was never implemented for several reasons. Although the 1983 entering class were admitted with the understanding that their education would last five years, college education in China is usually four years, and the initial intake of students objected to a fifth year that would put them behind their contemporaries in the work force. As a compromise, they graduated in 4½ years. Second, the new university lacked a sufficient number of English teachers to handle more than a regular load of 4-6 hours of weekly English instruction to non-English majors.



Third, the university community realized that the SEZ provided an exceptionally good environment for learning English and that the new university's modern language laboratories could speed up the teaching process. Finally, the initial teaching staff of the Foreign Language Department (FLD) preferred teaching English majors; they regarded the Public English courses with little enthusiasm.

From the start, the plans to create SZU called for foreign language teaching; English was in the first listing of 16 proposed majors and was indeed one of the four departments established in 1983. The initial documents concerning the university's founding, however, do not repeat the mantra that existed a few years later: that SZU students should be well versed in English and computers. But by SZU's first anniversary, the general description of the university read:<sup>148</sup>

The following types of *rencai* are to be trained: those who have a solid foundation and broad knowledge scale, *who know one foreign language*, show strong adaptability, who comprehend both socialism and capitalism, and know about inland experiences as well as the laws of SEZ .

The university's 1986 reform proposals and regulations went further, stating:<sup>149</sup>

Teachers are encouraged to compile their own teaching materials and to use original English versions of teaching materials. From 1987, for all grades above the second year, at least one course will be taught in English. Each semester at least one course will use original version English materials or reference books.

Only a few departments, including Law and Economics both of which employed foreign scholars, attempted to comply with this. The problem, of course, was that for the most part the teaching staff outside of the FLD were ill-equipped to teach in English. More university faculty members had themselves actually studied Russian than English. Although attempts were made to improve teachers' English through training classes, it became apparent that the language problem was one that could be addressed only with the hiring of new staff, and second language proficiency became a *de facto* hiring requirement by the early 1990s.

By the late 1980s, the English/computer focus, a major emphasis of Luo Zhengqi,<sup>150</sup> became a recognized SZU characteristic. This point was made in many articles about SZU, including the cover story on the university that appeared in the official magazine of the SEdC at the time of SZU's tenth

anniversary.<sup>151</sup> From 1986-1990 exam-exempt students were brought to SZU several months early before the rest of the entering class; English was one of the major courses the exam-exemptees took during their stay. Luo also wanted students who worked in offices as part of work-study to improve their English. He asked a student in 1987 to prepare a collection of commonly used office phrases and then two months later required student office workers to be tested on them. Students who failed the test were to be fired from their office positions.<sup>152</sup>

To address the fact that SZU staff as well as Economic Zone cadres in general lacked English ability, the university created the SZU English Training Center in September 1985. Its general purpose was to train cadres and staff from municipal bureaux. Within a year the center had 900 students, and its teachers—some of whom moonlighted from the FLD—taught 90 hours worth of classes. It also ran off-campus training courses for 300 students and enrolled 2,000 students in correspondence courses. The center was administered by Zhang Daozhen, a consultant to President Luo. Zhang, who was not affiliated with the FLD, was famous for editing a set of English teaching materials widely used in China. The center took a “quick and dirty” approach to teaching English. It taught vocabulary above all else. The center edited a book entitled *100 Easy Sentences in Communicative English*, which sold 15,000 copies. Its other titles included: *300 Sentences in Foreign Trade Negotiation*, *300 Sentences of Practical English*, and the more advanced version, *500 Sentences of Practical English*. By 1986 the center had printed over 20,000 copies of teaching materials and had duplicated over 10,000 cassettes. SZU cadres under age 35 were required to learn the 500 English sentences; those who failed to learn them and did not progress in language study were to be denied promotion.<sup>153</sup>

The need to see immediate results in language proficiency, something that characterized Zhang Daozhen’s English Training Center, was an anathema to the FLD which took a more traditional approach to language teaching. The curriculum was set up by the first department head, Li Funing, a professor on leave from Beijing University’s English Language and Literature Department. Initially, Beijing University’s curriculum was for the most part transplanted to SZU. It was directed at teaching the Five Skills: reading, writing, speaking, listening, and translation. Many of the teachers hired for the university’s first year, however, did not remain when SZU moved to its new campus. Some were considered unqualified; others could not manage to have their work-unit status transferred. Within the next few years, Li put in place a staff of graduates from China’s key universities, including his former student, Lei Conglei, who became department head.

A variety of efforts at SZU brought FLD students into practical work. The 1983 students served as translators at an all-Asia ping-pong tournament. The 1984 class interpreted at an international economics and technology trade fair. FLD students also wrote articles for the daily broadside, *Shenda Tattler* (1986-1987), which brought campus news to students and staff, in a bi-lingual edition. One of the largest SZU student organizations, the English Club, provided English-language extra-curricular activities for students, although most of its over 200 members were not English majors. The English Club, which in later years became an avenue for religious proselytizing, was initially set up to provide short-courses in conversation offered by Zhang Daozhen, to select students to be tutors for Hotel Management majors and to hold lectures on manners and western values and customs. It presented song-fests, poetry readings, film showings, "free talks" (meaning informal group conversations), and English speaking and writing contests from which English majors (who were assumed to have an unfair advantage) were excluded from participating.

### Setting the curriculum

As the FLD matured, its curriculum for English majors began to deviate from that of Beijing University. Fewer hours were devoted to grammar, linguistics, and literature and more to practical courses. From 1986 translation/interpretation was deemed the focus of the department. Writing was taught only in the students' last two years, until the policy was changed in the late 1980s. Courses like business correspondence, business documents, and foreign trade English began to appear in the curriculum to replace the foundation courses that were still being taught in other universities and language institutes. This movement towards practicality was the result of an ongoing debate among FLD teachers over what language students should learn. It was described in 1987 by then department head Lei Conglei:<sup>154</sup>

Students have had difficulty getting job practice in work-units, which did not want them because they did not think they fit into any specific field. Problems concern how to teach and the teaching direction. There are different opinions. Some suggest SZU should follow inland schools; others suggest there should be only practical courses, that we should cancel literature and linguistics, or learn only phrases in business and tourism English; still others say that students should stay in the FLD two years and then transfer to other departments. Students fear they cannot get jobs after graduation, and they think about transferring to other departments. Even teachers are frustrated and

want to find other jobs. It seems like the end of the world: where should FLD go? We investigated, organized seminars with students and teachers, and referred to curricula including those in Hong Kong. We agree that students need a solid foundation in language. There is no quick way to learn language. But traditional teaching does not fit our current situation. We accept the middle solution: continue to enhance foreign language study, and senior students are encouraged to take a second major. To arrange the schedule, we must provide optional courses for students, and inform students about the labor market; and they must use their vacations to find jobs. We need better contact with alumni so we can figure out how to help students get jobs.

Even ten years later the debate ensued. Teachers advocating traditional approaches that emphasized strong foundations continued to argue their case.<sup>155</sup> Their voices were drowned out by their colleagues' silence. Over half the department's staff taught the Public English foundation courses outside the department. In many cases, the English abilities of these teachers were not at a high enough level to teach majors. They had few academic achievements and undertook little scholarship in language study. In fact, the language level of English majors by their second year was recognized by students and teachers alike as superior to many of the teachers of Public English courses. These teachers taught the same basic courses year after year, often sitting in language laboratories monitoring students' repetitive exercises.<sup>156</sup> They rarely used English outside their teaching; they opposed any innovations in teaching that would affect their own teaching styles; innovation in the foreign language curriculum or pedagogy for majors was feared because of any spillover effects it might have on Public English teaching. One innovation was attempted in the curriculum for majors, however. It involved employing the communicative approach as developed by the Guangzhou Institute of Foreign Languages. The approach was abandoned after four years for reasons discussed in the following chapter.

The curriculum for both *benke* and *zhuanke* English majors has emphasized the practical. The formal listing of courses below belies the fact that only 5% of course time was devoted to courses on literature, grammar or linguistics. Furthermore, the curriculum rarely included these topics within the standard core courses, and teachers rarely deviated from the assigned texts. English majors education, as indicated by the course timetable, fell prey to what one teacher has called "instant-success tendencies."<sup>157</sup> This trend was not unique to SZU. It exists in foreign language departments around China, including those in the nation's foremost institutions. The *benke* program at SZU aimed to train "multi-functional English specialists who are familiar with English literature and British and American cultural

backgrounds, who also master a second foreign language (Japanese) and have a solid foundation of Chinese. They should be familiar with modern office techniques, e.g., using computers to perform medium to high level interpretation, translation, secretarial, business and trade and other duties involving foreign affairs.” The two-year *zhuanke* was a pint-sized version of *benke*, training English specialists who were familiar with the English language, familiar with modern office techniques and who can perform duties involving foreign affairs.” The curriculum follows:<sup>158</sup>

*English Literature, Culture and Business*: intensive reading, extensive reading, listening, oral English, grammar, pronunciation, British and American literature, selected reading of American and British newspapers and magazines, selected reading of contemporary English, interpretation, translation, business writing, international trade.

*English Literature and Business (zhuanke)*: intensive reading, pronunciation, extensive reading, listening, conversation, practical writing, interpretation, translation, writing, common usage, tourist English, foreign trade writing, foreign trade practices, practices of international finance, conversation in business English, reading of business English.

## English tests

A major concern of the FLD, and the SZU administration as well, has involved the test scores of non-English majors on China’s unified College English Test # 4 (CET-4), commonly known as Band 4. This test, given to college juniors and other students, offered an easy way to gauge a university’s success in teaching Public English. The test, which was scored on a 100% basis, examined student’s reading, grammar, listening (and to a small degree writing) abilities. A university’s “pass-rate” could be compared with averages for key universities and other institutions in the province and nation as a whole.

In its 1987 work report, SZU took pride in the *zhuanke* students’ second place on the year’s Band 2 test and the *benke* students’ fourth place on Band 4.<sup>159</sup> Starting with the entering class of 1987, students were required to pass Band 4. Those who failed were to be denied a bachelors degree.<sup>160</sup> There were also eventual plans to include the passing of Band 6, a more rigorous exam, as a graduation requirement.<sup>161</sup> The university developed special classes designed to improve scores on foreign language tests and set up English writing and speech contests to generate students’ enthusiasm. Regula-

tions also exempted high-scoring students from taking the Public English courses.<sup>162</sup> Taking Band 4 in 1990, the 1988 class scored sixth in Guangdong. To improve upon this, FLD received permission to transfer into the department all Public English teachers who were employed by other departments. This transfer met with such fierce opposition from teachers in International Finance and Trade, whose students scored higher than those in other departments, that the following year these teachers were allowed to return to their departments of origin. In SZU's Ten-year Development Plan issued in October 1991 the leadership predicted that the Band 4 scores would by 1995 rank in the top three among Guangdong universities.<sup>163</sup> That result was achieved immediately: the 1989 class who took the test in 1991 ranked sec-

**Table 4.13: Band 4 passing rate for non-English majors**<sup>166</sup>

entering class year	passing rate	excellent rate
1985	34.5	.2
1986	48.9	2.4
1987	59.2	2.6
1988	73.0	5.0
1989	87.5	8.3
1990	91.9	15.6
1991	89.5	17.9
1992	90.6	13.9
1993	88.7	5.8

ond of 45 Guangdong institutions, behind the Military Medical University. The SZU average score was 66.8, compared with only 59.5 at Zhongshan University, southern China's most prestigious university.<sup>164</sup> That year SZU achieved the province's third highest passing rate, behind Military Medical University and Zhongshan University.<sup>165</sup> The disparity between second-place passing rate and third-place average suggests that high scores brought up the SZU average. SZU authorities preferred to use the pass-rate statistic, perhaps because numerically it has always exceeded the average. Although the more informative statistic would be the average, this statistic was rarely presented.

By 1993, Band scores also played a role in the annual comprehensive evaluation of students. An early pass of Band 4 (meaning before junior year) earned a student three points and an early pass of Band 6 garnered six points.<sup>167</sup> Regulations on degree requirements issued in April 1992 stipulated that from 1991 entering students who failed Band 4 would be denied a bachelors degree.<sup>168</sup> A similar regulation that had been enacted four years

**Table 4.14: Band 6 passing rate for non-English majors<sup>169</sup>**

entering class year	passing rate	excellent rate
1985	.5	na
1986	3.9	na
1987	9.6	na
1988	20.0	.3
1989	35.9	3.3
1990	29.1	3.7
1991	36.8	2.1
1992	39.7	1.5
1993	40.7	1.6

before had only selectively been enforced. Failing Band 4 most likely contributed to the overall rate of students not being awarded degrees (see Table 4.10). About 12.5% of the 1989 class had not passed Band 4 by graduation; the fail rate for graduates that year was 22%. The overall fail rate for the 1990 class was 16%; their fail rate on Band 4 was just over 8%. The following year's class—the first covered by the reiterated regulations—had a Band 4 pass-rate of 92%; their overall graduation rate was 87%. By the mid-1990s, even the weakest departments had improved their passing rates. Chemistry's passing rate, for example, rose from 70% (1992) to 89.1% (1993) to 93.3% (1994). Data on overall Band 4 results at SZU appear in Table 4.13, previous page.

Data for the English band tests, unfortunately, were not available to the author in raw form. They were not widely circulated for comparative purposes and were not presented in a unified fashion over the years until an article appeared in SZU's internal journal in 1998.<sup>170</sup> The little comparative information that is available suggests that SZU compares favorably with other universities. The test given in 1994 produced an average SZU score of 68.6, compared with 67.6 for key universities and 62.6 for the nation as a whole. That year SZU's 75% passing rate was above that of other universities (59.5 average) and also that of key universities (73.8). Comparative data must be viewed with caution, however. The tests have varied in difficulty over time, as different institutions have been given responsibility in different years for test design. From the mid-1990s an attempt has been made to build a "bank" of test questions so that scores can be compared over time, as is possible with the U.S. college boards (SATs).

Other unified tests were also administered each year. Band 2 was given to *zhuanke* students in their second and final year. Data for this test are presented in Table 4.15. In 1993, both the passing rate (59.6%) and average score (61.7) for SZU were above those in other Guangdong universities, which were 36.8% and 54.6, respectively.

From 1994 majors in Economics, Electronics and International Finance and Trade—the students who always had the highest Band 4 scores—were required to take the more difficult Band 6. Passing Band 6, however, was not a degree requirement. Data for this test are presented in Table 4.14. In 1991, both SZU’s passing rate (36.8%) and average score (53.9) were above those in other Guangdong universities, which were 20.8 and 50.9, respectively.<sup>172</sup> National passing rate was 22.8%, and average score was 50.8.

All in all, SZU’s scores on Band 4 were considered above average in China, a point that was highlighted in the 1995 report by the SEdC’s accreditation expert group. By implication, SZU’s Public English teaching was viewed as more effective than elsewhere in China. It is important to note, however, that these tests measure several different things. First, scores are very much dependent on the language ability of *entering* students. Students who enter with better foundations are likely to score better on standardized exams, despite whatever teaching they are exposed to at university. Regardless of curriculum and pedagogy, entry level test scores would be expected to correlate highly with band test scores of graduating students. Unfortunately, data are not available to test this hypothesis. Second, to some extent the scores measured the success or failure of the curriculum and pedagogy used. Some books and teaching methods would be expected to be more effective in helping students acquire the knowledge they needed to score well on the banded tests. Third, test results measured the individual teacher’s effectiveness. This is likely to be true only if the first two factors are controlled for.

**Table 4.15: Band 2 test scores for *zhuanke* students**<sup>171</sup>

Entering class	pass-rate	average score
1986	81.9	64.2
1991	80.0	66.2
1992	75.0	65.9
1993	59.6	61.7

In other words, the results of the students of different teachers should be compared *only* if their students had similar entry scores on the English exam and they all used the same textbooks. The latter condition held true

at SZU since Public English teachers were assigned identical texts, but the former condition did not hold even for teachers who instructed the same major. Students were assigned to English classes by major, not by English test score. For example, a class could be all first-year Chinese majors or second-



year math majors. Even within a major, scores varied because the entrance exam was the average of six tests, only one of which was English. In general, the English scores of International Finance and Trade students were higher than those for Chemistry major students, because the overall scores of the former were higher and the individual scores of most of the components were higher, too. Specifically, however, at the start of the semester, one class of a major could be noticeably better in English ability than another class of the same major. Thus, assessing teachers according to their test scores is a risky endeavor. Nevertheless, such assessment occurred at SZU. FLD teachers whose students did well on the exam were praised and given monetary awards; those whose students did poorly were told to improve their teaching. By the late 1990s, new management had stopped this practice.

Assessing a university's entire Public English program by the results of student Band scores is also problematic. The average test score has sometimes varied wildly from year to year. Thus, the pass-rate was seen as a more dependable statistic than the average score. Yet the pass-rate was also affected by the difficulty of the test, which varied year to year. The pass-rate for Guangdong in 1990, when the 1988 class took Band 4, was 44.7%, compared with 31.9% the following year, an implausible 29% decline.<sup>173</sup> Furthermore, when statistics were presented in SZU documents, it was often unclear whether the figures referred to all students taking a test at the same time (e.g., all students who took Band 4 in spring 1993), or for students of particular years (e.g., the 1990 class who were juniors in 1993). This issue was extremely relevant because students may take the test several times until they scored above 60, the passing mark. Data on Band 4 pass-rates for the 1990 class in different yearbooks gave different figures: 85.9% and 90.9% pass-rates, in the 1992-3 and 1995 yearbooks, respectively. This suggests that some students—5% of the 1993 class—who had failed the test in 1993 passed it by the time they graduated the following year. When data were given, it was often unclear whether they represented final figures or intermediate calculations. The data made available in 1998, presented in Table 4.13, finally appear to solve this problem, as they represent final scores, in other words, those of classes at the time of graduation.

Even if the data were presented accurately, a serious error still resulted from equating effective teaching with test scores. These tests did not measure communicative skills and did not to a large extent assess writing ability. Students who scored high on the Band tests may not in fact have been able to effectively communicate, relative to students who scored lower on the tests. A fixation over test scores also denied attention to the issue of potential.

Test scores may be viewed as good whereas they could actually have been greatly improved if textbooks or pedagogy had been changed. “Goodness” cannot be accurately assessed without an examination of different curricula and the use of a control group.

The caveats expressed above did not appear in discussions where Band scores were flaunted in narratives in the SZU yearbooks. The scores were used to make certain points that pertained to specific arguments. Data were not presented for interpretation; rather than were submitted more as evidence. All these warnings having been issued, the data are nevertheless presented above.

## Students

Shenzhen secondary students who chose to major in foreign language at university were forced to make that decision before they actually took the college entrance exam. Thus, there were really three divisions at the secondary level: sciences, arts and foreign language (fine arts was added in the 1990s). Students in arts and sciences were precluded from majoring in foreign languages at university. For the purposes of this book, however, foreign language has been included in the arts track because both groups of students take the same set of entrance tests; their exam scores are thus comparable while they are not analogous to sciences track scores. The early tracking of foreign language has little parallel in Chinese secondary education. Specialized sports secondary schools exist, but there are no pre-med or pre-engineering tracks: only sciences and arts. The SEdC in the 1980s created the foreign language division as a way of promoting foreign language study and ensuring that foreign language departments and institutes would have sufficient enrollment. While this meant that foreign language students had fewer choices than their peers, it also meant that they were more certain about their future: either they would major in foreign language in college or they would not attend. During their secondary education, however, foreign language track students were exposed to only slightly more English in their preparation. They may be given an extra conversation course, but in other regards their curriculum was identical with that of arts students.

About two-thirds of the students who entered FLD in 1989 had selected SZU English as their first choice. This means that one-third of the class had wanted to go to other universities or language institutes. The graduate survey shows that the students tended to be cliquish, in this regard placing third, after Chemistry and Civil Engineering. In terms of individualism, FLD students scored fairly high. They also felt strongly that students should be ac-

tive in class (only Civil Engineering students felt stronger on this issue), and they ranked first in disagreement with the statement: "The teacher should be the center of class." Only one-quarter of the students endorsed the notion that education should be practical; one-third said their education was too practical. This suggests a moderate amount of disagreement among these students in terms of what they should be taught—a disagreement that was shared by faculty members. In fact, while some students were dissatisfied that they were not reading much literature, others were disappointed they were not getting more courses in business English. In terms of overall satisfaction with their college education, FLD students were average—which means they were satisfied relative to other majors, but not very satisfied in absolute terms. Still, FLD attracted transfers. Ten students from other departments transferred in from those who entered SZU in 1988. From 1988-1991, FLD saw a net increase of five transfers.

Ironically, in the 1993 graduates survey FLD students ranked low among majors in terms of use of English at work, but high in term of skills and talent use. This is borne out by six year's of conversations which indicated that one-third of the FLD graduates rarely used English at work, about one-third used some English, and one-fifth served as interpreters and translators. The remainder occasionally used English intensively, such as in the import/export business or in contract negotiations that occurred infrequently. For the most part, therefore, the English level of FLD graduates was higher than what was required in their workplaces. This concurs with a finding in a report issued by a Beijing University research group that found that Shenzhen employers demanded an English level associated with *zhuanke*, rather than *benke* students.<sup>174</sup>

FLD *benke* students, beginning in 1993, took nationwide tests given to all English language majors. Two different tests were given for second- and third-year students, for the 1991 and 1990 entering classes, respectively. The second-year students ranked 2.4% below the average for students in China's comprehensive universities. The third-year students scored above the national average. Their listening was 4.1% better, but they tested below average on reading (-8.5%) and writing (-6.7%).

### **Zhuanke students**

The FLD recruited the best *zhuanke* students at SZU, according to test score. During the recruitment period, when department leaders examined students' exam scores, a certain type of student was selected for FLD *zhuanke*. This

student had scored high on the English component of the exam with an overall score that was above the cutoff assigned the department. These students would have been admitted to the *benke* program had their overall exam scores been slightly higher. Usually, a low exam score reflected a poor score on just one or two exam components. A *zhuanke* student, for example, might have scored low in politics or math, but otherwise would have qualified to be admitted into the four-year program. FLD's *zhuanke* students in 1993 scored the highest among two-year arts freshmen entering that year. At the time of recruitment, their average score, 630, was only 21 points (out of a possible 900) below the average score for SZU *benke* students.<sup>175</sup> This point spread between *benke* and *zhuanke* programs was smaller for FLD than any other academic department in either arts or sciences in 1993. The FLD *zhuanke* average was 15 points away from the 645 cut-off for admittance by state plan to *benke* foreign language programs for universities like SZU. Below this mark students could be admitted but only as fee-paying. In 1993 the lowest scoring FLD *benke* freshmen had a mark of 590, 61 points below the average *benke* student for the FLD and 40 points below the department's average *zhuanke* score. This suggests a wide range of ability in the *benke* program. The *zhuanke* students were more tightly clustered. The *benke* students covered a wide range; students at the top were somewhat bored with the curriculum, while students at the bottom had difficulty keeping up with the rest of the class. For this reason, many teachers preferred to teach *zhuanke* FLD students, a group where there were "fewer shining stars but also fewer dead stars" in the words of one teacher.

## Second foreign language

The FLD started to require students to take a second foreign language in 1987. German and Japanese were offered, with the latter taking about two-thirds of the students. There were several Japanese teachers but only one German teacher; in 1988 the German teacher, whose father was German and mother Chinese, decided to become the full-time driver for the university president, a job which paid better and offered more financial opportunities than language teaching. Japanese thereafter became the only second language available for FLD students, although French was occasionally taught on campus. A teacher in International Finance and Trade taught several terms of French, and a French native who was a foreign student studying Chinese at SZU taught an informal course to about two dozen students and faculty several nights per week in 1989. The FLD in its officially published 1994 brochure purported to let students choose French or Japanese as a sec-

ond language. In fact, the FLD had repeatedly refused to offer French, despite student requests and the availability of native French speakers who had offered their services.

The Japanese sequence was disliked by most FLD students. They were aware that their two year exposure to Japanese would fail to provide sufficient language knowledge that could be used in the workplace. Few FLD graduates used any Japanese in their jobs. Even those who worked for Japanese-run firms and banks used English with Japanese personnel. Knowing that the Japanese courses had little relevance to their future relieved most students of any enthusiasm they had for studying the language. Like the political and moral education courses, it was studied only so it could be passed and so students could graduate.

