

Table 3
Basic data on population and employment, 1980-2000
(Million persons and per cent)

Category	1980	1990	2002	Average growth	
				1980/90	1990/00
1. Population	987.0	1143.3	1284.5	1.5	1.0
2. Increase (per cent)	1.19	1.44	0.64		
3. Labour force	423.6	639.1	737.4	3.0*	1.1
4. Urban formal employees	104.4	140.6	105.6	3.0	0.4
5. Labour force composition					
5A. Primary	291.2	384.3	368.7	2.8	-0.8
5B. Secondary	77.1	136.5	157.8	5.9	1.6
5C. Tertiary	55.3	118.3	210.9	7.9	5.2
Shares (per cent)					
Participation rate	42.9	55.9	57.8**		
Female workers#	35.3	37.6	37.8**		
Primary	68.7	60.1	50.0		
Secondary	18.2	21.4	21.4		
Tertiary	13.1	18.5	28.6		

*based on growth during the 1980/89 period. The series rises by an improbable figure of 87 million workers during that period, presumably reflecting adjustments based on the 1990 population census (see Labour 2000, p. 9).

** figures for 2001

proportion of female workers in units under state, urban collective, or “other” ownership. These figures exclude domestic private enterprises and self-employed individuals.

Sources: Except as noted, data for 1980 and 1990 from Rawski 1999. Data for 2002 are from Yearbook 2002, pp. 136; Survey 2003, pp. 38, 44; from Table 2 (RNI for 2000; urban formal employment). Data on female employment in 1980 and 1990 are from Labour 2000, p. 15 and Labour 1995, p. 26.

Table 4
Trends in formal employment, 1980-2000
(million workers)

Year	State	Collective	Other	Urban		TVE	Rural	Total	Per cent annual increase	
				Urban private	Total private total				Urban private	National total
1980	80.2	24.3		0.0	0.8	105.3	30.0	5.0*	140.3	
1985	89.9	33.2		0.4	4.5	128.0	69.8	10.0*	207.8	
1990	103.5	35.5		1.6	6.7	147.3	92.7	16.0	256.0	
1991	106.6	36.3		2.2	7.6	152.7	96.1	17.3	266.1	3.7
1992	108.9	36.2		2.8	8.4	156.3	106.2	18.6	281.2	2.4
1993	109.2	33.9		5.4	11.2	159.7	123.5	22.0	305.1	2.1
1994	108.9	32.1		7.5	15.6	164.1	120.2	28.7	312.9	2.8
1995	109.6	30.8		8.8	20.5	169.5	128.6	35.3	333.4	3.3
1996	109.5	29.5		9.4	23.3	171.7	135.1	38.6	345.4	1.3
1997	107.7	28.2		10.9	26.7	173.4	91.6	41.2	306.2	1.0
1998	88.1	19.0		16.3	32.3	155.7	125.4	45.9	327.0	-10.2
1999	83.4	16.5		17.9	34.7	152.4	127.0	48.0	327.4	-2.1
2000	78.8	14.5		19.3	34.0	146.6	128.2	40.7	315.6	-3.8
2001	74.1	12.4		21.4	36.6	144.5	130.9	38.2	313.5	-0.7
Annual growth (per cent)										
1980/90	2.5	3.8		n.a.	21.1		3.4	11.3	11.7	6.0
1990/00	-2.7	-9.0			24.7	16.3	0.0	3.2	9.3	2.1

Sources:

Urban data: Yearbook 2002, pp. 128, 130, 132, 141; 2001, pp. 118, 120, 122, 131;
Labour 2002, p. 20. TVE data: Labour 2002, p. 457. Rural private sector employment is the difference between national and urban totals see Yearbook 2002, pp. 120-121.

Notes: Urban and rural private sector employment includes both private enterprises and self-employed individuals.

*author's guess.

