Magic and Myth of Migration: A Case Study of a Special Economic Zone in China*

Rapid economic and demographic growth propelled the tiny coastal town of Shenzhen (close to Hong Kong) into one of the most dynamic and modern-looking cities in China. Because population movement in China has long been heavily regulated, one may be puzzled by the question of how migration could play any major role in fostering Shenzhen's boom.

The migratory process contributing to Shenzhen's rapid development may be unique; however, its uniqueness can best be understood by analyzing it in the context of migration and the socio-economic development process.

Migration analyses tend to emphasize economic factors as motivating individuals to move from one place to another (Spengler and Myers, 1977).

Although examination of a specific case may not make a major contribution to the development and reformulation of theories of migration, it often

* By Xiangming Chen, Department of Sociology, Duke University, Durham, North Carolina.This paper is a spinoff from a dissertation project which was supported by a James B. Duke International Studies Fellowship. The data for this paper were obtained on a field trip to Shenzhen funded by the Asian/Pacific Studies Institute and the Graduate School of Duke University. The author would like to thank Joel Smith and John W. Minton for their comments and suggestions.

carries some practical implications for interested policy makers, urban planners and development specialists, among others. Moreover, a well-executed case study enriches the loosely defined field of comparative urban research (Walton, 1976).

In contributing to that goal, this paper reviews an overall picture of the rapid economic and demographic growth in Shenzhen. Further, it examines the sources and mechanisms of migration, and characteristics of migrants to Shenzhen in order to clarify the relationship between rapid economic growth and its demographic consequences in China. It also briefly assesses the problems associated with migration to Shenzhen and how they may affect the city's future.

Growth explosion at China's frontier

The history of population movement towards frontier settlements has varied considerably globally in terms of goals, processes and outcomes among countries and regions. Economic and political considerations for both individuals and Governments have played different roles in the settlement, for example, of the western part of the United States of America, and Siberia in the Union of Soviet Socialist Republics.

Following a change in national leadership in the late 1970s China moved to rediscover its frontier with a set of new economic ideologies. To attract overseas capital and technology for internal economic growth, the Chinese Government in 1980 set up Special Economic Zones (Shenzhen, Zhuhai and Shantou in Guangdong province, and Xiamen in Fujian province) in four cities along its southern coast.

The Shenzhen special zone is the largest of the four Special Economic Zones (hereafter referred to as SEZs) and has experienced the most rapid economic and demographic growth. Its gross industrial output in 1979 rose from 4 million Chinese Yuan ($USl = 1.5 Yuan in 1979) the year before the SEZs were formally established, to 30 million Yuan in 1985. Revenue income for the Shenzhen SEZ reached 8.6 million Yuan in 1985, a 14-fold increase over 1979 (Huang, 1986). Shenzhen's population rose from about 30,000 in 1978 to nearly 350,000 in 1984 (*Shenzhen SEZ Yearbook*, 1985).

Although the policy of designating a special zone for growth has resulted in the intensive fusion of economic and demographic forces, the original rationale for setting up the SEZs was primarily economic. The SEZs are designed to play four "window" functions: (a) bringing in foreign capital and advanced technology, (b) absorbing scientific knowledge, (c) introducing modern management expertise, and (d) articulating China's foreign economic policy (Chen, 1986).

There was no clear evidence at the outset that Shenzhen would become a major national industrial growth pole, despite the fact that subsequent events demonstrate that it had the potential to become one. Shenzhen was too small to grow into a city of the industrial and economic magnitude and complexity that would enable it to compete with cities such as Shanghai and Tianjin. In fact, China decided in 1984 to establish Economic Development Zones (EDZs) in 14 cities along the coast. The initially greater size and stronger industrial capacity of those cities as compared with Shenzhen qualify them to be real growth centres (Chen, forthcoming) as instruments of national spatial policy.

It has turned out that Shenzhen represented an unconventional urbanization strategy. On the one hand, it did not have the basic economic and demographic structure to become a metropolis, even with special assistance from the State. On the other hand, Shenzhen's favourable location directly across from Hong Kong (see map) and population characteristics (X. Liang, 1984) were conducive to its growth into a sizeable city.

