

# Chapter 4

## The Current Status of SMEs' Labor Utilization

In the first half of 2003, Taiwan's economy was affected by the war in Iraq and the Severe Acute Respiratory Syndrome (SARS) epidemic. By August 2003, the unemployment rate had risen to 5.21%, but thanks to an aggressive job creation strategy on the part of the government (aimed at creating new jobs in both the private sector and public sector), the unemployment rate for the whole year was held down to 4.99%. In 2004 the economy began to pick up again, and the government continued to implement various measures to stimulate job creation, causing the unemployment rate for the whole year to fall to 4.44%. This chapter examines the current status of labor utilization among SMEs, focusing on manpower resources, working conditions, the government's labor policy, and SMEs' manpower cultivation.

An enterprise's scale is in principle defined according to the number of employees. Enterprises in the mining and quarrying, manufacturing, and construction sectors with less than 200 employees as well as enterprises in other sectors with less than 50 employees are classified as SMEs. However, in some cases the restrictions imposed by the data make it impossible to use this classification. For such cases, enterprises with less than 100 employees are classed as SMEs. This is pointed out in the text where appropriate.

### I Labor Usage in SMEs

In 2004 Taiwan's total available workforce amounted to 10,240,000 persons, of which 9,786,000 were working and 454,000 were unemployed. Of those at work, 7,131,000 were directly employed persons. The labor participation rate was 57.66%, and the average unemployment rate was 4.44%.

There was an increase overall in both the available workforce and the number of people in work compared to 2003 for 2004. Thus, the labor market was in a healthier

state in 2004 than in 2003. The following sections examine labor usage in Taiwan's SMEs during 2004.

## 1. An Increase of Nearly 130,000 in the Number of People Working in SMEs

In 2004 a total of 7,553,000 people were working in SMEs in Taiwan, representing an increase of 128,000 compared to 2003 (Table 4-1-1). However, as a percentage of all those at work, those working in SMEs fell to 77.18% in 2004, because the number of people working in large enterprises increased by 6.82% while the number working in SMEs increased by only 1.72%.

**Table 4-1-1 Characteristics of Persons in Work, 2003–2004**

Units: thousand persons; %

Item	2003			2004		
	SMEs	Large enterprises	Government employees	SMEs	Large enterprises	Government employees
Total No. of persons (Percentage)	7,425 (77.56)	1,159 (12.11)	988 (10.32)	7,553 (77.18)	1,238 (12.65)	995 (10.17)
<b>Age</b>	100.00	100.00	100.00	100.00	100.00	100.00
15–24	11.30	11.22	4.43	10.66	11.42	4.21
25–40	45.84	60.10	44.26	45.65	59.52	43.33
41–55	34.53	26.17	44.75	35.39	26.40	45.80
56–65	6.65	2.27	6.36	6.67	2.46	6.46
65 or over	1.68	0.25	0.20	1.62	0.20	0.21
<b>Sex</b>	100.00	100.00	100.00	100.00	100.00	100.00
Male	59.52	53.20	54.90	59.27	53.35	54.53
Female	40.48	46.80	45.10	40.73	46.65	45.47
<b>Education</b>	100.00	100.00	100.00	100.00	100.00	100.00
Illiterate	1.35	0.15	0.20	1.06	0.12	0.15
Self-taught	0.32	0.05	0.03	0.29	0.03	0.04
Primary school	16.71	3.39	4.38	15.73	3.02	4.54
Junior high school	20.03	6.59	4.75	19.50	6.30	4.73
Senior high school	9.49	7.40	7.88	9.58	6.90	7.44
Senior vocational school	29.03	25.06	17.81	29.56	24.89	16.88
Junior college	14.42	26.50	25.34	14.72	26.01	24.47
University	7.67	22.94	31.65	8.51	24.25	32.68
Masters	0.90	6.41	6.34	0.98	7.03	7.29
Ph.D.	0.07	1.52	1.62	0.06	1.47	1.78

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics, Taiwan Area* (original data), 2003–2004.

SME employees were mostly aged between 25 and 55, while in large enterprises,

the level of age group concentration was even more pronounced. In terms of the breakdown of SME employees by sex and education, there was little difference between the 2004 data and those for 2003. In both years, men accounted for a larger share of SME employees than women, and those educated at the junior college, senior vocational school, junior high school, or primary school levels continued to account for the bulk of SME employees. Among those working for large enterprises, the disparity between the number of male workers and the number of female workers was less pronounced, as employees of large enterprises are generally educated to a level between senior vocational school and university. It is noticeable that in the last few years the share of SME employees educated to the senior high school level or higher has increased, while for large enterprises there has been an increase in the share of employees educated to the university level or above. These changes probably reflect the fact that the overall level of education in Taiwan's population has been rising.

## **2. A 3.13% Increase in the Number of SME-Hired Employees**

The total number of hired employees working for SME employers in 2004 was 4,903,000, representing a 3.13% increase compared to 2003. However, as a percentage of all hired employees, this figure represented a decrease from 68.92% to 68.75%. Hired employees accounted for over 64% of persons working at SMEs; for large enterprises the figure exceeded 99% (Table 4-1-2). Hired employees working in SMEs were mainly concentrated in the 25–55 age group. Nearly 60% were male, this was a lower percentage than that found among directly-employed persons. As regards to the level of education, SME-hired employees displayed a higher level of concentration in the senior vocational school to master's degree holder groups.

## **3. The Number of SME Employers Rises to Over 500,000**

Compared to 2003, the number of SME employers increased by nearly 14,000 in 2004, rising to 507,000. The largest share was those aged 41–55. As a percentage of all SME employers, female SME employers increased slightly in 2004, climbing to 17.21%. There is a long-term increasing trend for women's share of SME employers, reflecting a gradual rise in enthusiasm for entrepreneurial activity among women (Table 4-1-3). Nevertheless, the female share of SME employers remains very low.

**Table 4-1-2 Characteristics of Hired Employees, 2003–2004**

Units: thousand persons; %

Item	2003			2004		
	SMEs	Large enterprises	Government employees	SMEs	Large enterprises	Government employees
Total No. of persons (Percentage)	4,754 (68.92)	1,155 (16.75)	988 (14.32)	4,903 (68.75)	1,234 (17.31)	994 (13.94)
<b>Age</b>	100.00	100.00	100.00	100.00	100.00	100.00
15–24	16.05	11.26	4.43	14.96	11.45	4.21
25–40	53.38	60.24	44.26	53.16	59.67	43.33
41–55	27.52	26.05	44.75	28.60	26.30	45.80
56–65	2.77	2.24	6.36	3.01	2.40	6.46
65 or over	0.28	0.22	0.20	0.27	0.17	0.21
<b>Sex</b>	100.00	100.00	100.00	100.00	100.00	100.00
Male	56.39	53.08	54.90	56.32	53.25	54.53
Female	43.61	46.92	45.10	43.68	46.75	45.47
<b>Education</b>	100.00	100.00	100.00	100.00	100.00	100.00
Illiterate	0.49	0.15	0.20	0.38	0.12	0.15
Self-taught	0.11	0.05	0.03	0.11	0.03	0.04
Primary school	11.03	3.39	4.38	10.56	3.01	4.54
Junior high school	19.12	6.56	4.75	18.38	6.28	4.73
Senior high school	9.34	7.41	7.88	9.40	6.89	7.44
Senior vocational school	31.67	25.10	17.81	31.77	24.94	16.88
Junior college	17.63	26.51	25.34	17.66	26.05	24.47
University	9.38	22.90	31.65	10.41	24.21	32.68
Masters	1.15	6.42	6.34	1.26	7.02	7.29
Ph.D.	0.07	1.52	1.62	0.07	1.47	1.78

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics, Taiwan Area* (original data), 2003–2004.