As early as 1986 the department planned to set up a Japanese-English bilingual major. But it was not until the 1991 Ten-year Development Plan that SZU formalized the suggestion of offering a Japanese major. Second to English, Japanese was considered the business language of Asia. But language was not the major consideration for deciding to create a Japanese major. The new major, which had its first in-take in 1995, was a way of expressing SZU's opinion that Japan was important. The decision gave face to Japan. Since its first years, SZU had received donations from Japanese companies. SZU's most famous "foreign friend" was former Prime Minister Kaifu Toshiki. Japan was a popular destination for delegation travel. SZU received more visitors from Japan than any other country. Its exchanges with Japanese universities were considered exemplary. Several delegations of students from Japanese universities visited for short-courses; Japanese constituted the largest block of foreign students studying Chinese at SZU.

Against what might be considered a political rather than an academic decision, the Japanese major was created. Students would be enrolled every other year, as there were not enough Japanese teachers to teach classes enrolled every year. The first class of 15 students had the lowest exam scores of any major (apart from Design whose scores were too low to be reported). Few of the students had put SZU Japanese as their first choice; they had wanted to study English at SZU or Japanese at another university. None of these students had taken Japanese in secondary school; their ability at second language learning was considered weaker than most SZU students.

## Management

Departmental management has been FLD's most problematic feature. Operating in cliques, the teachers as a whole have never really been able to get along together. For example, in June 1988 the department set up a translation company to capture some of Hong Kong's lucrative trade. Despite a potential market for translation that could have earned the teachers additional income, the company broke apart within a year due to friction between teachers. Faculty members turned to out-of-plan teaching to supplement their wages. The high demand for English in Adult Education gave the leadership headaches because it meant that almost all FLD teachers were required to teach evening courses. The students at night school were generally dissatisfied with their English teaching, viewing the teachers as an undedicated lot who taught only for money.<sup>176</sup> Night teaching stressed out the teaching staff and precluded most of them from undertaking research. Indeed, research output dropped in 1990 to a low of nine publications, down from 22 the previous year.

In the late 1980s and early 1990s, staff friction characterized the FLD. The minority of dedicated teachers became increasingly critical of their less-than-serious colleagues. One exemplary teacher, who refused to stop teaching despite her being diagnosed with cancer, was singled out in speeches by Wu Zewei and Cai Delin. Zhu Huixin had fainted in class and was helped back on her feet, but she refused to leave the class until it was finished. Wu praised her for returning to work soon after a cancer operation. According to Cai, she was angry about her colleague's "easy attitude about teaching."<sup>177</sup> Teacher Zhu's attitude was shared by some of her associates: the dedicated minority were for the most part disgusted with the indolent majority.

From the beginning, as indicated in the above excerpt from Lei Congli, the department was split into two camps: those advocating the practical and those advocating foundation/theory. Lei's compromise resolved the dispute only on the surface. The minority who stressed strong foundations, which included literature teaching, kept stating and restating their positions,<sup>178</sup> but this had little discernible effect on policy. Lei's replacement, Tan Zaixi, a graduate of Hunan Teachers University with a masters from Exeter University (U.K.) placed much greater emphasis on the practical:<sup>179</sup>

SZU graduates are part of the Shenzhen Special Economic Zone and have strong opportunities to use English in economic activities, like commerce, tourism and foreign trade negotiation. Therefore, the curriculum setting should include these points for consideration, and it should not follow the old mode of some foreign language departments which stress linguistics and lit-

erature and train research fellows in foreign language teaching. We cannot, of course, cancel literature and linguistics altogether and only focus on commerce, tourism and foreign trade. If we do that, we will become a vocational institute in foreign language teaching. We need to work out rational distribution of basic and applied courses; we should have both.

As the FLD (and indeed SZU itself) grew in size, the department became divided in several other ways. In the mid-1980s two specialized teaching groups had begun to form, those for English majors and non-English majors. In fact, in 1997 the Public English teachers were assigned their own department, separate from Foreign Language, both located in the newly created College of the Arts. The most serious division, however, came in the area of academic politics and centered around the management that was appointed when Lei retired in late 1989. Immediately upon Lei's retirement, Shenzhen authorities criticized the FLD for financial irregularity. The accounts of the department had mysteriously gone missing the split second between Lei's retirement and Tan's taking office. This event served as a precursor to more serious matters that were to occur during the next five years. Teachers in FLD were spending many hours teaching side-business courses, but they observed that their colleagues in other departments were earning more money. At the same time, they saw the department's management display personal wealth. An investigation into corruption was launched by a faculty *ad hoc* committee. In the end, the management team led by Tan and his associate Gao Litian was publicly chided for corrupt practices by the SZU's Party Disciplinary Inspection Committee.<sup>180</sup> Both leaders were removed from their positions, but the battles between staff factions that had lasted for three years, had inflicted permanent scars. The war had not been a simple case of one side (Tan-Gao's support network) against the other (Tan-Gao's opponents). Ongoing conflicts on knowledge definition (practical versus applied) and scheduling (English major versus non-English major teaching) caused ever-changing relationships among staff. FLD staff members often wavered and shifted support, changing allegiances on an *ad hoc* basis. This required the leaders to build a relational network and to dispense patronage in order to maintain it. Spouses of several teachers were given jobs for which they held few qualifications. In basing decisions (including those involving promotion) on relationships rather than merit, the leadership developed a poor reputation, according to observers both inside and outside the FLD.

By 1994 there was an end to any collegiality that might have existed prior to the corruption investigation. President Cai Delin, Tan and Gao's patron who had strongly supported them against the CCP's charges of cor-

ruption, appointed a new department head, He Daokuan, a man with good CCP attestation who had been on the SZU faculty less than six months. Despite only limited credentials as a scholar, He Daokuan had been personally picked by Cai as one of SZU's so-called dragon professors. Lacking administrative experience in his prior job which had been as an ordinary teacher in a Sichuan language institute, He Daokuan was a compromise candidate for department head. In fact, aware of his lack of administrative expertise, he did not want to be department head and had publicly stated for two months prior to his appointment that he had no qualifications in administration. In any case, he accepted the appointment, but from the start, his competency was questioned. Although He had a window of opportunity in which to make reforms, he said his job was not to make changes but just to restore order to the department. For a brief period He relegated authority over academic matters to the deputy head, whom he had inherited. The two leaders were always at odds, for the holdover leader was an outspoken advocate of traditional teaching methods (lecture and memorization) and a curriculum that emphasized linguistics and especially literature, his own field. In terms of knowledge structure, He Daokuan set forth two directions for the *benke* major: economics/trade English and culture. Graduates should be "cultured businessmen," he said, referring to the Confucian concept of *ru shan*. This approach was merely cosmetic as the curriculum was not even slightly changed. In reality, He Daokuan, who had just completed writing a textbook on tourism, advocated the practical approach. He replaced the literary deputy dean, his rival, with a recent hire who, having just received a Ph.D. from Zhongshan University, had neither much teaching nor administrative experience. This man was put in charge of the English major curriculum, a subject with which he had little familiarity. The FLD management team commanded little respect from either teachers or students. In fact, the *benke* students were aware of the department's corruption controversy; they for the most part disliked their teachers, many of whom they considered arrogant, boring and humorless. The foreign teachers, assigned two courses for each year's grade, were generally considered incompetent. In time, word drifted back to Shenzhen secondary schools about the conflicts in the FLD; this, coupled with the student's dissatisfaction with the department, influenced many secondary school counselors not to recommend that their students study English at SZU. By 1995, FLD had lost so much prestige that the exam scores of entering students for the first time fell below those of the Chinese department. As the quality of an English major became devalued, teachers became even more depressed. Experienced teachers continued to leave the department, which since its inception had lost about one-third of its



teaching staff due to departures for emigration or private sector employment (excluding retirement).

Thus, by the mid-1990s FLD enjoyed the least prestige of any academic unit—in either arts or sciences—at SZU. Questions were raised about whether it should even offer a *benke* major, as the department had few teachers competent enough to teach English major students. Many FLD teachers hired since 1989 had secured their jobs through relationships with department leaders; the quality of teachers was widely perceived to have plummeted. The department's main purpose was to function as a service department to ensure that non-English majors performed well on the Band 4 test. English major teaching was a side-line that could be dispensed with, according to some. Employers who needed graduates with high foreign language skills could recruit them from key universities. With the expansion of the Shenzhen Teachers College and its inclusion into the SZU family, the Teachers College English department was considered the more proper unit for training language teachers, the *rencai* needed by the SEZ in the area of English skills. In terms of language skills, English majors of the FLD were over-qualified for their jobs; non-English majors who passed Band 4 had more than sufficient skills for most jobs in the SEZ that required some use of English. In fact, the university in 1997 decided to curtail class hours for Public English from 6 to 4 per week, an implicit acknowledgment that, given their high Band 4 pass rates, the students were being over-taught.<sup>181</sup>

Academic politics, however, will most likely prevent the elimination of the *benke* English major. The students will probably continue to be taught by teachers who themselves had specialized in literature, linguistics, or translation. By 1995 not a single FLD teacher was educated in teaching English as a second language (ESL), the major task of the department. Of the seven new teachers hired that year, all held masters in linguistics or literature. Like most of their colleagues, none had any ESL training nor had any ever done research in that subject. The FLD, which had survived a decade of chaos, would continue teaching in ways that satisfied neither student nor teacher.

In 1997 FLD merged with the Chinese Department to form the College of the Arts. At the same time Public English teachers were culled off into the newly created Public English Teaching Department. The FLD leaders were removed and placed in political positions in the College administration. The new head of FLD was a well-liked Japanese teacher. Despite the fact he spoke no English, he headed a department in which the work load was over 90% English teaching. The fact that English teaching would be under the

administration of someone who did not speak English did not greatly surprise members of the SZU community, who were no longer amazed by strange occurrences in the FLD.

### ***International Finance & Trade***

Even before International Finance and Trade (IFT) split from the Economics Department, the international trade and international finance majors were the two most prestigious subjects at the university. Taking their students from both the arts and sciences tracks in secondary school, IFT majors scored usually in the top three in terms of freshmen admissions exam scores. International finance, along with Accounting, were the first two majors offered by Economics. Foreign trade was offered almost as an afterthought, after the Economics Department realized that finance students, in the absence of job allocation, would experience difficulty in finding jobs in the SEZ's infant banking sector.<sup>182</sup> That situation, of course, changed as the zone expanded, and by the 1990s many finance and trade graduates worked in banks.

The first classes IFT recruited as an independent department in 1988 attracted the highest scoring students.<sup>183</sup> Being able to command the highest scores, the department rapidly grew into becoming one of the big three in size (with Economics and Electronics). Each year it admitted around 150 full-time *benke* and *zhuanke* students, twice the intake of the average department and five times that of the smallest departments. Since the department had only an average sized teaching staff, classes tended to be large. All classes were lecture; no seminars existed, and the average class size exceeded 75. When students complained in 1990, most classes were split into two sections. The department had a young staff (average age 38 in 1994) and consequently the lowest professional ranking of any academic department. Many were inexperienced teachers.

About one-third of the students who entered IFT had wanted to go somewhere else, usually to a key university in Guangzhou or northern China. The other newcomers had achieved their first choice. The one-third of the entering class who were to some extent disappointed upon entering SZU pales in comparison with disappointment as expressed in the attitudes of graduating seniors. According to the 1993 survey, over 70% of that year's graduates felt that their education was not as good as they had expected. Being the brightest and hardest working secondary school students (as measured by exam scores), they had experienced four years of non-demanding instruction while at SZU. More than in any other department, IFT students were "under-employed" as students. They did not need to study very much;

a few weeks of cramming before the final exams were sufficient. Virtually no classes required term papers or any kind of homework that inspired critical or creative thinking. The upper level courses taught by expatriates were only “conversational” and did not seriously explore economic issues.

### Language skills

English was emphasized in IFT more so than in any other department, except FLD, with 48% of the department’s total teaching hours devoted to second language teaching. Instead of six hours of English for the first two years and four hours for the next two—the arrangement in most departments—IFT gave its students 12 and 10 hours a week, respectively. This paid off. In 1994, all students in the 1990 *benke* class passed Band 4; 93% passed Band 6. Most IFT students passed Band 4 their first year; students were required to take Band 6, but the awarding of bachelors degrees did not hinge on a passing mark on this test. Students had, in fact, entered IFT with higher scores on the English component of their entrance exam than students in the Foreign Language Department.<sup>184</sup> TOEFL simulations for 1987 students prior to graduation resulted in scores over 500 for 65% of Foreign Trade and 40% of Finance students.<sup>185</sup> Of these, 15% scored above 600, an achievement that FLD English majors could not have matched. IFT students realized that their level of English proficiency was way superior to what would be required in their work places.

### Student disappointment

Why were SZU’s brightest students, in its most prestigious majors, so disappointed? And what did the department do about it? The latter question is the easier to answer: the department did little or nothing to address the student’s concerns. The titular head of IFT was Vice-president Zheng Tianlun, who also served as chairperson of the teachers’ union, overseer of the SZU-run enterprises, library head, publications head, and overseer of the arts departments. Zheng, who met and banqueted a weekly average of two dozen visitors as individuals or in delegations and spent two months a year traveling abroad, was way too busy to spend much time or effort on IFT. In reality, the department basically ran itself. Day-to-day management of the department was delegated to a deputy head. IFT ran smoothly without the conflicts that had characterized Economics, FLD and Chinese. The department leaders, as well as the teachers, realized that IFT ranked at the top, as measured

by entering students' test scores. In the views of many staff, the department needed to achieve nothing more. Maintaining the *status quo* was sufficient; student disappointment went either unrecognized or ignored. True, the students rarely expressed themselves in clear and loud voices, but there is much anecdotal evidence from students to suggest that their disappointment was in fact recognized by teachers, who simply chose to ignore it. Students' opinions, as long as they did not get out of hand and manifest themselves in extreme measures like demonstrations or riots, were of little importance to departmental leaders. The students who were the most disappointed with their studies tended to be high achievers; but these were the very same students who won scholarships and prizes and who were appointed to serve as student cadres and class monitors. This group, according to one member, felt it inappropriate to complain, having been themselves "bought off." These students had the most to lose if they antagonized the department heads; they did not want to rock a moored ship.

The reason IFT students were disappointed is much more complex than in other departments like Chemistry, for example, where most students did not want to be there in the first place. Part of the explanation applies to every SZU teaching unit: an old styled and unchallenging pedagogy that put students in class to sleep, often literally. Attending class was repetitious; the teachers for the most part explained the text, instruction which most students did not require (see Story 3). But stodgy and out-dated teaching existed in most every SZU unit (except for Architecture, Electronics and Chinese), so this does not explain why IFT students were more disappointed than their peers. An explanation more unique to IFT is that these students entered with the highest expectations. Their hopes and aspirations went further astray from reality than other students' expectations. Through years of diligent study in primary and secondary school, they had earned a university place in a prestigious major. They had expected challenges, as well as opportunities. What they found, however, was something much less interesting than secondary school. In the words of one IFT graduate,

I expected more when I entered university. At least in middle school, teachers cared about us. Here, we are treated like a floor—something needed to walk on. If I had to do it over again, I would choose another department or another university.

The sheer size of IFT made it impersonal. Unlike the students in Electronics, another big unit, teachers did not work closely with students. "I went through four years without more than one or two teachers ever learning my name," according to another graduate. The Electronics students had com-

**Table 4.16: IFT student opinion on practical education (percentage)**<sup>186</sup>

Response to the statement: I believe education should be practical					
	false	mostly false	sometimes true, sometimes false	mostly true	true
IFT	32	16	16	15	21
for all majors	29	22	23	12	14

puters and software to challenge them; IFT students had only their own minds.

The situation described above was permitted to exist because no one felt strongly about changing it. Students did not protest loudly. Administrators and teachers maintained the *status quo*. Most believed the system did not need changing. One teacher, in rejecting the above analysis, suggested that market mechanisms would correct any deficiencies. Word would drift back to secondary schools, via IFT graduates, that the department was not what it was cracked up to be. Students' disappointment would be reflected in dropping admissions scores for future classes. Theoretically, this scenario is valid, given free flow of information and rational decision-making. Neither factor, however, existed. Even by the mid-1990s, most secondary seniors who applied to IFT probably did not realize what type of education they would be getting. They knew only that they had been admitted to the most prestigious department at SZU. Even if they had realized that their education would not be challenging or interesting, would they have made the rational decision to go for a better program? Probably not. SZU was the only institution in Shenzhen that offered a *de facto benke* business degree. Other choices would require students to leave the SEZ, an avenue down which only a few high school seniors wished to venture.

The high degree of student disappointment may also be related to an issue involving knowledge structure. International trade and international finance are specializations. They are not disciplines, per se, for they lack the body of well-developed theory that characterizes disciplines such as sociology, psychology, anthropology, etc. Finance and trade are courses of study within the discipline of economics.<sup>187</sup> Disciplines have withstood the test of

time because they have offered sufficient theory to challenge students, who at the highest level (Ph.D.) themselves add to existing theory. Even at the undergraduate level, disciplines provide challenging theory as well as a structure for building a curriculum. None of this existed in IFT. There was no knowledge structure with a theoretical basis. Courses seemed unrelated except that they dealt with trade or finance; there were no sequences in which advanced courses followed prerequisites, although IFT courses adhered to a strict ordering set down in the class plan. All this was by design. In its first annual report, the department noted that “the SEZ did not need *rencai* who were well versed in Keynesian economic theory, but it needs people for actual operation, so we offer courses in transportation, insurance, investment project evaluation and foreign trade case studies.”<sup>188</sup> The Economics Department, in contrast, provided a more theoretically-based and more intellectually satisfying curriculum; perhaps partly for this reason its students were more satisfied than those in IFT.

This discussion of the absence of a theoretical framework takes on a degree of irony given the department’s sometimes stated desire to teach theory. International Finance majors, for example, were to be trained so they could “perform international financial transactions independently and undertake administrative/ management work and theoretical research. They should possess basic theories in international finance and basic transactional skills, be familiar with international financial practices, and the relevant laws of China, and be proficient in English and office automation equipment, including computers.”<sup>189</sup> Required courses for the major were:

*International Finance*: Marxist economics, western economics, accounting, statistics, taxation and expenditure, international trade, money and banking, international finance, study of economic development, administration and management of banking, stock market, practices and settlement of international trade, accounting in banking, international borrowing, financial law, financial English.

*International Finance (zhuanke)*: Marxist economics, western economics, accounting, statistics, money and banking, international finance, stock markets, finance law, administration and management in banking.

*International Trade*: international trade, marketing, survey on Chinese foreign trade theories and policies, international trade practices and settlement, business correspondence, foreign trade firms management, foreign trade accounting, business laws, futures market, foreign taxation, international trade geography, commodities.

The two-year finance program was designed “to train practical specialists who understand basic finance theory and the stock markets and who have basic transactional skills, are familiar with relevant financial laws, regulations and policies of China, and can perform job duties in banking and security trading as well as financial activities involving foreign affairs.”

Of all the 1993 graduates surveyed, those in IFT (35%) more strongly believed that their education should be practical in nature. Just short of a majority of students disagreed that practicality should be the first consideration in education. Compared with other majors, students in IFT most rejected theory, but the survey results suggested that even many of them generally deplored an overemphasis on practicality (see Table 4.16). Practical education was virtually all they were given; hence their dissatisfaction. About 26% agreed with the statement “My education was too practical,” an average response at SZU.

### Experimental foreign trade company

As in other departments, teachers in IFT were preoccupied with off-campus activities; they evidenced a lack of enthusiasm in their teaching but were eager to serve as consultants to local business ventures. The department itself established a SZU-run enterprise, the Experimental Foreign Trade Company, which received a city license in spring 1987. Similar to other school enterprises, the Company remitted a portion of its profit to the university. Located downtown, the enterprise was basically run like any import-export company. It dealt in the trade of various commodities, including textiles, medicine, chemicals and building materials. Turnover in 1992 was ¥14 (US \$2.5) million, and the company received an AA bank credit rating. Shenzhen University did not appear in its name, and most people doing business with the company would not have recognized its links with SZU. From 1988 IFT required its teachers who taught foreign trade to have actual experience in foreign trade.<sup>190</sup> This policy was made easier to effect once the foreign trade company had been set up. The Company was the sole investor in three high-technology enterprises and ran a joint-venture garment factory. The Company has also ventured into real estate development and construction. It built the *Gao ke li* (literally high-tech profit, transliterated to sound like “Gold Quality”) Gardens, a 33-floor commercial twin towers located at the edge of the Shenda Village staff residence in the Futian District. Office rents from these buildings were expected to contribute greatly to staff welfare in future years.

## Rectification

By 1991 absentee management, student apathy and teacher disengagement had resulted in serious student discipline problems. Zheng Tianlun remained (until 1994) titular department head, but other leaders changed. Zhang Xi-nying, a teacher appointed as departmental Party secretary in 1989, wrote in 1991:

We have rectified department atmosphere and study atmosphere. In the past for many reasons, students were not willing to study. They played mahjongg, did business, had love affairs, and drank. Before 1989 the management of this department was chaotic. After the new leader group assumed positions at the end of 1989, rectification was accomplished under the leadership of the new Party Committee of SZU. We studied the relevant documents from the central and provincial governments. We practice stricter discipline for the teachers. We seriously handle some teachers' mistakes regarding absences, tardiness, early leaves, etc. We require teachers to be strict in class and set up a tutors' work system.

The new leadership installed a new teaching plan, which included 14 courses recommended by the World Bank and the SEdC. The plan, according to the leaders, was praised by experts from People's Bank, Shanghai Financial *Zhuanke* College, Nankai University, People's University, and the Chinese Academy of Social Sciences (CASS). In 1991 IFT opened up a *zhuanke* major in Securities to supplement the one in Foreign Trade that had operated for several years. This new major was "welcomed by the Shenzhen financial circles, and it aroused the interest of sister institutions." In 1993 *zhuanke* Securities enrolled 75 students although the plan had provided only 37 places. Another aspect of rectification involved establishing a consultant committee consisting of ten Shenzhen-based company directors and general managers. The committee helped the department refocus its task on training *rencai* needed by the SEZ. A further change "rectified the chaos in the department's financial management by regulating that the accountant and cashier should monitor one another." A host of regulations concerning teachers and students were implemented.

IFT took a stab at improving teaching, requiring teachers to monitor each other. Teachers were required to attend at least five classes of their colleagues. Before 1992 teachers were paid ¥10 (US \$1.80) per visit, but few visits had occurred. Then, the department changed tactics and adopted the stick rather than the carrot, or in Chinese vernacular, the hard rather than the soft approach (*ruan ying jian shi*). Teachers who did not visit col-



leagues' classes would be severely fined.<sup>191</sup> These visits, according to informants, had little effect in improving teaching methods.

IFT took advantage of its size and organized students into numerous extra-curricular activities. Through the student's Finance and Economics Association, lecturers were invited to speak on campus and students were organized to take jobs as caddies at a local golf club; the association offered free newspapers to students.<sup>192</sup> It encouraged students to publish, and it provided monetary awards for student research.<sup>193</sup> For several years students took recreational outings to the Daya Bay Nuclear Power Plant, for example. Party activities were important. In December 1994 and again in May 1995 student CCP members and probates went to Humen (Tiger Gate) in Dongguan, Guangdong, the spot where Lin Zexu's burning of opium precipitated the Opium War.<sup>194</sup> In 1991 the department won first place in SZU's sixth track and field meet. It won big in other years, also.<sup>195</sup> Sports was not the only recreational activity for students. Despite rectification of *xue feng*, many students remained bored with their studies. Several IFT students were involved in the infamous 4 May 1993 murder, including the victim, Li Haidong, a 1987 *daipei* student who had been expelled by the department. Even their students' involvement in the 1993 murder did not damage the department's reputation. By then it had become SZU's Teflon department.