Map: Location of Shenzhen Special Economic Zone

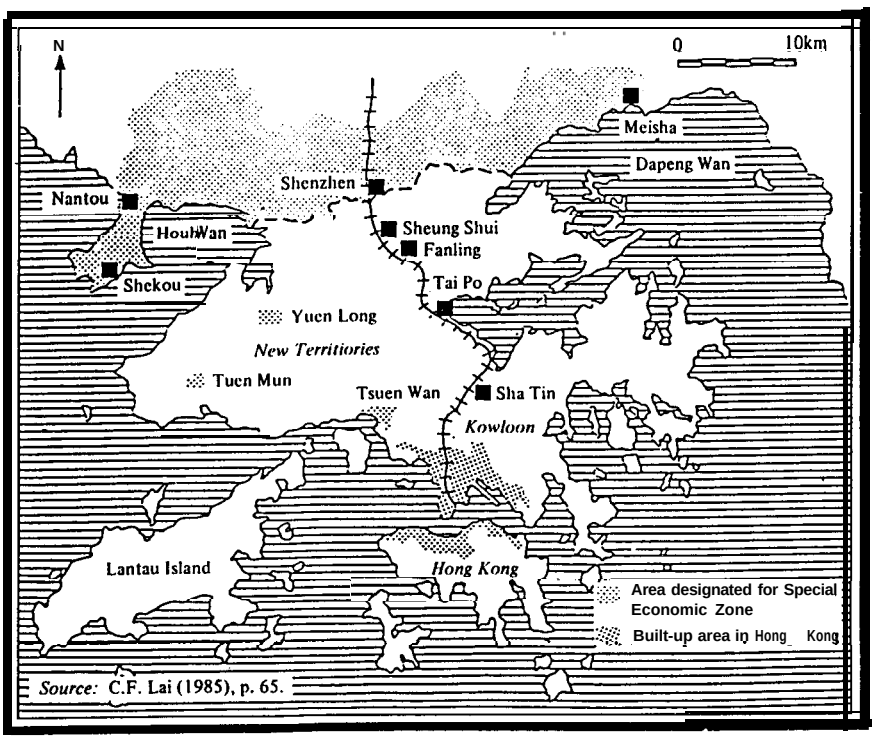

Table 1: Sources of capital investment in basic construction and development in Shenzhen, 1979-1984 (per cent)

Sources	1979	1980	1981	1982	1983	1984
Total investment (in $US 1,000)	4 988	12 487	27 037	63 265	88 593	163 670
State revenue allocation	47.8	26.4	8.4	7.4	4.9	1.2
State ministries and provinces	24.5	10.5	9.0	9.2	7.8	9.2
Zone government investment	12.5	7.8	12.3	10.1	8.8	13.0
Bank loans	NA	5.6	11.7	32.3	37.9	44.1
Local enterprise investment	4.2	6.5	7.4	7.9	11.3	13.3
Interior enterprise investment	NA	NA	1.1	3.1	4.3	3.0
Foreign capital investment	11 .o	43.2	50.1	30.0	24.9	16.2
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Sources: Yang (1984), Table 1, p. 38; *Shenzhen Special Zone Yearbook* (1985), pp. 592-593.

The favourable characteristics of Shenzhen won the attention and support of China's central and provincial Governments in the form of flexible trade activities and tax benefits. The combination of institutional and monetary support from the State in turn has increased the attractiveness of Shenzhen's investment environment for foreign capital. The various sources of capital investment in the Shenzhen SEZ are shown in **table 1.**

These data are revealing. The State invested most of the capital to get development in Shenzhen off the ground, as shown by the combined 72.3 per cent of the first two categories (**rows 2 and 3**).The proportion of state investment declined to 10.4 per cent in 1984. Local investment from Shenzhen itself grew rapidly from 16.7 per cent (**rows 4, 5, and 6**)in 1979 to 70.4 per cent in 1984, although most of the money came from bank credits essentially controlled by the central Government. The proportion of foreign capital investment reached its peak in 1981 when state investment started to decrease sharply. This statistic may be misleading, however, for the absolute amount of capital investment in 1984 was almost double that in 1983. The rapid growth in bank loans accounted for a large share of this increase.

Heavy investment in basic construction and development, coupled with government publicity about the rising importance of the SEZs, have created a new image of Shenzhen as a "promising land". The demographic dimension of the general SEZ strategy began to be revealed. People living elsewhere were attracted to new job opportunities occurring in an environment consisting of favourable conditions: emerging economic prosperity, freer political atmosphere, warm climate and proximity to Hong Kong, just to mention a few. Thousands of people began to show interest in seeking new career and living opportunities in Shenzhen in response to some mechanisms used by the Government for facilitating population movement to the city. This resulted in an unprecedented form of migration of people from different parts of China to this southern city. Table 2 presents data on the rapid population growth of Shenzhen over a six-year span.