The number of large enterprise employers increased by approximately 7 percent in 2004. Large enterprise employers tend to be younger than SME employers, and their average educational level is higher.

#### **4. More Than Half of Those Working in SMEs in Hi-tech and Knowledge-intensive Industries are Aged 40 or Younger**

According to the definition used by the OECD, hi-tech and knowledge-intensive industries include: the chemical materials manufacturing industry; the chemical products manufacturing industry; the machinery manufacturing and repair industry; the computer, communications, and audiovisual electronics manufacturing industry; the transportation vehicle manufacturing and repair industry; the precision instruments industry; the optical instruments industry; the medical equipment industry; the clock and watch industry; the postal and express delivery industry; the telecommunications

**Table 4-1-3 Characteristics of Employers, 2004–2005**

Units: thousand persons; %

Item	2003		2004	
	SMEs	Large enterprises	SMEs	Large enterprises
Total No. of persons (Percentage)	492.94 (99.32)	3.39 (0.68)	506.74 (99.3)	3.56 (0.7)
<b>Age</b>	100.00	100.00	100.00	100.00
15–24	0.55	–	0.60	–
25–40	34.88	13.12	33.02	9.87
41–55	54.64	65.83	55.51	58.74
56–65	8.29	10.93	9.11	20.88
65 or over	1.64	10.11	1.76	10.51
<b>Sex</b>	100.00	100.00	100.00	100.00
Male	83.45	91.38	82.79	88.94
Female	16.55	8.62	17.21	11.06
<b>Education</b>	100.00	100.00	100.00	100.00
Illiterate	0.15	–	0.06	–
Self-taught	0.08	–	0.08	–
Primary school	12.07	4.85	11.19	5.06
Junior high school	17.73	18.90	17.48	13.39
Senior high school	12.13	3.84	11.75	11.44
Senior vocational school	26.19	11.88	26.97	6.75
Junior college	16.65	20.40	17.15	13.51
University	13.01	34.91	13.46	38.63
Masters	1.66	5.22	1.57	10.07
Ph.D.	0.32	–	0.28	1.14

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics, Taiwan Area* (original data), 2003–2004.

industry; the financial industry and supporting industries; the securities and futures industry; the insurance industry; the legal and accounting services industry; the building and construction services industry; the design services industry; the computer system design and services industry; the data processing and data supply services industry; the consulting services industry; the R&D services industry; the advertising industry; other professional, scientific and technical services industries; the educational services industry; the medical and healthcare services industry, etc.

The data for 2004 indicate that approximately 2.35 million people in Taiwan were working in industries of those types above. Of these, over 1.33 million were working in SMEs, representing an increase of 33,000 compared to 2003. There was a heavy concentration in the 25–40 age group. Most of those working in SMEs for these types of industry were male, but in large enterprises women dominated, and the average educational level was higher in large enterprises (Table 4-1-4).

**Table 4-1-4 Characteristics of Those Working in Hi-tech and Knowledge-intensive Industries, 2003–2004**

Units: thousand persons; %

Item	2003			2004		
	SMEs	Large enterprises	Government employees	SMEs	Large enterprises	Government employees
Total No. of persons (Percentage)	1,297.74 (56.78)	539.59 (23.61)	448.40 (19.62)	1,331.38 (56.63)	567.85 (24.15)	451.98 (19.22)
<b>Age</b>	100.00	100.00	100.00	100.00	100.00	100.00
15–24	13.66	10.76	6.07	12.30	10.33	5.88
25–40	56.97	62.25	47.65	56.73	61.56	47.50
41–55	26.17	24.48	41.32	27.64	25.42	41.72
56–65	2.79	2.21	4.84	2.95	2.49	4.79
65 or over	0.41	0.30	0.12	0.38	0.21	0.11
<b>Sex</b>	100.00	100.00	100.00	100.00	100.00	100.00
Male	52.85	47.78	41.51	53.17	47.80	41.28
Female	47.15	52.22	58.49	46.83	52.20	58.72
<b>Education</b>	100.00	100.00	100.00	100.00	100.00	100.00
Illiterate	0.11	0.08	0.05	0.08	0.07	0.06
Self-taught	0.03	0.06	0.01	0.02	0.01	0.05
Primary school	5.15	1.60	1.98	4.58	1.58	2.07
Junior high school	9.10	3.85	2.59	8.61	3.73	2.66
Senior high school	7.77	5.43	5.02	7.49	4.54	4.43
Senior vocational school	28.44	18.95	11.05	27.89	18.83	9.94
Junior college	26.73	29.21	19.60	26.90	28.52	18.49
University	19.50	28.54	47.80	21.08	30.04	48.97
Masters	2.92	9.27	9.04	3.12	9.80	10.21
Ph.D.	0.24	2.99	2.86	0.22	2.88	3.13

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics, Taiwan Area* (original data), 2003–2004.

With the economy continuing to pick up, the number of people employed in the hi-tech and knowledge-intensive industries has gradually increased, reflecting the growing strength and importance of these industries. However, the number of people working in SMEs in the hi-tech and knowledge-intensive industries grew by only 2.59% in 2004, compared to 5.24% for large enterprises. What is more, large enterprises account for a higher share of employment in the hi-tech and knowledge-intensive sector than they do in the economy as a whole. The development of the hi-tech and knowledge-intensive industries would thus appear to be oriented heavily towards large enterprises.

## 5. A Rise in the Percentage of Older Self-employed Persons

In 2003 there were over 1,480,000 self-employed people in Taiwan, but by 2004 this figure had fallen to 1,458,000. This decline may have been due to the upturn in the

economy, which made it easier to find a job, thereby causing the number of people wishing to start their own business to fall. The percentage of self-employed workers falling into the 41–55 age group continued to increase, indicating that enthusiasm for entrepreneurial activity remains high among this group (Table 4-1-5). As with SME employers, the percentage of self-employed persons who are women has been rising steadily in the past few years, indicating an increase in small-scale entrepreneurial activity among women. The potential for a further increase in female entrepreneurial activity (whether in the form of self-employment or of establishing an SME that hires other workers) appears to be quite pronounced.