Table 4A

Chinese Employment in Manufacturing and Industry, 1978-2002
(Million workers)

Year	Manufacturing	Mining	Utilities	Industry
1978	35.95	6.52	1.07	43.54
1980	39.47	6.97	1.18	47.62
1985	46.20	7.95	1.42	55.57
1990	53.04	8.82	1.92	63.78
1991	54.43	9.05	2.03	65.51
1992	55.08	8.98	2.15	66.21
1993	54.69	9.25	2.32	66.26
1994	54.34	9.04	2.44	65.82
1995	54.39	9.14	2.57	66.10
1996	52.93	8.86	2.72	64.51
1997	50.83	8.51	2.82	62.16
1998	37.69	7.02	2.81	47.52
1999	34.96	6.50	2.83	44.29
2000	32.40	5.81	2.82	41.03
2001	30.10	5.44	2.84	38.38
2002	29.07	5.37	2.85	37.29

Source: for 1978-2000, Labor Yearbook 2001, p. 22.

for 2001-2002, Abstract 2003, p.
45.

Note: beginning in 1998, figures show only workers "on the job" and
omit workers "on furlough" (*xiagang*)

Note: these data exclude employment in
township and village enterprises (TVEs)

Table 4B

Inside China's Growth and Jobs Machine:
Value-added and Employment in Several Engineering Sectors

Value added (Ymillion, current prices)

	Pump	Blower	Valve	Separator	Vacuum	Total	Index
1996	1585	893	809	318	201	3806	100.0
1997	1762	927	900	282	204	4075	107.1
1998	1457	915	900	288	166	3726	97.9
1999	1482	902	838	268	234	3724	97.8
2000	1276	905	758	318	362	3619	95.1

Employment

	Pump	Blower	Valve	Separator	Vacuum	Total	Index
1996	110456	52634	60994	24676	11108	259868	100.0
1997	110066	50246	58565	23900	14695	257472	99.1
1998	85812	47791	56428	23307	13828	227166	87.4
1999	76824	37881	50192	21576	11806	198279	76.3
2000	58600	32725	41274	18974	10812	162385	62.5

Labor productivity (value added per worker, Y1,000s, current prices)

	Pump	Blower	Valve	Separator	Vacuum	Total	Index
1996	14.3	17.0	13.3	12.9	18.1	14.6	100.0
1997	16.0	18.4	15.4	11.8	13.9	15.8	108.1
1998	17.0	19.2	15.9	12.4	12.0	16.4	112.0
1999	19.3	23.8	16.7	12.4	19.8	18.8	128.2
2000	21.8	27.6	18.4	16.8	33.5	22.3	152.2

Data for pumps in 2000 cover large and medium firms only

Source: Tongyong Yearbook 2002

Note: These figures cover firms belonging to various industry associations. Coverage may not be complete.

Table 5
Patterns of labour absorption, 1980-2000
(million workers)

	1980/90	1990/95	1995/2000
Labour force increment	215.5	40.4	32.0
Formal sector labour absorption			
Urban			
State-owned enterprises	23.3	6.1	-30.7
Urban collectives	11.2	-4.7	-16.3
Other ownership	1.6	7.2	10.5
Urban private	5.9	13.8	13.5
Rural			
Township-village enterprises	62.7	35.9	-1.6
Rural private	11.0	19.3	5.4
Formal sector total	115.7	77.6	-19.2
Of which:			
Urban	42.0	22.4	-23.0
Rural	73.7	55.2	3.8
Informal sector*	99.8	-37.2	51.2
Annual averages			
Labour force increment	21.6	8.1	6.4
Formal sector labour absorption	11.6	15.5	-3.8
Informal sector labour absorption	10.0	-7.4	10.2

*Residual, including unemployment and under-employment.

Source: Rawski 1999; Tables 2 and 4 above.

Table 6
Estimates of Numbers of Workers Furloughed, 1993-2001 (millions)

Year	New Layoffs	Cumulative Total of Layoffs
1993	3.00*	3.00*
1994	0.60*	3.60*
1995	2.04*	5.64*
1996	2.26*	8.91*
1997	4.0** – 5.1#	11.51*; 14#
1998	7.4+	16.0♦
1999	7.8++	
2000	6.5♦♦	46♦♦♦
2001	2.83##	
2002		30.14***
2003	1.64•	

*Taken or calculated from Ma Chunhui, *Gaige*, no. 6 (1999), p. 84.