As **table 2** indicates, population in the Shenzhen SEZ rose sharply from 1979 through 1984, with a net increase of 120,500 (1.7 times) in six years. Shenzhen's small population base led to a limited number of births each year. Consequently, new population growth due to the rate of natural increase was less than 10 per cent annually averaging across the period covered by the data (row 9). In contrast, migration to the Shenzhen SEZ accounted for more than 90 per cent of the population growth except for 1981 (**row 10**). These percentages reflected the influx of at least 20,000 new inhabitants on average each year into an area of 327.5 sq. km. This rate was considerably higher than rates of rural migration to large cities (30-60 per cent) in several developing countries where migration flows largely have been unchecked (Yap, 1977).

Table 2: Total and working population growth in Shenzhen Special Economic Zone, 1979- 1984

Demographic features	1979	1980	1981	1982	1983	1984
A. Total population						
(1) Population (permanent)	70 900	84 100	98 300	128 600	165 000	191 400
(2) Male population	34 500	42 000	49 100	65 000	95 500	108 300
(3) Female population	36 400	42 100	49 200	63 600	69 500	83 100
(4) Sex ratio (2)/ (3)	0.95: 1	l.00:l	l.00:l	1.02:1	1.37:1	1.30:1
(5) Births per annum	1 524	1561	2 186	2 460	1 872	1 937
(6) Deaths per annum	360	338	412	412	414	414
(7) Net natural increase (5) - (6)	1 164	1 223	1 714	2 048	1 458	1 523
(8) Total net increase	-	13 200	14 200	30 300	36 400	26 400
(9) % net growth due to natural increase (7) / (8)	-	9.3%	12.5%	6.8%	4.0%	5.8%
(10) % net growth due to migration		90.7%	87.5%	93.2%	96.0%	94.2%
B. Working population						
(11) Total working population	23 300	26 500	38 500	66 800	107 600	154 500
(12) Net increase		3 200	12 000	28 300	40 800	46 900
(13) % population working (11) / (1)	32.9%	31.5%	39.2%	51.9%	65.2%	80.7%
(14) (12) / (8)		24.2%	84.5%	93.4%	112.1%	177.7%

Source: Calculated from *Shenzhen Statistical Yearbook* (1985) p. 581.

Another feature of table 2 is the increasing proportion of the population in the labour force from 1981 onward. The proportion of the population working (panel B, table 2) increased rapidly from 32.9 per cent in 1979 to 80.7 per cent in 1984. The largest net increase of working population relative to increases in the total population occurred in 1983 and 1984 (rows 12 and 14).

Two parallel processes seemed to have been operating. First, the data indicate that an increasing proportion of the migrants were job holders. Second, the data suggest a growing number of available employment opportunities for the population as a whole. The nature of the jobs for migrants and local residents may be seen from the differences in the increases in the numbers of males and females, with the former increasingly outnumbering the latter (rows 2 and 3, **table 2**). (Differences in the distributions of men and women across industrial sectors are elaborated upon later in the paper).

Data in **table 2** concern only Shenzhen's permanent population, residents who are formally registered with the Security Bureau of Shenzhen SEZ municipal government. Temporary residents (those holding a "temporary residence card") have also grown rapidly. These include (a) mobile construction workers from other provinces and regions, (b) employees from the interior holding a rotational job in their work units' new office or factory in Shenzhen, and (c) peasants from neighbouring counties and regions within Guangdong province coming in to sell fresh produce on the local free farm markets.

Although data on the distributions of these subgroups in the temporary population are not available, scattered statistics show that the first group (construction workers) makes up the largest share because of the sustained tempo and increasing scale of land development and building construction in the last few years. In 1979, Shenzhen had only one construction company and it employed only 500 workers. The number of such workers grew rapidly to 30,000 in 1981, 70,000 in 1982, 94,000 in 1983, and 104,330 in 1984. Coming from 40 counties and 21 cities in nine provinces, these workers signed construction contracts with the zone government and came to work and stay for the period needed to complete the project. In 1984, mobile construction workers constituted 71.4 per cent of the 146,100 temporary residents in Shenzhen (*Shenzhen SEZ Yearbook*, 1985).

