

99-33

99-33

:  
:

. 가 2000

가 .

,  
가 .

, ,  
가

가

.  
가



5. OES (Occupational  
Employment Statistics)

(O\*NET : Occupational Information Network)

. O\*Net

가

6. SCANS  
(Secretary's Commission on Achieving Necessary Skills)

1992 A SCANS Report for America

2000

(workplace know-how)

“Learning a Living”

가

. SCANS  
School-to-Work

7. 1986

1996

2005

2010

가

가

가

가

8.

(Institut für Arbeitsmarkt und Berufshildun-  
gsforschung)가

(Arbeitsgemeinschaft Berufsforschungsnetz)

9.

10

가

,

4

,

,

가

가

. 가



13.

가 . . 가 가  
가 .

14. 2000 3 가  
2000 10

11

, 가  
,

15. ( )

가 . 가 .

16.

가 가

가

•	.....	1
1.	.....	1
2.	.....	2
3.	.....	3
4.	.....	3
•	.....	9
1.	.....	9
2.	.....	10
3.	.....	22
4.	.....	29
5.	.....	29
•	.....	33
1.	.....	33
2.	.....	35
3.	.....	42
4.	.....	46
5.	.....	47

- .....49
- 1. ....49
- 2. ....50
- 3. ....55
- 4. ....59
- 5.       가 .....61
- 6. ....62

- .....81
- 1. ....82
- 2. ....83
- 3. ....89
- 4. ....90

- .....93
- .....99

**ABSTRACT** ..... 107

..... 113

< -1>	,	.....	2
< -2>		.....	4
< -3>	가	.....	5
< -4>		.....	5
< -1>		.....	9
< -2>	(1998 - 2008 )	.....	14
< -3>	가 가 10가 (1998 - 2008 )	.....	15
< -4>	10가 (1998 - 2008 )	.....	15
< -5>	(1998 )	.....	18
< -6>	DOT	.....	26
< -7>		.....	30
< -1>		.....	33
< -2>	(1990 - 2010 )	.....	37
< -3>	1995 2010	.....	38
< -4>		.....	40
< -5>		.....	42
< -6>	(1997 12 )	.....	44
< -7>		.....	46
< -1>		.....	49
< -2>		.....	58
< -3>	1991	.....	65
< -4>		.....	66
< -5>	2010	.....	67
< -6>		.....	69
< -7>		.....	71
< -8>		.....	73
< -9>		.....	75

< - 10>	.....	79
< - 1>	.....	81
< - 2>	.....	86

[ -1 ]	.....6
[ -1 ]	.....57

•

1.

가

,

,

,

,

,

가

가

가

가

가

가

가

가

가

가

2.

가

< -1>

	○ ○	
	○ ○ ○ ○ ○ , ,	
	○ ○	

3.

, 1990 가 , ,  
3 . , Internet search  
가

4.

가 , , ,  
. 1999 1,376 가 900  
/  
가 ,  
, , , , , , , , ,  
, , , , , .  
, , , , , ,



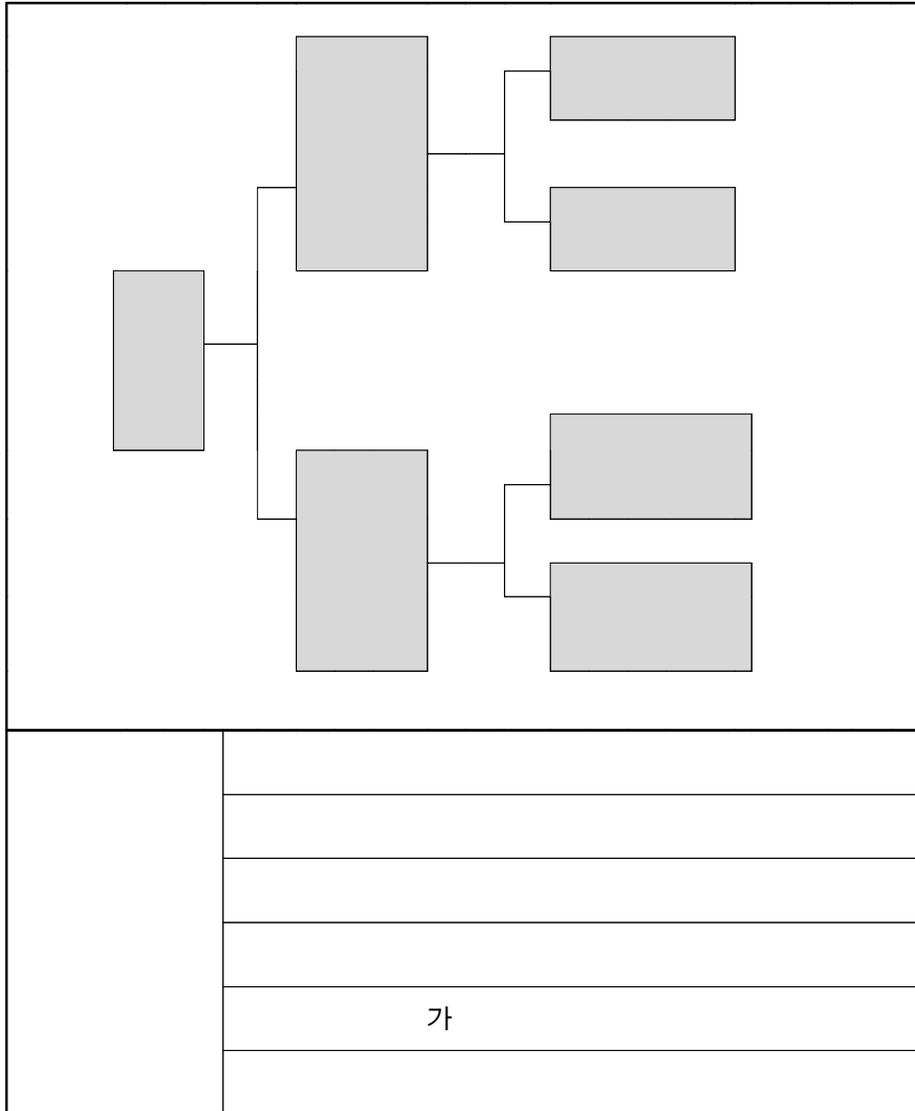
< -3>

가

( )	, , ,
( )	, 가 , ,
( )	, , , ,
( )	,

< -4>

	<ul style="list-style-type: none"><li>• ( , )</li><li>-</li><li>- :</li><li>가?</li><li>- :</li><li>- 가?</li><li>- ( )</li><li>- ( )</li><li>•</li><li>-</li></ul>	<ul style="list-style-type: none"><li>• ( )</li><li>- ( )</li><li>- ( )</li></ul>



{ -1 }

(quantitative)

(qualitative)

( )

(skill)

가

(job behavior)

1.

1997 26,790 가 가 (16 ) 20,313 , 136,297 가 67.1% ( 75.0%, 가 59.8%) 1).

< - 1 >

		(%)
		136,297,000
		73,216,000
		63,036,000
가		67.1%
		75.0%
		59.8%
(1997 )		23,459(18.1%)
		18,440(14.2%)
		18,361(14.2%)
		15,734(12.1%)
		17,537(13.5%)
		3,503 (2.7%)
		32,523(25.1%)
		129,558(100.0)

1) 가 가

, (labor force sample surveys), 가 (household survey), (official estimates), (census) .

: . 1999.  
 , 가 18.1%,  
 가 14.2%, 가 14.2%, 가  
 12.1%, 가 13.5%, 가 2.7%, . .  
 가 25.1% 80%가

## 2.

### 가.

#### 1)

1946 10  
 (Occupational Outlook Handbook). “ ” 250 2)  
 2 , , , , ,  
 '96/ '97  
 .  
 (1996 - 1997 )  
 가 . 가 ,  
 , 가, (JIST .  
 1997. The Enhanced Occupational Outlook Handbook).  
 ① , ( )  
 ), ② , , ③ (2 가 ) ,  
 ④ , ⑤ .  
 “ ” 가

---

2) 114 86%가

가 가 가

BLS 1999 11 30 1998 -2008

10

2008

1997 11

2000

가

가

10

가

, 1998

가

가)

10

(GDP) 2.6%

, 1998

2008

(GDP) 2.4%

가

1998

가 가 가  
. 2008 20%,  
24% 가 ,  
1988 1998 .  
가 .  
)  
1998 2008 17 가 ,  
1.2% . 1988 1998 가  
. 1.1% 가  
가 .  
10  
가  
. ,  
가 (55  
)  
1998 46.3% 2008 47.5% 가  
. , 가  
, 45 . 가  
10 ,  
. 2008  
41 가 , .  
. 4  
, 1998 10.4% 2008 12.7%

)

1998 - 2008 10 2 3

가 , 10 .

1998 2008 2

10 2 .

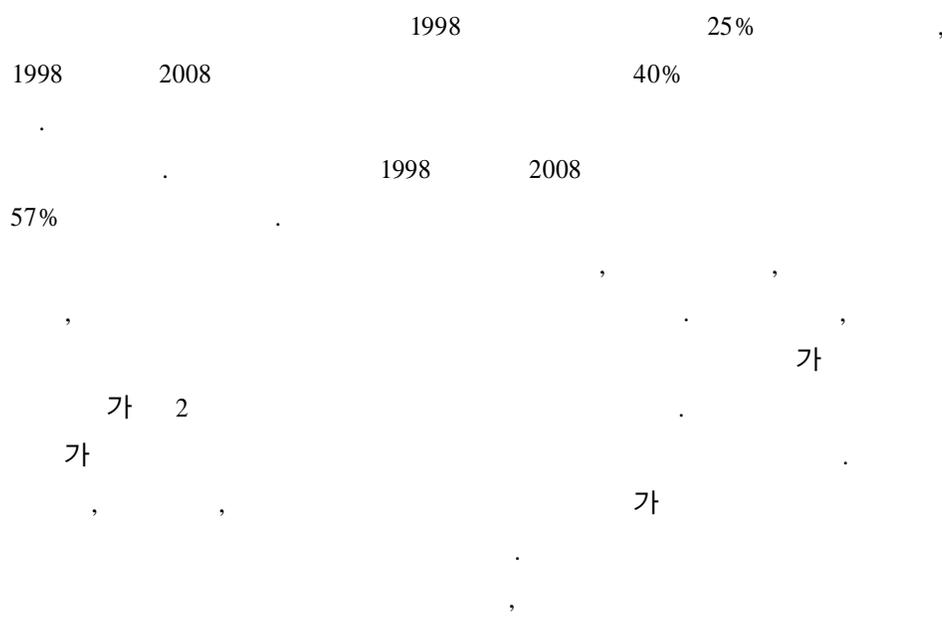
3

10

)

10 가 1998 2008

가



< - 2 > (1998 - 2008 )

	( )			(%)		
	1988	1998	2008	1988	1998	2008
	120,010	140,514	160,795	100.0	100.0	100.0
	12,330	14,770	17,196	10.3	10.5	10.7
	15,035	19,802	25,145	12.5	14.1	15.6
가	3,880	4,949	6,048	3.2	3.5	3.8
	12,390	15,341	17,627	10.3	10.9	11.0
	22,251	24,461	26,659	18.5	17.4	16.6
	18,554	22,548	26,401	15.5	16.0	16.4
	4,224	4,435	4,506	3.5	3.2	2.8
	14,333	15,619	16,871	11.9	11.1	10.5
	17,012	18,588	20,341	14.2	13.2	12.7

: BLS(1999)

1998 2008

가  
 가 1998 2 10  
 가 , , ,

< -3> 가 가 10가 (1998 - 2008 )

	( )			%
	1998	2008		
	1,599	3,472	1,872	117.0
	1,209	2,018	809	67.0
가	747	1,171	424	57.0
	1,034	1,500	466	45.0
	3,230	4,623	1,393	43.0
	258	369	111	43.0
( )	93	131	39	42.0
	614	861	247	40.0
	236	329	94	40.0
	645	900	255	40.0

: BLS(1999)

< -4> 10가 (1998 - 2008 )

	( )			%
	1998	2008		
	299	622	323	108.0
가	429	869	439	102.0
가	617	1,194	577	94.0
	87	155	67	77.0
	26	44	19	73.0
	136	220	84	62.0
가	746	1,179	433	58.0
	252	398	146	58.0
	268	410	141	53.0
	66	98	32	48.0

: BLS(1999)

가

가

가

. US NEWS & World Report

US NEWS & World Report

. 1995

20가

가

가,

가

가

1996

21

14

가(TV,

),

(

가),

(

),

(

가

),

가(

가

),

(AIDS

),

가(

)

1997

20

가

가

가(

가

,

가

),

가,

(

),

( , , 가), 가, ( , , ), 가, ( ), ( 가 , , 가 ), ( (가 ), 가, , , 가 , . 가 2006 가 가 55%가 . 가 1998 가 가 . 20가 . 20 가 10 ‘가 ’ ‘ , 3D 가 , , ( , 1999. 1. 13).