**Table 4-1-5 Characteristics of Self-employed Persons, 2003–2004**

Units: thousand persons; %

Item	Year	2003	2004
Total No. of persons		1,484	1,458
<b>Age</b>		100.00	100.00
15–24		1.18	1.11
25–40		28.07	27.73
41–55		48.09	49.14
56–65		17.01	16.55
65 or over		5.64	5.46
<b>Sex</b>		100.00	100.00
Male		77.95	77.18
Female		22.05	22.82
<b>Education</b>		100.00	100.00
Illiterate		3.14	2.44
Self-taught		0.88	0.79
Primary school		32.48	30.74
Junior high school		23.40	23.67
Senior high school		9.38	9.56
Senior vocational school		21.23	22.41
Junior college		6.58	7.09
University		2.67	3.02
Masters		0.21	0.25
Ph.D.		0.02	0.01

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics, Taiwan Area* (original data), 2003–2004.

## 6. The Number of People Employed in Important New Emerging Industries Increased by Over 20,000

In 2004 a total of 1.07 million people were employed in the “important new emerging industries” (chemical materials manufacturing; chemical products manufacturing;

electrical and electronics machinery manufacturing, repair and distribution; transportation vehicle manufacturing; precision machinery manufacturing, repair, and distribution) (Table 4-1-6). This figure represents an increase of over 60,000 compared to 2003. However, while the number of people working in SMEs in these industries increased by 20,000, SMEs' share of total employment in the important emerging industries fell by 1.72 percentage points. With the number of people working in large enterprises in the important emerging industries growing by over 40,000, it is clear that larger enterprises are gradually expanding into this sector.

**Table 4-1-6 Characteristics of Those Working in Important Emerging Industries, 2003–2004**

Unit: thousand persons; %

Item	2003			2004		
	SMEs	Large enterprises	Government employees	SMEs	Large enterprises	Government employees
Total No. of persons (Percentage)	651.76 (64.37)	353.02 (34.86)	7.78 (0.77)	672.22 (62.65)	393.92 (36.71)	6.89 (0.64)
<b>Age</b>	100.00	100.00	100.00	100.00	100.00	100.00
15–24	15.52	13.89	1.29	14.37	15.22	3.48
25–40	56.44	64.93	34.70	57.65	63.87	23.66
41–55	25.57	20.03	59.77	25.43	19.81	68.80
56–65	2.26	1.08	4.24	2.29	1.05	4.06
65 or over	0.22	0.07	–	0.26	0.06	–
<b>Sex</b>	100.00	100.00	100.00	100.00	100.00	100.00
Male	52.85	55.96	84.32	55.37	56.31	93.18
Female	47.15	44.04	15.68	44.63	43.69	6.82
<b>Education</b>	100.00	100.00	100.00	100.00	100.00	100.00
Illiterate	0.25	0.07	–	0.15	0.03	–
Self-taught	0.02	0.06	–	0.04	0.02	–
Primary school	7.94	2.56	1.67	6.71	2.44	1.60
Junior high school	13.69	6.96	6.30	13.12	6.57	7.55
Senior high school	9.11	7.64	12.08	8.83	7.37	8.85
Senior vocational school	30.92	29.96	24.42	31.64	30.18	30.33
Junior college	23.01	27.11	32.65	22.76	25.32	22.93
University	12.26	18.24	16.45	13.81	20.31	22.35
Masters	2.69	6.84	6.30	2.73	7.35	4.79
Ph.D.	0.11	0.55	0.00	0.21	0.40	1.74

Note: The "important emerging industries" include: chemical materials manufacturing; chemical products manufacturing; electrical and electronics machinery manufacturing, repair and distribution; transportation vehicle manufacturing; precision machinery manufacturing, repair and distribution.

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics, Taiwan Area* (original data), 2003–2004.

The fact that there was an increase in the number of persons employed for both SMEs and large enterprises indicates an improvement in the business climate (and job



creation) for the important emerging industries in 2004.

## 7. SMEs Dominate the Cultural and Creative Industries

The Challenge 2008 National Development Plan announced by the government in 2002 incorporated a Cultural and Creative Industries Development Plan, with the aim of making Taiwan a leading player in the global ethnic Chinese cultural and creative sector. In 2003, 13 industries were designated as cultural and creative industries whose development the government was seeking to promote. They included: the visual arts industry; the music and performing arts industry; the cultural display industry; the handicrafts industry; the film industry; the broadcasting industry; the publishing industry; the advertising industry; the design industry; the digital leisure and entertainment industry; the designer brand fashion industry; the innovative lifestyles industry; the architectural design industry. For four of these industries – the visual arts industry, the music and performing arts industry, the cultural display industry, and the handicrafts industry – suitable industry survey data are not available, and so the artistic and sporting services industry has been taken as a proxy for these industries. The creative lifestyles industry, designer brand fashion industry, and the digital leisure and entertainment industry are “compound” industries which are difficult to define precise boundaries. It is therefore difficult to produce precise data for these industries. The data in the table below are therefore limited to the artistic and sporting services industry, the film industry, the broadcasting industry, the publishing industry, the advertising industry, the design services industry, the building and construction services industry, and the leisure services industry.

Looking at the data for 2003 and 2004, one can see that the number of people working in the cultural and creative industries stood at 266,000 in 2003 and at 279,000 in 2004. In both years, the number of people working in SMEs in these industries exceeded 200,000, and the figure rose in 2004 (Table 4-1-7). However, the percentage of all those working in the cultural and creative industries who were working in SMEs fell in 2004, dropping to 76.73%. Thus, although SMEs continue to dominate the structure of the cultural and creative industries, the number of people employed in the cultural and creative industries who are working in large enterprises is growing faster than the number of people working in SMEs.