An attractive yet uncertain destination

The data have indicated that more than 90 per cent of Shenzhen's net population growth was due to migration; also that the critical question concerns the factors that motivated over 100,000 people, many of whom were established professionals in big cities, to move to a small, unfamiliar and still

largely underdeveloped town. The question is even more intriguing for China, because, other things being equal, there is a lower propensity to migrate in a socialist than in a capitalist society, owing to a greater degree of equality of incomes, the maintenance of full employment and extensive social services, and relatively more equal distribution of social infrastructure and facilities throughout the country (Fallenbuchl, 1977).

A long-standing anti-urban tradition rooted in predominantly agricultural China, reinforced by the State's rigid registration system, tends to strengthen the idea that migration on a massive scale is rarely likely, except in instances such as the rustication movement during the Cultural Revolution (Simmons, 1981; Goldstein, 1985). This study of population movement to Shenzhen provides some basis for countering the hypothesis that migration tendency is low in socialist countries by applying a modified "push-pull approach" to the situation.

What does Shenzhen offer? Most studies of migrant behaviour in market economies are concerned primarily with the "pull" factors at the destination and "push" forces at the origin (Bogue, 1977). Experts tend to focus on how sensitive and reactive migrants are to economic opportunities (e.g., higher wages, better jobs) which affect individual decisions to move. (Todaro, 1969; Yap, 1977). In essence, most discussions of migration, especially internal migration, suggest an explicit or implicit rationality underlying decisions to move. Insufficient attention has been paid to non-economic State-mediated, and environmentally unique factors that are not of central importance in push-pull terms but that may operate under non-market or quasi-market conditions.

The analysis of Shenzhen's experience calls for a sensitive treatment of these variables within the basic push-pull framework. As a general background, **table 3** (on pages 10-l 1) shows the socio-economic characteristics of the Shenzhen SEZ compared with the country as a whole and 16 large cities.

Table 3 contains information on several measures of industrial capacity and the standard of living in Shenzhen, information for 1980 (the first year of Shenzhen's status as an SEZ), 1982 and 1984, and both the national average and urban districts of 16 very large Chinese cities (with populations of 2 million or more) in 1982, the only year for which those data are available. (For an analysis of China's very large cities, see Chen, in press).

The data suggest several general features of Shenzhen. Despite its newness, Shenzhen already was more crowded than the country as a whole, although it compared favourably with the much larger established cities (row 1) Shenzhen had an increasingly stronger industrial capacity on a per capita basis, exceeding that of the 16 large cities (**rows 3 and 4**).

Shenzhen seemed to offer more amenities and social infrastructure than the 16 cities, which, in turn, were better than the national average, with few exceptions. Particularly noteworthy are housing, transportation, retail service and purchasing capacity. Shenzhen's residents enjoyed much more living space (**row 8**) almost approaching the spacious living of the countryside, i.e. 13.4 sq. metres per person in 1982 according to a national sample survey (China *Statistical Yearbook,* 1983). Per capita access to public buses in Shenzhen was double that for the 16 cities (**row 7**). The average wage in Shenzhen was about 2.5 times higher than elsewhere and Shenzhen's prices were largely market-driven rather than State-regulated.

With respect to the availability of recreational, educational and medical facilities, the data suggest that Shenzhen generally has lagged behind the 16 cities though, on average, it was more developed in these respects than the country as a whole. Despite its brief existence. Shenzhen has closed the gap between it and the 16-city average considerably since 1982, especially with respect to cultural and health services. For example, Shenzhen's residents' access to hospital beds and doctors in 1984 surpassed that of the 16 cities (**rows 17 and 18**), despite its rapid population growth between 1982 and 1984. For a young city, its educational system grew rapidly. In 1980, there were only seven high schools and one vocational school in the Shenzhen SEZ; by 1984 there were 14 and seven, respectively. There was no institution of higher education prior to 1983. In that year it took only seven months to complete a campus of 58,000 sq. metres for the new Shenzhen University, and its enrolment exceeded 1,000 in less than a year (*Shenzhen SE2 Yearbook,* 1985).