## **Law**

In contrast with IFT, Law was a small, personalized department. It employed the smallest teaching force, who were fairly senior in rank and were the most senior in terms of age. Law took in fewer *benke* majors than any other department except for Mathematics, and it offered no daytime *zhuanke* program. It did, however, run a large night school program.

After the business majors (which took from both sciences and arts tracks), Law was the most prestigious arts department. It also ranked high among sciences students when, in 1995, it enrolled sciences students in the International Economic Law major. The *benke* graduates of 1993 expressed a high approval (or rather a low disapproval) of their education, second only to their peers in Architecture. This result takes on added significance given the fact that only 57% of all Law majors had selected SZU Law as their first choice when applying to college. Student's satisfaction can be attributed to small classes and close relationships with teachers, but also to the fact that

the curriculum was generally appreciated by students. Respondents to the 1993 graduates survey did not believe their education had been too practical. They gave the weakest response among majors to the statement that “education should be practical.” Taken together, these opinions suggest that they agreed with the thrust of their courses in terms of the theoretical/practical divide. Their curriculum, in other words, had achieved a balance that most other subjects at SZU had failed to attain. Law students, in general, respected their department’s leaders, who made efforts to find graduates good positions in the legal community. Representatives from legal bureaux and offices visited the department almost annually to talk with students.<sup>196</sup> The public’s perception that Law was a more defined subject area than Foreign Language or Chinese meant that its students had less difficulty in finding employment.

In 1996 the department offered two *benke* majors. One focused on Hong Kong Law to train specialists for legal research in governmental and public security departments, bureaux of legal inspection, courts, lawyers offices, and other institutions involving foreign affairs. The International Economic Law major had a slightly different focus, producing *rencai* who could undertake legal work for government and financial institutions, or work in legal offices involving foreign affairs, administration, economics, or trade.

*Hong Kong Law:* legal theory, the constitution, criminal law, civil law, criminal procedure, civil procedure, administrative law, administrative procedure, economic law, foreign economic law, international economic law, international court law, international private law, the legal system of Hong Kong, the Basic Law of the Hong Kong Special Administrative Region, Hong Kong business law, Hong Kong monetary law, Hong Kong company law, and introduction to U.K. and U.S. law.

*International Economic Law:* legal principles, the constitution, criminal law, criminal procedure, civil law, civil procedure, administrative law, international private law, international investment law, international monetary law, international technology transfer law, customs law, maritime law.

The Law Department’s success in juxtaposing theory with practice had much to do with the nature of its program. The SZU Law faculty was on the leading edge of legal theory in China; the subject was new and exciting; the intellectual excitement that teachers experienced created an environment that the students themselves appreciated. In China, as in Europe, law is studied immediately after secondary school, unlike in North America, where it fol-

lows undergraduate study. Given China's undeveloped legal system, law and the role of lawyers is not yet well defined. The law is subject to the Communist Party of China, and the "rule of law" as understood in many countries has yet to be established. The legal mechanisms that characterize English common law, as well as international law, are just now appearing in China. Civil actions and advocacy are still rare in the world's most populous country.

Law study at SZU does not resemble a law school education in the U.S. It is more closely akin to what an American pre-law major might entail, general in nature rather than a methodical study of case law. Most law graduates from SZU do not practice law after graduation and never acquire the necessary credentials to litigate or represent clients. Entering the bar in China requires passing a national exam that is offered annually around National Day, October 1. Only a minority of those who take the bar exam pass; preparation entails understanding and virtually memorizing about a dozen books. Law school education at SZU is not geared to passing this exam. The curriculum is not constructed for graduates to work as lawyers in litigation or client representation. Instead, they work for government bureaux, legal offices or enterprises, often reviewing contracts and interpreting laws and regulations passed by the various levels of government. The type of work they do is also done by non-law graduates. Much legal work in China involves the CCP; it is not surprising, therefore, that those with legal interests tend to be involved in politics; law students have a high rate of joining the CCP. In 1987, before it became fashionable at SZU to join the CCP, 26 Law students joined the Party and 30 served as probates. (Presumably, many Party members and hopefuls were night school students with full-time day jobs). The 1993 survey revealed that Law graduates saw themselves as the least cliquish, not a surprising finding given the small number of students in the major. Doing legal work involves interpersonal communications and relationships; one's work is facilitated by a large *guanxi* network. SZU law students had to go outside their circle of classmates to build their *guanxi* networks. On the 1993 survey, law students indicated they were individuals, and as a group they appeared in the upper cluster of departments in terms of individualism (along with the rest of the arts departments and Electronics). The students appeared to be idealistic; money was relatively less important to them than to their peers. They also belonged to the major where students least considered their classmates to be intellectuals. This finding is subject to various and conflicting interpretations, but one that seems valid is that law students viewed themselves as technicians. Like those who work with ma-

chinery or computers, law students operated inside the legal system, and their jobs were very much technical (hence, non-intellectual) in nature. Other interpretations of the data require the belief that law students were a cynical lot, but this was not validated by my interviews with about a half-dozen graduates of the department.

What separates the Law Department from many other academic units at SZU is that it maintained a steady course of development. Shenzhen government's first report on establishing SZU listed Law as the only major expected to take *benke* students its first year. This, of course, was changed as each of the first four departments, including Law, enrolled *benke* students in fall 1983. In April-May 1985 Law, with financial support from the Ministry of Law, set up a foreign-related economic law class and a Hong Kong law study course. The latter enrolled 50 students and was jointly offered with a Hong Kong organization. The department also offered courses in Hong Kong, which by 1988 had awarded 40 certificates in a course on Chinese foreign trade law. In 1987 the department was teaching over 700 students (275 *benke*, 572 part-time *zhuanke* night school students) and it offered two training courses for enterprise management cadres. The idea for expanding law beyond traditional *benke* programs was inspired, if not mandated, by the province's report to the State Council on SZU's establishment. This 1983 report, the endorsement of which created SZU, read in part:<sup>197</sup>

Since the establishment of the SEZ, we have suffered some losses due to the lack of understanding of the international market, Hong Kong economy and world economy, capitalist management, and *economic law*, so we badly need specialized personnel who are not easily produced by inland universities.

Some of Law's full-time *benke* students were part of Adult Education, and the night school/part-time students were highly regarded. Eight of nine students from the 1986 Law class who took the national bar exam passed it within six months of graduation. Two graduates from night school *zhuanke* successfully defended the PRC customs office at the Hong Kong-Shenzhen border against a suit brought by foreign investors.<sup>198</sup> The head and deputy head of Shenzhen's Industrial and Commercial Management Bureau used the knowledge they had acquired in their night courses to collect ¥10 (US \$2.7) million in bad debts. The department also participated with Fudan University in an economic law correspondence course for 2,800 students.

Law promoted students' involvement in the real world. From its early years, the basic philosophy of the department held that<sup>199</sup>

students as legal personnel should be trained to protect the interests of the state and people, to handle cases fairly and just, be eloquent, be skillful in handling interpersonal relations, act on the basis of facts, solve problems, and offer volunteer legal advice. Students should organize these activities by themselves, which is good experience for students.

Law was the first department to espouse Lei Feng-type volunteer activities (although at that time the model soldier's name was not specifically mentioned). On Sundays and holidays, students and teachers dispensed free curbside legal advice to passers-by from booths set up on downtown Shenzhen sidewalks. Law was also instrumental in setting up the Students Self-disciplinary Committee, which included a Student Court, run mostly by law students. The court served to mediate student disputes and punish those who committed rules infractions. Two teachers—one from Law and the other from the SZU CCP's Disciplinary Inspection Commission served as consultants to the court. A Law student was elected chair of the second Student Union in 1985. Law students' heavy participation in campus activities, however, was short-lived. Students from Management and other departments which had expanded their *benke* programs took over the organizations by 1987. In any case, student self-government was suspended in 1989; the form in which it later returned reflected tight control by the university administration.

Like most other departments, Law was the creation of a single individual, Professor Li Zepei. Li was influential on campus and served as vice-director of the School Affairs Committee, which Luo Zhengqi headed. Li strongly advocated expanding legal education, using channels other than the traditional *benke* approach. He also wanted to see a six-year undergraduate major, something that never materialized.<sup>200</sup> Law departments in China stress particular subjects, and Li chose foreign economic law to be his department's focus. Half of Law's main courses in 1987 concerned foreign-related legal affairs.<sup>201</sup> By 1986 the department removed traditional courses like forensics and reduced the hours devoted to Chinese legal history and legal developments in foreign countries. New courses were offered in frontier fields:<sup>202</sup>

international law, lawyer and notary system, SEZ law, Hong Kong law, contract law, banking law, incorporation, intellectual property law, international investment law, international technology transfer law, international finance law, international business arbitration law, customs law, bills and documents law, foreign legal suits, computers, foreign language.

In addition, attempts were made to alter the traditional teaching methods away from the duck-filling type which was defined by “taking notes in class, checking notes after class, regurgitating notes before exam.” Activities that resembled moot courts in U.S. law schools were encouraged. Teachers were required to audit one another, making Law the first department that put such a policy on record.<sup>203</sup> Teachers were also instructed to provide reading lists, give homework, and to lecture no more than one-third of class time. Teachers were to talk only about the key points, to organize discussions and discuss actual cases. Li was especially concerned that law teachers should have real world experience in handling actual cases. “A teacher who is unable to draft an economic contract cannot teach a course on contract law. How can those who do not know how to handle a civil case do a good job conducting that course?” Consequently, many teachers worked part-time for law offices, as legal advisors to enterprises, or on arbitration committees. The department itself managed two law offices. Despite heavy teaching loads (10 hour average in 1988 with some teachers putting in 16-18 hours), teachers were involved in research. The department’s major endeavor focused on the compilation of Hong Kong laws into an 18 volume series. Individual teachers took different topics and wrote books (six published in 1989 alone).<sup>204</sup> For its achievements, Law was selected by Shenzhen as an advanced work-unit in 1987, the first SZU academic department to receive such a designation from the municipality.

The Law Department created a niche for itself and did not apparently feel threatened by the fact that law was taught in other departments. From 1987 Economics offered a course on International Commercial Law, and Management taught contract law; in 1988 IFT added International Business Law, and Management added Economic Law. Perhaps because other majors began adding law courses, Law lost its uniqueness. Its student population fell: 77 *benke* students graduated in 1988 from the 1984 class; only 39 students were admitted as law majors in 1993. The department also downsized its night school *zhuanke* program from the high of 150 students, who graduated in 1988.

In 1989 the new administration appointed another teacher, Li Zhongwu, to take over Law’s helm, and Li Zepei spent most of his time with the Hong Kong Law Institute where he continued work on the 2.5-million character, 18-volume series on Hong Kong law. For the next several years, the department towed a politically correct line. Focusing on the “Party’s role as political core,” Li Zhongwu’s annual reports did not emphasize the study of law; his first report failed even to mention curriculum, pedagogy, or any as-

pects of legal study.<sup>205</sup> His second report drew attention to his own personal qualifications.<sup>206</sup>

I always follow the state's law, am honest and against corruption, lead a simple life, never take advantage of position for personal gains, and I am humble and open-minded, ready to accept different opinions. I always instruct students to become 'red and expert,' personally leading students to factories and rural areas for social investigation...In teaching attitude, I am always serious and prudent and am well prepared before class.

In 1991 three teachers retired from Law, and the department was downsized to a staff size half of what it had been in previous years. In the politically charged environment of the early 1990s, foreign-related law, even if focused on economics, became a sensitive topic. Legal education for students took on another meaning. Students were to be instructed to follow the law, and each freshman was given a copy of *Introduction to Law*, as required by the central government. As part of compulsory moral education, the Law Department offered a one-credit Legal Education course to all freshmen in their first year. This course was basically self-study, with several lectures given by political tutors; it was graded on a pass/fail basis and students needed a pass on the first attempt in order to graduate.<sup>207</sup>

In 1992 with the departure of the Wei-Wu administration, Law resumed its former direction. Li Zhongwu was removed as department head and reassigned to the Hong Kong Law Institute. The course on foreign-related law became in vogue again. In fact, in 1993 the course won the second prize for excellence in teaching at the national level; the university had funded it as a key university course. The province awarded Law first prize for its reforming legal education and training *rencai* about Hong Kong and Macau law. Six new teachers were hired, and student recruitment doubled from 20 to 40. The department cooperated with Shenzhen's Legal Bureau and Bureau of Commerce and Industry to train over 2,000 enterprise cadres. Thus, the department had recovered from the post-Tiananmen trauma. One of the outcomes of academic politicization in Law was the establishment of a strong student Party branch, which was one of only three student branches the university leaders awarded in 1994 among nine advanced Party organizations. The department itself was named an advanced work-unit by the university.

Politicization had taken its toll, however. In 1994 the Law department faced a severe shortage of teachers, caused by three retirements, four teachers' leaving for overseas study, and two teachers placing themselves on sick leave. Nevertheless, in the same year SZU officials were listing Foreign-

related Law as one of the subject areas (along with Architecture, SEZ Economics and Electronic Communications) in which it wished to grant masters degrees. Also, the university in December submitted the course, along with SEZ Economics and PASCAL Programming, for provincial consideration as a Guangdong key course, but only SEZ Economics was selected that year. International Law was not selected the following year either, although the Architecture and Electronics courses were both approved. Law was finally named a provincial key subject—the fourth for SZU—in 1997. As a key subject, International Private Law earned the department ¥100,000 (US \$12,000) in research funds. Professors in the department also received provincial “8-5” [Eighth Five-year Plan] funding to compare inland PRC and Hong Kong laws and municipal funding to compare Shenzhen and Hong Kong laws. The department’s research output was the second highest among academic units, up from fifth place for the years 1988-1992.

In sum, just as law in China has been closely linked to the CCP, so has been the fate of SZU’s Law Department. Trauma caused by post-Tiananmen readjustments, however, did not have a lasting effect, as legal study at SZU by 1989 had become a dynamic subject which was not deterred for long by politics.



**Story 8: Recruited Teacher Zhang Xiaoli**

*I have often thought that I was just the wrong person in the wrong place at the wrong time. I arrived at Shenda on 22 July 1989 to take up my teaching post. One of the first things I did when I arrived on campus was to go to President Luo to tell him I was on board. Luo had come by the Personnel Office at the time I was being interviewed for the job in the spring; his interest in my coming to Shenda was one of the main reasons I decided to move south from what would have certainly been a comfortable, predictable career. At that time Luo had told me: don't come if you can't take the risk. That fateful Saturday Luo and his wife welcomed me to their apartment. While we were having tea, he received the phone call that informed him of his fate. He learned he had been fired. I quickly excused myself, selfishly worrying that my own job was precarious. As if he were reading my mind, Luo told me to call the head of my new department and immediately sign a contract. Your job will be secure, he said.*

*I had earned bachelors and doctors degree in engineering from one of China's renowned technical universities, where I continued to teach from 1985-1989. I alone was selected among all the year's graduates to teach in our department. It was expected I would remain there until I retired in 30 years. I enjoyed teaching, although I was impoverished at least by the standards of urban workers. If I had stayed, I would have become a lecturer that year [1989], perhaps an associate professor in 1995 and a full professor by the turn of the century. My salary was about ¥200 a month; I was able to supplement this by teaching an extra course and by publishing in journals. I received about ¥100 for every scholarly article I published; the fear of worse poverty was precisely what made me become so well-published.*

*I took Luo's advice and secured my contract. That was a wise move; I met teachers who had not signed contracts, and they were never permanently hired because the new leaders refused to honor commitments (even some signed contracts) made under the Luo administration. Anyway, I was at Shenda and there was no turning back, yi wu fan gu.*

*You asked me to say a few words about Luo Zhengqi. In China we have a short-hand way of describing a person's worth or character. A long (dragon) is someone who is strong, possessing high quality and integrity and essentially a good person, not like the European dragon that is often depicted as evil. The opposite term is chong (worm). The character*

*rhymes with long, so if someone is referred to as a long, calling him a chong usually brings out a chuckle. Luo Zhengqi was a long. You can judge for yourself what his successors were [chuckle].*

*My introduction to Shenda did not come through classroom teaching. The first month of my new job was devoted to full-time, organized political study. During both morning and afternoon sessions, I along with all staff was required to attend re-education meetings, led by fellow faculty members. It was a time for day-dreaming of a brighter future than China's academics could obviously offer me. It was during these hours that I contemplated giving up on China altogether and trying to emigrate. I was not sure whether I could get authorization or obtain scholarships, but I was determined not to let my mind rot with the infusion of tired political ideas about pollution from the West and the great potential of socialism. If socialism is so great, how come it has been a mess for the last four decades! Political study ended as suddenly as it had begun, and I quickly forgot what I was supposed to have learned.*

*My own political credentials were impeccable, but the new leadership insisted on trying to intimidate me. Party officials at Shenda examined me on five occasions, trying to ascertain if I was a Luo spy and counter-revolutionary. Fortunately, I had a good family background, something that had protected me during the Cultural Revolution. My grandfather had been on the Long March with the first generation leaders. I had joined the Party as an undergraduate and during the disturbances of Spring 1989, as a young faculty member I had worked with students to ensure they did not break any laws or get into trouble with authorities. Our city did not suffer the tragedy of Beijing, and Shenda's new political cadres could not bring a case against me. I offered to resign if that was what they desired, but my resignation was not apparently what they were after. They just wanted to intimidate me so I was made aware of who had power (them, not me). I am not out-spoken politically; I think I know the difference between right and wrong, and I respect the CCP for its good works. I am not ashamed of being a Party member, even after June Fourth. I was willing to serve in the CCP in order to change and make China a better country. It seems that my CCP resembled the CCP of Luo Zhengqi. And since that fateful Saturday Luo's CCP was now dead.*

*I was torn between emigration and accepting sycophantic submission to political authority, and this conflict continued to haunt me for several years. I figured I would delay going abroad and would become an obedient cadre. I still thought about this issue a lot, in all the senseless political*

*meetings that I was required to attend as a Party member and “next generation leader.” I had at least three or four meetings each week; I was able to do no research; I was hardly able to keep up with my teaching. My department had assigned me twenty hours of teaching, including lab supervision. This was double what I had had in the North. As the most recently hired member of the faculty, I had no choice but to accept the assignments. But I found I had free time. Shenda students almost never asked me for help outside the class. Few would ever visit me, so time outside classes became my own. Previously, I probably spent 10 hours a week working with students. In contrast, Shenda students were too busy. They had part-time jobs and extra-curricular activities. Teachers were busy, too. Instead of research, many of my colleagues were working for enterprises, engineering products for the market. I could have done this, also, but I preferred theoretical research rather than trying to make, for example, a better engineered and more marketable widget. But all these became academic concerns, displaced by the university’s decision to send young cadres like myself to do grassroots investigation. In 1991, I was suspended from teaching for an entire semester and sent to a rural town in the economic zone, where I was told to observe “socialism with Chinese characteristics.” Unlike most of my colleagues, I was able to turn what could have been a total bore into productive academic research. During my time in the field that was not taken up with seemingly endless meetings, I launched a little community-based engineering project that earned me four published articles. Social investigation, for me at least, was not as bad as it was for others.*

*Personal finance remained a problem. I had to make a decision immediately. Was I to go abroad, where I could pursue scholarly studies and live a more comfortable life, or was I to remain at Shenda, where I could only be a poor scholar? I looked around me. My colleagues were not poor; they were all moonlighting. I started to do the same. Little by little, I began to take on outside work. In a day working on a project for an enterprise I could earn the equivalent of what I was paid an entire month at Shenda. I stopped writing academic articles, for I realized that promotion was given through different channels. I had come to one of those turning points in life: yi wu fan gu, meaning once a righteous decision is made, there is no turning back.*

*Then, I was brushed by a stroke of luck. A campus-run enterprise needed a senior engineer—one who, like myself, spoke English and German, and could deal with foreign clients. This enterprise had a certain*

*fixed-staff quota, which meant that if I transferred to the enterprise I would retain all the welfare benefits that I currently enjoyed. When the time came, I would be able to buy a flat that was greatly subsidized by the government. Thus, I abandoned an academic career. In 1991 I had been promoted to an associate professor and I could carry that title with me to my new job. Since I took up the new post, I have met many intellectuals in China who are no longer scholars and teachers. China is a big country; it can survive.*

*Last year I visited my former department up north. My Ph.D. tutor, one of the world's eminent scholars in her field, remarked that she had not recently seen my name in publications. She thought I must be working on a book. I told her what had happened to me over the past six years. I knew she was disappointed; she said: "You could have been a long." Pretending to misunderstand her, I chuckled: "Yes, a chong."*

## **Management**

When Management and Economics divorced in April 1985 to form two separate departments, there was no consensus on what direction Management should take. In contrast, Economics merely continued its traditional courses like statistics, accounting and finance, traveling down a path that did not require curriculum revisions. The study of management in China at that time, however, was not as well established as economics. Rather than adopt western curriculum models, such as those in undergraduate business schools, Management continued to offer the two *benke* programs that had been part of the former Economic Management Department—Industrial Enterprise Management and Commercial Enterprise Management—and it added a *zhuanke* program in Hotel Management. The division according to type of enterprise managed was a simple solution, the one used in inland universities at the time, and was basically consistent with Soviet-inspired specialization. Such a set-up did not necessitate a conceptual investigation into the nature of the management field, a diverse subject that includes areas such as personnel management (psychology), financial management (economics and accounting), and product management, the latter involving marketing and product development (statistics, survey research, sociology, etc.). Not addressing issues concerning the knowledge structure led to a uniformity in the curriculum. The courses for those who studied how to manage industrial firms were basically the same classes taken by those who studied how to manage commercial firms. The curriculum of each major was a hodgepodge of courses that were structured into three groupings: public courses that both majors took, major courses that were particular to each major, and optional courses that either major could choose. The curriculum for 1987 follows:<sup>208</sup>

*public courses:* theory of economics, management theory, management math theory, markets, computer, management information systems, foreign related enterprise management, personnel management.

*major courses:* industrial enterprise management, commercial enterprise management, scientific technology management, financial management, management engineering, international enterprise management, market prediction and decision-making, accounting, statistics.

*optional courses:* foreign trade, management psychology, trans-national companies, international settlement, long-term investment decision-making, public relations, commercial psychology, trade negotiation, contract law, investing, insurance, tourist economy.

The courses in 1987 were structured so that they aligned into the SZU credit system, discussed in Chapter Six, that permitted optional courses within a major. There was no apparent attempt, as judged by the result, to arrange courses so they were part of a rational knowledge system, however. Management students were extremely dissatisfied with this orchestration. The very first students, those admitted in 1983, complained about the seemingly arbitrary distinction between commercial management and industrial management. They also felt that the teaching content was too general, like an “all-purpose tonic,” and that this deficiency would hamper their finding jobs.<sup>209</sup> When new department leaders took office in November 1987, the system was changed. Beginning in 1988, Management offered only one *benke* major called Enterprise Management, as well as a *zhuanke* in Industrial/Commercial Management. At the same time, the new leaders established eight major directions: production; commerce and trade; investment risk; real estate; enterprise finances; hotel and tourism; marketing; and foreign-related enterprises. Two years later, the department dropped Industrial/Commercial Management altogether, continuing to offer Enterprise Management and adding Public Relations Management and Tourism Management (*zhuanke*) for 1990 only. Tourism was not in the official state plan, and it was abandoned the following year. From 1993 Real Estate Management was offered, along with Enterprise Management.

Public opinion—complaints by *benke* students as well as the opinions of secondary school seniors who “voted” by their choice of majors—greatly influenced the department. In 1986 the recruiters faced difficulty in finding qualified students who wanted to study Industrial Management, whereas Commercial Management was over-subscribed. The state plan that year had called for 40 students in each major, but Industrial Management attracted only 26 regular *benke* students who scored above the threshold on the entrance exam. Thirty students were enrolled in the *zhuanke* program (with its lower entrance requirements), but these were all *daipei* and were beholden to their employers which had sent them to study at SZU. For each year from 1983-1987 Management students found commerce more appealing than industry, and the former major consequently enrolled 20-30% more students than the latter. The *zhuanke* Industrial Management major did not have the same problem. In 1987 it was over-subscribed and had as many students as the *benke* Commercial Management major. By 1988 the pattern suggested that students who could make choices (as opposed to their *daipei* peers) wanted to be the future leaders of business, not factory managers. Commerce was perceived as more desirable than industry.