**Table 4-1-7 Characteristics of Those Working in the Cultural and Creative Industries, 2003–2004**

Unit: thousand persons; %

Item	2003			2004		
	SMEs	Large enterprises	Government employees	SMEs	Large enterprises	Government employees
Total No. of Persons (Percentage)	205.50 (77.15)	55.75 (20.93)	5.11 (1.92)	213.91 (76.73)	59.45 (21.33)	5.41 (1.94)
<b>Industry</b>	100.00	100.00	100.00	100.00	100.00	100.00
Artistic and cultural services	11.40	10.93	28.71	11.94	9.93	39.29
Film industry	1.86	1.77	–	2.37	1.34	–
Broadcasting	5.43	33.23	15.83	5.92	31.25	11.06
Publishing	11.59	28.85	2.14	10.12	29.10	1.08
Advertising	18.87	2.52	–	18.87	3.03	–
Design services	8.51	4.37	0.95	9.34	4.82	–
Building and construction services	11.12	7.67	24.89	11.35	8.42	8.31
Leisure services	31.21	10.66	27.48	30.09	12.11	40.27
<b>Sex</b>	100.00	100.00	100.00	100.00	100.00	100.00
Male	53.65	55.89	77.31	54.15	55.62	63.44
Female	46.35	44.11	22.69	45.85	44.38	36.56
<b>Education</b>	100.00	100.00	100.00	100.00	100.00	100.00
Illiterate	0.21	0.46	1.57	0.07	0.09	–
Self-taught	0.08	–	–	0.05	–	–
Primary school	4.80	4.65	9.12	5.33	4.05	11.98
Junior high school	11.89	6.33	5.63	10.85	4.72	7.27
Senior high school	9.65	7.60	18.15	9.51	7.35	9.70
Senior vocational school	32.15	23.78	17.78	31.00	23.91	21.26
Junior college	22.16	21.38	18.70	22.30	22.61	23.02
University	16.07	27.76	19.65	17.72	28.23	19.23
Master's	2.85	7.82	7.91	3.00	8.40	7.54
Ph.D.	0.13	0.21	1.48	0.17	0.64	–

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics, Taiwan Area* (original data), 2003–2004.

## 8. The Number of Unemployed Persons who Previously Worked in SMEs Continues to Fall

Both the unemployment rate and the absolute number of unemployed people in Taiwan fell in 2004 compared to 2003. For both those who had previously worked in large enterprises and those who had previously worked in SMEs, the number of unemployed was lower in 2004 than in 2003. The number of unemployed who had previously worked in SMEs fell from 368,000 to 313,000, while the number of unemployed who had previously worked in large enterprises declined from 37,000 to 33,000 (Table 4-1-8). However, the number of unemployed who had previously worked for the

government increased. This increase may have been related to the termination of some government job creation schemes.

**Table 4-1-8 Characteristics of the Unemployed, 2003–2004**

Unit: thousand persons; %

Item	2003			2004		
	SMEs	Large enterprises	Government employees	SMEs	Large enterprises	Government employees
Total No. of persons (Percentage)	367.80 (73.13)	36.99 (7.36)	98.12 (19.51)	312.58 (68.82)	32.93 (7.25)	108.71 (23.93)
<b>Age</b>	100.00	100.00	100.00	100.00	100.00	100.00
15–24	17.91	14.98	60.57	17.45	17.53	55.17
25–40	46.82	51.21	29.52	48.39	51.90	29.85
41–55	31.18	29.47	7.99	30.45	27.57	12.22
56–65	4.06	4.27	1.92	3.70	3.01	2.76
65 or over	0.04	0.07	–	0.02	–	–
<b>Sex</b>	100.00	100.00	100.00	100.00	100.00	100.00
Male	68.53	53.45	54.76	631.66	55.18	56.96
Female	31.47	46.55	45.24	33.45	44.82	43.04
<b>Education</b>	100.00	100.00	100.00	100.00	100.00	100.00
Illiterate	0.50	0.19	0.26	0.30	–	0.10
Self-taught	0.12	–	0.01	0.09	0.03	0.11
Primary school	14.47	5.91	4.19	12.33	5.88	5.35
Junior high school	24.75	10.06	10.27	23.48	12.50	8.18
Senior high school	9.90	10.91	8.11	9.37	9.09	8.71
Senior vocational school	31.69	35.08	29.89	32.96	29.42	26.98
Junior college	12.59	22.60	19.18	13.75	23.89	17.80
University	5.57	13.25	25.28	7.21	16.76	27.77
Masters	0.40	1.97	2.81	0.48	2.32	4.85
Ph.D.	0.03	0.04	–	0.04	0.12	0.14

Note: The enterprise types given in the Table are those in which the unemployed worked before becoming unemployed.

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics, Taiwan Area* (original data), 2003–2004.

## 9. An Increase in the Number of SME Employees Changing Jobs

The number of SME employees changing jobs rose significantly in 2004 compared to 2003, climbing to around 46,000. There was an increase in the number of SME employees going to work for other SMEs, as well as in the number of SME employees going to work for large enterprises or for the government. However, although the number of SME employees going to work for other SMEs increased in absolute terms, as a percentage of all SME employees changing jobs it fell. However, there was a

pronounced increase in the share of SME employees changing jobs who went to work for large enterprises or for the government (Table 4-1-9). It seems likely that the upturn in the economy created more opportunities for people to change jobs.

**Table 4-1-9 Choice of New Employer by Former SME Employees**

Unit: thousand persons; %

Year	Total	Going to work for another SME		Going to work for a large enterprise		Going to work for the government	
		No. of persons	Percentage	No. of persons	Percentage	No. of persons	Percentage
1998	485	426	87.99	46	9.94	13	2.07
1999	504	448	88.85	44	8.75	12	2.40
2000	490	427	87.14	53	10.82	10	2.04
2001	485	429	88.45	39	8.04	17	3.51
2002	441	394	89.34	32	7.26	15	3.40
2003	455	405	89.01	36	7.91	14	3.08
2004	501	433	86.32	43	8.62	25	5.05

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics, Taiwan Area* (original data), 2003–2004.

## 10. Implementation of the SME Manpower Assistance Program Succeeded in Reducing the Unemployment Rate

In order to help Taiwan's one million SMEs to recover from the downturn in the economy as quickly as possible, not only did the Executive Yuan help SMEs to secure financing, it also provided assistance in the area of human resources in accordance with the provisions of the Provisional Regulations Governing the Expansion of Employment in the Public Services Sector. Under the SME Manpower Assistance Program, the implementation of which began on June 18, 2003, the government pays SMEs a subsidy of NT\$10,000 per month for every unemployed person that they hire. The subsidy is available for up to 12 months; the total budget allocated for the project by the government was NT\$3.3 billion. Taking into consideration the fact that the type of manpower for which SMEs have the greatest need is medium and high-end manpower, rather than unemployed manual workers, the middle-aged, and members of disadvantaged groups, the qualifications for subsidies under the SME Manpower Assistance Plan were relaxed so that the subsidies were available for the recruitment of unemployed persons (and young people who had never been in employment) aged 18–65, rather than 30–65 as originally specified. However, in the case of employees aged 18–30, the subsidy is available for only six months.

During the period from June 18, 2003 to December 31, 2004, the subsidies were provided for a total of 58,859 individuals, with 13,543 SMEs benefiting from the scheme. The number of unemployed who actually took up the positions offered to them was 51,488, and the average number of subsidies per enterprise was 4.35. However, the statistics indicate that 81.46% of those recruited under this scheme were aged 45 or under. The problem of high unemployment among the middle-aged thus continues to exist.