Despite this phenomenal growth, Shenzhen has yet to become "a Chinese land of milk and honey." Nonetheless, it has developed a variety of strong pull characteristics in its appealing image, new environment, relative prosperity and unique position in the Chinese system of cities. The appealing image has developed directly as a consequence of Shenzhen's having been designated as an SEZ. More than an eye-catching label, Shenzhen SEZ was granted greater autonomy than had ever been given to any other area in China, having been allowed to engage in various forms of direct co-operation with advanced capitalist countries, to rely primarily on market mechanisms, and to experiment with new ways of organizing economic and social activities with limited interference from higher authorities. To potential migrants, this created an atmosphere that is less politicized, freer of bureaucratic constraints and replete with more varied economic opportunities. Shenzhen offers a more appealing prospect to outsiders, particularly when contrasted to the constraints that exist in other Chinese urban places.

Among the benefits of Shenzhen's location are (a) its proximity to Hong Kong, (b) its abundant entrepBt trade, and (c) its more direct contact

Table 3: Socio-economic characteristics of Shenzhen in comparison with the national average and sixteen large cities (urban district), 1980-1984

Characteristics	National average (1982)[a]	16 large cities (1982)[a]	Shenzhen Special Zone (1980)[b]	(1982)[b]	(1984)[b]
(1) Population density (per sq. km.)	106.00	3 518.00	256.79	392.67	584.43
(2) Natural increase rate (%)	1.40	2.13	1.58	1.80	0.85
(3) Industrial enterprises per 10,000 population	3.83	7.18	28.66	25.27	31.82
(4) Total industrial output per capita (in Chinese Yuan)	542.24	2 735.79	1 004.04	2 815.86	9 480.25
(5) Farmland per capita (acres)	0.25	0.05	0.12	0.05	0.03
(6) Grain output per capita (pounds)	626.52	157.51	364.65	175.86	68.03
(7) Public buses per 10,000 population	N A	3.87	N A	6.84 (‘83)	7.42
(8) Living space per capita (sq.m.)	5.60	3.47[#]	N A	10.80 (‘83)	11.80

(9) Consumption sales per capita (in Chinese Yuan)	214.84	706.67	1 359.69	3 430.33	9 139.39
(10) % labour force employed in retail services	11.06	4.94	12.25	20.20	22.70
(11) Cinemas per 100,000 population	14.15	14.30	13.08	29.55	34.48
(12) Public libraries per 100,000 population	0.19	0.23	1.19	0.78	0.52
(13) College students per 10,000 population	11.36	122.64	NA	13.09 ('83)	36.00
(14) Vocational schools per 100,000 population	0.03	14.39	1.19	3.89	3.66
(15) High schools per 100,000 population	0.2 1	7.65	8.32	7.78	7.31
(16) Hospitals per 10,000 population	0.65	5.20	0.95	0.70	0.57
(17) Hospital beds per 10,000 population	20.30	52.42	30.20	28.54	59.72
(18) Doctors per 10,000 population	12.90	46.2 1	29.49	38.26	61.65

Note: # This measure is living space per capita completed by the year-end, rather than the living space in use.

Sources: **a.** Adapted from Chen (in press, table 3).
b. Calculated from *Shenzhen Statistical Yearbook* (1985), pp. 581, 582, 583, 585, 587,601, 606,611,612,613 and 614.

with Western cultural and economic influence, especially through Hong Kong television programmes. Direct trade with Hong Kong has enriched and diversified Shenzhen's supply of consumer goods as a port of entry (Molotch and Logan, 1985). Although some of these goods are expensive and can only be bought cheaper with Hong Kong dollars, they are at least more accessible to its residents compared with cities in the interior of China.

Shenzhen has benefited from some degree of overall planning for use of space, housing and a range of social and economic activities (Campbell, 1976). In response to the strip shape of the Zone, planners designed and implemented a blueprint that divided the Shenzhen SEZ into multiple modules. Each module is an integrated district, containing a rational allocation of different functional zones, industrial and residential alike, and is separated from its neighbours by rivers, orchards, or green-belts to enhance environmental quality (*Shenzhen SEZ Yearbook*, 1985). The availability of open land has enabled the construction of spacious housing blocks of various designs and heights. In 1979, there was only one building as high as five stories; by 1986, in addition to hundreds of smaller buildings, 129 highrises of 18 stories or more either were in use or under construction. Plentiful space and pleasant external environment have made Shenzhen one of the most livable cities on China's southern coast. This attribute is particularly attractive to people who are tired of crowded living quarters, polluted air and the inefficient services of the large cities in the interior (Chen, in press).