** “Measures...” CD 1-29-99, p. 4

Zhongguo 21 shiji jingji zouxiang; essay by Yang Yixiong, p. 221

♦ Figure as of 1998 from documents provided by Zhang Wenkui xxx

♦♦ CDR 3.3, 7-2001, p. 26 – SOE layoffs only. [Jia Heping CBR June 26-July 2, 2001, p. 5 – gives 6.57 million for SOE only.]

+ Labor Yearbook 1999, p. 441; 76 percent of newly laid-off workers came from the state sector.

++ Labor Yearbook 2000, p. 409; 79 percent of newly laid-off workers came from the state sector.

♦♦♦ total layoffs by state (30 million) and collective (15 million) during 1996-2000 (Xu Lianzhong, 2002), p. 7.

Labor Yearbook 2002, p. 109.

*** Cumulative layoffs by state enterprises between 1998 and the end of June 2002 (Chen and Wang 2003), p. 6.

• Urban job loss in the first half of 2003; see Zhou Tianyong (2003, p. 4).

Table 7
Official and alternate rates of urban unemployment
(unemployment as percentage of registered urban population)

Year	Number of registered unemployed (millions)	Official unemployment rate	Alternate unemployment rate
1985	2.4	1.8	n.a.
1990	3.8	2.5	n.a.
1993	4.2	2.3	3.3-3.7
1994	4.8	2.6	3.6-4.1
1995	5.2	2.9	4.0-4.7
1996	5.5	3.0	4.9-5.9
1997	5.7	3.1	5.6-6.9
1998	5.9	3.1	7-8
1999	6.2	3.1	8-9
2000		3.1	8.3
2001		3.6	
2002		4.0	

Sources: Registered unemployed from Labour 1987, p. 109; Labour 1991, p. 131; and Hu 1998, p. 106.

Official unemployment rate from Labour 1995, p. 8; Yearbook 1999, p. 133; Yearbook 2000, p. 33; Yearbook 2001, p. 33; Yearbook 2002, p. 33;
http://english.peopledaily.com.cn/200303/06/eng20030306_112799.shtml, consulted 16 November 2003.

Alternate data for 1993-1999 are estimates of actual urban unemployment. In each case, the lower (higher) figure is calculated on the assumption that 60 per cent (or 40 per cent) of laid-off workers succeed in obtaining new employment. See Hu, 1998, p. 106. The alternate rate for 2000 is from Hu 2001, Appendix Table 2.

Table 8
Nominal and real wages for urban formal employees and TVE workers

Year	Nominal wages, annual figures				Real wages, annual per cent increase			
	All staff & workers	State collective ownership	Urban	Other	TVE	All staff & workers	State	Urban sector
1980	762	803	623	n.a.	398	6.1	6.0	6.9
1985	1148	1213	967	1436		5.3	4.8	6.6
1990	2140	2284	1681	2987	676	9.2	9.7	6.6
1991	2340	2477	1866	3468		4.0	3.2	5.5
1992	2711	2878	2109	3966		6.7	7.0	1.6
1993	3371	3532	2592	4966		7.1	5.7	-2.1
1994	4538	4797	6245	6303		7.7	8.7	-6.1
1995	5500	5625	3931	7463	3618	3.8	0.4	6.6
1996	6210	6280	4302	8261	4195	3.8	2.6	5.6
1997	6470	6747	4512	8789		1.1	4.2	4.1
1998	7479	7668	5331	8972		7.2	6.7	5.9
1999	8346	8543	5774	9829	5193	13.1	12.9	0.2
2000	9371	9552	6262	10984	5507	11.4	10.9	3.7
2001	10870	11178	6867	12140		15.2	16.2	8.9
2002	12422	12869	7667	13212		15.5	16.3	9.7
								9.9

Sources: urban nominal and real wages: Yearbook 2001, p. 135; Abstract 2003, p.47.
TVE nominal wages 1980-1986: Rawski 1999, p. 10.