## 11. A Decrease in the Number of Foreign Laborers Employed by SMEs

To reduce competition for jobs between foreign laborers and domestic workers, in 2001 the Council of Labor Affairs began to implement a new policy of restricting the number of foreign laborers allowed into Taiwan. It was hoped that the adoption of this policy would help to reduce the unemployment rate. Both the number of foreign laborer approvals and the number of foreign laborers actually fell in Taiwan steadily. However, in 2004 the number of approved foreign laborers in Taiwan increased instead by 2,708 compared to 2003. The number of approvals for foreign laborers employed by SMEs fell by 1,326 (Table 4-1-10), but the number of approvals for large enterprises increased by 4,034. The number actually in Taiwan fell by 600 in the case of SMEs and rose by 4,322 in the case of large enterprises. Thus, although the total number of foreign laborers rose slightly, the number employed by SMEs fell.

**Table 4-1-10 Number of Foreign Laborers Employed by Large Enterprises and SMEs, 2001–2004**

Unit: thousand persons; %

Year	Item/Scale	Approved foreign laborers		Foreign laborers actually in Taiwan	
		SMEs	Large enterprises	SMEs	Large enterprises
2001		104,481 (43.70)	134,601 (56.30)	83,094 (43.64)	107,328 (56.36)
2002		85,965 (42.30)	117,270 (57.70)	76,846 (42.68)	103,192 (57.32)
2003		83,322 (42.37)	113,316 (57.63)	75,824 (43.04)	100,332 (56.96)
2004		81,996 (41.13)	117,350 (58.87)	75,224 (41.82)	104,654 (58.18)

Notes: 1. Includes only foreign laborers imported by manufacturing and construction firms.  
 2. SMEs are defined as firms with less than 200 employees.  
 3. Figures in parentheses are percentages of the total.

Source: Bureau of Employment and Vocational Training, Council of Labor Affairs, Executive Yuan.

## II Labor Conditions in SMEs

### 1. Higher Average Salaries for Employees in Some Industries

With the economy clearly starting to pick up again, average salaries have risen in most industries. However, average salaries fell for employees of SMEs in the agriculture, forestry, fishing and animal husbandry sector, the finance and insurance sector, the health and social services sector, and the cultural, sports, and leisure services sector (Table 4-2-1). Overall, for SME employees, average salaries are still highest in the health and social services sector at NT\$44,000 per month. In the case of large enterprises, it is the professional, scientific and technical services industry that offers the highest average salaries. In all industries, large enterprises have higher average salaries than SMEs.

**Table 4-2-1 Average Monthly Salary by Industry, 2003–2004**

Unit: NT\$ thousand

Industry	Scale	SMEs		Large enterprises		Government employees	
		2003	2004	2003	2004	2003	2004
Agriculture, forestry, fishing and animal husbandry		17.85	16.79	39.99	31.27	32.15	36.15
Mining and quarrying		33.62	40.64	–	–	46.72	25.04
Manufacturing		31.17	32.24	37.14	37.54	48.31	49.45
Water, electricity, and gas		33.80	35.11	39.59	40.97	52.55	54.22
Construction		32.38	34.31	55.34	49.60	41.63	37.70
Wholesale and retail		32.84	33.90	40.43	39.03	40.26	39.54
Accommodation and eating-drinking places		28.24	29.03	34.57	31.57	45.61	25.00
Transportation, warehousing, and communications		32.88	35.28	45.56	48.08	50.49	49.59
Finance and insurance		39.88	38.84	42.85	43.32	49.82	50.83
Real estate and rental		33.89	36.32	47.95	41.68	50.97	34.94
Professional, scientific, and technical services		38.46	40.09	54.16	52.31	41.63	41.50
Educational services		29.48	30.87	49.10	46.43	46.30	45.78
Medical, healthcare, and social services		48.01	44.00	46.16	46.49	46.66	46.65
Cultural, sporting, and leisure services		29.78	29.35	39.92	38.47	39.32	34.38
Other service industries		27.30	29.63	32.12	31.16	30.06	30.68

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Taiwan Region Manpower and Employment Survey*, 2003 and 2004.

## 2. The Percentage of Total Costs Accounted for by Personnel Expenses Fell Slightly in 2003

An enterprise's operating expenses include wages, rental, travel expenses, advertising, water, electricity, and gas bills, postal costs, insurance premiums, entertainment expenses, training costs, etc. Personnel expenses account for a significant share of operating expenses. The percentage of total operating expenses accounted for by personnel expenses is highest in the health and social services industry at 59.82% (Table 4-2-2) and lowest in the mining and quarrying industry. Among large enterprises, it is once again the health and social services industry that has the highest percentage, with the real estate and rental industry having the lowest share.

**Table 4-2-2 Personnel Costs as a Percentage of Operating Costs and Operating Expenses in 2003**

Unit: %

Industry	Size	Personnel costs as a percentage of operating expenses		Personnel costs as a percentage of operating costs	
		SMEs	Large enterprises	SMEs	Large enterprises
Agriculture, forestry, fishing and animal husbandry		30.88	41.43	3.90	6.31
Mining and quarrying		16.47	37.21	3.16	7.83
Manufacturing		35.78	28.22	4.13	2.47
Water, electricity, and gas		40.69	43.77	11.91	2.19
Construction		50.88	41.33	6.32	1.95
Wholesale and retail		49.05	35.42	10.17	4.29
Accommodation and eating-drinking places		44.20	37.53	17.88	13.59
Transportation, warehousing, and communications		45.22	36.35	13.95	6.11
Finance and insurance		43.56	40.41	11.69	0.64
Real estate and rental		39.32	21.90	11.42	2.32
Professional, scientific, and technical services		48.66	40.68	24.49	11.12
Educational services		51.93	46.60	29.43	10.84
Medical, healthcare, and social services		59.82	62.14	25.29	3.61
Cultural, sporting, and leisure services		45.13	32.74	20.01	11.41
Other service industries		54.00	46.29	23.45	12.27

Note: Operating costs include both business costs and operating expenses.  
Source: Ministry of Finance Tax Data Center, Business Income Tax Data for 2003.

If business costs are added to operating expenses, then personnel costs' share of total operating costs is significantly lower. For SMEs, in 2003 the industry in which personnel costs accounted for the highest share of operating costs was educational services. The disparity was more apparent in the manufacturing sector than in the

service sector, mainly because manufacturing firms need to purchase raw materials, which account for a large share of operating costs. In the service sector the expenditure on raw materials is much smaller, and hence there is a difference in the share of total operating costs held by personnel costs.

### 3. Little Change in the Number of Hours Worked per Week for All Industries

With the upturn in the economy, for most industries average working hours per week were slightly higher in 2004 than they had been in 2003. In most industries, working hours are longer in SMEs than they are in large enterprises. As a result, working hours in the service sector are longer than in the agricultural and industrial sectors. For SMEs, the accommodation and eating-drinking places industry has particularly long hours, averaging 50.57 hours per week, followed by the wholesale and retail industry at 48.49 hours (Table 4-2-3).