While the benefits comprise alluring attractions, there are potential costs involved for people who move to Shenzhen; these can be grouped into three general categories. For many potential migrants, Shenzhen represents a new and unpredictable place. Since people in China traditionally rely heavily on long-term relationships, and established personal and community networks, Shenzhen's fluid structure and rapid growth require difficult adaptations for newcomers. The loss of close contacts with old friends and colleagues is likely to generate feelings of lack of status and being lost among migrants in Shenzhen. Knowing that the Shenzhen SEZ is experimental and subject to policy adjustments that can easily reduce or remove its current benefits, potential migrants are concerned about the possibility of getting stuck in a strange place that ultimately can turn out to be worse than their places of origin.

Closely related to these potential costs are what may be called "counter-pull factors" in the hometowns of potential migrants, especially those living in big cities. Places such as Beijing or Shanghai offer an established pattern of life, closeness to family and friends and a sufficient diversity of recreational facilities and consumer goods. Owing to factors such as inefficient transportation and absence of extended annual holidays (except for those whose relocation separates them from spouses or parents), relocation to Shenzhen can create several

inconveniences for those who wish to visit their places of origin. Moreover, since household registration with a big city (especially Beijing and Shanghai) is a major privilege, people are very reluctant to move to a smaller place. In fact, many people find ways of keeping their registrations in such cities while moving to Shenzhen on "temporary residence cards".

The third type of cost arises from the fact that Shenzhen's benefits are uneven. For example, some of those already in Shenzhen feel that they have lost continuity in their professional development due to the lack of research facilities, though they are satisfied with a higher salary. Some are worried about the highly limited local opportunities for university education for their children, though they may be happy with their new careers in Shenzhen. Some have chosen to move to Shenzhen for its benefits because they could not secure a similar job in places such as Beijing and Shanghai which would offer them a more comprehensive package of benefits.

Volume, sources and processes of migration

In view of the fact that there are both costs and benefits associated with moving to Shenzhen, several questions arise: (a) How many migrants reside in Shenzhen? (b) Where have they come from? (c) What are the mechanisms through which they have moved to Shenzhen?

Unfortunately, data on the volume of migration are scant even though it is known that over 90 per cent of the net population increase has been accounted for by migration. Scattered statistics, however, can help in piecing together the approximate numbers of different types of migrants and the means by which they have entered Shenzhen.

Because the SEZs were set up primarily for agencies involved in foreign trade and factories with overseas capital and equipment, there was an overriding need for two broad categories of work force from outside the SEZs - professionals (cadres, technicians etc.) and manual workers – who had to be supplied from outside.

There are several channels through which professionals may move to Shenzhen. In a sense, these are innovations in China's traditional personnel system which transfers professionals from one place to another primarily by assignment. The first of these new mechanisms was called "transfer through consultation and selection". From 1981 on, personnel officials of the Shenzhen municipal government developed a list of positions to be filled every year. Then a crew of recruiters would travel to different parts of the interior to identify appropriate candidates through recommendations by connections. The candidates were approached about transferring to a new job in Shenzhen.

Once the candidates agreed to move, Shenzhen SEZ's personnel agency would work out the transfer procedures with the candidates' work unit. However the numbers of people who were recruited in this manner have been relatively small (S. Fang, 1984).

In 1982, a more innovative and effective method, which was termed "recruitment through examinations and invitations", was introduced. Recruiting teams from Shenzhen were sent to large cities such as Beijing, Shanghai, Tianjin, Wuhan, Nanjing, Xi'an, and to other places in Guangdong province. Job positions were advertised openly in those cities' newspapers. The applicants were given tests on their field of specialization by qualified professionals. Those who passed were made offers which included promises of spacious housing and, sometimes, a position for a spouse. Those who accepted offers were assisted in moving to Shenzhen without interference from the recruit's prior work unit (*Shenzhen Personnel Bureau,* 1984). A greater number of professionals was brought to Shenzhen in this fashion, while a few eminent scholars and movie stars came to Shenzhen at special invitations and for lucrative offers.

Still another way of bringing needed professionals to Shenzhen is "borrowing and offering joint appointment." Hiring firms in Shenzhen sign contracts with counterparts in the interior to bring some people to work for a specified period of time. Joint appointments have been commonly utilized by academic institutions in Shenzhen. The professionals who have moved to Shenzhen in this way live there on "temporary residence cards". Thus, they belong to the city's non-permanent population.