TVE wages for 1999: "Influence of TVE Development on the Growth of Farm Incomes," Chinese-language document consulted 12 December 2001 at
http://www.agri.ac.cn/agri_net/02/2-11/0141.htm

TVE wages for 2000: "Overview of TVE Development Under the 9th Five-Year Plan," Chinese-language document consulted 12 December 2001 at
<http://www.cte.gov.cn/zw/tjxx/readxx.asp?idd=26>

Table 9
Changes in nominal wages for staff and workers (*zhigong*),
October 1997 to October 1998

	Per cent change		Per cent change
Fourteen cities		Major economic sectors	
Beijing	4.0	Farming, fishing, forestry	-19.6
Tianjin	3.3	Extractive	5.0
Shanghai	-1.7	Manufacturing	1.8
Fuzhou	10.2	Geology & water conservancy	-22.1
Chongqing	6.1	Transport & communication	5.1
Shenzhen	5.4	Wholesale & retail trade	1.2
Xi'an	8.7	Finance	5.1
Chengdu	4.1	Real Estate	17.7
Harbin	5.5	Education	9.1
Jinan	-1.1	Science & technology	8.4
Wuxi	5.9	Govt., party & social orgs.	7.8
Huangshi	4.7		
Chinhuangdao	0.5	Manufacturing - selected branches	
Foshan	1.7	Textiles	-3.7
		Garments	-9.4
Education levels		Lumber processing	7.7
Post-secondary education	6.3	Chemicals	6.3
High school and equivalent	3.3	Ferrous metallurgy	-1.4
Middle school and below	1.9	Metal products	-3.5
		Machinery	2.5
		Transport equipment	0.4
		Electrical machinery	3.7
		Electric power	5.7

Source: Chen Gang et al 1999, pp. 3, 42-46.

Table 10
Information on 1997 labour costs under different ownership groupings
for selected manufacturing sectors in 14 large cities

Category	Labour cost per worker	Per yuan of labour cost			Labour share in total cost
		Value added	Sales revenue	Profit	
Overall	9645.3	2.3	9.0	0.2	12.5
State	9264.0	2.0	7.7	0.1	14.5
Collective	5890.8	2.1	8.4	0.0	12.5
Other	14405.5	3.3	13.3	0.6	8.5
Food-processing	7119.0	2.9	22.7	0.1	4.8
State	6436.6	1.9	16.0	-0.2	6.7
Collective	5897.1	3.4	16.5	0.6	6.8
Other	14111.7	6.6	51.8	1.0	2.2
Garments	7379.9	2.1	8.4	0.2	11.9
State	6998.8	2.1	7.3	0.2	10.9
Collective	6024.9	1.5	5.2	0.1	18.2
Other	9170.5	2.6	11.3	0.3	10.0
Pharmaceutical	10100.0	2.5	8.5	0.5	12.6
State	9171.9	2.3	7.8	0.3	13.3
Collective	8839.0	1.9	9.9	0.2	10.7
Other	13819.0	3.1	9.7	0.9	11.5
Plastics	8612.1	2.1	9.5	0.1	11.4
State	8772.9	1.6	6.9	-0.1	15.0
Collective	5702.1	2.7	8.8	0.0	11.0
Other	11171.8	2.3	12.1	0.3	9.6
Specialized equipment	10300.4	1.3	5.5	0.0	19.5
State	10208.7	1.1	5.0	0.0	21.6
Collective	6220.5	1.8	5.4	0.0	19.6
Other	15933.1	1.7	8.3	0.2	12.3
Transport equipment	11707.9	2.7	8.9	0.2	12.3
State	11497.5	1.7	7.3	0.0	11.9
Collective	5943.9	2.2	11.5	0.2	14.2
Other	16951.0	7.2	15.5	0.9	9.4
Electronics & telecom. equip.	9507.5	3.0	15.3	0.6	9.0
State	7433.0	2.3	12.8	0.1	13.8

Collective	7692.6	1.1	3.9	-0.2	23.7
Other	17863.2	4.3	20.9	1.6	5.6

Source: Chen Gang et al 1999, pp. 76-78.