**Table 4-2-3 Working Hours per Week by Industry, 2003–2004**

Unit: hours per week

Industry	Enterprise type	SMEs		Large enterprises		Government employees	
		2003	2004	2003	2004	2003	2004
Agriculture, forestry, fishing and animal husbandry		40.46	41.26	44.24	43.27	41.17	40.98
Mining and quarrying		45.14	45.77	40.00	40.00	40.78	40.48
Manufacturing		43.10	44.41	43.58	43.59	41.15	41.36
Water, electricity, and gas		44.39	44.03	43.65	42.71	41.56	40.87
Construction		40.82	41.75	43.68	43.08	40.98	40.71
Wholesale and retail		48.32	48.49	44.19	44.78	42.25	42.01
Accommodation and eating-drinking places		49.61	50.57	45.86	47.01	46.62	49.00
Transportation, warehousing, and communications		45.98	46.24	45.19	44.65	41.00	40.29
Finance and insurance		44.34	44.21	42.98	43.44	39.84	41.09
Real estate and rental		47.00	47.57	45.73	47.76	41.01	41.71
Professional, scientific, and technical services		43.40	43.42	43.15	44.44	40.09	40.76
Educational services		40.85	40.49	36.49	37.57	37.00	36.73
Medical, healthcare, and social services		46.95	45.56	44.66	43.94	41.95	42.68
Cultural, sporting, and leisure services		47.31	47.67	44.52	43.89	41.11	40.24
Other service industries		47.39	47.71	45.92	46.20	42.01	41.97
Public administration		43.33	41.33	44.00	40.00	41.22	41.79

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics, Taiwan Area* (original data), 2003–2004.

Among workers in the private sector, average working hours declined with age



(Table 4-2-4). In the SME sector, those educated at the vocational high school level have the longest working hours, averaging 45 hours per week. For other educational levels, both above and below the vocational high school level, the average number of hours worked each week is lower. In large enterprises, the correlation between a higher educational level and shorter working hours is particularly pronounced.

**Table 4-2-4 Weekly Working Hours for Employees in the Private Sector, 2003–2004**

Unit: hours per week

Item	Enterprise type	SMEs		Large enterprises	
		2003	2004	2003	2004
Total No. of persons		43.32	43.77	43.46	43.66
<b>Age</b>					
15–24		44.14	43.92	42.84	44.06
25–40		43.70	44.40	44.31	44.08
41–55		43.55	43.99	43.95	43.82
56–65		42.13	42.91	42.07	42.67
65 or over		41.84	41.89	37.97	39.51
<b>Sex</b>					
Male		43.74	44.23	43.79	44.19
Female		42.87	43.32	43.11	43.10
<b>Education</b>					
Illiterate		41.83	41.30	44.05	44.89
Self-taught		39.07	41.29	46.79	45.12
Primary school		42.80	43.28	44.29	44.62
Junior high school		44.17	44.36	45.46	45.19
Senior high school		44.19	45.40	45.05	44.73
Senior vocational school		44.35	45.23	44.51	44.62
Junior college		43.88	44.11	42.94	43.01
University		42.11	42.63	41.42	42.16
Masters		42.08	41.25	40.90	41.83
Ph.D.		41.11	39.43	38.17	39.75

Source: Directorate General of Budget, Accounting and Statistics, Executive Yuan, *Monthly Bulletin of Manpower Statistics, Taiwan Area* (original data), 2003–2004.

#### 4. Fewer Labor Disputes in SMEs

In 2004 with the economy starting to pick up again, a total of 4,327 labor disputes were registered with the government while there were 4,784 with private arbitration organizations (Table 4-2-5). These figures represent a decrease of 219 and 539, respectively, compared to 2003. For SMEs, there was a pronounced decline in both the

number of disputes registered with the government and the number registered with private arbitration organizations. For large enterprises, on the other hand, there was a slight increase in the number of labor disputes.

**Table 4-2-5 Number of Labor Disputes and Number of Persons Involved, 1997–2004**

Units: disputes; persons; %

Year	Disputes registered with the government			Disputes registered with private arbitration organizations		
	Total	Large enterprises	SMEs	Total	Large enterprises	SMEs
<b>No. of labor disputes</b>						
1997	2,532	478(18.88)	2,054(81.12)	68	13(19.12)	55(80.88)
1998	4,043	813(20.11)	3,230(79.89)	95	3(3.16)	92(96.84)
1999	5,806	1,087(18.72)	4,719(81.28)	54	4(7.41)	50(92.59)
2000	6,579	1,242(18.88)	5,337(81.12)	1,447	211(14.58)	1,236(85.42)
2001	7,405	1,238(16.72)	6,167(83.28)	3,550	532(14.99)	3,018(85.01)
2002	7,768	1,428(18.38)	6,340(81.62)	4,625	683(14.77)	3,942(85.23)
2003	4,546	724(15.93)	3,822(84.07)	5,323	740(13.90)	4,583(86.10)
2004	4,327	844(19.51)	3,483(80.49)	4,784	741(15.49)	4,043(84.51)
<b>No. of persons involved</b>						
1997	80,816	76,196(94.28)	4,620(5.72)	188	91(48.40)	97(51.60)
1998	103,206	96,548(93.55)	6,658(6.45)	362	192(53.04)	170(46.96)
1999	30,363	20,780(68.44)	9,583(31.56)	77	6(7.79)	71(92.21)
2000	53,790	41,931(77.95)	11,859(22.05)	2,753	877(31.86)	1,876(68.14)
2001	51,961	37,272(71.73)	14,689(28.27)	4,975	1,707(25.55)	4,975(74.45)
2002	89,242	74,813(83.83)	14,429(16.17)	8,278	2,879(34.78)	5,399(65.22)
2003	17,012	8,385(49.29)	8,627(50.71)	8,019	1,865(23.26)	6,154(76.74)
2004	21,038	13,541(64.37)	7,497(35.64)	6,271	1,234(19.68)	5,037(80.32)

Notes: 1. Firms with under 100 employees are classified as SMEs; all other firms are classified as large enterprises.

2. Figures in parentheses are percentages of the total number of disputes or persons.

Source: Statistics Department, Council of Labor Affairs, Executive Yuan.

As regards to the number of people involved in labor disputes, in the case of those disputes registered with the government, 2003 saw a dramatic fall in the number of people involved. Although the total for 2004 was higher than that for 2003, it was still significantly lower than the 1998 level. On the basis of the data available from the government and from private arbitration organizations, it would appear that the number of SME employees involved in labor disputes fell by approximately 800 in 2004 compared to 2003. However, SMEs' share of labor disputes registered with private arbitration organizations rose from 76.74% in 2003 to 80.32% in 2004. SMEs thus account for the largest share of companies seeking assistance from private

arbitration organizations, and this share is rising.