< -5>

(1998 )

			(\$)
			29,500 - 67,000
가			48,000 - 90,200
가			30,300 - 74,000
	CD-ROM		18,000 - 700,000 ( 가 )
			53,900 - 87,000
	가		10,300 - 48,000
	가		35,000 - 54,510
			50,000 - 86,800
		( )	51,200 - 250,000
		가	38,000 - 52,000
			60,800 - 99,000
		MBA	40,000 - 59,200

< >

			(\$)
	가		39,780- 65,000
			32,000- 52,500
	가		41,200- 106,000
		MBA,	80,000- 150,000
1	가		120,000- 140,000
	가		95,000- 200,000
		3	50,000- 1,000,000
			22,000- 42,500

: US News & Report. 1998

1999 (11 1 ) '21 가 21 ,

( )

(E-Commerce accountant)

(compsierge)

(computer)

(concierge)

E-mail ,

‘가 (Smart-home technician) VCR, TV, 가

4 10

(CEO)가

3 3 8 가 40 65

food designer) 가 (Gerontological counselor) 가

5 2 22

promotions producer) 가 가(Web

2 가

가(Technology recycler)

(Broadband architect)

2008 7 3 가 가 PC-

(Fuel cell engineer)

가

2010 가



3.

가.

1)	(SOC)				
	가	1939	(DOT)	1	
	17,500		. 1977	4	
	2,100	가			
	. 6	1991		12,741	
	.		2		
	(SOC)		,		
		(common language)			
	1998		(BLS)	OES (Occupational	
	Employment Statistics) <sup>3)</sup>		20		
	21				
	OMB (Office of Management and Budget)가			4)	
	1998				
	가	1995			

3) Occupational Employment and Wage Estimate  
4) SOCRPC(Standard Occupational Classification Revision Policy Committee)

2001 350  
 가 .  
 가 .  
 , , 가  
 .  
 ( , 1999 3 18 ).

가)

(SOC) (type-of-work performed),  
 (skill-based system), (economic-based  
 system) 가 (ISCO)<sup>5)</sup>

5) 1988 (ILO) (ISCO-88 : International  
 Standard Classification of Occupation) 1968 ISCO 1982  
 1987 13, 14

ISCO-88 . ,

가

ISCO-88 (Work performed  
 or Job) (Skill) . (Job) :  
 (tasks and duties)

, ISCO-88 (Unit) .  
 (occupation)

(Skill) :

, ISCO-88 가 가 .

, (Skill Level)

(function) . 4가 ISCED ( :  
 International Standard Classification of Education)

가 . ISCO-88

level) (skill type) (skill

(SOC) type  
level . 1995

OES

---

ISCO  
5, 6, 7 , 5  
1 ( )  
,  
) (OJT)  
ISCO 17, 18 4 , 1  
가 ISCED 5 ( )  
ISCO

(Skill Specialization)

ISCO 9 major ( ), 28  
sub-major ( ), 116 minor ( ), 390 unit ( )  
ISCO-88 4 code ,  
. unit ,  
(main task) ,  
ISCO-88 ,  
, ISCO-88

(DOT)

(O\*NET: Occupational Information Network)

)

가

가

(occupational group)

(helpers and aides)

ISCO-88

가

가

)  
 6-digit ,  
 (major group), (minor group), ,  
 (broad occupations),  
 (detailed occupations) . major group 23 , minor group  
 98 , broad occupations 449 , detailed occupations 810  
 .

가  
 (Dictionary of Occupational Titles)

1930 . < -6> DOT  
 9 , 3  
 . DOT , 9

< -6> DOT

- 
1. Professional, technical, and managerial occupations
  2. Clerical and sales occupations
  3. Service occupations
  4. Agricultural, fishery, forestry, and related occupations
  5. Processing occupations
  6. Machine trades occupations
  7. Benchwork occupations
    - 70 Occupations in fabrication, assembly, and repair of metal product etc.
    - 71 Occupations on fabrication, assembly, and repair of scientific, medical, photographic, optical, horological, and related products
    - :
    - 715 Occupations in fabrication and repair of watches, clocks, and parts
      - 715.131.010 Supervisor
      - 715.687.130 Winder
    - :
- 

: U.S Department of Labor Employment and Training Administration(1991).  
*Dictionary of Occupational Titles.*

가

, ,

, 7 , 9 ,

8

, 가

2) O\*NET

O\*NET (DOT) (SOC/OES)

,

New SOC

가

DOT

. O\*NET

Content Model

1,100

가) (work characteristics)

(abilities):

(interests):

가 (value): 가

가 가

(work styles):

가 ( : , , ).

) (worker requirements)

가

(skills): (basic  
skills) (cross-  
functional skills)

(knowledge):

(education):

) (experience requirements)

) (occupation requirements)

(general work activities):

(work context):

(organization context):

) (occupational characteristics)

) (occupational specific requirements)

DOT

4.

SCANS (Secretary's

Commission on Achieving Necessary Skills)

1992 A SCANS Report for America 2000

(workplace know-how)

" Learning a Living "

가

SCANS

School-to-Work

5.

NCRVE (National Center for

Research in Vocational Education) . 1988

NCRVE

. NCRVE

SCANS <sup>1)</sup> 「workplace know-how」	.	.	.	.	.			.
ASTD <sup>2)</sup> 「workplace basics」	.		.	.	.			
Michigan 「employment skills」	.			.	.			
New York 「basic skills」	.	.	.	.	.		.	
NAS <sup>3)</sup> 「core competen- cies」	.		.	.	.	.	.	.

- : 1) SCANS : Secretary's Commission on Achieving Skills
- 2) ASTD : American Society for Training and Development
- 3) NAS : National Academy of Sciences

NCRVE

, , , , , ,  
, ,  
, ,

가

(Account ability and Assessment)

, , , , , ,  
, , , , , ,  
, , , , , ,

30

가

가

. NCRVE

가

가 . NCRVE

NCRVE

가 . , 가 ,

. NCRVE

.  
.  
가  
가 , 가

가 가

가 .  
.  
가  
가 , , , , ,  
 , , .

가(Accountability and Assessment)

가 . NCRVE 가  
가  
가 , 가 ,

1.

가 (15 ) 106,620 ,  
 67,870 가 63.7% ( 77.8% ,  
 가 50.4% )  
 , 가 12.6% ,  
 . 가 3.4% , 가 19.4% , 가  
 14.3% , 가 9.75% , 가 5.3% , .  
 가 25.1%

< - 1 >

		(%)
		67,870,000
		40,270,000
		27,670,000
가		63.7%
		77.8%
		50.4%
		8,240(12.6%)
		2,260 (3.4%)
		12,730(19.4%)
		9,400(14.3%)
(1997 )		6,370 (9.7%)
		3,460 (5.3%)
		22,780(34.7%)
		320 (0.5%)
		65,570(100.0)

: . . 1999.

, 1960 , ,  
 , 1970  
 가 , 가 ,  
 , 가 ,  
 , 가 ,  
 1990 가 50% ,  
 ,  
 1960 25.9% , 1990 55.7%  
 , 가  
 가 , 가  
 , 가  
 1975 1990 ,  
 , 가 7 가 ,  
 7 1.5 가 ,  
 8 , ,  
 3 2 가  
 가 ,  
 , 3 가  
 70%가 가 ,  
 가



15

7) 2010

1995 5,209 2010 5,437 -5,543 가

가 , 가 <

-4> 1995 2010

가 가 , , ,

, , , , , ,

, , , , , 가

, , , , , ,

가 , 가 , , ,

가 , , , , ,

, , , , , ,

, , , , , ,

, , , , , ,

, 가 가 , , ,

, 가 가 , , ,

, , , , , ,

7)

, , , , , ,

, , , , , ,

, , , , , ,

, , , , , ,

, , , , , ,

working

, ( )

, , , , , ,

가 1995 2010 818  
 901 가  
 가 가  
 가

< -2> (1990 -2010 ) ( : , %)

	1990	1998	2010
	6,249 (100.0)	6,514 (100.0)	6,455 (100.0)
	690 (11.0)	844 (13.0)	973 (15.1)
	239 (3.8)	222 (3.4)	173 (2.7)
	1,157 (18.5)	1,290 (19.8)	1,390 (21.5)
	940 (15.0)	928 (14.2)	846 (13.1)
	448 (7.2)	340 (5.2)	246 (3.8)
	233 (3.7)	232 (3.6)	215 (3.3)
	1,702 (27.2)	1,634 (25.1)	1,444 (22.4)
	274 (4.4)	333 (5.1)	393 (6.1)
	535 (83.6)	654 (10.0)	774 (12.0)

:  
 : 1990, 1998 , 2010



가

가

1995 40% 2010

가 가

26 32 가

1

가 (

)

2

가 3

가

( )

< -4>

가가

가

< -4 >

( : )

	1995	2010	2010
,	715	854	901
	278	290	296
	1,179	1,231	1,247
	702	717	717
	377	486	495
	95	93	98
	225	208	220
, . . .	1,562	1,470	1,518
	286	246	261

: (1998). 21

50 , pp. 17-23.

1999 5

1998 2010  
 1998 343 2010 250 93 가  
 1998 662 2010 617 45  
 1998 1,382 2010 1,211  
 171 , 1998 1,483  
 2010 1,446 37 ( 가  
 ) 1998 1,938 2010 2,187 249 가  
 가 ,  
 가 ,

1998	2010				
		, 1998	13.0%	2010	15.1%
					, 1998 23.2%
2010	24.2%				, 1998
14.2%	2010		13.1%		
				가	
1998	25.1%	2010	22.4%		

가,

가

가

가,

가,

15

< -5>

		<ul style="list-style-type: none"> <li>▪ ,</li> <li>▪ 가</li> <li>▪</li> <li>▪</li> </ul>
		<ul style="list-style-type: none"> <li>▪ 15</li> <li>▪ 가</li> <li>▪</li> </ul>
		<ul style="list-style-type: none"> <li>▪</li> <li>▪</li> <li>▪ 가</li> <li>▪ 가</li> <li>▪ 가</li> </ul>
		<ul style="list-style-type: none"> <li>▪</li> <li>▪</li> <li>-</li> <li>-</li> <li>-</li> <li>▪</li> </ul>

### 3.

, 가 2 (JSCO) 가 2  
 (ESC)  
 JSCO , . 3 ,  
 ( ) 10, (2 ) 77, (3 ) 376

, ESCO , ( ) 9, (2 ) 76,  
 (3 ) 395, (5 ) 2,709 4 ,  
 26,000 .

1988

JSCO

1965

, ESOC

가 .

가 가

ESCO

, ESCO

26,000

가 ,

8).

3

1997

).

8)

. 1988

(ISCO-88)가

50

. ISCO-88

, 가  
 ISCO-88

「 」 17 , 2 27  
 (4 1 ),  
 , , typist, - , 4  
 , , ,  
 , guard man ,  
 「 」 , 1953  
 , 가  
 1965 , 1969  
 , 1986  
 ,

< -6> (1997 12 )

A	.
B	
C	
D	
E	
F	
G	
H	.
I	.
J	

:

, 「 ( , ,  
 3 ) ,  
 , , , 4 , , ,  
 ( ) .  
 12 9  
 「 . 」  
 , ( ) ,  
 50 76 .  
 ( ) , 가 . , ,  
 , , ,  
 , .  
 3,800 2,700 .  
 ( : ) . , .

(JIL)

「 」 .  
 , , , ,  
 1984 ,  
 , 「  
 」 .  
 ,  
 1986 「 (1986 )」 , 1987  
 「 」 「 」

「 」 , 1,287 990

#### 4.

< -7>

< -7>

	OA
	ME

: 經濟企劃廳總合計劃局編, 職業構造變化期の人才開發構造 - 失業時代への處方箋- (1987). p.99.

5.

(The Japan Institute of Labour)

3가

( )

16가

(1994), (1998), (1997), (1998), (1995), (1993), (1992), (1992)

(研究紀要)

가

가

가

CD-ROM ( 300 )

1.

가 (15 ) 69,167 ,  
 39,694 가 57.4% ( 67.8% ,  
 가 47.7%)

< - 1 >

		(%)
		39,694,000
		22,631,000
		17,063,000
가		57.4%
		67.8%
		47.7%
(1997 )	,	2,076(5.9)
	가	4,409(12.6)
	. 가	7,047(20.2)
		4,576(13.1)
		4,046(11.6)
		799(2.3)
		6,576(18.8)
		2,692(7.7)
		2,728(7.8)
		34,949(100.0)

: . 1999.

가 5.9%, 가 12.6%, 가 20.2%, 13.1%,  
11.6%, 2.3%, 18.8%, 7.7%,  
7.8%

## 2.

1)

가

1960

, 1967

가

가

가

(W. Franz 1991 : Bund-

esanstalt für Arbeit 1992 ; F. Buttler, 1994).