**Table 4.17: Enrollment in the Management Department, 1988**<sup>210</sup>

percent	type of course (ban)	duration (years)	notes
15.4	<i>benke</i>	4	B.Econ. degree track
3.9	full-time <i>zhuanke</i>	2	certificate only
7.5	Hong Kong class	2	
32.3	<i>suidu dazhuan</i>	2	“accompanying study”
14.5	<i>kaifang dazhuan</i>		“open,” 5 types
3.3	hotel management <i>zhuanke</i>	2	
6.0	<i>ganbu zhuanke</i>	2	“cadres”
13.5	<i>yieda zhuanke</i>	3	“night school”
1.2	<i>dazhuan qidian benke</i>		1 <i>benke</i> class with <i>zhuanke</i> foundation <sup>211</sup>
2.1	graduate students		including 5 masters

### Multiple delivery channels

More than any other department, Management experimented with different channels for offering instruction. The late 1980s saw a proliferation of management courses and programs. By opening up different subjects and course types, the department attempted to blaze its own trail, uncertain “whether the future be bright or dark, whether the road be straight or curved.”<sup>212</sup> In 1988 the department offered 124 in-plan (*benke*, *zhuanke*) courses with an average teacher work load of 15.3 hours weekly. The majority of the department’s over 2,900 students were not in-plan, the first two categories in Table 4.17. Management accounted for more graduates in 1987 than any other department. That year, it graduated 90 students in its full-time *zhuanke* program (tied with Chinese for first in size) and 63 graduates from night school *zhuanke*, second to Law in size.

The class of Hong Kong students was the first part-time study of its type offered to Hong Kong residents by a PRC university. Students traveled to SZU for weekend classes. The first enrollment, in October 1987, involved 120 students, many of whom were management staff in Hong Kong enterprises. The course was intended to teach Hong Kong managers about the Mainland’s economic, legal and management systems, as well as the operations of PRC work-units. Only 60% of applicants passed the admissions test in 1987 (this figure lowered to 25% in 1995). The second recruitment took place in July/August 1988. The Hong Kong class was suspended from 1989 “due to certain reasons,” in the words of a Shenzhen newspaper.<sup>213</sup> This is

journalistic code for post-Tiananmen political rectification of education. In 1993 the program was resurrected and lengthened. In November 1994, 30 students received a certificate after four years of study at a ceremony attended by 200 guests.<sup>214</sup> After almost a decade, the course had become a university fixture, and in October 1995 another 65 new students were enrolled. By that time, the 1987-1989 classes had completed their study. Of the 600 students who had enrolled, 144 had graduated. Despite an attrition rate of over 75%, the program was praised in the local Party paper in 1995.<sup>215</sup> This program had endured despite what the paper called “insulting articles against SZU by a certain magazine,” presumably referring to the exposé on corruption at SZU that appeared in *China Spring*, a Chinese-language magazine published in the U.S.<sup>216</sup> There was no new intake in fall 1996; it was unclear at that time whether the program would be revived at some future date.

The success of the Hong Kong program (as measured by enrollment rather than completion or degree conferment rates) was due in part to an effective recruitment, resulting from advertising. The Hong Kong partner was the Hong Kong Management Association (HKMA), a public service company with considerable experience in external degree programs. HKMA had helped to design the program so it appealed to a Hong Kong audience. Completion of the program earned the student a Bachelor of Economics (Business Administration). The course was one of many offered by HKMA and the role of SZU was downplayed (“in association with Shenzhen University, China”).<sup>217</sup> Entrance requirements were flexible and below those demanded of students in some Hong Kong tertiary institutions.

The hotel management degree, listed in Table 4.17, was practice-oriented. The department operated a hotel under contract, which provided management positions for five teachers and over 20 students. It undertook management studies for medium-sized hotels (those with 113 and 130 rooms) and a feasibility study for a 320-room, five-star hotel.

The cadre graduate class targeted senior management personnel from Shenzhen companies. The SZU Management Department itself lacked a sufficient number of qualified teachers to run the course, so it employed visiting professors from the Beijing Economic Management College, Zhejiang University, and South China Polytechnic. Given the department’s own admission that it had a “limited quality in teachers,” employing outsiders allowed Management “to improve teaching level by standing on other’s shoulders.”<sup>218</sup> In 1988 Management had reached agreements with overseas institutions to offer joint courses that would result in degrees conferred by both institutions.



The first batch of in-coming students for these programs was scheduled for the second half of 1989. This program was canceled in the wake of Tiananmen.

### Departmental management

Management was subject to the same political influences that manifested themselves in the post-Tiananmen removal of several Luo Zhengqi tainted appointments. The department head, Feng Shicong, was replaced with Yu Zhongwen, the man who had been the SZU Party Committee vice-chair under Luo as well as one of Luo's presidential assistants. Although Yu had publicly supported Luo's reforms, he had always hedged his bets and was never the staunch advocate of campus political reform that Luo had been.<sup>219</sup> After Luo's removal, Yu achieved political correctness through self-criticism and by condemning the very reforms he had a few months previous supported. Yu's about-face ingratiated him with the new leadership, who had commanded little respect upon their arrival at SZU, and Yu was allowed to retain his position as CCP vice-secretary, until Cai Delin arrived to assume it. Yu headed Management for more than a year, during which time he closed most of the department's side-courses. His annual report for 1990 is a testament to political correctness.<sup>220</sup>

We focus on learning from Lei Feng and doing good deeds...The 1989 students cleaned up during holidays and Sundays...The Youth League organized students to clean up the kindergarten...In entertainment, we raised ¥5,000 [US \$1,600] for student activities, won the singing contest, opera contest, and swimming competition...Many student applied to join the Party, and 15 were selected as Three Good students and good cadres...

Yu's report failed to mention any substantive developments in curriculum and course offerings; his writing was characterized by a conservatism often adopted by academics who fear that their words might be used to harm them in future political movements.

By the time Yu was removed (he later was transferred to become president of Shenzhen Polytech), the department was in disarray. Chen Guoquan, the deputy head, was elevated to top post, and he vowed to establish stability. Chen, a graduate of Xi'an Jiaotong University, had conducted research in both Japan and the U.S. and had been a masters tutor at one of the nation's leading institutions, the Science and Technology University of China (Beijing). He faced a difficult task. Recruitment had so dropped that the

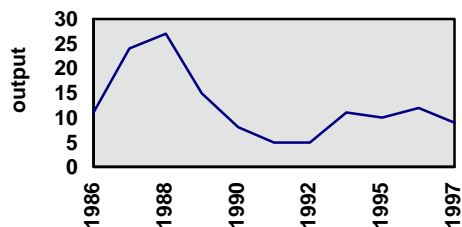
teaching plan had been revised seven times after 1990. Arguing that the best could often be an enemy of the good, Chen “dared not say that a good and complete teaching plan has been worked out. If we find something unsatisfactory, we will not revise further until we try for one semester.”<sup>221</sup> Chen exercised a managerial style that included his listening to the opinions of others, a feature that in the early 1990s did not characterize most leaders of SZU’s teaching units. Teachers in Management were asked what they wanted to teach, rather than being given compulsory assignments without notice.

Chen’s criticism of his immediate predecessor falls between the lines of his 1991 report:<sup>222</sup>

Unification is important among intellectuals. Inevitably conflicts exist in a work-unit. The key is how to handle conflict. We are doing all we can to achieve unification of the work-unit. A survey reported that no one really wants to leave our department, but many staff expect the school to give them freedom as opposed to their just hoping that they can get something from their work-unit. The affairs of the *danwei* are not the issues they are concerned about. As long as they can finish their given jobs, get along with their colleagues, receive basic payment adequate to cover a low level of expenditure, and take advantage of the department’s conditions to do their own thing, they are satisfied. Therefore, we are far from achieving unification in the real meaning. Some staff regard themselves as having no career; they experience set-backs and do not know where to spend their energy. In these cases, the teachers themselves are partly responsible. But we leaders are also responsible for their not doing a good job...We should not give orders in the morning, just to rescind them in the evening.

Chen faced the same dilemma confronting other department heads: how to increase teachers’ payments without polluting scholarship and academics by offering an excessive number of side-courses. Management had experienced greater teacher disengagement from research than any other academic department. Publications had declined dramatically (see Figure 4.6). Teachers of *benke* and *zhuanke* in-plan courses were paid lower than those who taught training classes. In what would become a model for other departments to follow, Chen proposed redistributing some of the income from side-courses into the bonuses of teachers who taught the in-plan courses. In some respects, Management was an average department—slightly larger in size, with slightly lower ranked and slightly older teachers than the norm—and a redistribution scheme might face better odds in this department than in those with skewed distributions of age or rank. In any case, Management was a relative

**Figure 4.6: Management  
Department research output<sup>223</sup>**



well-off department, given income generated from all its side-courses. In 1993 each teacher was given a personal 386 computer. Over three years, the Management library, which covered 82 m<sup>2</sup>, spent ¥25,000 (US \$4,400) to buy publications. Its collection included 12,000 Chinese books, 8,000 foreign-language books (compared with 1,500 in the FLD) and 135 periodicals.

Chen encouraged side-businesses, especially through the various teaching channels, because “without side-business then the department has no income and even normal teaching cannot be done...we encourage practices by market mechanisms. We must raise course fees to discourage teachers from outside work. If students cannot afford raised fees, then we cancel the course.”<sup>224</sup> Teachers who did not have their hearts in their teaching saw their income drop dramatically.<sup>225</sup> Management also attempted in vain to set up a consulting firm, but according to Chen, this endeavor failed because faculty members did not see its value. In the department’s firm, teachers worked in return “for a dinner and some thanks,” and Chen suggested that salaries were required to establish its worth. Individual teachers offered consultancy, but as with FLD, they were not able to work together.

Despite these problems, Management was a department that was itself often well-managed and run in a highly transparent fashion. It was the only SZU teaching unit that produced a brochure for SZU’s 1993 tenth anniversary. An 83-page booklet described the department, its teachers and their research. Detailed descriptions for each course covered 52 pages.<sup>226</sup>

In May 1994 Feng Shicong, who had been ousted when Luo Zhengqi fell from power, returned to head the department. Chen went back to being deputy head, making Management the only department in which such a return to power had taken place. It was also one of the few departments which witnessed a cordial administrative shift in which the former leader retained a

high position. Feng was a respected academic who had written an international trade text book that was used in IFT, a rival department. He publicly embraced “fairness and transparency,” and as department head vowed to practice democratic centralism.<sup>227</sup> Side-businesses were further expanded, although care was taken so that they did not hinder *benke* programs.<sup>228</sup> A *zhuanke* Industrial/Commercial Enterprise major was offered at the new branch of SZU Adult Education located in Longgan District and an administrative management program in Cuitong, Baoan District. From 1995 the department cooperated with the Management College of the Electronics, Science and Technology University of China to offer courses to 50 graduate students.<sup>229</sup>

During all the political and administrative commotion within the department, Management students nevertheless received an education that was the most practical of the business majors. The Enterprise Management major intended to “train practical managers with a solid theoretical foundation and foreign language level, familiar with modern management skills, computer technology, and enterprises procedures, with the ability to discover and solve actual problems.”<sup>230</sup> The Real Estate major was designed to produce specialists to work in real estate development, administration, investment, evaluation and transactions. The *zhuanke* Tourism graduates were expected to work in hotels and various tourist enterprises and hotels.

*Enterprise Management (Industrial and Commercial Enterprises Management):* Marxist economics, western economics, principles of management, competitive forces in enterprises, marketing, management of industrial enterprises, industrial and commercial accounting, practices of international trade, study of commodities, management of commercial enterprises, management of enterprises’ finances, organization and behavior, management information systems, management of multi-national companies.

*Real Estate Administration and Management:* administration and management of real estate, real estate economics, investment analysis of real estate, price and evaluation of real estate, real estate laws, real estate management, management of ownership, financial management of real estate, construction drafting, housing construction, real estate marketing, real estate finance.

*Tourism Management (zhuanke):* introduction to tourism, tourist culture, introduction of hotel management, management of hotel halls and rooms, hotel food, hotel marketing, hotel accounting, specialized English, nutrition and sanitation of food, tourist psychology.

## Students

Over 79% of the freshmen who entered SZU Management in 1989 had selected it as their first choice. Secondary graduates who came to Management had lower scores than those in the other two business majors. By the time they graduated, as indicated in the 1993 survey, they were fairly dissatisfied with the education they had received (fifth from the bottom in terms of overall student satisfaction). Over time Management's placement among majors, as judged by exam scores for both arts and sciences, dropped perceptibly, if only slightly (see Tables 4.1 and 4.2). In arts, entrance scores for Management majors remained above those of Chinese and FLD, but below Law. In sciences, they were above Mechanical Engineering and Chemistry but below other subjects that took in sciences track students. The students in this department ranked the highest in terms of viewing money as important in the job. Party work was undertaken in earnest by the students, who received SZU's acknowledgment in 1994 for running an advanced Party organization. Field trips taught them "vivid socialist education lessons."<sup>231</sup> By 1995 7.5% of Management Department students were CCP members. The Youth League branch was also active, organizing academic field trips.<sup>232</sup> The 1991 *benke* class of Enterprise Management was awarded advanced class status by the province. Students also ran the Management Association, which invited guest speakers, including senior management personnel from the local McDonald's Restaurant franchise.<sup>233</sup> The student association's ties with McDonald's enabled its members to obtain training at one of the franchise outlets, and in 1992 the fast-food giant gave four scholarships totaling ¥5,000 (US \$910) to outstanding SZU students in management.<sup>234</sup>

According to the 1993 survey, students in Management were more satisfied (actually less dissatisfied) with their SZU education than were other business majors. In fact, these very graduates helped set up a Management alumni association a few months after they left SZU.<sup>235</sup> Students in interviews suggested that Management classes were more interesting than their counterparts in Economics or IFT. All Management faculty members who held senior qualifications taught, earning the department an "A" rating for this item on the 1995 accreditation index. Nearly 86% of all teachers held graduate degrees in 1995, earning the department another "A." Teaching performance was also rated high. All in all, Management came out near the top in the 1995 accreditation report: 10 items won "A," 10 "B," and one "C."<sup>236</sup> Management was one of five SZU teaching departments that was designated an advanced work-unit. Students in Management tended to be

more actively involved in organized extra-curricular activities than students in smaller departments. They were also given a larger say in student affairs than in other departments. The department hired six student CCP members to serve as tutors to freshmen, “breaking the convention that only teachers can be tutors.”<sup>237</sup>

## **Mathematics**

The Mathematics Department was set up in November 1985 along with Chemistry and Physics. It was founded by Professor Shao Mingfeng, who had been recruited from Qinghua University by President Zhang Wei. The department began with 17 teachers and one part-time statistics professor. It was set up quickly, and many of its first teachers were hired without interviews, with their first six months of work during the probationary period substituting for an interview. The initial leaders admitted that Math had an unclear direction. Inland and famous departments of math stressed high technology in applied math, and their graduates worked on state-level and national defense projects. “Shenzhen does not need students like this,” the department’s first report said bluntly.<sup>238</sup> Right from the beginning, SZU students who enrolled in Math feared difficulty in finding jobs, and they wanted to transfer to other departments. The department quickly adjusted its teaching plan to emphasize the use of computers in modern management. Mathematics offered courses designed to give students both theoretical and practical training in modern applied mathematics:

math analysis, analytic geometry, linear math, probability and statistics, optimization, systems engineering, computer language and programming, economic prediction and decision-making, economic quantitative analysis, mathematical economics.

In a subsequent revision of the plan a few theoretical courses were abandoned. Some teachers felt that statistics as taught was too theoretical. Generally in China, statistics belongs with either math or economics, depending on the policy of the individual university. In 1988 the statistics courses went over to Economics to compensate for the latter’s losing its trade and finance curricula to the new IFT Department. The determination to move statistics to Economics was facilitated by Zheng Tianlun, the vice-president originally from Economics. Math, at the start, was not allowed to teach computer

subjects, an area restricted to Electronics or the Computer Center. This restriction was overseen by the other vice-president, Ying Qirui, who at various times headed Electronics and the Computer Center. With no one at the highest levels of the SZU administration to fight for the Math Department's interests, statistics was simply taken away from the department.

Never during SZU's history has the department been called simply Mathematics. It was established as Applied Mathematics. Then in 1988 it changed its name to Soft Science, which was "not only a change in name, but a change in direction, training method, job direction for graduates, and research."<sup>239</sup> The name change was intended to imply that the department incorporated both the natural and social sciences and used mathematical theory/methods and computers. The teaching staff were especially eager to get involved in areas that might in the U.S. fall under the management rubric, such as business forecasting, optimization, decision-making and organization theory, employing techniques such as statistical analysis, econometrics, and modeling that were not represented in SZU's largely non-quantitative business departments. Several professors specialized in "economic management engineering" and computer applications. These grand aspirations, however, were dampened by several factors. Math had a small student population, something which limited the diversification of courses it could offer. Equally important, its instructors were busy teaching non-majors. Mathematics was needed as a service department to teach the required math courses for the engineering, science and business departments. Although Math had doubled its staff by 1988, SZU's enrollment had also expanded and math teachers were in great demand all over campus. Adult Education, which did not offer a math major per se, also required math teachers. Individual math teachers were not assigned exclusively to teach only majors or non-majors, as was the case with English teachers in Foreign Language. Some of SZU's best math students have been in departments other than math, and teaching non-majors required just as qualified teachers as did teaching majors.

In 1989 Math changed the name of the *benke* major from Applied Mathematics to Economic Information Management, a move supported by its teachers at staff meetings. Math, computers and economic management each accounted for one-third of the teaching hours of courses in the new major (excluding public courses such as College Chinese, Public English, and physical and moral education). This new major obviously overlapped the emphases of the departments of Economics, Management and Electronics. In justifying its change of direction, Math presented its case in the university's internal journal, *Shenda Tongxun*. In an unsigned article, the de-

partment argued that the major was set according to social demands; in other words, it was what the public wanted.<sup>240</sup> Overlaps between disciplines were natural and should not be considered a problem, in the department's view. Examples from famous Chinese universities were presented to booster the argument: the Department of Economic Information of People's University had been founded by a group who had studied math and programming; many of the teachers in Fudan's Management College came from mathematics; the Economic Information Department of Liaoning Finance and Economics University was founded by mathematicians, and so on. Management science departments do not conflict with economic management departments in the same university, the article argued, because the latter takes from the arts majors (which actually was not the case at SZU because Management took students from both tracks). In any case, the major was set up. *Benke* majors in Economic Information Management were "trained in software development, in management information systems, in decision support systems and in analysis systems and were trained to perform other management duties in various enterprises and economic management departments."<sup>241</sup> Graduates from the three-year *zhuanke* program, set up in the early 1990s, were trained to become "general data processing specialists who master basic computer software technology, are familiar with modern economic management theories and who can proficiently use computers to perform general data processing."

*Economic Information Management*: C-language programming, data base structure, micro-computer theory and combined programming, control system, data base and application, information system analysis and design, planning, economic statistics, decision methods and applications, methods of computation.

*Economic Information Management (zhuanke)*: micro-economics, international finance and trade, linear planning and networking, principles of accounting, fundamentals of computer application, C-language and data base structure, DOS and analysis, connection data base, Foxbase software, introduction to MIS, economic forecasting technology.

The new math major seemed to be what the public (or at least some secondary school graduates) wanted. After the change in major, Math enrolled students with good exam scores which, although below the threshold for Architecture and most SZU business majors, were above the scores of Enterprise Management, Physics, Chemistry and Mechanical Engineering. Still,



the department experienced an outflow of five students between 1988 and 1991, but this was an improvement over the mid-1980s when almost every student wanted to leave the department. In 1985, for example, only one secondary school student had chosen SZU Math as a choice of major. Only 48% of the 1989 entering class had selected SZU Math as their first choice. By 1991, when 20 students were recruited, four-fifths had selected Math for one of their selections (10 as first choice, 6 as second).<sup>242</sup> Students found the curriculum somewhat demanding and interesting. Satisfaction for 1993 Math graduates ranked fourth from the top, despite the department's higher than average fail rate. Forty percent of these students, more than in any other department, felt that their education was too practical, a fact that was especially ironic given the department's strong conviction towards practice and away from theory.

Given the responsibility of teaching all math courses at SZU, Math remained largely a teaching department, and annually it placed near the bottom in research output. This accounted for Math's slower promotion rates; in 1994 the teaching staff were of average age but their average rank was below the norm for SZU. The opportunities to do research were swamped by continuous teaching demands. Math teachers taught all science department students, who were required to take six hours weekly of Advanced Math during their freshmen year. Students in Economics, Management and Architecture were required to take a slightly different course for four hours weekly. In addition, in 1991 Math offered several side-courses, including one in cooperation with the Nanyou Training Center, located just off-campus, which were designed to help students pass the national adult education entrance exam (over 50% of the students in this course passed the exam, the highest such passing rate reported at SZU). In the mid-1990s Math offered various classes, including English language training. It opened up a *zhuanke* major in the early 1990s.

Despite heavy teaching loads, Math continued to be the poorest teaching department in terms of income. The teaching force was not stable, with about one-third of its teaching staff leaving for overseas study and others changing departments within the university. Regulations on work load favored math teachers, who were paid 130% more than those teaching regular courses without homework, but this additional income paled in comparison to what other teachers earned through side-businesses. Math's computer lab was inadequate (Its 20 AT-286s, one AT-386, and 10 PCs became out-dated soon after their purchase in 1991). Math's teachers received the lowest department dividends of any teaching unit. In the mid-1990s, side-businesses

took on added importance; concerns over financial irregularity resulted in the removal of one teacher responsible for handling side-courses. To earn income the department joined up with a local communications company to develop software for managing phone calls. Other applied research included developing a management information system for a private company, a Chinese Internet platform, and an e-mail system for Shenzhen city. The SZU administration put in funds to upgrade laboratory equipment. The department's teaching lab by 1995 had 30 486-type computers, three 586s and a local area network. The research lab housed three 486s and four 386s.

Long teaching hours and teachers' general dissatisfaction with their low income negatively impacted the quality of teaching and learning. The SZU administration recognized the problem by 1992 when it reported the "shocking" fact that on a unified advanced math test for Guangdong, SZU had scored at the very bottom.<sup>243</sup> In March the following year, a teacher from Academic Affairs, along with a reporter from the university's radio station, examined math teaching in science and engineering departments. They reported that 60% of the students felt that math teachers failed to adequately correct homework, which they also believed was insufficient in quantity. Students complained about a lack of reference materials and teachers' lack of preparation. A summary of the report was circulated around campus via *SZU News in Brief*, with a promise by the Math Department's leaders to improve the situation.<sup>244</sup> Math, whose teachers had been auditing one another for two years, got the message and initiated additional reforms.<sup>245</sup> Results on unified tests improved over the following years, but even by 1996 performance was still considered poor.<sup>246</sup>

Math's role as a service department took on added importance as SZU prepared for the 1995 accreditation. From the early 1990s, SZU leaders had required the department to organize an annual school-wide advanced math tournament, one of about 30 academic contests that took place at SZU during every school year.<sup>247</sup> Teachers had also compiled a textbook of exam questions in advanced math. The year 1994 marked the start of a university-wide advanced math exam, in which students could participate in groups or as individuals.<sup>248</sup> That same year the university required that sciences track students, in order to graduate, pass a unified advanced math exam. By the fall of 1995, Math was in an excellent position to assist in the November accreditation by preparing students for possible testing by the accreditation review committee. Several groups of students were expected to receive tests, but it was not known who would be tested on what subjects. It was fairly certain, however, that math would be one of the subjects tested. The Math

Department was instructed by the university leadership to prepare all students for the possibility of being examined in advanced math. For their part, the entire math teaching staff started to prep science students several months in advance of the accreditation. The previous year's material was reviewed in three to four sessions per week, lasting 2½ hours each. Training classes were set up in the afternoons and evenings, during which sample questions and solutions were offered. Ten days before the scheduled accreditation review, SZU leaders were "informally" told which specific groups of students were to be tested. The school-wide math classes immediately stopped, and all focus was put on the second-year students in Applied Physics, the class that had been selected by the SEdC to take the advanced math exam. These students stopped all their other study and devoted full-time to preparing for the Advanced Math tests. Whether the intense preparation paid off is unknown; in any case, these students obtained an average score of 73.4 and a passing rate of 88.23%. For their part in the performance, Math teachers received bonuses for the students' good showing. And, of course, SZU passed the accreditation.