### III Manpower Cultivation in SMEs

#### 1. A Continuing Fall in SME Participation in Professional Training in 2003

In 2003 the number of persons participating in professional training in Taiwan increased by approximately 120,000. Public and private enterprises with fewer than 200 employees were the only group for which the number of employees participating in professional training declined, falling by 15,000 (Table 4-3-1). This decrease may have been related to the fact that the economic downturn was not entirely over in 2003, causing smaller enterprises with less than 200 employees to have misgivings about spending money on professional training for their employees. The increase in the participation of professional training opportunities among larger public and private enterprises (over 200 workers) more than compensated for the decline among smaller enterprises.

**Table 4-3-1 Number of Employees Participating in Professional Training, 1996–2003**

Unit: instances of training

Year	Item	Total instances of participation in professional training	Employees of public or private companies / agencies with less than 200 employees	Employees of public or private companies / agencies with more than 200 employees	Other
1996		610,898	101,630	414,058	95,210
1997		631,764	133,977	413,479	84,308
1998		623,495	139,376	392,753	91,366
1999		669,561	113,038	429,880	126,643
2000		757,670	155,153	464,555	137,962
2001		759,142	163,698	442,490	152,954
2002		738,580	160,498	399,128	178,954
2003		859,308	145,503	499,079	214,726

Notes: 1. The category "public or private companies / agencies with 200 or more employees" includes training organized by public and private companies and agencies with 200 or more employees or staff.

2. The category "public or private companies / agencies with less than 200 employees" includes training organized by public and private companies and agencies with less than 200 employees or staff; it also includes training provided by training facilities attached to universities, foundations, public training institutions, etc.

3. The "other" category includes "cultivation training" provided by government training institutions and by training facilities attached to universities, foundations, public training institutions, etc.

Source: Bureau of Employment and Vocational Training, Council of Labor Affairs.

## 2. Training Integration to Provide the Manpower that Enterprises Need

In order to bring down the unemployment rate, which has been rising steadily in recent years, and to help business enterprises secure the manpower they need, in the second half of 2001 the government began to implement the “Plan for Promoting the Integration of Training and Placement for the Unemployment with Enterprises’ Initial Training for New Employees.” The aim of this plan was to match up job-seekers with enterprises’ manpower needs. It was anticipated that the implementation of this plan would help to cultivate the types of manpower that enterprises need, help enterprises to maintain a steady supply of new employees, and help the unemployed to find jobs.

In 2004, 77 enterprises participated in the program, and a total of 3,841 people received training. Of these, 99.05% were hired on the completion of their training program. Training integration of this kind has an important intermediary role to play, bridging the gap between employers and job-seekers (Table 4-3-2).

**Table 4-3-2 Results of Training Integration, 2001–2004**

Unit: enterprises; persons; %

Year	Item	No. of enterprises involved	No. of trainees hired	Percentage of trainees hired
2001		18	1,508	95.99
2002		85	12,253	99.58
2003		64	11,548	99.59
2004		77	3,841	99.05

Note: Implementation of this project began in the second half of 2001.

Source: Bureau of Employment and Vocational Training, Council of Labor Affairs, Executive Yuan.

With the upturn in the economy, although the number of enterprises participating in the scheme increased, the number of trainees fell dramatically. One of the main reasons for this decrease is that, in order to ensure that the interests of SMEs are protected, beginning in 2004 the amount of training subsidies for which any individual enterprise could apply was capped at NT\$1 million. As a result, the number of large enterprises applying to participate in the scheme fell. Most of the companies participating in the program are now SMEs, and hence there is a substantial decline in the number of persons undergoing training.

### 3. Enterprise Spending on Professional Training Remains Low

As a rule, wages account for a higher share of SMEs' total operating expenses and operating costs than they do for large enterprises. However, when it comes to expenditure on training, there is no direct correlation between training expenses as a percentage of total operating costs or operating expenses and the size of the enterprise. For SMEs in the agriculture, forestry, fishing and animal husbandry sector, the wholesale and retail sector, the accommodation and eating-drinking places sector, and the cultural, sports, and leisure sector, on average training expenses' share of total operating costs is lower than it is among large enterprises in these industries. However, for SMEs in other sectors, the share of total operating costs is higher than it is among large enterprises (Table 4-3-3). On the other hand, if one considers training expenses as a percentage of operating expenses rather than operating costs, then the percentage is lower for SMEs than for large enterprises in almost all industries.

**Table 4-3-3 Expenditure on Training as a Percentage of Operating Costs and Operating Expenses in 2003**

Unit: %

Industry	Enterprise size	SMEs		Large enterprises	
		Expenditure on training as % of operating costs	Expenditure on training as % of operating expenses	Expenditure on training as % of operating costs	Expenditure on training as % of operating expenses
Agriculture, forestry, fishing and animal husbandry		0.09	0.71	0.17	1.12
Mining and quarrying		0.02	0.09	–	–
Manufacturing		0.33	2.84	0.17	1.90
Water, electricity, and gas		0.37	1.26	0.06	1.22
Construction		0.12	0.93	0.09	1.92
Wholesale and retail		0.14	0.69	0.21	1.73
Accommodation and eating-drinking places		0.22	0.55	0.30	0.83
Transportation, warehousing, and communications		0.29	0.95	0.26	1.57
Finance and insurance		1.02	3.79	0.04	2.54
Real estate and rental		0.26	0.90	0.18	1.73
Professional, scientific, and technical services		1.23	2.44	1.10	4.01
Educational services		1.46	2.57	0.98	4.22
Medical, healthcare, and social services		0.44	1.03	0.39	6.74
Cultural, sporting, and leisure services		0.19	0.43	0.57	1.62
Other service industries		0.47	1.09	0.84	3.15

Source: Ministry of Finance Tax Data Center, Business Income Tax Data for 2003.

#### 4. Enterprises' Main Motivation for Implementing Professional Training is to Meet the Needs of Organizational Development

For SMEs in Central Taiwan, the three main reasons for implementing professional training were (in order): to meet the needs of organizational development, to strengthen the capabilities of the enterprise's employees, and to improve working efficiency (Table 4-3-4). It would thus appear that SMEs prioritize those types of professional training that can contribute to the development of the enterprise as a whole. The next most important goal is to boost productivity, followed by the cultivation of managerial talent. SMEs are thus very much oriented towards their *current* manpower needs; less consideration is given to future needs.

**Table 4-3-4 SMEs' Motivation for Implementing Professional Training in 2004**

Units: number of enterprises; %

Ranking	Motivation	No. of enterprises reporting this motivation	No. of enterprises reporting this motivation as % of the total
1	To satisfy organizational development needs	89	27.5
2	To upgrade employee capabilities	75	23.4
3	To improve working efficiency	67	20.8
4	To cultivate managerial talent	60	18.4
5	To boost employee morale	16	5.1
6	To meet employee's individual needs	15	4.8
<b>Total</b>		<b>322</b>	<b>100.0</b>

Source: Central Taiwan SME Training Center, College of Management, Tunghai University, *SME Training Needs in Central Taiwan – Analysis of Survey Results*, December 2004.