가

가

가

가

가

2)

가)

(Nürnberg)

(Bundesanstalt für Arbeit)

(Institut für Arbeitsmarkt- und Berufsforschung)가

가

(Arbeitsgemeinschaft Berufsbildungsforschungsnetz)

(Bundesinstitut für Berufsbildung - BiBB -)

가

)

1965

12

가

가

(Theorie- Praxis - Kooperationsmodell)

3

(Arbeitsförderungsrecht)

1967

280

가

282

(Institut für Arbeitsmarkt- und Berufsforschung)

가

가

가

가

가

가

가

가

가

가



,  
 )  
 10  
 1  
 2  
 3  
 가  
 4  
 5  
 가  
 6

7  
,  
,  
8 가  
9 가  
,  
10  
가,  
10  
4 , 4

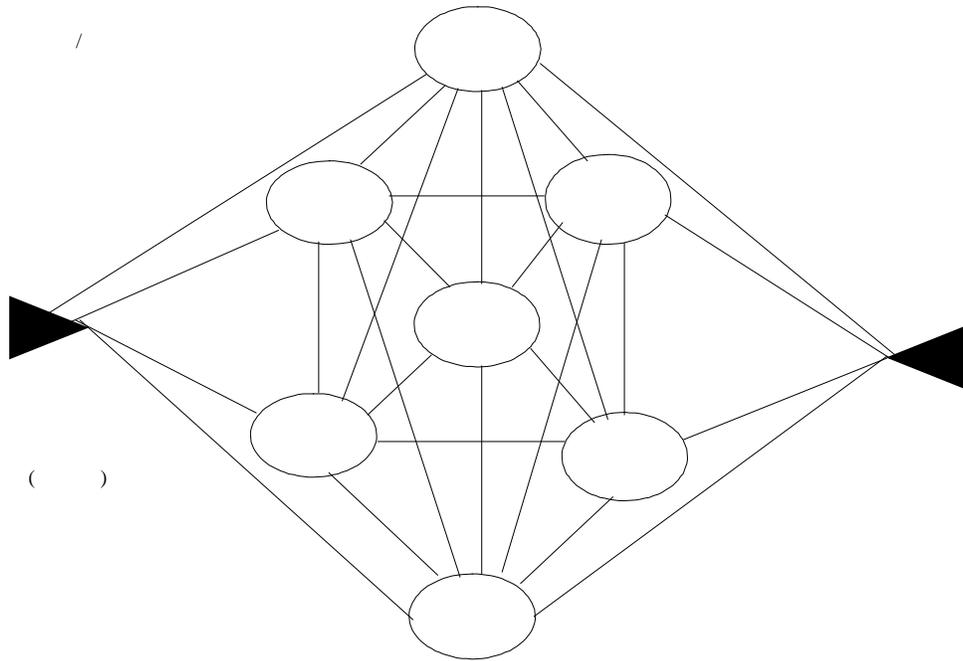
### 3.

1)

가) ,

(F. Stooß, 1992).

. . . ( )  
 ,  
 ,  
 ( )  
 . 3 , ( )  
 ), ( , )  
 ( ) 가 .  
 ,  
 ,  
 ,  
 ,  
 가 ,  
 [ -1] ,  
 .  
 , , ,  
 가  
 < -3> ,  
 가 .



: Bundesanstalt für arbeit(1992). Handbuch zur Berufswahlvorbereitung.  
Nürnberg.

[ - 1 ]

< -2>

	가
	,
	,

‘ , ‘ .  
가 ‘  
,  
‘CNC ’ ‘CNC ’  
.)

, 가 ,  
,  
가 가 가  
가

， ， ，

)

， ，  
，

가

)

4.

1)

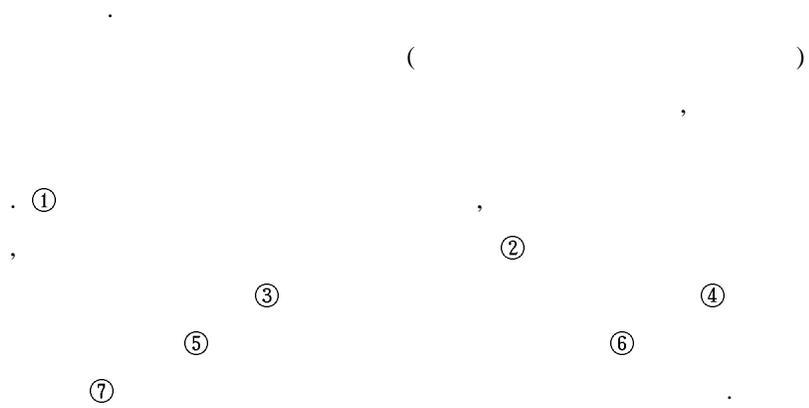
가 가 ,  
가 ,

2)

가  
가  
1%  
가

3)

,  
,  
,  
,  
,



가  
가  
가 (D. Mertens, 1988).

## 5. 가

1)

가 “ ”  
가  
가

2)

1970

가

가 가

(Bildungsgesamtrechnung)

가

가

(Prognos AG)

1985

/ 1986

1989 / 1990

1995 / 1996

(Inge Weidig

etc., 1998).

가

가

**6.**

1)

(Arbeitsförderungsgesetz)

(Mitteilungen aus  
der Arbeitsmarkt - und Berufsforschung) .  
, , ‘ (Materialien aus  
der Arbeitsmarkt - und Berufsforschung - MatAB) ’

(IAB aktuell)’가 . ,

‘ (IAB Kurbericht) ’

1991

(IAB Werkstattbericht) ’

2)

9)  
1985 1989  
(Prognos) 2000 2010  
가  
가  
1990  
가 가  
가 , 1992 / 1993  
가 (1994 ) 1991  
(Mitteilungen aus der Arbeitsmarkt-  
und Berufsforschung 1993). 가

---

9)

가  
. European Commission 1994

가)

. 가 .

, (採取) , , ,  
 / , , , ,  
 , ( / /  
 ), , , , , ( , , ,  
 , ) . , 2  
 , , , , , , , ,  
 , , , , , , , ,

)

, (ohne Ausbildung) , , / (Lehre/  
 BFS), , (Fachschule),  
 , , (Fachhochschule) , , (Universität)

< -3> 1991

( : 1,000 )

1991	5,541	16,242	2,288	1,098	2,170	27,248
-	906	978	155	97	230	2,366
-	606	759	79	38	56	1,538
1991	5,750	16,462	2,363	1,156	2,345	28,076
1991	5,601	16,352	2,325	1,127	2,257	27,662
( )	(20.2)	(59.1)	(8.4)	(4.1)	(8.2)	(100.0)

: (1991).

, 1991

가

, 가/

)

Prognos < -4> 1990

2000

< -4>

( : %)

	( )		
1991 /2000	2.0	2.0	0.0
2000 /2005	2.1	1.9	0.2
2005 /2010	2.1	1.8	0.3
1991 /2010	2.1	1.9	0.1

: Prognos(1993). Die Bundesrepublik Deutschland 2000-2005-2010

)

< -5> 33.4% (1991 )

2010

30% 28%

100 120

(8.2% 9.5% 10.7%) 6.1% 6.3% - 6.4%

1

IAB/Prognos(1989 )

2

27% (1991 ) 2010

31.5 32.4%

140 160

가

< -5> 2010

	1991	2000				2010			: IAB/Prognos
		(%)				(%)			
(%)	33.4	32.8	31.1	30.2	32.9	29.6	28.3	28.3	
1	39.7	38.6	38.8	39.8	38.8	38.9	39.3	32.4	
2	26.9	28.7	30.1	30.7	28.4	31.5	32.4	39.3	
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
(1,000 )	9,248	8,994	8,541	8,294	9,291	9,295	7,937	7,843	
1	10,978	10,978	10,601	10,738	10,862	10,905	11,005	8,978	
2	7,435	7,435	8,266	8,431	7,952	8,825	9,082	10,981	
	27,662	27,662	27,463	27,463	28,025	28,025	28,025	27,712	

: Prognos(1993). Die Bundesrepublik Deutschland 2000-2005-2010

1969

(Arbeitslandschaft)

(I. Weidig u.a., 1998).

1976

1985

1989 가 .  
가 ,  
. 1989 .

1997  
2010 .

1985 1991 , 1995 , 2000 ,  
2010 /

< -7> 1985 1995  
, 2  
가 .

가 .  
가 .  
( , )  
가 .  
3D , , , /

가 .  
가 .  
가 .

( : 1,000 )

	1985	1995	2000	2005	2010
1. . .	2,054	2,643	2,751	2,828	2,882
1.1	1,772	2,203	2,248	2,266	2,270
1.2.	282	440	503	562	611
2.	5,135	4,280	3,968	3,660	3,363
2.1. /	2,394	1,830	1,655	1,485	1,324
2.2. 1	130	121	111	103	96
2.3.	814	744	687	627	569
2.4.	656	532	487	441	395
2.5.	92	99	100	102	103
2.6. 1	413	292	264	240	222
2.7.	302	313	316	316	314
2.8.	201	198	193	188	182
2.9.	132	151	154	157	159
3.	1,560	1,534	1,477	1,404	1,325
4.	2,618	2,813	2,841	2,838	2,800
4.1.	950	857	830	794	748
4.2.	1,022	1,025	1,027	1,017	994
4.3. /	647	930	984	1,027	1,058
5.	4,134	3,690	3,619	3,489	3,307
5.1.	1,452	1,251	1,199	1,126	1,034
5.2.	2,159	1,835	1,786	1,707	1,603
5.3.	343	385	401	412	417
5.4.	180	218	232	244	252

< >

( : 1,000 )

	1985	1995	2000	2005	2010
6.	1,270	1,697	1,793	1,865	1,912
6.1.	610	878	926	962	986
6.2.	660	819	867	903	927
7.	1,442	2,141	2,292	2,419	2,517
8.	3,857	3,826	3,881	3,875	3,817
8.1.	732	754	796	829	851
8.2. 가	269	250	262	273	283
8.3.	1,308	1,093	1,033	962	880
8.4.	652	725	734	737	733
8.5.	896	1,005	1,057	1,074	1,070
9. . .	2,977	3,876	4,219	4,541	4,800
9.1.	191	298	352	402	447
9.2. . .	1,188	1,364	1,390	1,409	1,402
9.3. . .	245	308	330	349	359
9.4. ,	137	252	293	334	371
9.5. ,	737	841	913	983	1,045
9.6.	479	813	940	1,064	1,176
10.	1,550	1,133	1,136	1,212	1,273
11.	26,569	27,633	27,976	28,131	27,995

: : 1989.

< -7>

( : 1,000 )

	1995	2000	2010	1995	2000	2010	1995	2000	2010
1.	2,071	2,016	1,971	341	326	331	2,412	2,342	2,302
2.	4,468	4,256	4,053	1,194	1,144	1,102	5,662	5,400	5,156
2.1	1,858	1,628	1,336	327	294	269	2,186	1,921	1,605
2.2 1	128	144	163	78	79	80	207	222	243
2.3	879	885	888	423	412	397	1,303	1,297	1,286
2.4	581	547	506	201	187	171	783	734	677
2.5	75	77	79	19	19	20	94	96	99
2.6 1	333	345	392	27	28	29	360	373	421
2.7	322	350	407	73	80	91	396	431	498
2.8	185	180	181	31	31	32	217	212	213
2.9	105	100	101	13	14	13	118	114	114
3.	1,672	1,682	1,601	530	492	426	2,203	2,174	2,027
4.	3,122	3,164	3,409	688	723	790	3,810	3,887	4,199
4.1	386	407	430	71	71	73	457	478	503
4.2	842	834	880	149	159	173	992	993	1,054
4.3 /	1,322	1,394	1,582	404	425	472	1,726	1,819	2,054
4.4 /	572	529	518	63	68	71	636	598	589
5.	4,961	5,050	4,814	874	869	865	5,836	5,918	5,678
5.1	1,293	1,091	867	224	194	178	1,518	1,285	1,045
5.2	2,865	3,022	2,876	523	526	520	3,388	3,548	3,396
5.3	516	612	710	94	110	122	610	722	832
5.4	287	326	361	33	38	45	320	364	406
6.	1,445	1,497	1,555	222	243	270	1,668	1,740	1,826
6.1	627	621	607	92	99	102	720	720	709
6.2	818	876	948	130	145	168	948	1,021	1,116

: : 1997

< >

( : 1,000 )

	1995	2000	2010	1995	2000	2010	1995	2000	2010
7.	1,844	2,034	2,467	383	444	493	2,226	2,479	2,961
8.	3,886	3,700	3,454	875	835	787	4,760	4,534	4,240
8.1 /	787	714	680	112	104	105	898	818	785
8.2 /	291	288	304	81	77	78	371	365	382
8.3 /	1,283	1,186	974	202	187	162	1,485	1,374	1,136
8.4 /	789	806	788	287	275	252	1,076	1,082	1,040
8.5	736	705	708	193	191	189	930	896	897
9.	3,936	4,006	4,081	957	988	1,000	4,893	4,994	5,081
9.1	229	241	274	50	53	59	278	294	333
9.2 .	1,817	1,887	1,943	456	473	491	2,273	2,360	2,434
9.3 .	318	325	335	70	74	75	388	399	410
9.4 ,	915	215	255	46	49	54	240	264	309
9.5 .	853	803	722	217	208	185	1,070	1,011	907
9.6 /	524	536	552	118	131	136	642	667	688
1-9 ( )	27,406	27,406	27,406	6,064	6,064	6,064	33,470	33,470	33,470

가 , 가

가 .