Table 11
Information on 1997 labour costs for manufacturing
by region for 14 large cities

	Labour cost per worker	Per yuan of labour cost			Labour share in total cost
		Value added	Sales revenue	Profit	
Overall	9645.3	2.3	9	0.2	12.5
East	11218.4	2.4	9.4	0.3	11.4
Central	7630.1	2	9.1	0.1	15.3
West	6143.8	1.8	6.1	0	18.1
Garments	7379.9	2.1	8.4	0.2	11.9
East	7926.9	2	8.2	0.1	11.9
Central	5914.3	3	10.6	0.7	10.5
West	2657.6	1.4	5.1	-0.7	19.7
Transport Equip.	13819	3.1	9.7	0.9	11.5
East	15443.4	3.2	10.3	1	10.7
Central	7161.2	6.1	12.6	1.7	10.4
West	9317.2	1.2	3.2	0.5	41.6
Elect. Mach & Equip.	11036.9	2.8	11.5	0.2	11.2
East	12416	3	12.2	0.3	10.7
Central	6617.9	1.3	4.9	-0.2	20.3
West	3291.8	1.3	5.3	-0.3	18.9

Source: Chen Gang et al 1999, pp. 121-123.

Table 12
Men's and women's wages, 14 large cities, October 1998

Sector	<u>Monthly wages for</u>		<u>Index of women's wage (men=100)</u>
	<u>Men</u>	<u>Women</u>	
Overall	953.9	805.2	84.4
Extractive	562.5	422.4	75.1
Textiles	616.2	633.2	102.8
Garments	680.2	539.8	79.4
Paper	1380.7	1134.4	82.2
Printing	1213.5	820.0	67.6
Chemicals	864.3	819.0	94.8
Ferrous metallurgy	1036.9	567.0	54.7
Metal products	897.8	739.2	82.3
Machinery	804.3	677.2	84.2
Electrical machinery	997.1	673.0	67.5
Electric power	1579.4	832.6	52.7
Construction	896.3	691.8	77.2
Post and telecommunications	1429.0	1085.2	75.9
Retail sales	761.4	685.3	90.0
Food & drink	1054.7	788.3	74.7
Finance	1957.7	1332.4	68.1
Hotel	1089.3	721.9	66.3
Health	914.5	833.9	91.2
Education	866.5	867.4	100.1
Summary data for sectoral wages			
Standard deviation	351.3	215.6	13.8
Coefficient of variation	0.4	0.3	0.2

Source: Chen Gang et al 1999, pp. 48-53.

Table 13
Growth of real GDP per person, 1980-2000
(1990 = 100)

Year	Index of real GDP per person
1980	47.6
1990	100.0
1991	107.7
1992	121.5
1993	136.4
1994	151.9
1995	166.0
1996	180.0
1997	194.0
1998	207.1*
1999	219.9*
2000	235.4*
2001	251.1*
Average annual growth of real GDP per person	
1980-90	7.4
1990-97	9.5

* Official estimates of GDP growth for these years are believed to contain large overstatements.

Source: Yearbook 2001, p. 52. I obtain the figure for 2001 by using the officially estimated 7.3 per cent real GDP growth for 2000/01 (Xu Binglan 2002, p. 1) and applying the rate of population growth reported for 1999/2000 (see Table 2).

Table 14
Output per man-year in Chinese industry
(Gross value, thousands of yuan at 1990 prices)

Period	Gross output per man-year
A. State enterprises	
1988	34.96
1992	40.18
1996	56.45
B. Collective enterprises	
1988	18.34
1992	24.86
1996	52.76
C. Enterprises under other ownership	
C1. Other domestic enterprises*	
1988	36.85
1992	44.05
1996	66.57
C2. Foreign-invested enterprises	
1988	83.97
1992	86.55
1996	124.53
C3. Shareholding enterprises	
1993	71.46
1996	78.85

* category consists primarily of domestic private firms.

Source: Jefferson et al 2000, pp. 794-795.