### ***Mechanical Engineering***

Mechanical Engineering (translated literally as Precision Machinery and Instrumentation) was part of the second group of academic departments, formed at SZU's first anniversary. Its first head, Zhao Yijun, had been recruited personally by his former teacher, Zhang Wei. Zhao also served as deputy head of the School Affairs Committee, representing science departments.

The department first recruited night school students in 1984 and offered a *benke* major, Precise Electronic Mechanics, the following year. By 1986 it had 180 students and was in the process of building four laboratories in the Science Building, which was completed in 1988. These labs covered a floor area of 1,029 m<sup>2</sup>. The department was one of the first in China to offer a Computer Aided Design (CAD) course. It saw its larger role as serving SEZ industry both by training *rencai* and working directly with enterprises. In 1987 it set up training courses for a laser company and helped with installing and maintaining production systems in various companies. In cooperation with the Shenzhen Municipal Mechanics Co, it helped set up and jointly run the Precise Mechanical Manufacturing Co. In March 1986 this company

together with Weili Welding Equipment Co., Ltd (Hong Kong) sponsored the Shenzhen International Welding Technology and Equipment Fair at SZU, with 100 participants from 20 provinces. The department encouraged its teachers to “convert research into teaching” and to allow seniors to participate in at least one research project. Teachers were permitted to retain some of the profit when their designs went into production. One type of research was preferred over others: small items that could bring quick “economic efficiency,” such as bicycle air valves and tennis racket stringing equipment.<sup>249</sup> Several SZU-run enterprises—the Shenying Mechanical Factory, Mechanical Mode and Materials Factory, Tianhong Machinery Factory and Reflective Materials Factory—related to the work of the department, but no formal ties existed between department and the enterprises.

SZU Mechanical Engineering purposely took an approach that defined the subject broadly, a path not followed at other Chinese universities. At a 1985 national teaching conference on mechanical engineering held at SZU, Professor Zhao was called upon to defend the direction his department took. Conference attendants joked that in calling its major precise electronic mechanics, SZU was misrepresenting itself—“selling dog’s meat while hanging out a goat’s head.” Zhao responded that SZU was not only selling dog’s meat but any meat the market demanded.<sup>250</sup> That conference attendees tried in vain to reach agreement on a precise definition of precise mechanical engineering, after which Zhao was more convinced than ever that his department had chosen the correct path. SZU was not training specialized *rencai* for the whole country as did inland universities; its target was Shenzhen employers. Over half of the mechanical engineering firms in Shenzhen had fewer than 100 employees, and they needed graduates with various skills. If SZU adopted the inland model of specialization, dire consequences would follow. Shenzhen employers would not accept its graduates, Zhao predicted. Students would flock from the department, teachers would quit, and the department’s foundation would collapse.

The department’s early curriculum looked as follows: Freshmen took foundation courses. From the second year, students followed one of two directions—mechanics or mechanical electronics. In students’ final year, courses were even more related to jobs, in areas like industrial robotics, modular design, optical equipment and manufacturing automation. Optional offerings included enterprise management and industrial fine arts for packaging design. Required courses were of three types, reflecting the three emphases of the department: production, design and testing.

- precise mechanics production, precise special manufacturing and automation theory;
- precise mechanical design, including spare parts optimal design, CAD, reliable technique foundation, molding, industrial robots; and
- testing meters design, micro-computer theory and application, geometric measuring, physical measuring, testing meters, signal handling, optical theory and application.

In 1988 the department, still worried that its graduates were not what the SEZ needed, started to stress application even more strongly. It suggested offering majors such as auto repair and foreign trade of electrical appliances and machines. With Professor Zhao's retirement in 1989, the department's deputy head was elevated as first leader. In the politically charged climate of the early 1990s, Mechanical Engineering devoted time to moral education. Students were sent on Lei Feng-inspired volunteer missions to serve the public, for example to fix bicycles or cut hair. The department established ties with the China Petro-chemical Corporation to research metal welding and jewelry processing. The department, however, did not have a close relationship with SZU's New Energy Research Institute, the university's first institute that received municipal approval (in 1984). This institute employed its own mechanical engineers. In 1992 SZU's Experimental General Factory, the administrative unit that oversaw the running of SZU-run enterprises, sought Hong Kong investment to build the Precision Mechanical Research Institute, with ¥2 million (US \$360,000) of registered capital. This plan was never effected.

In 1991 the name of the *benke* major was changed from Precise Electronic Mechanics to Mechanical Electrical Engineering to more accurately reflect the nature of the subject. Precise equipment majors exist in some of China's leading engineering schools, but their curriculum was much different from that at SZU. Although the department opened another *benke* major, Production Process Automation, and began offering a *zhuanke* in Measurement and Control Technology, it faced a 45% short-fall of teachers. Only 10 of the 18 fixed staff in 1991 were working teachers. Some had gone abroad; others were on long-term sick leave, maternity leave, or sabbatical. Perhaps for this reason, Mechanical Engineering limited itself to teaching regular students in *benke*, *zhuanke* or Adult Education programs. It offered no non-certificate programs (in sharp contrast with Management and Foreign Language, for example). Research funding helped to keep the department afloat financially, including ¥400,000 (US \$75,000) in funds for projects with

China's Ministry of Petro-chemistry and various companies. It applied to SZU leaders to set up an academic research institute, a request that was apparently not favorably acted upon.<sup>251</sup> The university, however, provided considerable funding to upgrade the department's labs. The department's leaders changed again in 1991. The new team faced a problem common to most SZU academic units: teachers' lack of motivation for academic research. Teaching did not generate much side-income and the university was niggardly in terms of providing equipment and investment funds. The department itself was able to bring in ten outside research projects, such as one to develop computer control software for a Hong Kong company. This somewhat ameliorated the financial crisis. The department continued to emphasize politics, in fact choosing certain freshmen "to groom for Party membership."<sup>252</sup>

Another leadership change occurred in 1994 with the appointment of Zhu Qing, a Qinghua graduate and returned overseas student who had received a Ph.D. from the University of Colorado. Zhu, a so-called second generation SZU scholar, had published several articles in refereed academic journals in the West. Equally important, he was the personification of political correctness, having patriotically returned to China at the time of Tiananmen. His academic and political credentials caught the eye of SZU leaders and he was catapulted onto the fast track for advancement. He was rewarded in 1993 by being named branch Party secretary and deputy department head, and then elevated the next year so he held both key leadership positions. In 1994 on SZU's recommendation, Shenzhen named him as an excellent Party member at the city level. The same year his department was cited as an advanced work-unit at the school level.

Under Zhu's leadership, the department changed its name from Precision Machinery and Instrumentation to Control and Mechanical Engineering, much for the same reason that the major's name had been changed several years earlier. A *zhuanke* major in Automobile Testing and Repair was set up. According to the 1995 evaluation, the Mechanical Engineering curriculum failed to offer all the courses listed in the SEdC catalog for majors, lacking several from the list. Nevertheless, majors in Mechanical and Electronics Engineering were trained as "technical engineers with fundamental theories, basic knowledge and basic skills of mechanical engineering and electronic engineering, who can combine electronics with mechanics and can design, manufacture, control, test, and research products and systems that combine mechanics and electronics."<sup>253</sup> The Industrial Automation major gave students knowledge in "electricity, electronics, automatic control, in-

formation processing, and automatic testing, to train them to make use of modern control theories, information processing technology, and computer control technology for industrial design and installation, and enable them to manage and undertake research in automated production systems.” The three-year *zhuanke* program in Automobile Testing and Maintenance trained “specialists to perform auto testing analysis, maintenance and management.” The curricula for majors follows:

*Mechanical and Electronic Engineering*: project design, physics of strength and power, mechanical design, circuit and electronic technology, principles of automatic control, principles and application of macro-computers, condenser, condenser and automatic testing technology, digitally controlled mechanical workshop, optimally designed automation, mechanical and electronic conveyance and control, CAE/CAM, robot technology.

*Industrial Automation*: theories of circuits, electronic technology, modern control theories, principles and application of micro-computers, fundamentals of software engineering, condenser and automatic testing technology, optic and electric testing technology, computer control technology, signals and systems, conveyance and control.

*Automobile Testing and Maintenance (zhuanke)*: project design, physics of strength and power, electrical and electronic technology, fundamentals of mechanical manufacturing, fundamentals of mechanical designing, liquid pressure and air-movement technology, structure of automobiles, theories of automobiles, principles of generators, auto appliances, functional studies of automobiles, functional testing of automobiles, diagnosis of auto breakdown, automobile maintenance project.

Relatively low in research output among academic departments, the faculty members of Mechanical Engineering started to take on more international travel and publishing in the 1990s. The university listed mechanical/electrical engineering as one of its components in a 1995 strategy to develop science and technology. The department was to be part of a team that worked on artificial nerve networks, super-precise measurement, programmed control devices, intelligent meters, automobile testing and control, comprehensive medical equipment and new mechanical lubricants. With a ¥900,000 (US \$110,000) grant from Shenzhen, the department built a control engineering lab, and its other labs passed provincial certification. Zhu advocated the type of A/V technology he had experienced in the U.S.; the department’s Electrical Electronics course was deemed a school-level A/V course in 1994. The department also hoped to use students as research as-

sistants. The second-year Mechanical and Electronic Engineering majors were examined in physics as part of the 1995 accreditation. Overall, the class passed and one student was singled out for excellence.

Much of Mechanical Engineering's focus has been on contract work with state and private enterprises. Although students were not altogether neglected, they were not the focus of the department either. This inattention probably did not disappoint students, who in the 1993 survey ranked high in individualism. Students in the department were not generally satisfied, ranking fourth from the bottom in the graduates survey. They placed second lowest in terms of their use of skills and talents on the job and slightly below average in terms of use of field of study. Not a single graduate in 1993 used English on the job, despite the department's focus on second-language study. In 1987 it had proposed increasing English study for non-majors from two to three years, and in the same year it had been entrusted by the Mechanical Engineers Association to give English training for those involved in trading mechanical equipment.

The department experienced a net outflow of 21 students in the *benke* major from 1988-1991. It tied with Architecture as having the highest student fail rate (31%). All in all, it was neither an easy nor prestigious major. Every year from 1991-1995, it placed second or third from the bottom among sciences track *benke* majors, below Physics but above Chemistry. Only 34% of the 1989 freshmen had selected SZU Mechanical Engineering as their first choice. Female students, who represented about one-third of SZU undergraduates, were rare in Mechanical Engineering. In 1993, they accounted for only 5% of the enrollees in the *zhuanke* program, and 19% and 9% among *benke* entrants that year in the Automation and Electronic Precision Machinery majors, respectively. In contrast, 31% of the faculty were women. Overall, the teachers were fewer in number than in the average teaching department and were higher in age and professional rank (in the latter the department ranked second highest in 1994).

### ***Physical Education***

All levels of schooling in China attempt to mold Three Good students—those who excel in the intellectual, moral, and physical aspects of education. At SZU physical education started at the earliest levels. SZU's kindergarten, which schooled the toddlers and pre-school children of university staff, held



annual “tiny” (*xiao xiao*) sports meets, which were attended by school leaders.<sup>254</sup>

In some ways, however, Physical Education (PE) did not resemble the other academic departments at SZU. PE staff placed less emphasis on research and scholarship, factors that were given more weight in academic units at promotion time. PE did not offer a major; it was entirely a service unit, like the Computer Center, which taught students from other departments. Yet, unlike support units such as the Library and Audio/Visual Center, PE was listed in SZU publications not as a service unit, but as a teaching department, although always placed at the end of each list.<sup>255</sup> In the *1994 Yearbook*, for example, wallet-sized ID photographs (against the traditional red backdrop) of all teaching staff were placed in the usual order by department, arts followed by sciences, with PE at the end.<sup>256</sup> Photos of teachers from PE were included, although staff of the Computer Center, A/V and Library were not. As a support unit, PE was responsible for teaching all students their required physical education classes, for organizing sports contests and maintaining sports facilities, a task undertaken jointly with the General Affairs Office.

The PE Department itself was not formally established until December 1985 when SZU was already two years old. The delay is attributable to the fact that the university lacked sports facilities in its early years. PE classes were held even at the temporary downtown campus, which offered little more than the equivalent of a primary school play-yard. At that time most sports and physical conditioning occurred outside an organized framework. The new campus by 1987 provided almost 15,000 m<sup>2</sup> in sports fields as well as a 25-meter swimming pool. A 30,000 m<sup>2</sup> outdoor sports stadium was finished in 1991, and the ¥13 (US \$1.5) million indoor Yuanping Sports Center was completed by 1994. The latter, measuring 7,900 m<sup>2</sup>, was assisted by a HK \$10 (US \$1.2) million donation from Hong Kong entrepreneur Yu Yuanping. Initial plans had called for a modest ¥3-million structure of only 4,000 m<sup>2</sup>, but Yu's donation made a larger facility possible.

In 1986 about 200 students belonged to the Recreation and Sports Association, which organized team competitions. The university volleyball team won second place in a city tournament. Altogether, about 40 athletic teams and 12 sports clubs in 1987 were involved in activities that included traditional sports as well as body-building and winter swimming. Whereas in SZU's early years students took responsibility for their own physical education, in later years university authorities organized students. Sports events within the campus and competitions with teams from outside SZU were

placed under the auspices of PE, not student organizations. From 1990, students who wanted to organize their own sporting events needed various approvals, including one from the Propaganda Office of the SZU Party Committee, whose permission was needed for the posting of notices. Student events were almost always placed under the jurisdiction of departmental Party branches and Youth League branches, who could process the necessary paperwork with relative ease. Sports and extra-curricular activities were recommended by the post-Tiananmen administration as a major way for political tutors to manage students.<sup>257</sup> Indeed, for 1991 sports appeared under the rubric of “ideological education” in the SZU CCP Work-plan. From 19 April 1991 students were required to perform early morning calisthenics three times a week at 7:15 a.m. in groups divided by major, class and year. The rules propagated the Three Fixed Aspects of exercises: at a fixed time, at a fixed location, and each student in a fixed place in line, so he or she could be accounted for. The policy had been mandated by SZU leaders with little student input; the responsibility for implementation had fallen upon PE as the academic unit most responsible for student physical exercise.<sup>258</sup> Every work-unit was instructed to give full publicity to the regulation and make it known to all.<sup>259</sup> Lights-out was set at 11 p.m., and the wake-up calls over the public address system commenced at 7 a.m. To give PE some enforcement power, the department was allowed to factor student’s morning exercise performances into their grades. A failure in a PE course meant no bachelors degree.

Faculty sporting events in the 1990s continued to be sponsored by SZU’s official Work Union, which was run by a committee of teachers representing departments but was under the formal control of the university (one of Vice-president Zheng’s many responsibilities). Such an event was a multi-day affair, involving in 1991, for example, 38 events, 25 sub work-units, and over 360 participants.

## PE Reform

SZU’s system of teaching PE never conformed with that used in the mainstream of Chinese higher education. In 1979 the Ministry of Education issued a teaching plan for all universities to follow. It was very complex and included 18 items which were basically a repetition of secondary school PE classes. All the items had to be finished within two years, the equivalent of 140 hours of instruction. From the start SZU leaders did not think this system would be suitable for the new experimental university.<sup>260</sup> Instead, the

four PE teachers who taught in 1983 set up four courses, according to student interests and teachers' strengths: football (soccer), badminton, ping-pong, and martial arts. Each of these sports, along with roller-skating, had an associated sports club. When SZU moved to the new campus, four additional courses were opened: basketball, volleyball, body-building, and gymnastics. In all the classes students were required to acquire the Four Abilities: able to play, able to understand the game, able to referee, and able to organize games.

The traditional PE teaching plan for most Chinese universities offered PE only in a student's first two years. As the 1983 freshmen entered their junior year in 1985, SZU set up a four-year curriculum that fit into SZU's academic structure. The PE courses were assigned credits and considered restricted-optional in nature. Passing them was a requirement for scholarships and graduation. By 1986 the first-year course was entitled Physical Education Foundation and sought to evaluate students comprehensively, rather than just on the basis of test scores (e.g., number of chin-ups, speed of running 100 meters, etc.). Students in their second and third years could choose courses in nine sports: basketball, volleyball, baseball, football, swimming, gymnastics, martial arts, body-building, and ping-pong. The way of testing students in these courses was changed in 1987 from pure skill tests to exams that were more comprehensive, assessing theoretical knowledge (20%), skills (40%), physical condition (30%) and every-day sports participation (10%). These classes usually involved scrimmages or organized competitions. Elimination tournaments took place at the end of the term. Students generally appreciated competitive team sports as a substitute for drills, practice and lectures. One teacher in 1994 surveyed his football students on ways to improve the course. Such an endeavor to get student feedback was rare at SZU; the results were presented in a two-page article in the university's internal journal.<sup>261</sup>

The fourth year offered general sports, during which time students' physical abilities and conditions were assessed in a so-called "target" test, which included five items: 1000 meter run (800 for women), standing jump, chin up/sit-ups (men/women), 50 meter run, and a medicine ball toss. Students had taken a similar test their first year (passing rate for freshmen and seniors in 1989 was 89%).<sup>262</sup> Seniors did not have to attend PE classes, but they had to meet the "targets," which in one year included swimming a pool length, in order to graduate. This rule was often ignored by relenting PE teachers; consequently, SZU's senior PE pass-rate was above 99% for the classes that graduated 1989-1991. Regulations precluded any student, even

those who competed for school teams, from being exempt from PE courses (although teachers tended to be lenient towards star athletes in this regard). Because of their tight schedules, students were restricted to taking PE at times that did not conflict with their required courses. This meant that they almost always took PE classes with their academic classmates. Classes were divided by sex; because gender was skewed by major, some majors had to be combined, and inevitably clusters of students developed. (Chinese and FLD males made up a single class; females from several engineering departments were consolidated). Still, PE offered one of the few opportunities for students to meet their peers from outside their major.

The entire PE system was overhauled from the early 1990s as PE took on a more organized and serious air. Reform was encouraged by a key SEdC 1992 document on physical education. This document, with policies that were more flexible but just as demanding as its 1979 predecessor, encouraged students to develop sports hobbies in their own time. In response, regulations promulgated by SZU in 1993 for the purpose of improving PE teaching defined a dozen responsibilities for PE teachers. Department staffing was to be based on overall student population; the teacher-student ratio for PE was set at 1:150. All the department's teachers were required to submit teaching plans, a procedure followed for several years in other academic departments. PE, like other academic units, was permitted to choose a course for SZU key designation. Thus, tennis appears in the list along side SEZ Economics, Pascal Programming and others as a university key course, presumably having passed the same criteria for selection that the other designated courses had faced. In terms of side-businesses, PE for accounting purposes was cast in the service-provider group that included the Library, Computer Center and A/V center. As such it was permitted to retain 70% of all income earned by side-businesses (e.g., swimming pool and sports center entrance fees and equipment rental) with the remainder remitted to the university.

An inspection tour by provincial authorities in 1991 generated praise for the department. Students who had taken the unified provincial test on basic physical education knowledge had achieved an average score of 75.9.<sup>263</sup> Several teachers, however, were criticized for not devoting most of their energy to teaching.<sup>264</sup> Academic research became a priority; staff presented 11 papers at a 1991 PE conference for universities located in eastern Guangdong, and in the same year, the department was listed as an experimental unit for physical education. In 1994 the leader who had overseen PE since its inception was transferred to run the Personnel Office, and PE's new leader-

ship gave the department an even more academic air. Audio/visual teaching was encouraged. Questions from 52 test papers for 13 PE courses were input into the computer. Awards were given for outstanding teachers.

Guangdong authorities were pleased with SZU's reforms in PE, and in the summer 1993 two leaders from the PE unit of the SEdC visited campus. They agreed that SZU could undertake a PE experiment to organize the PE curriculum around specific sports and initiate what was to be called the "sports club" system. Experiments and trials are a common practice in Chinese educational reform. In areas such as job allocation, tuition, and curriculum reform, the SEdC has commissioned specific institutions to try out new strategies. If these experiments are deemed successful, they are turned into state policy and are implemented nationwide. This marked the first time in SZU's history that any of the university's many reforms had been officially endorsed as a state-level experiment. In response, the university issued detailed regulations in May 1994. The experimental club system worked like this: juniors and seniors would no longer take classes. Instead they would receive PE credits for participating in sports activities organized by sanctioned campus sporting clubs, one hour per week for one credit. These activities were not restricted to class times and could occur on the weekends or evenings. Teams were encouraged to compete at the city, college or provincial level. These clubs were to be organized by students, and each was assigned a tutor from among the PE staff. These tutors were given all-inclusive (*baogan*) responsibilities for planning the club, drafting its constitution, making progress reports, administering technical tests and giving members the "target" tests needed for graduation. Students took out club memberships and had to pay membership dues. Students were to receive academic credits only if they participated up to a certain standard. Also starting in 1994, freshmen no longer took the basic PE foundation course. Rather, they along with second-year students would take a specific sports class (e.g., tennis) for two-hours/credits a week. These reforms were intended to take advantage of students' enthusiasm for competition, address the limits of class teaching, and develop students' interest in sports—an interest they could carry with them after graduation.<sup>265</sup> In reality, only a few junior or senior students participated in the club system; most upperclassmen/women opted out of sports altogether, but ensured that all the necessary forms were properly completed and chopped so that they could receive PE credit.

Extracurricular sports at SZU involved a series of annual competitions, such as track and field meets (usually in November during the dry system)

and swimming races (in June). Not surprisingly, the largest departments, IFT, Economics, Management, and Electronics and Civil Engineering, in that order, took the most medals. There was no handicapping that might have leveled out the advantages of size that favored the large departments. In contrast, a handicapping of sorts existed in staff events. From 1992 administrative offices, enterprises and the GAO sub-units were combined to make three single teams. They competed against the academic departments. Competitions were usually won by the GAO team (which included the buildings and grounds crew), followed by the Administrative team and Architecture. These annual events saw 600 entrants from staff and 700 from students.<sup>266</sup>

A few students and teachers also participated in national, provincial or city level sports events. Students who won at the municipal level or above in 1987 earned ¥300 (US \$81) for first prize, ¥100 for second and ¥80 for third.<sup>267</sup> Breaking a record at the city level earned the athlete an additional ¥250. Awards for placing first, second or third in such a contest were modified in 1988 so that winners earned ¥200, ¥150, and ¥100.<sup>268</sup> Bigger awards went to winners at provincial level contests: ¥300- ¥80 for first-sixth place winners. By the early 1990s, as SZU had expanded, members of the campus community began to produce a better showing in city events. In the third Shenzhen all-city sports meet (1990), SZU athletes won nine gold, 15 silver and 20 bronze metals. They placed first in track and field, second in tennis and third in swimming; altogether they broke nine city records. Students in 1990 who were champions in school sports meets or placed in the top three in city competitions automatically obtained a "single item scholarship," part of a class of awards that were limited to being won by no more than 5% of the student population.<sup>269</sup> The SZU soccer team participated annually in the Governor's Cup, which was initiated in 1988, placing as high as third in both 1991 and 1992. In 1992, SZU hosted a provincial-level university sports meet, with 70 participants. Over 1,300 students and teachers participated in the tenth annual track and field meet in 1995, in which 15 school records were broken.

To get students in shape for the November 1995 accreditation, PE eliminated entrance fees to all sports facilities. Until then, student fees for the sports center and swimming pool were about ¥.50 (US 6¢) per entrance; tennis courts rented for ¥10 (US \$1.20) per hour. In the months prior to the accreditation, students were encouraged to rise early and take exercise. In its self-evaluation, PE noticed that it lacked documents required by the SEDC; it immediately compiled the documents. Teachers continued to publish, including three textbooks and seven articles in 1995. SZU won the bid to host

the 1999 Guangdong universities sports meet, and for all its efforts that year, PE CCP branch was designated an advanced Party organization.