	1995	2000	2010	1995	2000	2010	1995	2000	2010
1.	1,881	1,807	1,753	333	316	319	2,214	2,123	2,072
2.	3,879	3,679	3,512	1,106	1,066	1,025	4,985	4,745	4,537
2.1	1,456	1,269	1,046	272	253	232	1,728	1,522	1,278
2.2 1	113	126	140	71	71	73	185	197	212
2.3	844	835	822	416	401	383	1,260	1,236	1,204
2.4	532	494	454	187	174	160	720	668	614
2.5	61	61	62	17	17	17	78	78	80
2.6 1	299	304	346	26	26	27	325	330	373
2.7	311	337	389	73	79	90	383	416	479
2.8	171	167	167	31	31	31	202	198	198
2.9	91	86	85	13	13	12	105	99	97
3.	1,554	1,548	1,471	497	465	405	2,031	2,031	1,876
4.	2,160	2,154	2,286	544	566	619	2,704	2,720	2,905
4.1	357	374	391	69	67	69	426	441	461
4.2	723	717	755	138	146	158	861	863	912
4.3 /	812	820	908	297	309	346	1,109	1,129	1,254
4.4 /	268	244	232	40	44	46	308	288	278
5.	3,559	3,720	3,646	748	740	733	4,308	4,460	4,380
5.1	700	606	498	174	148	133	874	754	630
5.2	2,168	2,311	2,233	456	455	447	2,623	2,766	2,680
5.3	459	543	627	88	102	113	547	645	740
5.4	232	260	289	31	36	40	263	295	329
6.	1,260	1,284	1,328	200	220	246	1,461	1,504	1,574
6.1	524	514	497	79	87	91	603	600	588
6.2	736	770	831	121	134	155	857	904	986

< >

( : 1,000 )

	1995	2000	2010	1995	2000	2010	1995	2000	2010
7.	1,719	1,890	2,284	370	426	470	2,089	2,316	2,754
8.	2,767	2,671	2,496	727	703	667	3,494	3,375	3,163
8.1 /	231	210	207	46	50	56	329	277	261
8.2 /	222	216	223	71	66	66	294	282	289
8.3 /	923	879	725	154	149	133	1,177	1,028	858
8.4 /	702	718	701	269	256	234	971	974	936
8.5	688	648	640	186	182	178	874	830	817
9. . .	2,688	2,715	2,693	736	759	777	3,425	3,473	3,469
9.1	208	217	245	48	50	55	255	267	300
9.2 .	1,159	1,191	1,157	343	353	366	1,502	1,543	1,523
9.3 .	274	281	285	68	68	278	340	349	353
9.4 ,	124	134	154	33	36	41	157	170	195
9.5 .	537	500	445	152	146	133	689	645	579
9.6 /	386	393	406	94	106	113	480	499	520
1-9 ( )	21,467	21,467	21,467	5,262	5,256	5,256	26,729	26,729	26,729

	1995	2000	2010	1995	2000	2010	1995	2000	2010
1.	190	209	218	7	11	11	198	219	230
2.	589	577	542	88	77	77	677	655	619
2.1	402	358	290	56	41	37	458	399	327
2.2 1	15	18	23	7	7	7	22	25	30
2.3	35	50	66	7	11	15	43	61	81
2.4	49	53	52	14	12	11	63	65	63
2.5	15	16	17	2	2	2	17	18	19
2.6 1	33	41	46	1	2	2	35	43	48
2.7	12	14	17	1	1	2	12	15	19
2.8	14	14	14	0	1	1	14	14	15
2.9	14	15	16	0	0	1	14	15	17
3.	119	134	130	33	27	22	152	161	151
4.	962	1,010	1,124	144	157	170	1,106	1,168	1,294
4.1	28	33	38	2	4	4	31	37	43
4.2	119	117	126	11	13	16	131	130	141
4.3 /	510	574	674	107	116	126	617	690	800
4.4 /	304	285	287	23	25	25	328	310	311
5.	1,402	1,330	1,168	126	128	131	1,528	1,458	1,299
5.1	593	485	369	50	46	45	643	531	414
5.2	696	711	643	69	72	73	765	782	716
5.3	58	69	83	5	8	9	63	76	92
5.4	55	66	72	2	3	4	57	69	76
6.	185	213	227	22	23	25	207	236	252
6.1	103	107	110	14	12	12	117	119	121
6.2	82	106	117	9	11	13	91	117	130

< >

( : 1,000 )

	1995	2000	2010	1995	2000	2010	1995	2000	2010
7.	125	145	184	12	18	23	138	163	207
8.	1,118	1,028	958	148	132	119	1,266	1,160	1,077
8.1 /	555	504	473	66	54	49	621	558	523
8.2 /	68	72	81	9	11	12	77	83	93
8.3 /	360	307	249	48	38	29	408	345	278
8.4 /	87	89	87	18	19	18	105	108	105
8.5	48	56	68	7	10	11	55	66	79
9. . .	1,247	1,292	1,388	221	229	224	1,468	1,521	1,612
9.1	21	24	29	2	3	4	23	27	33
9.2 .	658	696	786	113	120	125	771	816	911
9.3 .	44	44	50	4	6	7	48	50	57
9.4 ,	70	81	100	13	13	13	83	94	114
9.5 .	316	303	277	65	62	52	381	365	329
9.6 /	138	143	146	24	23	23	162	168	168
1-9 ( )	5,938	5,938	5,938	803	803	803	6,741	6,741	6,741

가 . < -9>

가 . , 1985

1995

가 .

가

. , , . 가

< -9> , 가

)

. , 1991 가 . ,

< -10> , 71.5% (1991 ) 2010 81% 83%

. , 가 . 1 2010

가 72% 77% 80%

가 6% 9% 11%

2

가 . 35% (1991 ) 40% (20  
 10 ) 가 .  
 가 57% 58%

3)

(Schlüsselqualifikation)

(L. Reetz, 1994)

PETRA (ProjEct and Transfer

oriented Training)

. PETRA

(Delphi Germany Survey 1996 / 1998

가 .

< - 10 >

( : % )

		1991					
				L/BFS			
	1	100.0	26.8	63.0	8.5	1.0	0.7
		100.0	22.4	66.7	5.3	2.8	2.9
		100.0	8.9	43.1	12.8	9.8	25.3
		100.0	20.1	59.2	8.4	4.1	8.2
	2	100.0	26.8	63.0	8.5	1.0	0.7
		100.0	22.4	66.7	5.3	2.8	2.9
		100.0	8.9	43.1	12.8	9.8	25.3
		100.0	20.1	59.2	8.4	4.1	8.2
	1	100.0	26.8	63.0	8.5	1.0	0.7
		100.0	22.4	66.7	5.3	2.8	2.9
		100.0	8.9	43.1	12.8	9.8	25.3
		100.0	20.1	59.2	8.4	4.1	8.2
	2	100.0	26.8	63.0	8.5	1.0	0.7
		100.0	22.4	66.7	5.3	2.8	2.9
		100.0	8.9	43.1	12.8	9.8	25.3
		100.0	20.1	59.2	8.4	4.1	8.2
	1	100.0	17.3	70.7	10.1	1.1	0.8
		100.0	12.9	72.2	6.2	4.5	4.2
		100.0	3.4	44.4	13.1	10.6	28.5
		100.0	11.7	63.8	9.4	5.1	10.0
	2	100.0	16.6	70.6	10.4	1.2	1.2
		100.0	11.6	73.0	6.6	4.4	4.4
		100.0	2.2	44.6	13.3	11.1	28.8
		100.0	10.1	63.3	9.8	5.6	11.1
	1	100.0	14.2	72.6	10.6	1.4	1.3
		100.0	11.7	71.0	6.4	4.4	6.6
		100.0	3.3	43.8	13.1	11.1	28.7
		100.0	9.7	62.6	9.8	5.7	12.3
	2	100.0	14.2	72.6	10.6	1.4	1.3
		100.0	11.7	71.0	6.4	4.4	6.6
		100.0	3.3	43.8	13.1	11.1	28.7
		100.0	9.7	62.6	9.8	5.7	12.3

가  
가  
가  
가

< -1>

	( )
○ 2	○
○ 2001 , 1998	○ 가
○ SCANS report ,	○
○	○ 가 가
○ 가	○ , ,
○ ,	○ , ,
○	○ 가

1.

가 . 가 가 가 가  
가 가 10  
10  
2  
200 5  
1995 11,537  
1  
5

가 , ,

(forecast model) , 가

2.

1992 4 , 1963 ILO  
 5 1998 7  
 2000 2000 10 11 10)  
 10) 0 : , , 1 : 가, 2 :  
 가, 3 : , 4 : , 5 :  
 , 6 : , 7 :  
 , 8 : , , 9 : ,  
 A : .

, 가

,

.

.

.

.

가 , 가

.

,

,

,

,

,

,

,

,

가,

,

,

.

,

,

,

,

,

,

.

,

,

.

,

,

,

,

,

11

. 10

,

,

,

,

,

.

,

,

,

,

,

,

,

,

,

100

,

.

,

,

,

,

,

,

,

,

,

,

.

가 10 11)  
 1995 11,537 . 1986 1,086 가  
 가 100 가 50 10 .  
 . 1995 , ,  
 , , ,  
 가 . 1987 1994 2,500  
 20,000 12,000  
 .  
 가 가 가  
 2 -3 .  
 가 1960 .  
 1969 가 .  
 . , ,  
 3,260  
 . 1979 가 1982  
 . 1986 1  
 10,451 .  
 가 가  
 .  
 1995 .  
 4,589 가 ,  
 2,296 , 가 1,807 , 가 966 ,

---

11) 1987 1994 20,000  
 . 1995

607 , 492 , 300 ,  
 296 , 184 .  
 가 가 1,135 가  
 1,124 , 가 1,011 , 805 , 1 719 ,  
 610 , 551 , 301 ,  
 773 , 194 , 334 .

1992

< -2 >

			1960.			1963. 3 1964. 4		1969
1			1966. 1		8	1965. 9	1	6 1986
2			1970. 8		5	1968. 2	1	
3			1974.		1	1970. 5		
4		1 8	1992.12		3	1975. 5		
5					1 10	1984. 1		
6					3	1991. 9		

1 :

가

: (1994).

, p. 31.



1,237

362

1987 - 1991  
'95

11,537

5,953

362

( )

가

362

가

1999

5

'99

가

5

5

1995

1,120

1998

1,596

429

(201

가),

가), 227 (100 가), 207 (81  
398 (6 가) . 335 (87 가), 1

### 3.

( )

가 .

가 .

가 .

가 가 .

가 .

가 .

가 .





•

(1)

.

(2)

가

.

(3)

1946

250

10

. 가

1998 - 2008

.

.

(4)

US News & World Report

가

(5)

가

1939

1

2

. 2001

가

350

가

(6) OES(Occupational Employment  
 Statistics) (O\*NET :  
 Occupational Information Network) . O\*Net

가

(7) SCANS(Secretary's  
 Commission on Achieving Necessary Skills)  
 1992 A SCANS Report for America 2000  
 (workplace know-how) “Learning a Livin  
 g ” 가  
 SCANS

School-to-Work

(8) 1986  
 . 1996  
 2005 .  
 2010 가 . 가  
 , 가 , 가

(9)

(Institut für Arbeitsmarkt und Berufshildungsforschung)가

(Arbeitsgemeinschaft Berufsforschungsnetz)

(10)

10

가

4

가

가

가

(11)

가

가

(12) , 가 .  
가 .  
. 가 .

(13) .  
가 . 가 가  
가

(14) 2002 3 2000 3 10  
가 . 2000  
11  
, 가 ,

(15) ( )  
가 .  
가 .

(16)

, . 가 가  
가

(1999). 가.

(1988).

(1989). :

\_\_\_\_\_ (1991). : , , .

\_\_\_\_\_ (1996). :

\_\_\_\_\_ (1990). :

(1994).

(1999). “ 50 ”.

. 2 . pp.19-37.

(1998).

(1998).

(1996).

(1995).

(1999). '99 .

(1998).

(1992).

(1997).

2 (1998). 가.

(1996).

(1998). 120.

(1998). - 50 3

3 (1996).  
 (1998). “ ” OOH  
 1998 가  
 (1999). O\*NET  
 2 . pp.49- 64.  
 (1997).  
 21(1999.2.11)  
 (1996). KLI  
 (1977). :  
 (1999). “ ”  
 2 . pp.1- 10.

經濟企劃廳總合計劃局編(1987). 職業構造變化期の人才開發構造-失業時代への處方箋-

女性の職業研究會 編(1982, 1983). 女性の職業のすべて. 東京 : 啓明書房

女性の職業研究會 編(1988). 女性の職業のすべて. 東京 : 啓明書房

女性の職業研究會 編(1994). 女性の職業のすべて. 東京 : 啓明書房

女性の職業研究會 編(1995). 女性の職業のすべて. 東京 : 啓明書房

日本 總務廳 統計局(1996). 平成 7年 國勢調抽出速報集計結果.

日本労働研究機構編(1997). 職業ドブック

Arnold. R & Munch. J.(1996). *Questions and answers on the Dual System of vocational training in Germany.*

Amundson. Kristen J.(1998). *High Skill High-Wage Jobs.* American Vocational Association.