These State-mediated inducements have been used to sustain an open door for in-migration of professionals for the last few years. In 1978 (before the SEZ was set up), there were only 6,466 professionals in Shenzhen. In 1984, the number reached 26,767, a net increase of 20,301.

Sources and processes for recruiting manual workers to Shenzhen differ from those developed for professionals. Moreover, a considerably larger number of manual labourers was needed to staff the newly established industrial plants and service organizations. While there is no comprehensive information on the places of origin of professionals, a sample survey by Guangdong Social and Economic Development Studies Center (hereafter abbreviated to GSEDSC) provided those data for recruited workers (**table 4**).

In contrast with the professionals, most of whom came from big cities in the interior, the majority of manual workers came from smaller places within Guangdong province (84.9 per cent). Although this reinforces the provincial flavour of the SEZ, the primary reasons for recruiting from these areas were to save the costs of long-distance moving and to avoid problems in migrants'

Table 4: Places of origin of manual workers in Shenzhen special zone, 1985

Place of origin (Province, region, city or county)	Percentage
Guangdong	
Guangzhou (Canton)	7.15
Shenzhen	5.14
Baoan	13.16
Shaoguan City (including suburban counties)	3.57
Zhuhai City (")	2.32
Shantou City (“)	10.81
Fuoshan City (“)	3.14
Jiangmen City (“)	3.83
Zhanjiang City (“)	1.92
Maoming City (“)	2.53
Hainan Island	1.48
Meixian Region	8.28
Huiyang Region	18.83
Zhaoqing Region	2.79
Beijing	2.40
Sichuan	2.20
Henan	1.70
Other places	7.53
No response	1.22
Total	**100.**

Source: Adapted from “A report on the preliminary analyses of the questionnaires distributed among the SEZ workers.” Guangdong Social and Economic Development Studies Center. August 1985, p. 19.

adaptation to the local culture. All the places of origin listed under Guangdong are not far from Shenzhen. It should also be noted that Baoan, of which Shenzhen was the county seat before the SEZ was set up, supplied the second largest proportion of workers (13.2 per cent).

Workers entered Shenzhen in three ways and, thus, contributed differently to the city’s overall population. One category includes permanent employees who have been transferred from a State-owned enterprise outside Shenzhen to a receiving unit in the city. Workers coming through this more traditional channel tend to have their home residence in big cities and distant provinces, and end up in State-owned enterprises in Shenzhen SEZ.

Another category encompasses "contractual workers" who have been recruited through an innovative employment mechanism introduced in 1983. An employer in Shenzhen wanting to hire contractual workers submits a plan to the Zone's labour department for approval, which then allows the employer to recruit in designated areas outside Shenzhen. These workers have to apply and pass tests on basic reading ability and technical skills before they are hired on probation for six months. They are not permitted to move their formal registrations from their places of origin. Those who have met the qualifications at the end of the trial period are given a contract, which usually lasts from three to five years, while those who have not qualified or are unwilling to sign a contract must return home.

The other category includes temporary and seasonal workers who are hired to work and live in Shenzhen on "temporary residence cards". Although the need for such workers varies from firm to firm and time to time, their employment is subject to approval by the Zone's labour department. Almost all construction workers fall into this category. The combination of second and third groups already includes half of the work force in Shenzhen (50.5 per cent).

Manual workers have entered Shenzhen in the following proportions: (a) transfer and assignment (49.1 per cent), (b) direct recruitment by factories (21.1 per cent), (c) introduction by friends and relatives (20.8 per cent), (d) private consulting (1.7 per cent), newspaper advertisement (0.3 per cent), and others (7.0 per cent) (GSEDSC, 1985). The migration of permanent workers in State-owned enterprises has speeded the net increase of permanent population in Shenzhen. So did the majority of contractual workers who are usually employed by Sino-foreign joint ventures, though a certain percentage of them is counted with the temporary population while on probation. The rapid growth of the temporary population in Shenzhen has been fueled primarily by the influx of temporary and seasonal workers.

After migration

Since workers in Shenzhen primarily are settled and temporary migrants, it would be interesting to know how the labour force is distributed and how incoming migrants have fared.

In 1985, workers in electronics (48.7 per cent) constituted almost half of the total labour force, with the garment industry being a distant second (11.7 per cent). This clearly reflects Shenzhen SEZ's stated priorities in developing electronics and textile industries to compete in the international market. In fact, close to 70 per cent of the Zone's total industrial output in 1984 was contributed by the electronics industry.