### **Physics**

When it began, Physics resembled a teaching unit much less than other departments. It enrolled fewer *benke* students (only about 25 per year), and its teachers engaged in relatively more research than their colleagues in other disciplines. The department did not face a public demand for side-courses, as was the case with the business departments and Foreign Language. Although College Physics was offered in Architecture and the Engineering departments, Physics was not overwhelmed with the task of being a service department (like FLD, Chinese or Math). Nor did the department choose to find a niche in adult higher education, as did Chinese, Chemistry and Law. It first offered an adult education certificate course in Electronic Metering Technology in 1987 and enrolled its first full-time *zhuanke* students in Measuring and Control in 1991. From 1985-88 the teachers of the department were content with doing research and working in the affiliated units, notably the United Research Institute of Applied Nuclear Technology and the Communications Technology Research Institute, two of the nine research institutes with fixed staff in 1991.<sup>270</sup>

The department had originally developed a five-year curriculum, but this was adjusted to four years as part of a university-wide reform. Physics varied the foci of majors between optical fiber communications and applied nuclear technology with the latter being canceled in the 1990s. By 1996 its *benke* major in Optical Electronic Technology was designed to produce “high caliber technical engineers who can master basic theories and technologies in optics and electronics with solid foundations in math, physics, computers and foreign language and who can undertake research, manufacturing and testing of optics, optic electronic components and software.”<sup>271</sup> The *zhuanke* program in Computer Testing and Quality Control was intended to “train high quality practical persons with solid, practical basic knowledge, proficient lab skills, modern testing skills of industrial products and who have mastered quality management and quality control methods of modern international enterprises.”

*Optical Electronic Technology*: principles of lasers, laser components and technology, optical electronics display technology, optical conveyance technology, optical information processing and storage technology, optical picturing, optical electronic transistor components, optical fibre communication systems, optical electronic testing and signal processing.

*Computer Testing and Quality Control (zhuanke)*: fundamentals of applied physics, digital circuits, simulated circuits, micro-computer systems and applications, principles of micro-computer, application of single chip machines, optical technologies, condenser technologies, electronic measuring, testing technologies for industrial and agricultural products, sample testing and analysis, quality control projects, introduction to ISO-9000, standardization of industrial products, enterprise automation and management systems, marketing.

In 1988 the department changed its name from Applied Physics to Optical and Electronic Technology Engineering. According to Deng Feifan, the chair professor of Physics, who also served as chair of the Committee of Professors:<sup>272</sup>

Generally, applied physics is not a bad name. It covers all sorts of things, including optical and electrical technology. But the traditional opinion of society is that physics grads are not suitable for work in production and technology. Thus, very few students choose to enter the Physics Department. Many enrolled students ask for transfer. Most students and teachers approved of the name change; a minority disapproved. Some senior students even asked to graduate with 'applied physics' on their degree.

In fact, only 44% of the *benke* students who entered Physics in 1989 had selected the department as their first choice. For this statistic, Physics was at the bottom of all SZU departments. Physics also lost students to other departments and through emigration: a net outflow of seven students from 1988-1991. Professor Deng's analysis notwithstanding, Physics from 1991-1995 attracted higher scoring students than either Mechanical Engineering or Chemistry. It is not surprising that these students—more than half of whom had not wanted to study Physics in the first place—did not find jobs that related to their field of study. Physics graduates of 1993 reported that they seldom used in the work place what they had learned in their discipline; in this regard they ranked slightly above only Chemistry. They also reported the lowest on-the-job use of their skills and talents of any department's students. One Physics student interviewed in 1994 took a fatalistic view:



Sure, we won't use physics in our jobs. But studying physics is a good intellectual experience. We enjoy lab work.

Whether this student was actually speaking for his classmates is unknown, but 60% of the Physics graduating seniors on the 1993 survey considered their classmates "intellectuals," second highest to Civil Engineering. Student physicists also shared with their civil engineer peers less an infatuation with materialism than did other students, as measured by the importance attributed to money as an aspect of employment. The survey results suggested that Physics and Civil Engineering students were a breed apart from their classmates, especially those in business majors.

It is impossible to assess whether Physics students were more intellectually curious than their university mates, but the department placed much emphasis on creativity. Physics was the only academic department to use the term "creativity" in its description on departments' 1996 homepages, defining its *raison d'être* to be "to train high class persons with physics thinking and creativity to face high technology."<sup>273</sup> Because Physics was a relatively small and personal department, students and teachers in its first years were closely bound; they shared a mutual respect and were not as alienated from one another as students in the massive and impersonal departments. In this regard, Professor Deng's report edifies. In the *1988 Yearbook*, it stood out alone as the departmental report that stated a concern for students. Few departments in reports for that year referred to students at all; those that did mention students referred to them as mere teaching objects or as potential human resources who can contribute to the zone's economy. But Physics students even influenced the curriculum. At the students' request, according to Deng, Physics offered in 1988 a night course on Statistical Physics. Deng peppered his narrative with *xue sheng* (students). In discussing study atmosphere, he wrote:

Seniors say: 'We are graduating. However, our stomachs [minds] are empty, with no knowledge. How can we work in the future.' So seniors cherish their last year.

Departmental management changed in 1989 with the appointment of Wang Jiansheng as head. The new leader continued the departmental tradition of placing emphasis on students, although Wang's 1990 report differed from his predecessor's in terms of emphasizing political concerns. Rectification resulted in increased class attendance. Wang wrote:

Students even raised questions in class and finished homework on time. In the evenings they go to library earlier to reserve seats. Unlike in the past, students without being told, redo the experiments if needed. Some do experiments two or three times and suggest how to improve their work. Student cadres dare to take the lead and organize collective activities, sports meets, arts festival, and dorm cleaning. The Party branch organized Party study group, half of whom participated. Many apply to join the Party and actively took part in Saturday compulsory labor.

The department's emphasis on English has been continual. Science and technology English was offered so students could translate and write in English. Teachers were encouraged to write chapter headings on the blackboard in English and to pronounce special terms in English. From the early 1990s the university began to emphasize the overall importance of College Physics, one of several key courses highlighted in the 1991-1992 work-plan and selected to receive special funding.<sup>274</sup>

The department's name reverted back to Applied Physics in September 1991. During the rectification period, bickering and in-fighting—or in Wang's words *feng feng yu yu* (strong winds and heavy rains)—characterized Physics (as it did in many other departments).<sup>275</sup> But, unlike in the other units that were rife with political intrigues, Physics was distinguished by a higher level of civility and fewer personality clashes. While describing the times as “not peaceful, bitter-happy,” Wang in his 1992 report noted that “achievements cannot be separated from what was done by the former head.” This praising of a former leader was singular in SZU's history; nowhere else in any yearbook had such a positive assessment been offered of a predecessor. Most comments in yearbooks about former leaders served to cast blame or to try to explain the sorry state of affairs that the new leaders had themselves inherited. The debates in Physics, unlike those in other units, were academic in nature. Discussions might at times be heated but they were not *ad hominem* as they were elsewhere. Rumor generation and behind-the-back slander were rare in this single department. In his 1991 report Wang summarized the debate in physics:<sup>276</sup>

The key concern in curriculum setting is whether we should continue to offer the traditional mechanical courses or change them to theoretical physics. Should we have clear-cut or vague major directions; should courses cover a broader spectrum of knowledge? Compared with inland universities, Hong Kong University and Chinese University of Hong Kong, lab class hours at SZU are limited. Those schools are much more advanced than SZU in

graduation thesis topics. How do we improve, given SZU's current conditions?

Teachers and staff in Physics had numerous discussions over the teaching plan. Problems with students and teachers emerged:

SZU's physics students have had a low attendance rate and experienced a poor study atmosphere. The Physics Party branch has corrected this by having tutors patiently talk with students. Teachers keep attendance records, and we stop the basic scholarship for students who are too often absent. The situation has improved. Students now ask for leave when sick. A few teachers are sometimes late for class or leave early. There are very few teaching accidents like willful canceling or changing of classes.

Post-Tiananmen student anomie did not escape Physics. The students referred to in the above passage included those who graduated in 1993, the subjects of my survey. These Physics seniors reported their dissatisfaction with their education, slightly below average for departments. It is doubtful, however, that rectification and a renewed interest in student discipline affected student attitudes. The Physics Department had always been strict with students. In 1987, for example, three students with poor performances were persuaded to transfer to other departments and another was put on academic probation.

Physics was a small department, with only one-eighth as many teachers as departments in inland universities, even smaller than the staff size of a physics teaching-research office in those institutions. Its 16 teachers in 1991 handled over 30 in-plan courses. As a result, teachers were so busy teaching their own courses that there was little dialog between teachers, according to Wang. Until 1992 SZU Physics did not even have a teaching-research office to undertake research on teaching. As the department expanded and the demand in other departments for College Physics increased, Physics teachers started to experience the high work loads that their colleagues in other disciplines had faced for several years. These problems were present in almost all SZU departments, but Physics (perhaps because it had been relatively isolated and was a late-comer to the situation) alone discussed them so forthrightly in official reports. Discussions, however, did not lead to solutions. Wang had identified the problems, but he could not come up with answers. "We are waiting for the next group of leaders to solve the problems," he wrote. Wang's wish to leave administration and return to teaching was not granted by the Wei-Wu team, which had also appointed Wang to head the

Nuclear Institute. Wang remained in his positions until 1994, at which time Cai Delin appointed a new department head as well as a new director of the Nuclear Institute.

In terms of management, Physics was unique. In 1994-95 30% of the teachers (6 of 20) were or had been departmental administrators, either then or in previous years. Also, unlike in many departments, the Party secretary was a member of the teaching staff. Since 1989 the pattern of leadership at SZU usually separated Party and administration, thus creating the dual-track within a department. From 1993 most Party secretaries in departments were full-time positions. But, in Physics, from 1992-95 there was no full-time Party secretary. Instead, a departmental teacher served as CCP secretary, while also holding one of the posts of deputy department head. The single-track worked in Physics; the department was one of the seven academic units named advanced Party organizations in 1995.

The overall leadership pattern at SZU almost always involved the total removal of former leaders from their work-units, either through voluntary or

**Table 4.18: Test results, 1995 SEdC accreditation tests results**<sup>277</sup>

test	class tested	average score	% passing rate	number of students scoring over 85
advanced math	1994 Physics	73.4	88.2	6
college physics	1993 Mechanical Engineering	-	-	1
college physics	1994 Electronics (radio technology)	-	90.6	9
college physics	both classes together	69.4	79.1	10
accounting	1993 Int'l. Finance	61.7	68.2	1

forced retirement or forced transfer. In Physics' case, however, the former head and deputy head in 1994 stayed with the department, thereby providing a degree of continuity. Their continuing presence also forced a level of transparency upon the new leaders. Their proximity served as a disincentive which kept the new leaders from issuing the usual explanation for departmental problems: "it's the fault of the former leaders." (New leadership was less inclined to blame their predecessors when the latter are within hearing range!) Instead of venting excuses and recriminations, the new leadership of Physics focused on the future. It set the goal of obtaining the right to offer

masters degrees in optical science. In 1994 the department undertook this objective jointly with the A/V research institute, the Reflective Materials Institute and the newly established Optical Engineering Research Institute.<sup>278</sup>

Physics management, along with SZU leaders, was concerned about the SEdC accreditation in 1995. The university gave the department ¥1.2 million (US \$144,000) for improving its laboratory equipment, and the college physics lab passed a provincial evaluation. The labs were a source of departmental pride, prompting the head to boast that a SZU lab could conduct 26 experiments simultaneously, while a comparable lab at Qinghua University was limited to 16.<sup>279</sup> Physics lacked some of the courses listed in the SEdC majors catalog, but their major worry involved the testing of students. All SZU students who studied physics were prepped and primed for possible exams, and indeed physics was the major area that was tested. The 1994 Applied Physics majors were tested on advanced math; the 1994 Electronics majors and 1993 Mechanical Engineering majors were tested on college physics. Physics experiments of 1994 Physics majors were also examined. The test results appear in Table 4.18, previous page.

## Research

In general, most research funds to Chinese universities involve the sciences, not the arts. Science departments received all of SZU's state-level grants, most provincial and over half of city-funded projects (SZU-funded research tended to go for arts). Given teaching requirements that were less excessive than in other departments, Physics teachers were able to stress research. By the end of 1988 the department operated five laboratories with equipment worth ¥998,000 (US \$270,000). Nine research projects undertaken in 1995 brought in ¥250,000 (US \$30,000) worth of grants. Funding arrived from various sources, including loans and state-level grants, as well as funds from state-run companies and municipal bureaux. Teachers worked with various campus work-units, including the Joint Institute of Applied Nuclear Technology and the Reflective Materials Institute. No field that was the exclusive domain of physics, however, was included among the research fields that SZU would stress in future years.

### ***Reflective Materials Institute***

Founded in 1986, this institute served as the research and development arm of the SZU-run enterprise, the Reflective Materials Factory. It employed

five full-time and seven part-time researchers. Closely associated with both the Physics faculty and the factory, the institute was in a good position to combine teaching, research and production. The factory, which had what amounted to a full-page advertisement in the *1986 Yearbook*, developed its own products and produced reflective signs for China's first super-highway, Hu Jia expressway. Its 1988 output was valued at ¥2.5 (US \$680,000) million, with a gross profit of ¥750,000 (US \$200,000). In 1988 it formed joint ventures with several Hong Kong companies which invested in equipment. Of the 81 factory personnel, only 10% were part of SZU's fixed staff quota. Unable to provide benefits equivalent to those given SZU fixed staff, the factory raised worker salaries by 20% in 1988 and built a 2,000 m<sup>2</sup> staff dormitory. Eager to enter the export business, the factory obtained several Chinese patents and passed state-level evaluations designed to ensure compliance with international standards.

As an endeavor that had been set up under Luo Zhengqi, Reflective Materials received little enthusiasm from the post-Tiananmen administration. In 1991, the Reflective Materials Institute was not included on the list of five backbone research units. The Reflective Materials Factory was mentioned in the *1991 Yearbook* in several items, about its passing several unspecified evaluations, the catching of a man who stole ¥170,000 (US \$31,000) from its accounts, SZU's determination to measure its fixed assets, and with regards to its difficulty in repaying loans. For that year, in a bit of historical revisionism, SZU's Academic Research Office did not list Reflective Materials as one of SZU's original institutes.<sup>280</sup> The Enterprise Management Office, in its 1991 report, stated that that the factory had been losing money since its establishment. In 1993, however, under guidance from the Enterprise Management Office, the factory turned itself around. Production was valued at ¥30 (US \$5.2) million, and the factory was able to remit funds to SZU. With Cai Delin's appointment as president, criticism of the factory stopped as suddenly as it had begun, and it was again praised as a high-tech campus enterprise. The municipal government in 1994 endowed the factory with the "new and high tech enterprise" label, one of three campus units to receive the honor.<sup>281</sup> The factory's products received numerous awards and state-level grants. It began to specialize in anti-counterfeit labels that used hologram technology. In 1994 the university came to the factory's defense when it received much negative publicity after it had been caught producing counterfeit Microsoft trademark holograms.<sup>282</sup> This did not deter business; the notoriety may have in fact helped increase sales. In 1994 it won the bid

to manufacture 10 million industrial and commercial labels for China's Industrial/commercial Administration Bureau.

### ***Joint Institute of Applied Nuclear Technology***

Founded by the Shenzhen municipal government, this institute was engaged in the research and development of new applied nuclear technology in providing technical services, consultation and training courses. Its 800 m<sup>2</sup> of labs were managed under international guidelines: ISO/IEC 25 (it failed to gain ISO-9000 certification in 1993). The Chinese Commodity Inspection Bureau certified the institute as a quality inspection station for exports and imports, and the municipal government designated the unit in 1994 as one of Shenzhen's excellent teaching units. Staff from the institute also qualified to serve as expert witnesses in arbitration cases involving commodity quality. Its inspection methods and test techniques covered human body tissues, food-stuffs, geological samples, metals, water, petroleum, pharmaceuticals, chemical products, and building materials.

The 11-person institute operated its own mini nuclear reactor, which five certified operators were allowed to run in 1993 (up from two the previous year). The reactor was described as follows on the institute's homepage:<sup>283</sup>

It is a very small reactor, emits very little radiation and could not have a nuclear accident like a nuclear power station. If run properly, it can operate safely for more than 30 years. The reactor can provide high sensitivity testing of neutrons and detect 72 elements of the periodic table. The reactor can make more than 40 man-made elements, that are used in medicine, industry and agriculture. As a teaching tool, the reactor can be widely used in physics, environmental topics, earth, life sciences topics, archaeology, core science, industrial application topics, commodity inspection and quality inspection.

After visits by a nine-person delegation from the Nuclear Industry Ministry in April 1986 and by a contingent from the Chinese National Atomic Energy Research Institute and the Nuclear Reactor Institute in October, permission was given for SZU to construct what was then described as the only commercial mini nuclear reactor in Southeast Asia. Equipment was acquired by the end of 1988, and the reactor was on-line by the end of 1989. Security, erosion, short-circuiting, and the prevention of untreated waste water disposal and radiation leaks have all been issues with which reactor staff have dealt.

To distinguish the institute from similar entities such as the Beijing Science Institute (which the SZU institute head once derided as an "ivory

tower”),<sup>284</sup> the SZU institute included “applied” in its name and referred to itself as a service-provider. Because society’s needs were constantly changing, the institute recognized that its staff needed a broad range of knowledge and could not just focus on a single subject. According to the institute head,

Social demands require that we cannot do closed-door research. Instead, we need to link high-technology with households in society, a process we call building bridges. The reason many scientists fail to promote high-technology is that they do not emphasize building this bridge. Comprehensive applicable technology means that technologies from different natural science subjects actually connect to one another.

This interdisciplinary approach meant that the institute’s research related to sound, light, electricity, heat and even bio-chemistry; it was not just limited to the nuclear field. One of its major contracts involved producing multi-functional radiation alarms in 1993. In 1994 it reached an agreement with the Physics Department of Hong Kong University to allow the latter’s physics majors to use the SZU facility for their graduation theses.

The Physics Department maintained close ties with the institute, to the point of sharing staff. In 1988 eight of 29 physicists and assistants in the department were assigned to the nuclear reactor. The reactor, in a sense, put the Physics Department on the academic map; it received a thousand visitors in its first year of operation. Even before it went officially on-line, the reactor had become a prominent attraction during SZU’s first major open house, which commemorated the university’s fifth anniversary.<sup>285</sup> In 1995 the institute, which had been self-funding, received a fixed staff quota of ten personnel.

### ***Public Administration***

Public administration is a relatively recent field of study in China. It involves employing theories used in business management to public sector work-units such as governmental offices and bureaux. The SEdC in the mid-1980s encouraged all universities to offer Public Administration majors or at least courses in the field. Public Administration at SZU was founded in June 1986, the first free-standing academic department of its kind in any Chinese University.<sup>286</sup> From that time until 1993, the department assumed the duties (but not the name) of the former Social Science Foundation Department, the



university's ideology teaching unit (The name of the latter had itself been revised in 1985 from the traditional title, Marxism-Leninism Theory Research Office). At creation the department's *raison d'être* was to help implement the civil service reform adopted by the Thirteenth CCP Congress.

In 1986 Public Administration offered a two-year nationwide correspondence course (that had reached 10,000 students by 1993) and enrolled its first class of adult night school students in a three-year certificate Administrative Management program, offered through SZU's Adult Education College. Its curriculum:

*Administrative Management (zhuanke)*: management math, computer applications, English, administrative procedure, secretaryship, national economic management, SEZ economy, management philosophy, management psychology, administrative management, enterprise administrative management, science of leadership, behavioral science, and evaluation of western administrative systems.

This program was designed for students who had passed the national unified adult education entrance exam. At the time there was no *benke* or full-time *zhuanke* major, but teachers in the department taught regular students in their role as service provider of all required ideological courses. The *zhuanke* program in Public Administration major resembled a less rigorous version of the Management major. During this time teachers in the department compiled the first textbook series in administrative management in China, published by the Yunnan Educational Press. As the department became more firmly established, per capita research output soared from last place (1988-1991) to first place (1994) among SZU teaching departments.

After six years in office, the departmental head asked not to be reappointed to the position so he could focus his latter years on teaching and research.<sup>287</sup> His request was granted, and a new leader was appointed at the beginning of 1992. At the same time, the functions of the department were split, and a new Department of Social Science was set up to take care of ideological education. Teachers went to whichever department they were better suited, and this resulted in a shortfall in Public Administration, which had to hire five new faculty members in 1994-95. The department ran smoothly, and its students were politically involved, with over 70% of them attending Party Construction Study in 1995. Perhaps for this reason Public Administration was awarded as an advanced work-unit by SZU leaders in 1995.

In 1993 Public Administration enrolled full-time *benke* and *zhuanke* students for the first time. The Public Administration *benke* major took in 24 students, four more than called for in the plan, two of whom were admitted after formal recruitment was completed. In terms of entrance scores, the first class ranked behind International Economic Law and the business majors but ahead of all the other arts majors. A *zhuanke* program in Office Automation enrolled 44 students, 20 more than the plan permitted, ten of whom came through irregular channels after formal procedures in Guangzhou had finished. Their exam scores were the second lowest in *zhuanke* programs, just ahead of Hotel Management. In the initial year students came only from arts, but by 1996 students came from both the arts and sciences tracks. The *benke* major, completion of which earned a Bachelors of Law, intended to “train specialists who can analyze actual problems in administration and management with basic principles of Marxism, who are familiar with basic policies and regulations of China, basic theory and knowledge in administration and management and have extensive knowledge, social abilities, actual working ability, and communication skills.”<sup>288</sup> The *zhuanke* program was aimed at training “specialists with good cultural skills, strong abilities in organization and coordination, good language and expression, basic theoretical knowledge in administration and management, management skills and techniques of modern office automation, and who can handle daily office administrative work.”

*Administration and Management*: principles of politics, introduction to public administration, organization and behavior, administrative law, introduction to the civil service system, documentary writing in administration, leadership, secretaryship, principles and methods of social investigation, case studies in administration, forecasting, decision and math methods; public economics, municipal administration and management, public income and expenditure.

*Administration, Management, and Office Automation (Zhuanke)*: fundamental application of computers, word processing and common software usage, fundamentals of computer networking, data base management and usage, office automation management systems, C-language, introduction to administration, documentary writing, introduction to office management, public relations, organization and behavior, administration law, principles and methods of social investigation, modern management.

## Ideological education

During the Luo Zhengqi years, the Public Administration Department was characterized as having “two nameplates but one group of people.”<sup>289</sup> Its dual purpose included two somewhat unrelated directions: offering the certificate program in management while also teaching the state-required Marxism-Leninism theory courses. Since it did not offer a *benke* major, however, Public Administration dwelled on the periphery of SZU academic units. The *Yearbooks* for 1987 and 1988 failed to mention the department altogether, as either an academic or service department. The leaders who replaced Luo, however, located Public Administration firmly among the arts academic units (not like PE which was relegated to the end of the list). Rather than having its own departmental Party branch, however, Public Administration was included in the university’s #1 Party branch, along with the offices of the SZU Party Committee and the Publications Center. The deputy department head served as vice-secretary of #1 branch.

When it began in 1985 to teach political theory courses, Public Administration teachers rebelled against what they considered old and out-dated teaching content of traditional political theory courses that had been deeply affected by ultra-left ideology.<sup>290</sup> They no longer wanted to teach students by making them recite Marxism theory and repeat the content of secondary school courses; the department’s stated purpose was “to break old stereotypes of political theory education developed over many years and to offer more interesting courses to students.”<sup>291</sup> They continued to offer the traditional courses in Marxism, Political Economy and Chinese Revolutionary History, but they added new courses: Modern Western Philosophy, Scientific Methodology, SEZ Economy, Chinese Democratic Parties (*Tongyi Zhanxiang*), Contemporary World Politics/International Relations, Logic, Party Construction, Administrative Management Science, Social Psychology, and Behavioral Sciences. Students had to select one of these courses each semester; three were offered per term in rotation. Instead of being restricted to theory, these courses looked at actual problems in modernization and SEZ construction. “This makes the political economy courses more interesting and productive for students. Many students develop their own points of view from the courses.”<sup>292</sup> The department also offered optional courses in Calligraphy, Music and Personal Development.