- Bowman. Charles(1997). BLS Projections to 2006-a summary New Projections of the U. S. economy : occupations. industries and demographics. U. S. Department of Labour, *Monthly Labor Review*, volume 120, Number 11.
- Bragg. D. D.. Layton J. D.. and Hammons. F. T. (1994). *Teach Prep Implementation in the United States : Promising Trends and Lingering in Challenges*. National Center for Research in Vocational Education Graduate School of Education. CA : University of California at Berkeley.
- Burston. Diane. ed.(1995). *The A -Z of Careers and Jobs*. Korgan Page Limited.
- CDDEFOP(1992). *Vocational education and training in the Federal Republic of Germany*.
- Chiousse. Sylvie and Patrick Werquin(1998). *Lifelong Vocational Guidance : European Case Studies*. CEDEFOP.
- Field. Shelly(1992). *100 Best Careers for the Year of 2000*. New York. Prentice Hall.
- Field. Shelly(1996). *100 Best Careers for the 21st Century*. New York. Macmillan.
- Franklin. James C.(1997). Industry output and employment projections to 2006. U. S. Department of Labour, *Monthly Labor Review*, volume 120, Number 11.
- Grubb. W. N.(1995). *Education trough occupation in American high school vol. 1 : Approaches to integration academic and vocational education*. New York : Teachers College Press.
- Gysbers. Norman. C.(1984). *Designing Careers*. San Francisco Jossey -Bass Publishers.
- Harley. Jebens(1996). *100 Jobs in social change*. New York. Macmillan.

- Hoerner J. L. and J. B. Wehrley(1995). *Work-based learning : The key to school-to-work transition*. Glencoes/Macmillan McGraw Hill.
- <http://www.ed.gov/EdRes> ( ).
- <http://www.mombu.go.jp> ( ).
- <http://www.doleta.gov/programs/onet>
- <http://www.onetcenter.org/consortium>
- Hurlbert. J. S.(1991). "Social network. social circles. and job satisfaction".  
*Work and occupation* 18(4): 415-30.
- ILO(1986). *Job evaluation*. Geneva : ILO.
- ILO(1990). *International Standard Classification of Occupational*. Geneva : ILO.
- ILO(1998). *World Employment Report 1998-99*. Geneva : ILO.
- ILO(1998). Working world : a regular review of trends and developments in the world of work. *World of Work*. No. 27.
- Jagger. N. Morris. S. and Pearson. R.(1996). *The target for higher skill levels in an international context*. Brighton.
- JIST (1998). *The O\*NET Dictionary of Occupational Titles*.
- Joint Committee on Standards for Educational Evaluation(1997). *Standards for evaluations of educational programs. projects and materials*. New York : McGraw-hill book company.
- Lim. Lin Lean(1996). *More and Better Jobs for Women : An action guide*. Geneva : ILO.
- Miller. J.(1980). Individual and occupational determinants of job satisfaction.  
*Sociology of work and occupation* 7:337-366.
- OECD(1988). *Employment outlook*.
- OECD(1994). *The OECD jobs study : Evidence and explanations*.
- OECD(1994). *Technologies. productivity and job creation. The OECD jobs strategy* Vol 1 & 2.

- OECD(1994). *The OECD jobs study : Evidence and explanations.*
- OECD(1994). *The OECD jobs study : Facts Analysis Strategy.*
- OECD(1994). *The OECD jobs study : Implementing the Strategy.*
- OECD(1994). *Vocational education and training for youth : Towards coherent policy and practice.*
- OECD(1996). *Education at a glance : OECD Indicators.*
- OECD(1997). *Employment outlook.*
- OECD(1998). *Employment outlook.*
- OECD ELSA(1999). *Labour Market Policies and the Public Employment Service.*
- OECD(1995). *Job Study : Taxation. employment and unemployment.*  
Paris.
- OECD(1995). *Precarious jobs in labour market regulations the growth of atypical employment in western Europe.* Paris.
- Rajan. A.(1989). Occupational structure by levels of aggregate educational categories. Paper presented at the CEDEFOP conference. July 1989. Berlin
- Richard W. Judy and Carol D'Amico(1997). *Work and Workers in the 21st Century.* Hudson Institute Indianapolis. Indiana.
- Schneider. Eugen V.(1957). *Industrial Sociology.* New York. McGraw-Hill Book Company.
- Shavers. H. C.(1987). Job satisfaction and dissatisfaction among journalism graduates. *Journalism quarterly* 55: 54-61.
- Shelley K. J. (1992). The future of jobs for college graduates. *Monthly labor review.* July(1992). 15.
- Shepard. J. M.(1977). Technology. alienation, and job satisfaction. *American Review of Sociology* 3.
- Silvestri. George T.(1997). Occupational employment projections to 2006.

- U. S. Department of Labour, *Monthly Labor Review*, volume 120. Number 11.
- Tessaring. Manfred(1998). *Training for changing society : A report on current vocational education and training research in Europe*. CEDEFOP.
- The World Bank(1993). *The east Asian miracle : Economic growth and public policy*.
- U. S. Department of Labor Employment and Training Administration. *Dictionary of Occupational Titles. 1991*.
- U. S. Department of Labour. Bureau of Labour Statistics(1996). *Occupational Projections and Training Data*. Bulletin 2471.
- U. S. Department of Labour. Bureau of Labour Statistics(1997). *Handbook of Methods*. JIST Works. Inc. Indianapolis. IN.
- U. S. Department of Labour. Bureau of Labour Statistics(1998). *Occupational Outlook Handbook 1998-1999 Edition*.
- U. S. Department of Labour. Bureau of Labour Statistics(1998). *Occupational Outlook Handbook of Methods*. JIST Works. Inc. Indianapolis. IN.
- U. S. Department of Labour. Employment and Training Administration. (1991). *Dictionary of Occupational Titles*. vol. 1 2. 4th revision
- VDARE Service Bureau.(1978). *Classification of jobs : An addendum to the 4th edition of the Dictionary of Occupational Titles*. Athens. GA : VDARE Service Bureau.
- Warr. Peter ed.(1987). *Psychology at Work*. London, Penguin Books.
- Wilson. R.A. and Webb. T.J.(1995). *Review of the economy and employment. Occupational assessment*. Institute of employment research. Warwick
- Wilson. R.A.(1994). *Review of the economy and employment Occupational assessment*. Institute of employment research. Warwick

- Wilson. R.A.(1995). Future employment prospects for the highly qualified. *Review of the economy and employment*. Institute of employment research. Warwick
- Bundesanstalt für Arbeit(1992). *Handbuch zur Berufswahlvorbereitung*. Nürnberg.
- Buttler. F.(1994). *Arbeitsmarkt- und Berufsforschung*. In : Handbuch der Berufsbildung. Hrsg. von R. Arnold/ A. Lipsmeier, Stuttgart/Berlin/ Köln.
- Buttler. F.(1994). *Arbeitsmarkt- und Berufsforschung*. Stuttgart/Berlin/Köln.
- Franz. W.(1991). *Arbeitsmarktökonomik*. Berlin.
- Mertens. Dieter(Hrsg.). *Konzepte der Arbeitsmarkt- und Berufsforschung - Eine Forschungsinventur des IAB*. Beiträge zur Arbeitsmarkt- und Berufsforschung. Bd. 70. Nürnberg.
- Prognos(1993). *Die Bundesrepublik Deutschland 2000-2005-2010*. Entwicklung von Wirtschaft und Gesellschaft. Prognos Deutschland Report, No. 1.Basel.
- Reetz. Lothar(1994). Schlüsselqualifikation - Selbstorganisation - Lernorganisation. In: J. Beiler/ A. Lumpe/ L. Reetz. Hamburg.
- Stooß. F.(1992). Kapital Beruf. In: Handbuch der Berufswahlvorbereitung. herausgegeben von der Bundesanstalt für Arbeit, Nürnberg.
- Weidig. Inge/ Peter Hofer. Heimfrid Wolff(1998). Arbeitslandschaft der Zukunft. Quantitative Projektion der Tätigkeiten, Bundesanstalt für Arbeit.

## **ABSTRACT**

### **Trends in Vocational Research in Major Developed Countries**

Korea Research Institute for Vocational Education & Training

Research-in-Charge : Young-Dae Lee

Research Staff : Ki-Hong Kim

1. The purpose of this research is to grasp and compare the trends and differences of the vocational researches of foreign countries by examining the researches and studies on the same issues in the developed countries and to shed a light for the study on vocational issue in Korea.
2. The issues dealt in the study are not the ones regarding on not only vocational education and training. This is the study on vocational problems in the aspects of quantity and quality. The vocation in quantity includes the transition, prospects and categories of employment while that in quality suggests the workplace know-how and the duty to perform the job assigned.
3. Since 1946, the US have been publishing or have published in every two years, the employment prospects for the forthcoming 10 years with regard to about 250 job categories. The most recent one was published for the period of 1998-2008. The employment prospects forecast those of employees being increased, decreased, and those of drastic upswing or vice versa. The publication have presented the income, mental stress,

physical strength required, growing potential, stability and working conditions of each employment depending on educational level.

4. The job classification in the US is based on the first edition of the employment directory published by the Department of Labor in 1939, which currently includes some 20,000 job categories. A new job classification system will be announced in 2001, in which about 350 jobs will be added anew to deal with the changing trend of the labor market in detail further.

5. For understanding of the job classification system in the US, there are OES (Occupational Employment Statistics) and O\*NET (Occupational Information Network). O\*NET contains an integrated employment information system in job classification, including job-seeking, vocational education and training. This will replace the existing employment directory and serve as a basis for sorting new job concepts.

6. The study on the basic workplace know-how has been mostly carried out by SCANS (Secretary's Commission on Achieving Necessary Skills) of the Department of Labor in the US. The basic workplace know-how was described in "A SCANS Report for America 2000" published in 1992, in which SCANS proposed "Learning a Living" to interact the workplace know-how with school education, and thereafter presented the concrete way to teach the basic workplace know-how in schools. The SCANS' undertaking has led to "School-to-Work" system, and related laws were enacted to support it.

7. For the study on employment in Germany, a subsidiary research institute of the Federal Employment Stability Bureau has organized the institute in cooperation with the government agencies related to vocational training and labor markets, along with private institutes and

academic circles. It generally activates the research project on vocational education and training through the close cooperation of academic research, mutual share of information data and the exchange of research products on employment among the agencies concerned.

8. All research activities of the 10 programs in the Labor and Vocational Research Center place an importance of the basic research for employment and vocation, and emphasize the practical implementation of programs derived from the basic study. In particular, the 4th sector of employment and qualification programs evaluates the ever-changing trend of job categories pursuant to the changes of labor markets, its changing factors, the forecast of the changes and the new requirements of changing qualifications on a macro scale view. It also provides the information data for job consultation and employment placement with accurate supporting data as a practical method. In other words, the Labor and Occupation Research Center collects a wide range of information and processes it so to make the outcome of the employment study useful as practical benefits in labor offices in each district.

9. For describing the transition of job categories and its long-term forecast in the employment study in Germany, statistics is utilized to explain laborers' work performance of each occupational group. Unlike other countries, the words such as a growing industry or a sunset industry is seldom used in Germany. Certain work performance was defined important in the past during the transition of a certain job or the trend in change, and that, work performance could be changed to certain direction in the forecast on a long-term basis. This way of judgement is employed as the changing trend of all job categories in detail is not possibly explained. Especially, the changes of work performance in each occupational group and demand for labor are emphasized to deal with expected diversification of labor markets and vocational training

programs.

10. The workplace know-how concept in Germany has been affirmed in PETRA (Project and Transfer oriented TRaining) plan prepared by the Ministry of Education and Science of the federal government. The plan was designed to cultivate the talents necessary for new requirements as scientific technology and new processing skills in the manufacturing sector are rapidly changing.

11. Japan has been publishing the employment prospective since 1986. The Labor Policy Bureau of the Ministry of Labor has viewed a long-term labor demand and supply structure for the year 2005 and the Training Institute for Administration of Labor has drawn the similar view for the year 2010. In these views, presented are the job categories that anticipate a high growth of employment and a rapid increase of employment in hightech sectors, or those that expect decrease of employment. The Planning Bureau of the Economic Planning Agency has indicated the modified work performance in the employment of restructuring industries and the working capacity required during the transition.

12. We can find some suggestions through the analysis of foreign countries' job researches. Above all more emphasis should be focused on basic job research, because if we had more information on job trend, then we can show vision on job to peoples.

13. In Korea we need regular long term job prospects. The job forecast was made not from statistical analysis but from comments made by economists, industrial prospects of economical and financial organizations. So we must emphasize on job prospect research especially in forecast methods.

14. In contrast to rapid job change in Korea, the job classification system has not followed yet. Therefore, there were some mismatch problem between real job world and job classification. We need more research in job classification and regular compensation should be made.

15. In America, there were large scale surveys made to find job requirements. We must have more information in jobs so there must be researches on job requirements especially for maintaining and developing in job.

16. To strengthen the job research function, government should invest more and to make good mechanism system. Also the research institute should make efforts to make good quality reports to fulfill the peoples' need.