#### 5. SMEs Attach the Most Importance to the Cultivation of Managerial Capabilities

In recent years, as the processes of economic globalization and internationalization have proceeded, SMEs have been forced to pay more attention to the cultivation of managerial talent capable of operating in an internationalized environment. Courses aimed at enhancing managerial capabilities account for the largest share of professional training courses implemented or arranged by SMEs, followed by quality management and cost management courses, public safety training courses, and project management training (Table 4-3-5).

**Table 4-3-5 Main Types of Professional Training Course Implemented by SMEs in 2004**

Units: instances of training: %

Main types of training course implemented	Instances of training	Percentage of total
Managerial capabilities	489	60.82
Quality and cost management	461	57.34
Public safety training	244	30.35
Project management	207	25.75

Source: Shih Chin-chung, Results of the SME Training Needs Survey (2004 Survey of Human Resources Needs in Light of the Growing Importance of Global Logistics), Southern Taiwan SME Training Center, College of Management, National Sun Yat-sen University, December 2004.

## 6. Technical and Service Personnel Will Remain the Highest Demanded Talent

The category of talent for which SMEs believe that they will have the greatest need in the future is technical and service personnel; 55.11% of SMEs reported this as being the category of talent for which they would have the greatest demand. The next most in-demand category was managerial talent at 20.18% (Table 4-3-6). Demand for administrative talent, e-commerce talent, and other types of supporting talent was much lower than the demand for specialist and managerial talent. The government's efforts to help SMEs cultivate their human resources should therefore continue to focus on specialist and managerial talent.

**Table 4-3-6 Types of Human Talent for which SMEs Expect to Experience the Highest Level of Demand in the Future**

Units: %

Talent category	2002		2003		2004	
	%	Ranking	%	Ranking	%	Ranking
Technical and service talent	49.20	1	49.20	1	55.11	1
Managerial talent	25.10	2	18.20	2	20.18	2
E-business talent	9.50	3	6.40	4	7.67	3
Administrative services talent	4.90	5	5.50	5	4.06	6
None	2.50	6	15.80	3	7.54	4
Other	2.10	7	0.60	7	0.59	7
Don't know / refused to answer	6.70	4	4.30	6	4.85	5
<b>Total</b>	<b>100.00</b>		<b>100.00</b>		<b>100.00</b>	

Source: SME Training Center (Northern Region), College of Business, National Chengchi University, December 2004, *Survey of SME Manpower Cultivation Needs in 2004*.

## 7. Most Employee Training and Cultivation is Implemented In-house

SMEs generally prefer to conduct employee training and manpower cultivation in-house – for example, through the use of in-company instructors (77.99% of SMEs) or by organizing in-company study groups (67.04%). Nearly 50% of SMEs have arranged to have training provided by outside consulting firms; only 20% have made use of e-learning (Table 4-3-7).

**Table 4-3-7 Main Training and Manpower Cultivation Methods Used by SMEs in 2004**

Units: No. of enterprises; %

Training and manpower cultivation methods	No. of enterprises reporting the use of this method	Percentage of enterprises reporting the use of this method
In-company instructors	627	77.99
In-company study groups	539	67.04
Outsourcing of training to firms of consultants	362	45.02
E-Learning	161	20.02

Note: Respondents were permitted to list more than one method.

Source: Shih Chin-chung, Results of the SME Training Needs Survey (2004 Survey of Human Resources Needs in Light of the Growing Importance of Global Logistics), Southern Taiwan SME Training Center, College of Management, National Sun Yat-sen University, December 2004.

The data for SMEs in Central Taiwan also show relatively few SMEs making use of e-learning. The main reason given for this was that the company had not yet developed e-learning; 58.2% of SMEs in Central Taiwan gave this reason (Table 4-3-8). The next most common reason was difficulty in establishing an e-learning platform; just over 10% of SMEs reported that they had used e-learning in the past, but had felt that the course content was of little practical value, or had otherwise not been impressed with the results, and so had discontinued the program.

**Table 4-3-8 Reasons Given by SMEs in 2004 for Not Using e-Learning**

Units: No. of enterprises; %

Reasons given for not using e-Learning	No. of SMEs giving this reason	Percentage of SMEs giving this reason
Have not developed e-learning yet	168	58.2
Difficulty in establishing an e-learning platform	87	33.0
Implemented e-learning in the past, but the results were disappointing	1	0.3
Implemented e-learning in the past, but the course content was of little practical benefit	33	11.4
<b>Total</b>	<b>289</b>	<b>100.0</b>

Source: Central Taiwan SME Training Center, College of Management, Tunghai University, *SME Training Needs in Central Taiwan – Analysis of Survey Results*, December 2004.



## 8. SMEs Prefer to Participate in Training Programs Organized by Universities and Other Academic Institutions

According to the results of the survey conducted by the Central Taiwan SME Training Center at the College of Management, Tunghai University, the type of training that SMEs are most enthusiastic about participating in is those training programs organized by universities and other academic institutions. This was the preferred type of training for 52.8% of SMEs (Table 4-3-9). It may be because universities and other academic institutions enjoy high prestige or are felt to display a high level of professionalism. The next most popular type of training was that provided by foundations and government agencies (25.4% of SMEs). Training programs provided by private consulting firms were the least popular.

**Table 4-3-9** Types of External Training that SMEs Most Wished to Participate in during 2004

Units: No. of enterprises; %

Ranking	Type of external training provider	No. of SMEs reporting a preference for this type of training provider	Percentage of SMEs reporting a preference for this type of training provider
1	Universities and other academic institutions	151	52.8
2	Foundations and government agencies	73	25.4
3	Private consulting firms	62	21.8
<b>Total</b>		286	100.0

Source: Central Taiwan SME Training Center, College of Management, Tunghai University, *SME Training Needs in Central Taiwan – Analysis of Survey Results*, December 2004.

## 9. Conferences are Felt to be the Most Effective Form of Training Activity

The forms of training activity that SMEs felt to be most effective were conferences (27.8% of SMEs) and case studies (26.9%), followed by lectures (21.6%). The types of training activity that were regarded as least effective were role-playing and e-learning (Table 4-3-10). It would appear that SMEs prefer general activities that provide an opportunity to acquire new knowledge while also providing a venue for interaction and exchange, and hence the preference for conferences over lectures.

**Table 4-3-10 Training Activities that SMEs Felt to be Most Effective in 2004**

Units: No. of enterprises; %

Ranking	Training activity	No. of SMEs that preferred this type of activity	Percentage of SMEs that preferred this type of activity
1	Conferences	190	27.8
2	Case studies	184	26.9
3	Lectures	148	21.6
4	Role playing	131	19.2
5	E-Learning	32	4.5
<b>Total</b>		<b>683</b>	<b>100.0</b>

Source: Central Taiwan SME Training Center, College of Management, Tunghai University, *SME Training Needs in Central Taiwan – Analysis of Survey Results*, December 2004.