As part of the rectification undertaken by Luo’s successors, the Marxist and Leninism Research on Teaching office was reestablished. In 1989-1991 members of the campus community were subjected to special classes in

ideological education. The new unit, which called on teachers from Public Administration, helped to initiate and arrange weekly political study sessions for both teachers and students. In addition, a Moral Education Office was set up. In 1994 the three teaching-research offices—Philosophical Social Science Research Institute, Marxism/Leninism Research Institute, and Moral Education Research Office—were amalgamated into the Social Science Department.

Ideological education at SZU was revised as part of the post-Tiananmen rectification. Four compulsory courses had to be taken during the students' first four semesters. The formerly optional course on Theories of Marx and Lenin returned to being compulsory, along with Political Economics, Chinese Socialist Construction, and Chinese Revolutionary History. The latter course was basically the same as students had taken during junior secondary school. This subject had not been taught in senior secondary school, but students who wished to go to college had to study the subject themselves because the area was included in the politics component of the unified college entrance exam. Both Political Economics and Marxism to some extent duplicated what had been taught in secondary school. In their junior year, SZU students could choose from among the same optional courses that had been offered in the past. Overall, students tolerated these courses and studied the necessary material in order to pass the exam at end of term (under 3% of the students failed these courses).

### ***Concluding thoughts***

This chapter's discussion of SZU's heterogeneous assortment of academic units is this volume's longest, most detailed and data-based portion. The entire chapter could have been presented in a much more generalized way, referring to specific departments only when needed to make points or to provide illustrations. This would not have done justice to the individual units, nor would it have drawn a picture so that the reader can see just how differently operating units within the same university function. Just as Chinese universities are themselves a diverse lot, so are academic departments within an institution. Unfortunately, there is little published material with which to compare the above analysis. Universities the world over have developed an immunity against scholarly self-examination. Academics themselves are reluctant to study universities in systematic fashion. Transparency is dangerous; it opens up areas—university politics, importance of relationships, the power of authority over hapless subordinates—that many in the academy

would like to keep secret. This chapter tries to pry open some of these secrets.

One of the chapter's insights involves the importance of individual agency and leadership in a tertiary institution. SZU is not unique in this regard. Maria Jaschok, an anthropologist, notes the importance of the individual in her ethnographic case study of "Zhengzhou International Women's Institute."<sup>293</sup> Professors at SZU, especially in the early years when each department had only one person at the full professor rank, could exercise virtually total authority over their departments. They alone had final approval over decisions on hiring, curriculum setting, and student management. Some leaders ran their units as the potentate of an independent kingdom, while others instituted procedures and informal processes that maximized input from teachers and even students. The form of governance related to the individual leader's personality more than any other factor, such as age, sex, experience, or relationships with upper level leaders.

Another insight relates to the role of the Communist Party, something which differed from department to department. In some departments, the administrative and political tracks were merged into one if the department head concurrently held the position of branch Party secretary. In others, the dual-track system promoted factionalism. In still others, the two tracks had their separate functions and they ran smoothly in parallel. Again, SZU is not unique in experiencing problems regarding how the Party and administration relate to each other. Bob Adamson, for example, refers to Party interference in academic matters in his case study of English language teaching at Taiyuan Teachers College.<sup>294</sup>

Social relationships—*guanxi*—between the department head and the upper-level (president and Party secretary) figured prominently in the between-the-lines histories of SZU academic departments. Some department leaders survived a change in upper level leaders, but in most cases new administrations installed new leaders. Department heads could be removed only by the upper-level. In such a way, department leaders felt more beholden to the upper-level than to the faculty members in their own department. Constant leadership changes played havoc in some departments, just as upper-level changes (six presidents and four Party secretaries in 13 years) has hindered SZU reform.

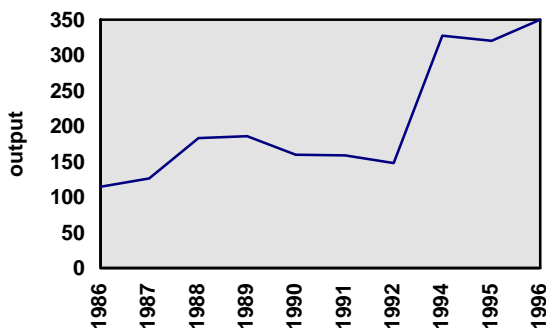
To a great extent both the members of the campus community and the general public measured the reputation/status of a department by a single factor—the entry level CEE score of its entering *benke* students. High reputation and status do not automatically equate to quality of teaching, stu-

dent satisfaction, or research output. Some of SZU high status departments scored poorly in these regards. None of these other elements, however, seemed as important as the exam scores of entering students. In the vast majority of departments, however, *benke* students accounted for less than half of the students enrolled (Most students were night school adults, excluding correspondence students). After 1989 test scores for SZU's *benke* students fell, as more high test-scoring pupils from the zone's key secondary schools went to Guangzhou or elsewhere in China. It is not surprising, therefore, that in the mid-1990s some of SZU's prestige departments sent teachers to Shenzhen's key high schools to talk with prospective students.

One lesson from the review of SZU's departments is that big is not necessarily better. Various costs are associated with expansion. Overworked teachers put aside research; classes became larger; students received less individual attention, and in turn they disengaged from study. Departmental reports are replete with statements critical of students' study attitudes and behavior. None of these complaints, however, linked expansion, teacher disengagement and student problems. These were treated as non-related phenomena, perhaps because separate units in the university bureaucracy were covering each area. Student affairs were handled by the Student Affairs Office as well as various Party and Youth League units. The Academic Affairs Office, Personnel Office and University Research Office each had its own turf. It was left to the upper-levels of university management to discern the linkages. They failed to do so. SZU leaders never apparently realized that student apathy, teacher disengagement, the constant changing of department heads, and inconsistent policies based on political considerations were somehow tied together.

## Research

Teaching units are the most important cells of any institution whose primary purpose is teaching. Even research universities, where arguably research's importance can detract from teaching, form important partnerships between teaching and research. These links at SZU can be seen in the relationships between teaching departments and their informally affiliated, semi-autonomous research centers and institutes. During the period of this study SZU had, on average, 15 academic teaching departments and about a dozen listed research units, only a handful of which were self-supporting entities with permanent staff. Many of the institutes were paper institutes—set up

**Figure 4.7: SZU research output**<sup>296</sup>

for specific individuals, with few fixed staff or little funding. Examples included the following institutes: Population, Higher Education Research, SEZ Culture, Soft Science, Hong Kong Law, Reflective Materials, Philosophy/social science/culture, Tourist Science, Media, Industrial/commercial Enterprise Development, Foreign Language and Culture Translation, and International Economy. As the university aged, the number of listed institutes expanded: from 10 in 1986 to 18 in 1994.

The increase in number of research institutes—or indeed the enlargement of SZU professional staff—had no discernible effect on research output, which in aggregate peaked in 1989 and then slumped for several years until about 1994 (see Figure 4.7).<sup>295</sup> The drop in total research in 1990 reflected the reality that financial demands forced teachers to increase their incomes through extra teaching or side-businesses. Research was put aside. Double digit inflation in Shenzhen in the late 1980s added to the pressure, but the single most important demand for more income came with the opportunity to buy apartments. Staff needed to accumulate downpayments for units in SZU's new housing development in downtown Shenzhen. More than any other factor this explains teachers' disengagement.

The rise in research output in 1994-1995 resulted from several factors. First, there was a catch-up after the period of non-publishing. Articles that could have been written in past years were sent to publishers in 1993 and later. Second, the university and municipality had increased wages and overall remuneration so in the early 1990s teachers no longer had to generate as much income through extra teaching and side-businesses. Third, housing downpayments were completed in 1991; few teachers were burdened by loan payments. Some had no loans to replay; others had established income flows

to take care of the payments. Fourth, the departure of the Wei-Wu administration brought the perception that promotions would be decided more on academic criteria and less on political grounds. Publications were supposed to play a larger role in promotion considerations, so teachers started publishing again. Fifth, the university was receiving more upper-level funding for research. This research, in turn, caused academic papers to be written, something that was often a requirement of the grant itself. Finally, President Cai Delin instructed teachers to publish in order to improve the university's research record as it prepared for the 1995 SEdC accreditation. This last factor appears to be the most powerful influence on teachers' output. In other words, teachers published because they were told to do so. This implies that they could have been publishing all along, but had instead chosen to disengage from research.

The university initially attempted to separate research from teaching. Except for Architecture, institutes and research arms were set up separately from teaching departments. This conforms to the pervasive Soviet pattern that is often followed in China, which separates the two functions of the academy. Yet, traditionally in China teaching departments have had teaching-research offices attached to them. Most of the research in these types of units concerns teaching, but there is no restriction in this regard. During the Luo years, when the university experienced a severe staff shortage, departments were discouraged from setting up separate research units because such efforts would spread too thinly the limited personnel departments had. The separate research institutes that were set up, however, were usually not funded. The problem of lack of research started to be addressed in 1988 as the Luo administration put into place monetary incentives to encourage departments to procure outside grants. These initiatives, however, were put on hold after Luo was fired. A few years later, his successors, in attempting to encourage research, mandated that teaching-research offices be set up in each teaching unit. By that time teachers had already disengaged, so the effect of this policy was limited. In any case it was merely a structural change.

In virtually all teaching units at SZU, research was applied, not theoretical. In this regard, Chemistry was often lauded as a model which other departments should follow. The division between academic research and practice was not always distinct. In Architecture's case, practice was what the department was about. But much of SZU's applied research was, in fact, income-generating activities that had little to do with research per se. The extent to which it can even be called research is questionable. Should the development and marketing of a toilet bowl freshener be placed under the



rubric of scientific research? What about setting up pager communication systems?

How does SZU's research compare with that at other Chinese universities? SZU has not been included in any published listing, as far as I am aware. One 1997 listing examined a number of variables, including money earmarked for research, human resources involved, publications and awards. The study took into account the differences between social and natural sciences and developed a formula to correct for the fact that the latter is more competitive in publishing, with a resultant lower quantity. The list of the top 100 Chinese research universities does not include SZU.<sup>297</sup> According to the author, SZU placed 150.

Teacher disengagement involved more than just their quitting research. Teachers also began to disengage from extra-curricular activities associated with teaching. A certain amount of participation was required: teachers had to show up for weekly meetings that sometimes involved campaigns such as tree planting and rubbish removal. They had to take part in the inter-departmental sports contests that were held each season. Participation that was not mandated, however, was rare. In contrast with what occurred during the school's early years, few teachers after 1989 worked as faculty advisors with student organizations. Few volunteered to be student tutors, functions that were eventually assigned to political staff once it became clear that teachers would not take on these jobs, regardless of the pay. The Psychological Counseling Center was closed, leaving its teacher volunteers without an avenue of participation. Students became aware of faculty disengagement; from the late 1990s their respect for teachers dropped. They became aware that their teachers were not enthusiastic about teaching, as evidenced by their poor class preparation. This is one of the reasons students became bored with their classes, a subject examined in the next chapter.

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1. Sources: SZU yearbooks. Majors that changed names but not content are listed together, as noted:
    - A: 1993: International Accounting; 1994-6, Public Accounting;
    - B: 1991, Economic Law;
    - C: 1991-2, Hong Kong/Macau Law; 1993, Taiwan/Hong Kong/Macau Law; 1994-5, Compatriot Law; 1996-7, Law;
    - D: 1993, Industrial/commercial Management;
    - E: 1992-3, Chinese Secretary; 1994-6, Han Language and Literature.
  2. Sources: SZU yearbooks. Majors that changed names but not content are listed together, as noted:

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- A: 1992-7, Applied Computer;  
B: 1993, International Accounting; 1994-7, Public Accounting;  
C: 1991, Economic Law;  
D: 1993, Industrial/commercial Management;  
E: 1992, Information Processing; 1993-5, Economic Information Processing;  
F: 1993, Structural Engineering;  
G: 1991, Precise Mechanical Engineering; 1992, Mechanical Electrical; 1993, Electrical Mechanical Engineering; 1994-5, Mechanical Electrical;  
H: 1991-3, Manufacturing Automation; 1994-5, Industrial Automation;  
I: 1991 in Architecture Dept.; 1993, Design, in Architecture Dept.  
J: 1994-7, Management Engineering.
3. Arts students take Chinese, mathematics, English, politics, history and geography. Sciences students take Chinese, mathematics, English, politics, physics and chemistry.
  4. Sources: SZU yearbooks. "In" figures represent actual enrollment reported for the freshmen class. "Out" figures are based on lists of graduates for the same class.  $\Delta$  represents the difference in number between enrolled and graduated students. An unknown proportion of the "out" relates to students' leaving for study abroad.
  5. Zhao, "View of how the market economy affects higher education," 1997.
  6. This survey, which provided data for the author's dissertation, was conducted as the final step of an exit procedure for graduating students. All students were required to complete the forms before they could receive their diploma. The survey, therefore, represents almost the universe of graduates, rather than a sample. The differences in responses are all statistically significant. The difference between Architecture, the most satisfied majors, and Chemistry, where the least satisfied students studied, is 29% (or 16.3 percentage points). The degree to which these and other differences are significant (as opposed to statistically significant) is a judgment left up to the author and reader.
  7. Source: *1994 Yearbook*, pp. 277-94.
  8. Source: *1994 Yearbook*, teaching staff identification photographs.
  9. Source: *1994 Yearbook*, pp. 277-94.
  10. Source: *SZU Academic Compilation (1983-1993)*, *1994 Yearbook*, pp. 134-61. Research includes articles, books and patents, each counted as one unit of output.
  11. Source: *1994 Yearbook*, pp. 277-94. Rank #1=professor/senior engineer; #2=associate professor/engineer; #3= lecturer/associate engineer; #4=assistant (*zhu jiao*).
  12. Sources: (1989)—1993 graduates survey; (1992)—AAO enrollment computer printout, 8 September 1992; (1993)—AAO enrollment computer printout, 4 October 1993.

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13. Sources: SZU yearbooks. Name lists were provided for students who received bachelors degrees and those who received only certificates because they failed to meet bachelors degree requirements. The more recently established departments of Public Administration and Design reported their first fail rates, for students who enrolled in 1993, as 12% and 9%, respectively.
  14. The colleges included Teachers, Adult Education, Arts, Sciences, Economics, Law, Fine Arts, Architecture and Civil Engineering, Management, Electronic Information, Control and Material Engineering, Golf Sports Management, as well as the Science and Technology Institute and the Social Sciences Institute. See "Plan for SZU college system," *1997 Yearbook*, pp. 17-21.
  15. See Figure 4.3. A high portion (38%) of 1993 Architecture graduates—those admitted in 1988—thought that their education was *too* practical; they ranked behind only Math (40%) in this view and considerably above the average response (25.5%).
  16. Only 19% responded favorably to the statement: "I prefer to be alone than tag along with my friends," well below the 26% school average. In terms of individuality, Architecture ranked eleventh of the 13 departments.
  17. Architecture students ranked fourth (29%, compared with the university average of 24%) in favoring the statement "Money is the most important thing in a job."
  18. *Brief # 420* (17 April 1995).
  19. *Brief # 212* (7 July 1992), "Architecture department students win bid to design projects," *Shenda Tongxun*, 1993, no. 20, p. 10. This was also reported in the *1993 Shenzhen Municipal Yearbook*, p. 415.
  20. *Brief # 230* (24 October 1992).
  21. *Brief # 340* (1 April 1994).
  22. *Brief # 411* (27 March 1995).
  23. *School of Architecture Shenzhen University* [brochure], March 1994.
  24. The others were Economics and International Finance and Trade.
  25. The others were Signal and Information Processing, Optical Electrical Technology, Electronic Information Flow, and Bio-Chemical New Materials. Total funding was ¥600,000.
  26. *Brief # 167* (12 March 1992), *Brief # 176* (2 April 1992).
  27. "Architecture," *1994 Yearbook*, p. 196.
  28. *Brief # 565* (July 1996).
  29. Huang Xinbai, "Introduction to Shenzhen educational work, abstract, 5-8 July, 1983," *1986 Yearbook*, p. 163.
  30. Source: Computed from SZU yearbooks. Senior ranking includes professors/senior engineers and associate professors/engineers.
  31. "Architecture Department," *1986 Yearbook*, pp. 35-6.
  32. *Brief # 391* (9 January 1995).

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33. See, e.g., *Brief # 369* (14 November 1994).
  34. "Architecture Department teachers and students design works exhibit in Shenzhen and Guangzhou," *Shenda Tongxun*, 1992, no. p. 18, 19.
  35. *Brief # 309* (29 October 1993).
  36. Robert Taylor, "China's environmental development will have global impact," retrieved May 1996, <http://www.montclair.edu/Pages/Publications/Insight/BackIssues/Insight022696/Stories.html>.
  37. *Brief # 475* (20 October 1995), *Brief # 464* (22 September 1995).
  38. Luo Zhengqi, "Implementation and contemplation of reform: looking forward to SZU's fifth anniversary, April 1987," *1987 Yearbook*, p. 87.
  39. "Architecture," *1988 Yearbook*, p. 45.
  40. "Architecture," *1991 Yearbook*, p. 107.
  41. Retrieved from SZU homepage, August 1996, <http://www.szu.edu.cn>.
  42. The others were Computer, Electronics, Foreign Trade, English and Accounting.
  43. Luo Zhengqi, "Look at reform from the point of view of SZU's reform," *1986 Yearbook*, p. 81.
  44. "1991 work summary, 14 January 1992," *1991 Yearbook*, p. 37.
  45. *Brief # 185* (15 February 1992).
  46. *Brief # 450* (30 June 1995).
  47. Students responded to the question: "How well do you use your field of study in your job?" The average score among 1993 graduates on the 5-point Likert-type was 2.9 (1 = very poorly...5 = very well). Chemistry scored the lowest, 2.1, and Architecture the highest, 4.0.
  48. Architecture, 3.2; Chemistry, 3.1; average, 2.8.
  49. Luo Yunzhu, "Reviewing the department's three years' history," in Tang, *Searching for Shenzhen University's Reform Path*, 1988, p. 193.
  50. E.g., separate reports in the *1988 Yearbook*, both written by Luo Yunzhu, head of Chemistry, report the *benke* enrollment as 125 (p. 41) and 130 (p. 159). The latter figure appears in Tang, *Searching for Shenzhen University's Reform Path*, 1988, p. 193.
  51. Dai Gesheng, "Reform and expectation of Applied Chemistry," *1986 Yearbook*, p. 127.
  52. "Applied Chemistry," *1986 Yearbook*, p. 40.
  53. "Bio-Chemistry Research Institute," *1986 Yearbook*, p. 48.
  54. "Applied Chemistry," *1987 Yearbook*, p. 41.
  55. Ying Qirui & Deng Jingtong, "Development strategy of science & technology of SZU from 1995-2101," *1995 Yearbook*, p. 156.
  56. It also hosted the second international Chinese analytical chemistry conference, 1995. *Brief # 488* (17 November 1995).

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57. Funded under China's Seventh Five-Year Plan.
  58. Reported in Deng Jingtong & Zhang Aixing, "Scientific Research Office," *1989-90 Yearbook*, pp. 95-6. Since blood carrying HIV does not pose a harm to health when exposed to air, most any liquid disinfectant at 2% density could make the same claim.
  59. Dai Gesheng, "Reform and expectation of applied chemistry," *1986 Yearbook*, p. 127.
  60. Deng Jingtong, "On the management mode of university's research," *1988 Yearbook*, pp. 101-3.
  61. Luo Yunzhu, "Applied Chemistry," *1991 Yearbook*, p. 127.
  62. Sources: *SZU Academic Compilation (1983-1993)*, *1994 Yearbook*, *1995 Yearbook*, *1996 Yearbook*, *1997 Yearbook*, pp. 207-10.
  63. Shao Yifu built the reputation of Hong Kong movie star Jackie Chan. He is also known as the man who turned down Bruce Lee's idea of creating the *kung fu* movie genre, refusing to offer the martial arts luminary more than a small salary. Bruce Lee, whose life was cut short, went on to become a cult legend; Shao Yifu, nevertheless, became wealthier.
  64. "Employment certificate for Professor Luo Yunzhu, 10 July 1987," in Tang, *Searching for Shenzhen University's Reform Path*, 1988, p. 75
  65. The other departments were Foreign Language, International Finance and Trade, and Economics, all departments known for having students with discipline problems.
  66. *Brief # 601* (13 November 1996). The use of "study representative" at SZU was unusual. The term is usually reserved for secondary schooling.
  67. Dai Gesheng, "Reform and expectation of Applied Chemistry," *1986 Yearbook*, p. 127.
  68. *Brief # 388* (30 December 1994).
  69. Cai Delin, "Speech at 1995 work meeting," *1995 Yearbook*, p. 17.
  70. Li Daiyun, "Brief introduction to the Chinese Department over the past three years, December 1986," *1986 Yearbook*, p. 123.
  71. This is the arrangement followed by Nanjing University's Department of Chinese Language and Literature.
  72. *Brief # 324* (28 December 1993).
  73. "Devoted to cultural exchange; interview with Hu Jingzhi, SZU professor and doctoral tutor," *Shenzhen Tequ Bao* (26 May 1997), 21. See also, Hu Jingzhi, "Not regretting spending the rest of my life at SZU," *Shenda Tongxun*, 1993, no. 22, p. 10.
  74. *Brief # 324* (28 December 1993). Hu's study of Twentieth Century western literature won a national book prize. See, *Brief # 546* (13 May 1996). This work reflected the research of his graduate students, as Hu himself did not read western literature, except in translation.

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75. Retrieved from SZU homepage, August 1996.
  76. "International Culture and Media Department," *1988 Yearbook*, p. 26.
  77. *Brief # 291* (11 June 1993).
  78. *Brief # 401* (3 March 1995).
  79. *Brief # 402* (6 March 1995).
  80. "Public Media," *1988 Yearbook*, p. 157.
  81. *Brief # 546* (13 May 1996).
  82. *1986 Yearbook*, p. 31.
  83. Retrieved from SZU homepage, August 1996.
  84. Retrieved from SZU homepage, August 1996.
  85. *Brief # 325* (30 December 1993).
  86. *Brief # 601* (13 November 1996).
  87. *Brief # 628* (8 January 1997).
  88. *Brief # 298* (8 July 1993).
  89. *Brief # 163* (3 March 1992).
  90. *Brief # 615* (13 December 1996).
  91. E.g., "Lecture on Chinese culture" in *Brief # 613* (9 December 1996).
  92. *Brief # 228* (20 October 1992).
  93. *Brief # 602* (15 November 1996).
  94. *Brief # 180* (14 April 1992).
  95. "Battle hero Shi Guangzhu awarded as 'excellent youth of the 1980's'," *Shenda Tongxun*, 1990, no. 8, p. 27. The award was based on a survey conducted by the *Shanghai Youth Paper* and 20 Shanghai universities.
  96. *Brief # 388* (30 December 1994).
  97. Chen Hong, "Girl writer at 16," *Bosom Friend (Zhiyin, Wuhan)*, November 1997, pp. 14-6.
  98. Luo Zhengqi, "Speech at 1987 school opening ceremony," *1987 Yearbook*, p. 14. Chef Fang's current whereabouts are unknown to the author.
  99. *Brief # 337* (22 March 1994).
  100. *Brief # 187* (30 April 1992).
  101. The removed head, Luo Yuanxiang, professor of civil engineering, had worked closely with Luo Zhengqi as one of the latter's two presidential consultants.
  102. Yu Pingjing, "Civil and Structural Engineering," *1989-90 Yearbook*, pp. 75-6.
  103. A few others held both positions concurrently: the Chemistry head in 1993; Mechanical Engineering, Design, Economics, and Public Administration heads in 1994; Public Administration, Economics, Mechanical Engineering and Design in 1995.
  104. Yu Pingjing, "Civil and Structural Engineering," *1991 Yearbook*, pp. 119-22.