: (1998 - 2008 )

< 1> (1998 - 2008 )  
( : , %)

							1998 - 2008
	1998	2008	1998	2008			
	140,514	160,795	100.0	100.0	20,281	14.4	
, ,	14,770	17,196	10.5	10.7	2,426	16.4	5,107
, ,	10,139	11,823	7.2	7.4	1,684	16.6	3,484
	364	430	0.3	0.3	66	18.1	130
, , , ,	485	597	0.3	0.4	112	23.0	179
, ,	196	234	0.1	0.1	38	19.3	72
	270	308	0.2	0.2	38	14.0	85
	447	505	0.3	0.3	58	13.0	171
, ,	326	468	0.2	0.3	142	43.5	199
	693	791	0.5	0.5	97	14.0	207
	595	691	0.4	0.4	97	16.3	201
	28	32	0.0	0.0	4	16.1	9
	3,362	3,913	2.4	2.4	551	16.4	1,140
	80	82	0.1	0.1	2	2.8	22
	230	274	0.2	0.2	45	19.4	98
	208	207	0.1	0.1	-2	-0.9	36
	222	297	0.2	0.2	74	33.3	114
	26	27	0.0	0.0	1	3.0	5
, ,	315	359	0.2	0.2	43	13.7	86
	176	188	0.1	0.1	13	7.1	52
&	2,114	2,420	1.5	1.5	305	14.4	678
&	4,631	5,374	3.3	3.3	743	16.0	1,623
& 가 & 가	1,080	1,202	0.8	0.7	122	11.3	289
	70	78	0.1	0.1	8	11.4	23
	22	25	0.0	0.0	3	11.8	8
가	48	53	0.0	0.0	5	11.2	15
	59	67	0.0	0.0	8	13.7	21
	371	396	0.3	0.2	25	6.8	120
( / , )	29	30	0.0	0.0	1	5.0	9
/ ( )	224	248	0.2	0.2	24	10.8	82
&	118	118	0.1	0.1	0	-0.4	29
가	68	79	0.0	0.0	11	15.7	28
가	152	171	0.1	0.1	20	13.0	38
, /	42	50	0.0	0.0	8	19.9	18
, , , 가	66	74	0.0	0.0	8	12.9	26
& ( )	367	433	0.3	0.3	66	17.9	163
, , ,	176	195	0.1	0.1	19	10.5	51
	239	284	0.2	0.2	45	18.6	84
, ,	229	272	0.2	0.2	43	18.7	81

< >

( : , %)

							1998 - 2008
	1998	2008	1998	2008			
	49	55	0.0	0.0	6	12.5	14
	180	217	0.1	0.1	37	20.4	67
	10	12	0.0	0.0	2	16.0	3
	97	100	0.1	0.1	3	2.7	30
&	227	276	0.2	0.2	48	21.2	98
가	344	442	0.2	0.3	98	28.4	125
,	62	66	0.0	0.0	3	5.4	17
	79	95	0.1	0.1	15	19.3	33
	1,130	1,366	0.8	0.8	236	20.9	459
	19,802	25,145	14.1	15.6	5,343	27.0	9,249
	1,462	1,752	1.0	1.1	290	19.9	620
	53	58	0.0	0.0	5	8.8	13
	48	53	0.0	0.0	5	9.5	15
	195	236	0.1	0.1	41	20.9	78
&	357	450	0.3	0.3	93	25.9	169
( )	126	42	0.1	0.1	16	12.8	34
	20	21	0.0	0.0	2	9.0	6
( )	220	256	0.2	0.2	36	16.4	79
	4	4	0.0	0.0	-1	-12.6	1
	12	12	0.0	0.0	1	5.8	3
	12	12	0.0	0.0	0	-3.6	3
	415	509	0.3	0.3	94	22.6	219
&	163	185	0.1	0.1	23	13.8	50
( , )	99	118	0.1	0.1	19	18.9	33
	22	25	0.0	0.0	3	14.5	6
,	41	42	0.0	0.0	1	1.4	10
&	173	219	0.1	0.1	45	26.2	87
&	21	24	0.0	0.0	2	10.9	8
	81	109	0.1	0.1	28	35.0	45
	39	46	0.0	0.0	7	17.9	17
	31	39	0.0	0.0	8	24.6	17
	1	1	0.0	0.0	0	16.5	0
, ,	1,653	3,182	1.2	2.0	1,529	92.5	1,666
	16	17	0.0	0.0	1	7.1	3
가, ,	1,530	3,052	1.1	1.9	1,522	99.4	1,625
&	914	1,858	0.7	1.2	944	103.4	1,010
	299	622	0.2	0.4	323	107.9	341
	429	869	0.3	0.5	439	102.3	466
	87	155	0.1	0.1	67	77.2	82
	97	212	0.1	0.1	115	117.5	121
가	617	1,194	0.4	0.7	577	93.6	616
	17	17	0.0	0.0	0	2.3	3
&	14	13	0.0	0.0	-1	-5.5	2
가	76	83	0.1	0.1	7	8.7	32

< >

( : , %)

							1998 - 2008
	1998	2008	1998	2008			
	200	229	0.1	0.1	29	14.7	77
	8	10	0.0	0.0	1	14.6	3
	96	110	0.1	0.1	13	13.9	35
, &	44	51	0.0	0.0	7	15.5	18
	18	18	0.0	0.0	0.0	2.2	5
	33	41	0.0	0.0	0.0	22.7	16
	304	356	0.2	0.2	0.2	17.3	106
	149	169	0.1	0.1	0.1	13.4	49
, &	112	140	0.1	0.1	28	25.1	46
	43	48	0.0	0.0	5	10.7	11
	321	365	0.2	0.2	44	13.8	107
& 가	70	83	0.0	0.1	13	18.4	27
	166	185	0.1	0.1	19	11.4	49
&	35	41	0.0	0.0	6	17.4	13
	50	56	0.0	0.0	6	12.7	17
& 가	1,303	1,797	0.9	1.1	494	37.9	748
가	241	287	0.2	0.2	46	19.2	110
	190	278	0.1	0.2	88	46.3	131
	268	410	0.2	0.3	141	52.7	211
가	604	822	0.4	0.5	218	36.1	296
&	752	871	0.5	0.5	119	15.8	205
, ,	71	73	0.1	0.0	2	2.9	13
	681	798	0.5	0.5	117	17.2	192
, ,	6,939	8,248	4.9	5.1	1,309	18.9	2,836
&	529	645	0.4	0.4	116	22.0	229
	346	437	0.2	0.3	92	26.5	165
	184	208	0.1	0.1	25	13.4	64
	1,754	1,959	1.2	1.2	205	11.7	610
	1426	1,749	1.0	1.1	322	22.6	781
	406	543	0.3	0.3	137	33.8	172
	865	1,061	0.6	0.7	195	22.6	435
	956	1,139	0.7	0.7	183	19.1	284
	10	10	0.0	0.0	0	-2.2	1
, , , &	359	460	0.3	0.3	102	28.4	140
	588	669	0.4	0.4	81	13.8	143
( )	168	203	0.1	0.1	35	20.9	53
	420	466	0.3	0.3	46	11.0	90
&	644	739	0.5	0.5	95	14.7	183
, , ,	175	186	0.1	0.1	10	5.8	55
, ( ) ,	23	26	0.0	0.0	3	12.6	9
	152	159	0.1	0.1	7	4.8	46
	182	228	0.1	0.1	46	25.0	87
	892	1,049	0.6	0.7	157	17.6	312

< >

( : , % )

							1998 - 2008
	1998	2008	1998	2008			
	46	57	0.0	0.0	11	22.8	20
	160	165	0.1	0.1	5	3.1	38
	38	42	0.0	0.0	4	10.6	12
	577	699	0.4	0.4	122	21.2	212
가	14	15	0.0	0.0	1	10.5	4
	57	71	0.0	0.0	14	24.7	26
가 & ( )	2,860	3,531	2.0	2.2	671	23.5	1,158
	54	64	0.0	0.0	10	19.1	21
	185	199	0.1	0.1	14	7.3	64
	66	98	0.0	0.1	32	48.0	43
	2,079	2,530	1.5	1.6	451	21.7	794
	476	640	0.3	0.4	164	34.6	236
	73	98	0.1	0.1	25	34.2	36
	120	161	0.1	0.1	41	34.0	59
	12	14	0.0	0.0	2	16.7	4
	39	44	0.0	0.0	5	13.4	11
	86	123	0.1	0.1	37	42.6	50
&	105	145	0.1	0.1	40	38.5	56
	40	54	0.0	0.0	14	35.7	20
가, 가,	1,996	2,409	1.4	1.5	413	20.7	853
, ,	160	198	0.1	0.1	38	23.8	74
	60	58	0.0	0.0	-3	-4.3	14
가 & 가	308	388	0.2	0.2	79	25.7	143
, ,	52	66	0.0	0.0	14	27.9	33
가, 가	29	33	0.0	0.0	4	13.6	10
	423	532	0.3	0.3	110	25.9	171
( )	335	426	0.2	0.3	91	27.1	140
	53	68	0.0	0.0	15	27.2	22
가 & 가	34	38	0.0	0.2	4	12.7	9
가, 가 ,	273	314	0.2	0.0	41	14.8	97
가, ,	67	68	0.0	0.1	2	2.8	22
, ,	161	176	0.1	0.0	15	9.2	39
TV, ,	11	15	0.0	0.1	3	29.0	5
	149	161	0.1	0.1	12	7.7	34
가	122	152	0.1	0.3	30	24.6	76
가, ( 가 )	341	424	0.2	0.6	83	24.4	173
	785	952	0.6	3.8	166	21.2	423
&	4,949	6,048	3.5	1.9	1,098	22.2	2,251
가	2,447	3,063	1.7	1.0	616	25.2	1,124
	21	29	0.0	0.0	8	39.4	13
	313	366	0.2	0.2	53	17.0	93

< >

( : , %)

							1998 - 2008
	1998	2008	1998	2008			
EKG	143	201	0.1	0.1	58	40.5	90
	12	10	0.0	0.0	-3	-23.1	3
	5	6	0.0	0.0	0	5.9	2
&	150	197	0.1	0.1	47	31.6	84
가 &	692	828	0.5	0.5	136	19.7	286
	92	133	0.1	0.1	41	43.9	63
	14	16	0.0	0.0	2	11.6	4
&	71	81	0.1	0.1	10	13.8	19
	109	126	0.1	0.1	17	15.7	44
	66	73	0.0	0.0	7	10.9	16
	162	194	0.1	0.1	32	20.1	55
	54	77	0.0	0.0	23	41.8	36
	32	37	0.0	0.0	5	16.2	12
	510	688	0.4	0.4	178	35.0	302
&	1,351	1,525	1.0	0.9	175	12.9	492
	771	897	0.5	0.6	126	16.3	308
&	335	391	0.2	0.2	56	16.8	125
	437	506	0.3	0.3	70	16.9	184
	283	301	0.2	0.2	18	6.4	86
&	227	243	0.2	0.2	16	7.0	68
	69	84	0.0	0.1	15	21.8	31
( , & )	1,152	1,460	0.8	0.9	308	26.7	635
&	94	99	0.1	0.1	6	5.9	26
	30	30	0.0	0.0	1	2.3	16
& 가	37	39	0.0	0.0	2	6.0	21
	648	839	0.5	0.5	191	29.5	392
가( , )	252	346	0.2	0.2	94	37.4	117
가	136	220	0.1	0.1	84	62.0	96
( ) , ( )	30	29	0.0	0.0	0	-0.6	2
	86	96	0.1	0.1	10	11.6	18
	72	85	0.1	0.1	13	18.2	51
가	20	21	0.0	0.0	1	4.1	12
&	15,341	17,627	10.9	11.0	2,287	14.9	6,810
	3,198	3,754	2.3	2.3	556	17.4	1,950
&	469	577	0.3	0.4	108	23.1	311
	387	396	0.3	0.2	9	2.2	97
&	2,584	2,847	1.8	1.8	263	10.2	601
, ,	92	121	0.1	0.1	30	32.3	54
	300	303	0.2	0.2	4	1.2	90
	347	382	0.2	0.2	34	9.8	104
	63	71	0.0	0.0	8	13.5	21
	285	310	0.2	0.2	26	9.0	83

< >

( : , % )