The manufacture of electronics and precision instruments in Shenzhen is carried out by relatively young people, mostly women.

Second, Shenzhen's labour force was young, especially those workers in such new industries as electronics, textiles and precision instruments, while the average age of workers in older and traditional industries (e.g., chemicals, construction materials) was higher.

Female workers in Shenzhen tended to concentrate in the electronics and garment industries, whereas male workers far outnumbered females in industries such as chemicals and construction materials, reflecting the differential physical demands of these industries.

Total income of Shenzhen workers varies a great deal across industries and is 2.0 to 2.5 times higher on average than that outside the Zone. The educational level of the labour force, however, is quite low.

Problems and prospects

Thanks to heavy investment from the State and the encouragement of migration, Shenzhen seems to have been built almost overnight. Such explosive demographic growth in one restricted area has no parallel in China's recent history.

However, this growth has been substantially initiated and regulated by the Chinese Government at both the national and provincial levels. Such "intentional external facilitation" has complicated in many ways the relationship between voluntary individual migration based on rational calculation and the strong draw of economic forces. This paper has revealed some of the complexities and myths concerning migration to Shenzhen. The lack of more specific data, however, has limited the analysis.

The large volume of migrant population to Shenzhen has provided a badly needed labour force for industrial development in Shenzhen. Of all the professionals in Shenzhen today, 97 per cent came from the interior, while 92 per cent of the manual work force entered Shenzhen from the same source (S. Fang, 1985).

Has the experience of Shenzhen suggested that China should remove or at least considerably loosen its control over population movement and let people move where they are most needed (M. Fang, 1986)?

The answer may be "no" as there have already been serious concerns about the problems associated with a strong demographic response to a booming city-based economy. Population growth in Shenzhen tends to run ahead of the new and fledgling infrastructure in the city. For example, the shortage of public toilets caused a series of complaints which made the headlines of the local newspaper.

The living conditions of a growing temporary population in Shenzhen are another concern. For example, many construction workers live in wooden shacks that lack convenient facilities. Shenzhen's rising trade and consumption fervour also has attracted a large number of businessmen, some of whom have taken advantage of the SEZ's flexible policies to engage in smuggling and illegal trading practices (*Shenzhen Tequ Buo,* 29 December, 1985).

A major effort to impose population regulation and control began early in 1986, aiming to disperse and keep away from Shenzhen illegal residents without "temporary residence cards". A "control" line (a wire fence stretching 84 km and an 86.2-km patrol road) was put into use on 1 April 1986. Although the State intended the line to prevent smuggling and illegal economic activities, it serves to check and stop people trying to come in without visas and identification cards (Zhu, 1986).

Shenzhen SEZ's long-term plan allows its population to grow only to 450,000 by 1990 and to 800,000 by 2000 (Shenzhen *SEZ Yearbook,* 1985). This implies an annual growth rate of 15.3 per cent to 1990 and 5.9 per cent to 2000 (calculating on the basis of 450,000 in 1990).

The rationale behind this planned population growth, similar to the con-

ception of optimal city size (Richardson, 1981), is that Shenzhen's economic system, dynamic as it is, is capable of supporting only a finite population. It is understandable that critics are concerned about Shenzhen degenerating from a "gold town" to a "ghost town" (Chang, 1985) if unchecked population inflow and an overheated economy eventually exhaust all the "gold."

However, Shenzhen's attractive image has been created and will persist for some time. Its relatively higher wages are perhaps the strongest magnet, in contrast to the enterprise zones in many developed and developing countries where concessive wages are prevalent (Goldsmith, 1984). For example, joint venture companies and wholly owned foreign subsidiaries in Shenzhen SEZ offer higher pay to young female workers on their assembly lines than they can possibly get at home. Yet the contractual employment structure which is becoming prevalent in Shenzhen offers only limited security. More importantly, Shenzhen residents and those who may be thinking of moving to Shenzhen may be concerned about the long-term security and stability of the SEZ policy itself. This cloud of concern and doubt may well dim the promise that Shenzhen SEZ has shown thus far.

The creation of the SEZs in China has attracted a lot of international attention. Japanese businessesmen who have visited the SEZs suggested that they could become key connecting points along the western "Pacific rim" which is emerging as the central focus of world economic growth in the 1980s. Hong Kong industrialists regard Shenzhen as a "barometer" of their confidence in China's open-door economic policy.

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