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105. Yu Pingjing, "Structural and Civil Engineering," *Shenda Tongxun*, 1991, no. 12, pp. 18-9.
106. *Ibid.*; Yu Pingjing, "Stress graduate design though cooperation education," *Shenda Tongxun*, 1992, no. p. 18, 16.
107. Yu Pingjing, "Civil and Structural Engineering," *1992-93 Yearbook*, pp. 177-9. The same format was also followed by the Departments of International Finance and Trade, Economics, Law, Electronics, Math, and Physics as well as the Audio/visual Center.
108. *Brief # 233* (31 October 1992).
109. "Civil Engineering," *1995 Yearbook*, pp. 132-133.
110. Retrieved from SZU homepage, August 1996.
111. *Brief # 180* (14 April 1992).
112. Retrieved from SZU homepage, August 1996.
113. *Brief # 326* (4 January 1994).
114. Chen Hao, *New thoughts, new explorations and new patterns*, 1989, p. 104.
115. General Affairs Office, *1992-93 Yearbook*, p. 179.
116. *1997 Yearbook*, p. 175.
117. *Brief # 368* (11 November 1994).
118. *Shenzhen gaodeng zhiye jishu xueyuan*.
119. Retrieved from SZU homepage, August 1996.
120. Zhang Minru, "Facing the special zone, facing reality," in Tang, *Searching for Shenzhen University's Reform Path*, 1988, p. 187.
121. Sources: SZU yearbooks. Statistics was called Economic Forecasting and Statistics in 1989 and 1990; The *zhuanke* accounting course in 1986 was for *daipei* cadre.
122. Zhou Xiuquan, "Economics," *1991 Yearbook*, p. 96.
123. E.g., *Brief # 170* (19 March 1992), *Brief # 205* (18 June 1992), *Brief # 271* (25 March 1993).
124. The firm's announcement in the language of an advertisement, complete with office location and phone, appeared in *Brief # 405* (13 March 1995).
125. Xie, "Yu Guangyuan becomes SZU's honorary professor," *Shenzhen Tequ Bao*, 26 January 1994. Yu did not mince words in this article, saying SZU faced too many system limitations and criticizing its lack of "deep research" into educational philosophy.
126. Retrieved from SZU homepage, August 1996.
127. *Ibid.*
128. Zhang Minru, "Economics Department," *1988 Yearbook*, p. 27.
129. See Zhang Minru's quotation, text cited in note 52, Chapter Two, p. 87, above.
130. The SEZ Institute changed its name to Special Zone, Taiwan, Hong Kong and Macau Research Institute in 1995: *1995 Yearbook*, p. 206.

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131. Shi Bowen, "Research," *1988 Yearbook*, p. 100.
  132. Huang Weiping, "Conclusions from SZU on SEZ higher education," *1986 Yearbook*, p. 138.
  133. Wu Zukun, "Expectations of the Electronic Engineering Department," *1986 Yearbook*, p. 129.
  134. *Ibid.*
  135. *Ibid.*
  136. In the course of business, Yang developed *quanxi* with the following units: State Science Commission, SEdC, State Natural Science Foundation Commission, National Defense Science and Industry Commission, Ministry of Mechanics and Electronics, Guangdong Science Commission, Guangdong Higher Education Bureau, Shenzhen Municipal Government, Shenzhen Science Commission, Shenzhen Education Committee, Shenzhen Personnel Bureau.
  137. "Employment contract for Yang Shuwen," in Tang, *Searching for Shenzhen University's Reform Path*, 1988, pp. 79-81.
  138. Bao Youli, "Electronic Engineering," *1991 Yearbook*, pp. 115-8.
  139. *Ibid.*
  140. "Table of personnel who went abroad for training," *1986 Yearbook*, p. 196.
  141. This is discussed in Chapter 6.
  142. Retrieved from IBM homepage, August 1996,  
<http://www.IBM.co.jp/IBMGCG/IBMPC-E/Newsfeed/9512/951218.htm>.  
All other reports on the gift rounded the donation to \$500,000.
  143. Retrieved from SZU homepage, August 1996.
  144. Yang Shuwen, "New Technology Research Center," *1991 Yearbook*, p. 186.
  145. Source: *SZU Academic Compilation (1983-1993)*, *1994 Yearbook*, pp. 134-61; *1995 Yearbook*, *1996 Yearbook*. Research includes articles, books and patents, each counted as one unit of output.
  146. Tan Zaixi, "English learning and teaching in China's Shenzhen Special Economic Zone." Unpublished paper, 1993.
  147. Sin, "University to be built in Shumchun," 1983.
  148. "New proposals for SZU's reform and innovation, 25 September, 1984," *1986 Yearbook*, p. 168 (italics added).
  149. "Second proposals of SZU's reform and innovation, 10 July 1986," *1986 Yearbook*, p. 172; "Regulations on teaching reform and improving teaching quality, 4 September 1986," *1986 Yearbook*, p. 61. This policy was shared with a national audience via Chen Hao, *New thoughts, new explorations, and new patterns*, p. 117.
  150. Luo Zhengqi, "Lunch speech on department heads' present missions, 19 October 1987," in Tang, *Searching for Shenzhen University's Reform Path*, 1988, p. 41.



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151. Di & Xu, "Adapting itself to the market economy," 1993. Similar point is made in Chen Xiaobo, "Create three first-rates," in Tang, *Searching for Shenzhen University's Reform Path*, 1988, p. 156.
  152. Luo Zhengqi, "23 September 1987 notice on distributing *Office English*," *Shenda Tongxun*, 1987, no. 2, p. 19.
  153. "Liang Xueming employment contract," in Tang, *Searching for Shenzhen University's Reform Path*, 1988, p. 81.
  154. Lei Congli, "Basic research on reform in foreign language, January 1987," *1986 Yearbook*, p. 113.
  155. Liu Yingkai, "Educational Utilitarianism: where goes higher education?" 1998; Ruan Wei, "What kind of university should SZU be made into?," *Shenda Tongxun*, 1993, no. 4, pp. 23-5.
  156. Public English was considered a less demanding course and it generated .9 credit (average course equaled 1 credit) in computing teaching load: "Work load for teachers, July 1992," *1992-93 Yearbook*, p. 346. In contrast writing courses earned 1.4 credits, but repeated classes on .6 to .8 credits.
  157. Liu Yingkai, "Educational utilitarianism: where goes higher education?" 1998. Curriculum timetable is Table 7.3.
  158. Retrieved from SZU homepage, August 1996.
  159. In presenting statistics on ranking and placements, categories are not necessarily unique. In other words, fourth place may mean #4 out of several hundred, or it may mean placement in the fourth level, which might include dozens of institutions. This is the first of several caveats issued in this section regarding the use of the data that have been gleaned from SZU publications.
  160. Pan Yanming, "Learn English, train eligible *rencai*," *Shenda Tongxun*, 1987, no. 2, p. 19.
  161. "Academic Affairs Office," *1987 Yearbook*, p. 73.
  162. "Regulations," *1988 Yearbook*, p. 182.
  163. "Ten-year development plan and eighth five-year plan," October 1991, *1991 Yearbook*, pp. 11-8.
  164. "Foreign Language Department pays special attention to teaching, CET Band 4 test achieves great success," *Shenda Tongxun*, 1991, no. 15, p. 8.
  165. "Major points of SZU work report, 30 April 1992," *1992-93 Yearbook*, p. 25.

166. Source: *Shenda Tongxun*, 1998, no. 40, pp. 7-8. Excellent rate applies to those who scored above 85%. Other data from the yearbooks give information on the Band 4 passing rate for groups of test-takers, mixing together different years of entering students:

Entering class	pass-rate	excellent rate
1985	22.7	
1986	50.4	
1985-1987 (in 1988)	39.5	
1989 (by 2 <sup>nd</sup> year)	71.4	
1990 (by 2 <sup>nd</sup> year)	85.9	
1990-1993 (in 1994)	75.0	8.4
1990 (by graduation 1994)	90.9	11.4
1991 (by 4 <sup>th</sup> year)	87.0	16.0
1992 (at 3 <sup>rd</sup> year)	86.7	13.7
1993 (at 2 <sup>nd</sup> year)	67.5	14.9

Sources: *1988 Yearbook*, p. 58; *1991 Yearbook*, p. 138; *1992-93 Yearbook*, p. 206; *1994 Yearbook*, p. 38, 58; *1995 Yearbook*, pp. 57-8; *Brief # 361* (24 October 1994).

167. "Comprehensive evaluation of students, May 1992," *1992-93 Yearbook*, p. 119.
168. "Regulations on awarding bachelors degree," *1992-93 Yearbook*, p. 278.
169. Source: *Shenda Tongxun*, 1998, no. 40, pp. 7-8. Excellent rate applies to those who scored above 85%. Other data from the yearbooks give information on the passing rate for groups of Band 6 test-takers, mixing together different years of entering students:

Entering class	pass-rate	average score
1987	7.8	
1989	32.9	42.8
1990	25.0	60.1
1991	34.0	53.9

Sources: *1992-3 Yearbook*, p. 206; *1994 Yearbook*, p. 38, 58.

170. *Shenda Tongxun*, 1998, no. 40, pp. 7-8. Earlier data presented by the public English teaching staff shows steady improvement. Pass rates for various years were reported as: 1988, 48.9%; 1989, 58.4%; 1990, 60%; 1991, 71.2%, 1992, 86%. See "Teaching reform of college English," in *Collection of Excellent Teaching Results*, 1993, p. 15. These data, of course, conflict with those presented in Table 4.13.
171. Sources: *1987 Yearbook*, p. 73; *1992-93 Yearbook*, p. 206; *1994 Yearbook*, p. 38

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172. Highest score was 84.5, by Chen Cuiting, a gymnast in the Seoul Olympics, who entered International Finance and Trade as a “special recruitment” in 1991. When she entered SZU, he did not know here ABCs, according to Liang Guilin, *1994 Yearbook*, p. 254.
  173. “Foreign Languages Department pays special attention to teaching, CET Band 4 test achieves great success,” *Shenda Tongxun*, 1991, no. 15, p. 8.
  174. Beijing University Graduates Job Assignments Situation Survey Group, “Survey on Beijing University’s graduates job assignment situation,” 1990, p. 71.
  175. These data were take from a computer printout dated 4 October 1993 and reflect the scores at the end of the two-week recruitment period. They are different from the official yearbook figures presented in a previous chapter. The differences are discussed in a later chapter.
  176. In 1987 feedback in night school English courses showed weak teaching and a disappointment by students that the English they learned could not be used in their jobs: Liao Yuangeng, “Adult Education,” *1987 Yearbook*, p. 54. A report three years later complained that FLD frequently changed its teachers, sometimes in the middle of a course: Liao Yuangeng, “Part-time *zhuanke* college,” *1989-90 Yearbook*, p. 85.
  177. Wu Zewei, “Speech on school teachers conference, 26 June 1990,” *1989-90 Yearbook*, p. 39; Cai Delin, “On teaching work,” *1992-93 Yearbook*, p. 49.
  178. Ruan Wei, “Commodity economy and foreign literature teaching,” *Shenda Tongxun*, 1990, no. 10, p. 29.
  179. Tan Zaixi, “On the development prospects of the FLD,” *Shenda Tongxun*, 1990, no. 10, p. 29.
  180. These events are discussed in detail in Agelasto, *University in Turmoil*, 1998.
  181. *1997 Yearbook*, pp. 189.
  182. Zhang Minru, “Training high level *rencai* in modern economic management, December 1986,” *1986 Yearbook*, p. 121.
  183. Sciences track recruits scored 739 and arts 741, compared with university average of 682, 705, respectively: *1988 Yearbook*, p. 68.
  184. Average score on the English component in 1998 was 721 for International Finance and 718 for International Trade majors.
  185. Test of English as a Foreign Language, the test required of foreign students by U.S. colleges and universities.
  186. Source: 1993 graduates survey. Percentages are rounded.
  187. This precise point is made by sociologist Daniel Bell in his 1960s study of the curriculum of Columbia College. Bell defines discipline as “a group of analytical concepts ordered into a body of theory and applied to a subject matter. Thus, economics is a discipline, while international trade or national-income accounts are subjects.” Bell, *The Reforming of General Education*, 1966, p. 31.

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188. Gong Liping, "International Finance and Trade," *1988 Yearbook*, p. 29.
  189. Retrieved from SZU homepage, August 1996, <http://www.szu.edu.cn>.
  190. Gong Liping, "International Finance and Trade," *1988 Yearbook*, p. 29.
  191. *Brief # 204* (16 June 1992).
  192. *Brief # 499* (18 December 1995).
  193. *Brief #447* (23 June 1995).
  194. *Brief # 386* (26 December 1994).
  195. *Brief # 610* (2 December 1996).
  196. E.g., *Brief # 176* (2 April 1992).
  197. "Guangdong Province on the report to State Council on the founding of SZU, 26 February 1983," *1986 Yearbook*, p. 159 (italics added).
  198. Li Zepei, "Law Department's five-year development," in Tang, *Searching for Shenzhen University's Reform Path*, 1988, p. 184.
  199. Li Zepei, "Reform legal education and training," *1986 Yearbook*, p. 109.
  200. *Ibid.*
  201. "Law Department," *1988 Yearbook*, p. 31.
  202. Li Zepei, "Reform legal education and training," *1986 Yearbook*, p. 109.
  203. "Law Department," *1988 Yearbook*, p. 31.
  204. "Academic achievements of Law Department in 1989," *Shenda Tongxun*, 1990, no. 9, p. 45.
  205. Li Zhongwu, "Law Department," *1989-90 Yearbook*, pp. 57-8.
  206. Li Zhongwu, "Law Department," *1991 Yearbook*, p. 93.
  207. *1994 Yearbook*, p. 216.
  208. *1987 Yearbook*, pp. 228-9.
  209. Feng Shicong, "Reforming the traditional teaching system," in Tang, *Searching for Shenzhen University's Reform Path*, 1988, p. 178.
  210. Source: Feng Shicong, "Reforming the traditional teaching system," in Tang, *Searching for Shenzhen University's Reform Path*, p. 178.
  211. Literally, at the starting point.
  212. Feng Shicong, "Reforming the traditional teaching system," in Tang, *Searching for Shenzhen University's Reform Path*, 1988, p. 184.
  213. "Like the dancing bird: the Hong Kong class" (12 October 1995).
  214. *Brief # 372* (21 November 1994).
  215. The *Shenzhen Shangbao* account reported that 4,000 students had been included in the program, which is a seven-fold exaggeration. It reported that 155 students had graduated, which is also an incorrect figure.
  216. Bei, "SZU under the governance of Cai Delin," 1996. This article is discussed in Agelasto, *University in Turmoil*, 1998.
  217. The course's full description including program structure and entrance requirements appeared on the HKMA homepage—<http://www.hk.super.net/~hkma/course24.htm>, retrieved October 1996.

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218. Cheng Bin, "Guidance and practice for senior management personnel graduate class," in Tang, *Searching for Shenzhen University's Reform Path*, 1988, p. 197.
219. See Yu Zhongwen, "Educational reform is a complex, systematic project, December 1986," *1986 Yearbook*, pp. 99-100. In this article, the Party vice-chair restricted himself to non-political issues, commenting on the need to improve teaching quality, correct the lack of research, absence of SEZ-related teaching materials, and poor teaching management. He was critical of inflexible teaching content, restrictions on students' choosing majors, uniform teaching methods, and the excessively clear division between arts and sciences majors.
220. Yu Zhongwen, "Management Department," *1989-90 Yearbook*, pp. 59-60.
221. Chen Guoquan, "Management Department," *1991 Yearbook*, p. 97.
222. *Zhao ling xi gai*, literally morning order, evening change.
223. *SZU Academic Compilation (1983-2993)*, *1994 Yearbook*, *1995 Yearbook*, *1996 Yearbook*, *1997 Yearbook*.
224. Chen Guoquan, "Management," *1992-93 Yearbook*, p. 165.
225. Chen used the idiom from *The Three Kingdoms*: being physically in the Cao camp but the heart is in the Han camp.
226. *Department of Management, Shenzhen University* [booklet], August 1993.
227. Feng Shicong, "Management," *1994 Yearbook*, p. 102.
228. *Brief # 402* (6 March 1995).
229. *Brief # 401* (3 March 1995).
230. Retrieved from SZU homepage, August 1996.
231. "Management Department, "Vivid socialist education lessons," *Shenda Tongxun*, 1992, no. 19, p. 15.
232. It arranged for 30 students to visit Huanan Teachers University, Guangzhou, to listen to a talk on the measures that institution was taking in its effort to join the 211 Program. *Brief # 425* (28 April 1995).
233. *Brief # 246* (5 December 1992). One of the speakers was a professor from "Hamburger University." The item in the *Brief* did not place the institution's name in quotations, thus endowing this institution (where McDonald's managers are trained and employees learn to flip hamburgers) with legitimate university status.
234. *Brief # 265* (4 March 1993), *Brief # 339* (29 March 1994), *Brief # 442* (12 June 1995). Winners came from Math, Adult Education and Management.
235. *Brief # 303* (21 September 1993).
236. "Management Department," *1995 Yearbook*, p. 123.
237. *Brief # 373* (23 November 1994).
238. "Applied Math," *1986 Yearbook*, p. 38.
239. Liao Keren, "Soft Science," *1988 Yearbook*, p. 37.

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240. Soft Science, "Major development according to social demands," *Shenda Tongxun*, 1990, no. 9, p. 22.
  241. Retrieved from SZU homepage, August 1996.
  242. Liao Keren, "Soft Science," *1991 Yearbook*, p. 112.
  243. *Brief # 230* (24 October 1992).
  244. *Brief # 267* (11 March 1993).
  245. *Brief # 298* (8 July 1993).
  246. *Brief # 619* (23 December 1996).
  247. In 1993 9 of the top 10 winners came from Electronics. In 1995 the second year Transportation Economics Majors achieved a 100% passing rate.
  248. *Brief # 365* (3 November 1994); *Brief # 375* (28 November 1994).
  249. Gao Lisheng, "Mechanical Engineering," *1988 Yearbook*, p. 44.
  250. Zhao Yijun, "Mechanical Engineering," *1986 Yearbook*, p. 107.
  251. Gao Lisheng, "Mechanical Engineering," *1991 Yearbook*, p. 129.
  252. "Mechanical Engineering," *1992-93 Yearbook*, p. 112.
  253. Retrieved from SZU homepage.
  254. *Brief # 619* (23 Dec. 1996); *Brief # 330* (18 Jan. 1994); *Brief # 390* (6 Jan. 1996).
  255. For the 1995 accreditation, PE was classified as one of five public teaching departments. The others were Art Teaching/Research Office, Moral Education, Social Sciences and the Computer Center.
  256. Since about 1987, departments have been listed in a standard order: Chinese, Economics, IFT, Law, Management, FLD, Public Administration, Architecture, Mechanical Engineering, Electronics, Math, Civil Engineering, Physics, Chemistry and PE. For administrative purposes each department was assigned a number (e.g., Chinese 001, FLD 006, Architecture 008) which was made part of student's identification numbers. This ordering was more or less followed when department reports are presented in university publications.
  257. "Provisional regulations on tutoring work at SZU, 19 September 1989," *1989-90 Yearbook*, pp. 235-6.
  258. "Physical education regulations, 30 March 1993," *1992-93 Yearbook*, pp. 284-5.
  259. The idiom used had appeared in old-fashioned propaganda: *jiayu huxiao, renren jiezhi*, literally family talks, family knows, everybody knows.
  260. Ma Yaoqiu, "Review and thoughts on physical education reform," *Shenda Tongxun*, 1995, no. 29, p. 10.
  261. Hu Xiaoyin, "On SZU football teaching reform," *Shenda Tongxun*, 1994, no. 24, pp. 33-4.
  262. Huang Wenjie & Ma Yaoqiu, "Review of SZU's physical education work of 1989," *Shenda Tongxun*, 1990, no. 8, p. 25.

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263. This ranked seventh but the total number of participating universities was not disclosed in the PE 1991 annual report: *1991 Yearbook*, p. 132.
  264. Criticism was general; specific names were not mentioned: *1991 Yearbook*, p. 132.
  265. Ma Yaoqiu, "On the development tendencies of higher physical education," *Shenda Tongxun*, 1995, no. 30, p. 9.
  266. *Brief # 242* (24 Nov. 1992), *Brief # 320* (9 Dec. 1993), *Brief # 376* (2 Dec. 1994), *Brief # 493* (3 Nov. 1995), *Brief # 244* (1 Dec. 1992).
  267. "Creation/invention part-time job award, 9 July 1987," *1987 Yearbook*, p. 156.
  268. "Sports awards, 9 September 1988," *1988 Yearbook*, p. 191.
  269. "SZU revised scholarship regulations, December 1989," *1989-90 Yearbook*, pp. 204-5.
  270. The others were New Energy, SEZ Economics, New Technology, Life Sciences, Bio-Chemistry, Petroleum Research, and Hong Kong Law. Only the first two were considered to have adequate fixed staffing: Chen Kangnian et al., "Scientific Research Affairs Office," *1991 Yearbook*, p. 141.
  271. Retrieved from SZU homepage, August 1996.
  272. "Optical and Electrical Technology Engineering Department," *1988 Yearbook*, p. 39.
  273. Retrieved from SZU homepage.
  274. The other highlighted courses were Political Theory, Public English, Advanced Math, and Computer. Courses selected for special funding included the above as well as courses in Chemistry and Public Administration as well as the support services of the A/V center.
  275. Wang Jiansheng, "Applied Physics," *1991 Yearbook*, p. 123.
  276. *Ibid.*
  277. Source: "Report to Shenzhen city regarding SZU accreditation, 23 November 1995," *1995 Yearbook*, p. 45. 1994 Physics and 1994 Electronics were cited by SZU as "excellent" classes according to test results.
  278. "Applied Physics," *1994 Yearbook*, p. 115.
  279. "Applied Physics," *1995 Yearbook*, p. 138.
  280. *1991 Yearbook*, p. 141; *1992-93 Yearbook*, p. 209.
  281. The other two were International Software Development and the Communications Technology Research Institute.
  282. This case, in which Microsoft sued Shenzhen University, is covered in Agelasto, *University in Turmoil*, 1998.
  283. Retrieved from SZU homepage, August 1996.
  284. Wang Yusheng, "Joint Institute of Applied Nuclear Technology," *1989-90 Yearbook*, p. 138.
  285. Open days were the afternoons of September 25, 27 and 28.

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286. Guo Yongxian, "Public Administration," *1991 Yearbook*, p. 104.
287. *Ibid.*, 106.
288. Retrieved from SZU homepage, August 1996.
289. Guo Yongxian, "Public Administration," *1991 Yearbook*, p. 105.
290. Guo Yongxian, "The only way out is reform and innovation," *1986 Yearbook*, p. 115.
291. "Public Administration," *1986 Yearbook*, p. 35.
292. Guo Yongxian, "The only way out is reform and innovation," *1986 Yearbook*, p. 115.
293. Maria Jaschok, "Chinese educational reforms and feminist praxis," 1998.
294. Bob Adamson, "Modernizing English language teacher education," 1998.
295. Presumably, per capita research output dropped, also. Per capita figures are available for teaching departments but not for research institutes (where staff size data are missing). SZU expanded its professional staff at a somewhat steady pace by 63% from 1986 to 1995; research output rose 178%, in a roller-coaster fashion with most of the climb in 1994-1995.
296. Sources: *SZU Academic Compilation (1983-1993)*, *1994 Yearbook*, *1995 Yearbook*, *1996 Yearbook* (excluding SZU Teachers College). 1993 data were not available. Tabulations by Cai Jianming. Data from the 1997 *Yearbook* report 582 items of output, an improbably 66% rise over 1996. For the 1997 listing the definition of research was expanded to include newspaper articles and material published in conference proceedings. Eight articles by an individual who no longer taught at SZU were included. Thus, the 1997 data are not comparable with those tabulated in previous years.
297. Wu Shulian, "Chinese university accreditation," *Higher Education Accreditation of China*, no. 4 (1997), pp. 1-6.