							1998 - 2008 ,
	1998	2008	1998	2008			
	4,056	4,620	2.9	2.9	563	13.9	1,938
	79	92	0.1	0.1	12	15.7	28
, ,	303	427	0.2	0.3	124	41.0	147
	138	163	0.1	0.1	25	18.4	54
	3,388	3,945	2.4	2.5	558	16.5	1,436
( )	24,461	26,659	17.4	16.6	2,198	9.0	7,652
, ,	1,237	1,540	0.9	1.0	302	24.4	497
	479	642	0.3	0.4	163	34.0	194
&	311	420	0.2	0.3	110	35.3	192
가, ,	339	377	0.2	0.2	38	11.3	88
가	160	183	0.1	0.1	23	14.5	50
	10	11	0.0	0.0	2	17.3	3
	170	183	0.1	0.1	13	7.9	35
	109	100	0.1	0.1	- 8	- 7.6	23
	297	252	0.2	0.2	- 46	- 15.4	65
	261	220	0.2	0.1	- 41	- 15.6	57
	23	19	0.0	0.0	- 4	- 16.6	5
	23	16	0.0	0.0	- 7	- 31.1	5
	214	185	0.2	0.1	- 30	- 13.9	47
	36	32	0.0	0.0	- 5	- 13.6	8
	251	187	0.2	0.1	- 64	- 25.5	36
	27	17	0.0	0.0	- 10	- 37.6	4
( )	224	170	0.2	0.1	- 54	- 24.1	32
, ,	1,910	2,296	1.4	1.4	386	20.2	817
( & )	159	180	0.1	0.1	21	13.5	82
	128	158	0.1	0.1	30	23.3	71
	111	127	0.1	0.1	16	14.7	52
	1,293	1,599	0.9	1.0	305	23.6	553
	219	232	0.2	0.1	13	6.0	59
	247	270	0.2	0.2	23	9.2	81
&	120	130	0.1	0.1	11	8.8	39
( )	128	140	0.1	0.1	12	9.5	42
	405	434	0.3	0.3	30	7.3	135
	332	357	0.2	0.2	25	7.4	118
	73	78	0.1	0.0	5	6.8	17
, ,	4,183	4,382	3.0	2.7	199	4.8	895
	248	278	0.2	0.2	30	12.2	70
, ,	163	186	0.1	0.1	23	14.4	50
, ,	85	92	0.1	0.1	7	8.0	21
	50	51	0.0	0.0	1	0.4	13
	58	49	0.0	0.0	- 9	- 14.8	9
&	248	249	0.2	0.2	1	0.4	30

< >

( : , % )

							1998 -2008
	1998	2008	1998	2008			
	1,000	1,031	0.7	0.6	31	3.1	198
	2,331	2,462	1.7	1.5	131	5.6	504
	51	51	0.0	0.0	1	1.5	14
	196	210	0.1	0.1	13	6.8	58
	3,731	3,775	2.7	2.3	44	1.2	943
	14	14	0.0	0.0	1	4.4	4
	77	98	0.1	0.1	22	28.4	32
	25	28	0.0	0.0	3	12.2	9
	272	298	0.2	0.2	26	9.6	121
	2,698	2,653	1.9	1.7	44	-1.6	560
	342	392	0.2	0.2	50	14.6	118
	107	104	0.1	0.1	-3	-2.6	21
	2,078	1,997	1.5	1.2	-81	-3.9	388
	172	161	0.1	0.1	-11	-6.2	34
	127	148	0.1	0.1	21	16.5	82
	362	378	0.3	0.2	17	4.6	103
	142	145	0.1	0.1	3	2.0	30
	16	12	0.0	0.0	-3	-22.3	2
	3,764	3,744	2.7	2.3	-19	-0.5	703
	110	121	0.1	0.1	11	9.7	29
	3,195	3,258	2.3	2.0	63	2.0	585
	285	322	0.2	0.2	37	13.0	83
	219	246	0.2	0.2	26	12.0	62
	2,690	2,691	1.9	1.7	0	0.0	439
	459	365	0.3	0.2	-93	-20.4	89
	8,436	9,780	6.0	6.1	1,344	15.9	3,480
	560	529	0.4	0.3	-31	-5.5	240
	100	112	0.1	0.1	12	11.6	50
	51	57	0.0	0.0	6	10.8	25
	24	27	0.0	0.0	3	13.1	12
	25	28	0.0	0.0	3	11.9	13
	254	271	0.2	0.2	17	6.7	49
	17	15	0.0	0.0	-2	-10.7	4
	41	42	0.0	0.0	1	1.5	3
	179	200	0.1	0.1	21	11.8	40
	16	14	0.0	0.0	-3	-17.0	2
	435	474	0.3	0.3	39	9.0	72
	197	201	0.1	0.1	4	1.9	62
	1,611	1,924	1.1	1.2	313	19.4	680
	3,021	3,484	2.1	2.2	463	15.3	1,300
	41	34	0.0	0.0	-7	-17.1	13
	72	69	0.1	0.0	-3	-4.5	10

< >

( : , % )

							1998 - 2008
	1998	2008	1998	2008			
	1,192	1,567	0.8	1.0	375	31.5	512
&	953	1,116	0.7	0.7	162	17.0	492
	22,548	26,401	16.0	16.4	3,853	17.1	11,112
가	3,623	4,031	2.6	2.5	408	11.3	1,164
	87	97	0.1	0.1	9	10.5	30
가	3,184	3,549	2.3	2.2	365	11.5	1,027
	52	65	0.0	0.0	13	25.4	25
	300	320	0.2	0.2	20	6.7	83
	8,735	9,831	6.2	6.1	1,096	12.6	5,159
, &	3,306	3,748	2.4	2.3	442	13.4	1,669
	1,373	1,560	1.0	1.0	187	13.6	545
	171	200	0.1	0.1	28	16.6	73
	418	431	0.3	0.3	12	2.9	121
	783	929	0.6	0.6	146	18.7	351
&	677	801	0.5	0.5	124	18.4	301
	1,256	1,387	0.9	0.9	131	10.4	823
	5,150	5,778	3.7	3.6	628	12.2	3,356
	404	412	0.3	0.3	8	1.9	181
	405	422	0.3	0.3	16	4.0	140
	2,025	2,272	1.4	1.4	247	12.2	1,476
	297	351	0.2	0.2	54	18.2	145
	2,019	2,322	1.4	1.4	303	15.0	1,415
	280	306	0.2	0.2	26	9.4	134
	2,309	2,984	1.6	1.9	676	29.3	1,064
	19	26	0.0	0.0	7	35.0	11
	229	325	0.2	0.2	97	42.2	131
	252	398	0.2	0.2	146	57.8	208
&	1,461	1,794	1.0	1.1	332	22.7	536
	1,367	1,692	1.0	1.1	325	23.8	515
	95	102	0.1	0.1	7	7.7	20
	19	26	0.0	0.0	7	39.8	12
	61	71	0.0	0.0	10	15.9	25
	82	118	0.1	0.1	36	43.7	56
	185	226	0.1	0.1	41	22.3	85
	2,934	3,828	2.1	2.4	894	30.5	1,413
	337	439	0.2	0.3	102	30.2	163
	40	45	0.0	0.0	5	13.7	13
	905	1,141	0.6	0.7	236	26.1	325
	723	796	0.5	0.5	73	10.0	265
	54	50	0.0	0.0	-4	-7.3	16
	605	667	0.4	0.4	62	10.2	218

< >

( : , %)

							1998 - 2008
	1998	2008	1998	2008			
	( )	49	62	0.0	0.0	13	
	15	17	0.0	0.0	2	14.5	6
	99	129	0.1	0.1	30	30.1	51
가	746	1,179	0.5	0.7	433	58.1	566
,	84	99	0.1	0.1	15	17.6	30
가	928	751	0.7	0.5	-178	-19.1	276
,가	306	209	0.2	0.1	-97	-31.7	140
,가	600	530	0.4	0.3	-71	-11.8	131
,가	5	2	0.0	0.0	-2	-51.3	1
	17	10	0.0	0.0	-7	-42.4	4
	2,769	3,486	2.0	2.2	717	25.9	1,490
	314	334	0.2	0.2	20	6.4	103
	239	251	0.2	0.2	11	4.7	70
	60	66	0.0	0.0	6	10.7	26
	15	17	0.0	0.0	2	17.2	6
	1,147	1,501	0.8	0.9	354	30.8	643
	383	532	0.3	0.3	148	38.7	253
	727	929	0.5	0.6	202	27.8	382
	79	96	0.1	0.1	17	21.0	38
	111	124	0.1	0.1	13	12.0	45
	446	586	0.3	0.4	141	31.6	260
	91	123	0.1	0.1	31	34.2	40
	37	40	0.0	0.0	3	9.4	8
	1,308	1,651	0.9	1.0	343	26.2	743
( )	54	57	0.0	0.0	2	4.0	18
	1,027	1,321	0.7	0.8	294	28.6	550
	61	76	0.0	0.0	15	24.3	30
	166	198	0.1	0.1	32	19.0	145
	1,249	1,490	0.9	0.9	241	19.3	546
, ,	4,435	4,506	3.2	2.8	71	1.6	1,397
	1,483	1,309	1.1	0.8	-174	-11.7	232
	1,308	1,135	0.9	0.7	-173	-13.2	203
	175	174	0.1	0.1	-1	-0.8	29
	851	794	0.6	0.5	-57	-6.6	262
	51	40	0.0	0.0	-11	-21.8	25
,	11	9	0.0	0.0	-2	-18.6	5
	40	31	0.0	0.0	-9	-22.7	19
,	120	116	0.1	0.1	-4	-3.1	45
	33	33	0.0	0.0	0	0.7	14
&	87	83	0.1	0.1	-4	-4.6	30
	18	16	0.0	0.0	-2	-11.5	7
	56	55	0.0	0.0	-1	-2.0	18

< >

( : , % )

							1998-2008
	1998	2008	1998	2008			
가	13	12	0.0	0.0	-1	-6.0	5
	1,285	1,548	0.9	1.0	262	20.4	626
	1,130	1,364	0.8	0.8	234	20.7	572
	86	104	0.1	0.1	17	20.0	24
가	5	6	0.0	0.0	1	15.1	1
	45	50	0.0	0.0	5	12.1	19
	19	23	0.0	0.0	4	23.6	10
& 가	92	97	0.1	0.1	6	6.2	26
	181	223	0.1	0.1	42	23.2	68
	137	166	0.1	0.1	30	21.6	49
	45	57	0.0	0.0	12	28.0	19
	373	379	0.3	0.2	6	1.7	114
	15,619	16,871	11.1	10.5	1,252	8.0	5,061
	2,198	2,394	1.6	1.5	196	8.9	784
	4,628	5,018	3.3	3.1	390	8.4	1,422
	18	19	0.0	0.0	0	1.6	5
	157	176	0.1	0.1	19	12.3	48
	1,071	1,145	0.8	0.7	74	6.9	361
	138	147	0.1	0.1	8	6.0	40
	85	88	0.1	0.1	3	3.6	21
	29	31	0.0	0.0	3	8.7	10
	25	28	0.0	0.0	3	11.0	9
	16	17	0.0	0.0	1	8.9	6
	139	148	0.1	0.1	9	6.1	25
	321	346	0.2	0.2	25	7.7	76
	122	129	0.1	0.1	7	5.7	17
	126	135	0.1	0.1	10	7.9	32
	74	82	0.1	0.1	8	10.6	27
	163	175	0.1	0.1	12	7.5	34
	656	724	0.5	0.5	68	10.3	202
	30	33	0.0	0.0	4	12.2	11
	44	46	0.0	0.0	2	3.9	13
	38	45	0.0	0.0	7	19.3	16
	155	173	0.1	0.1	17	11.1	54
	67	72	0.0	0.0	5	7.5	26
	476	517	0.3	0.3	41	8.6	162
	57	60	0.0	0.0	3	4.9	16
	40	47	0.0	0.0	7	17.1	17
가	426	449	0.3	0.3	22	5.3	76
	158	177	0.1	0.1	19	12.0	73
	230	262	0.2	0.2	32	14.1	89

< >

( : , % )

							1998 - 2008
	1998	2008	1998	2008			
	81	87	0.1	0.1	6	8.0	28
	146	155	0.1	0.1	8	5.7	43
	244	255	0.2	0.2	11	4.5	81
가	69	63	0.0	0.0	-6	-9.0	17
가	30	23	0.0	0.0	-6	-21.1	7
& 가	40	40	0.0	0.0	0	0.0	10
, ,	23	18	0.0	0.0	-4	-19.1	5
	152	173	0.1	0.1	21	14.1	58
,	5,176	5,763	3.7	3.6	588	11.4	1,848
&	409	472	0.3	0.3	63	15.4	180
,	138	184	0.1	0.1	46	33.7	70
	79	117	0.1	0.1	37	47.0	49
	58	67	0.0	0.0	9	15.6	22
,	125	138	0.1	0.1	13	10.0	60
	7	7	0.0	0.0	0	-1.4	2
	69	75	0.0	0.0	6	8.8	37
PBX( )	44	59	0.0	0.0	14	32.3	29
,	24	16	0.0	0.0	-8	-33.8	8
,	49	56	0.0	0.0	7	13.3	21
&	146	150	0.1	0.1	4	2.7	50
가	36	31	0.0	0.0	-4	-11.9	10
,	72	81	0.1	0.1	9	12.7	29
,	39	38	0.0	0.0	-1	-2.4	11
,	1,850	1,967	1.3	1.2	117	6.3	538
	535	559	0.4	0.3	24	4.4	144
,	1,232	1,327	0.9	0.8	95	7.7	371

< 2 >

, 1998 2008

( : , % )

	1998						1998-2008
	1998	2008	1998	2008			
	82	81	0.1	0.1	-2	-1.9	22
	1,612	1,828	1.1	1.1	216	13.4	621
	133	147	0.1	0.1	14	10.4	40
	227	263	0.2	0.2	36	15.8	105
가	790	922	0.6	0.6	132	16.7	328
	255	280	0.2	0.2	25	9.8	81
	49	47	0.0	0.0	-3	-5.2	13
	106	116	0.1	0.1	10	9.3	38
	52	54	0.0	0.0	2	4.7	16
	14	14	0.0	0.0	1	3.9	4
	38	40	0.0	0.0	2	5.0	12
	1,305	1,496	0.9	0.9	191	14.7	508
	11	13	0.0	0.0	2	22.6	5
	9	10	0.0	0.0	1	8.2	3
	27	31	0.0	0.0	4	15.6	10
가	286	334	0.2	0.2	48	16.9	101
	51	54	0.0	0.0	3	5.6	18
	279	335	0.2	0.2	56	19.9	137
	99	100	0.1	0.1	1	1.1	24
TV	180	235	0.1	0.1	55	30.3	113
	27	30	0.0	0.0	3	10.0	10
	11	12	0.0	0.0	1	13.5	4
	13	13	0.0	0.0	1	6.5	4
	33	32	0.0	0.0	-1	-4.0	8
	11	11	0.0	0.0	0	0.5	3
	83	92	0.1	0.1	9	10.4	45
	8	8	0.0	0.0	0	-4.2	2
	455	520	0.3	0.3	65	14.3	158
	2,971	3,010	2.1	1.9	39	1.3	774
	422	442	0.3	0.3	20	4.6	118
	17	20	0.0	0.0	3	19.3	7
	201	213	0.1	0.1	12	6.0	56
	50	52	0.0	0.0	3	5.7	14
	17	15	0.0	0.0	-2	-13.0	4
	74	76	0.1	0.0	1	1.7	19
	64	66	0.0	0.0	2	3.7	18
	310	303	0.2	0.2	-7	-2.4	78
	55	60	0.0	0.0	5	8.5	12
	216	201	0.2	0.1	-15	-7.1	51
	39	42	0.0	0.0	3	8.5	15
	689	667	0.5	0.4	-22	-3.2	180
	707	734	0.5	0.5	27	3.8	178
	30	28	0.0	0.0	-2	-6.0	7
	426	452	0.3	0.3	26	6.2	111

< >

( : , %)

	1998						1998-2008
	1998	2008	1998	2008			
	8	9	0.0	0.0	1	6.1	5
	9	8	0.0	0.0	0	-4.5	2
	138	136	0.1	0.1	-2	-1.5	26
	97	101	0.1	0.1	4	4.0	27
	138	137	0.1	0.1	-1	-1.0	44
	7	6	0.0	0.0	-1	-15.2	2
	115	114	0.1	0.1	0	-0.4	39
	9	6	0.0	0.0	-3	-31.4	2
	14	11	0.0	0.0	-3	-18.9	2
가	26	44	0.0	0.0	19	72.6	23
	23	15	0.0	0.0	-8	-33.0	4
( )	17	18	0.0	0.0	1	4.3	4
	9	4	0.0	0.0	-5	-51.2	2
	3	1	0.0	0.0	-1	-51.5	0
	15	14	0.0	0.0	-1	-5.2	2
	17	17	0.0	0.0	0	-0.2	3
가	234	226	0.2	0.1	-8	-3.3	49
	74	67	0.1	0.0	-6	-8.4	14
	16	15	0.0	0.0	-1	-3.8	3
	23	19	0.0	0.0	-4	-17.6	5
	66	67	0.0	0.0	1	0.9	13
가	55	58	0.0	0.0	2	4.4	15
	229	236	0.2	0.1	7	2.9	42
가	123	129	0.1	0.1	6	5.2	20
가	38	38	0.0	0.0	0	-1.0	9
	40	41	0.0	0.0	1	-3.2	6
	27	27	0.0	0.0	-1	-2.5	7
	242	266	0.2	0.2	25	10.2	85
	44	44	0.0	0.0	0	1.0	9
	23	24	0.0	0.0	1	4.7	4
	18	19	0.0	0.0	1	7.0	8
	157	179	0.1	0.1	22	14.0	64
	403	431	0.3	0.3	28	6.9	153
	43	48	0.0	0.0	5	11.0	18
	45	44	0.0	0.0	-1	-1.6	15
	14	12	0.0	0.0	-2	-12.2	4
	31	32	0.0	0.0	1	3.1	11
가	38	33	0.0	0.0	-5	-12.6	12
	31	29	0.0	0.0	-2	-5.7	7
	98	112	0.1	0.1	14	14.2	37
	148	164	0.1	0.1	16	11.1	64
	18,588	20,341	13.2	12.7	1,753	9.4	6,369
	5,139	5,230	3.7	3.3	91	1.8	1,452

< >

( : , % )

	1998						1998-2008
	1998	2008	1998	2008			
	88	108	0.1	0.1	20	22.6	39
	107	122	0.1	0.1	15	13.8	38
	726	690	0.5	0.4	-36	-4.9	187
	42	34	0.0	0.0	-8	-18.3	9
	75	68	0.1	0.0	-7	-9.6	20
	72	66	0.1	0.0	-6	-8.4	16
	163	157	0.1	0.1	-6	-3.9	41
	109	88	0.1	0.1	-22	-19.9	28
	47	44	0.0	0.0	-4	-7.5	9
	218	235	0.2	0.1	17	7.7	65
	167	178	0.1	0.1	10	6.2	51
	46	49	0.0	0.0	3	7.5	13
	12	13	0.0	0.0	1	8.2	4
	110	116	0.1	0.1	6	5.4	34
	478	528	0.3	0.3	50	10.5	169
	45	49	0.0	0.0	4	9.6	16
	9	10	0.0	0.0	0	2.5	3
가	23	22	0.0	0.0	-1	-5.0	4
	23	22	0.0	0.0	-1	-4.1	6
	58	63	0.0	0.0	5	9.0	20
	171	196	0.1	0.1	25	14.7	68
	148	166	0.1	0.1	18	11.9	55
	406	410	0.3	0.3	4	1.1	101
	90	100	0.1	0.1	10	11.5	26
	20	11	0.0	0.0	-9	-44.7	3
	7	6	0.0	0.0	-1	-15.0	1
	13	5	0.0	0.0	-8	-59.8	2
	225	225	0.2	0.1	0	0.2	56
	10	8	0.0	0.0	-2	-18.2	2
	63	54	0.0	0.0	-9	-14.7	12
	142	154	0.1	0.1	12	8.3	40
	10	9	0.0	0.0	0	-4.5	2
	28	29	0.0	0.0	1	3.0	6
	43	45	0.0	0.0	2	4.1	9
	851	687	0.6	0.4	-164	-19.3	137
	33	35	0.0	0.0	3	7.9	8
	69	66	0.0	0.0	-3	-4.0	15
	369	257	0.3	0.2	-112	-30.3	50
	137	140	0.1	0.1	3	2.5	22
	24	22	0.0	0.0	-2	-9.0	4
	192	141	0.1	0.1	-50	-26.3	32
	28	26	0.0	0.0	-3	-9.6	5
	143	130	0.1	0.1	-14	-9.4	37

< >

( : , % )

	1998						1998 - 2008
	1998	2008	1998	2008			
	64	61	0.0	0.0	-4	-5.7	19
	79	69	0.1	0.0	-10	-12.5	18
	2,172	2,377	1.5	1.5	205	9.4	693
	16	14	0.0	0.0	-2	-11.0	3
	32	27	0.0	0.0	-5	-15.6	8
	100	111	0.1	0.1	11	11.4	35
	31	28	0.0	0.0	-3	-8.5	6
	150	154	0.1	0.1	4	2.8	39
	96	102	0.1	0.1	6	6.4	29
	15	12	0.0	0.0	-3	-20.4	4
	63	92	0.0	0.1	29	45.2	38
	126	132	0.1	0.1	6	5.0	36
	25	24	0.0	0.0	-0.1	-5.6	4
	167	184	0.1	0.1	16	9.8	57
	9	7	0.0	0.0	-2	-21.8	2
	377	425	0.3	0.3	49	12.9	147
	171	186	0.1	0.1	15	8.8	52
	129	140	0.1	0.1	11	8.7	39
	42	46	0.0	0.0	4	9.0	13
	62	59	0.0	0.0	-3	-4.1	13
	46	41	0.0	0.0	-5	-11.4	18
	28	26	0.0	0.0	-2	-7.2	7
	7	4	0.0	0.0	-2	-35.8	1
	18	17	0.0	0.0	0	-1.4	3
	635	732	0.5	0.5	97	15.2	191
	3,092	3,382	2.2	2.1	290	9.4	967
	50	44	0.0	0.0	-6	-12.0	13
	22	22	0.0	0.0	1	2.5	4
	42	39	0.0	0.0	-4	-8.3	10
	246	265	0.2	0.2	19	7.7	63
	81	84	0.1	0.1	3	4.3	25
	67	71	0.0	0.0	4	5.5	16
	143	178	0.1	0.1	35	24.2	68
	39	46	0.0	0.0	7	17.7	16
	13	12	0.0	0.0	-2	-11.4	4
	10	8	0.0	0.0	-1	-14.8	2
	35	40	0.0	0.0	5	14.4	13
	368	398	0.3	0.2	31	8.3	124
	1,976	2,175	1.4	1.4	198	10.0	610
	5,215	5,960	3.7	3.7	745	14.3	1,607
	4,084	4,723	2.9	2.9	639	15.6	1,272

< >

( : , % )

	1998						1998-2008
	1998	2008	1998	2008			
	638	747	0.5	0.5	108	17.0	223
	203	235	0.1	0.1	32	15.8	69
	435	511	0.3	0.3	76	17.6	154
가	132	158	0.1	0.1	26	20.0	48
	3,274	3,782	2.3	2.4	507	15.5	994
/	305	319	0.2	0.2	14	4.7	75
	2,970	3,463	2.1	2.2	493	16.6	919
	40	37	0.0	0.0	-3	-8.5	7
	85	75	0.1	0.0	-10	-11.4	29
	33	35	0.0	0.0	2	4.8	12
	14	7	0.0	0.0	-7	-47.8	5
	25	24	0.0	0.0	-2	-6.7	8
	3	4	0.0	0.0	0	7.1	1
	8	5	0.0	0.0	-3	-35.6	3
	56	58	0.0	0.0	3	4.7	24
	23	24	0.0	0.0	1	5.1	10
	19	19	0.0	0.0	1	3.0	8
	8	9	0.0	0.0	1	7.9	4
	6	7	0.0	0.0	0	4.3	3
	808	883	0.6	0.5	74	9.2	208
	49	49	0.0	0.0	0	0.5	11
	106	122	0.1	0.1	16	15.3	36
	11	11	0.0	0.0	1	6.0	3
	415	454	0.3	0.3	8	9.2	87
	228	247	0.2	0.2	19	8.3	71
	183	222	0.1	0.1	39	21.5	75
	5,142	5,765	3.7	3.6	625	12.2	2,342
	288	360	0.2	0.2	72	25.0	163
	822	834	0.6	0.5	12	1.5	314
	984	1,197	0.7	0.7	213	21.7	456
	576	618	0.4	0.4	42	7.3	307
	213	211	0.2	0.1	-2	-0.9	64
	86	113	0.1	0.1	27	31.2	42
	99	103	0.1	0.1	4	3.9	42
	141	139	0.1	0.1	-2	-1.2	62
	1,934	2,194	1.4	1.4	260	13.4	893

< 3 >

( : , % )

					1997
	1998	2008			
	299	622	323	108	1
가	429	869	439	102	1
가	617	1,194	577	94	1
	87	155	67	77	1
가	26	44	19	73	2
	136	220	84	62	2
가	746	1,179	433	58	4
	252	398	146	58	3
	268	410	141	53	3
	66	98	32	48	1
	79	117	37	47	2
	190	278	88	46	3
	63	92	29	45	2
가	92	133	41	44	3
	82	118	36	44	3
, ,	326	468	142	43	1
	86	123	37	43	2
	229	325	97	42	3
	54	77	23	42	2
, ,	303	427	124	41	1
	143	201	58	41	1
	19	26	7	40	2
	21	29	8	39	2
	383	532	148	39	2
	105	145	40	38	1
가	604	822	218	36	2
	311	420	110	35	3
가 ,	19	26	7	35	3
	81	109	28	35	1
	73	98	25	34	1

) 1 가 (\$16.25), 2 가  
 (\$16.14), 3 가 (\$10.88), 4 가 (\$7.76)

< 4> (1998 - 2008 )

( : , % )

					1997	
	1998	2008				
가	617	1,194	577	94	1	
	4,056	4,620	563	14	4	
	3,198	3,754	556	17	4	
	3,362	3,913	551	16	1	
	2,970	3,463	493	17	2	
	3,021	3,484	463	15	3	
	2,079	2,530	451	22	1	
가	429	869	439	102	1	
가	746	1,179	433	58	4	
	1,192	1,567	375	31	4	
가	3,184	3,549	365	11	4	
,	1,367	1,692	325	24	4	
	299	622	323	108	1	
	1,426	1,749	322	23	1	
	1,611	1,924	313	19	2	
	1,293	1,599	305	24	3	
	2,019	2,322	303	15	4	
	1,027	1,321	294	29	4	
	2,584	2,847	263	10	2	
	2,025	2,272	247	12	4	
	905	1,141	236	26	4	
	1,130	1,364	234	21	3	
가	604	822	218	36	2	
	984	1,197	213	22	4	
	1,754	1,959	205	12	1	
	2,198	2,394	196	9	1	
	865	1,061	195	23	1	
	648	839	191	30	1	
	479	642	163	34	3	
	383	532	148	39	2	

) 1 가 (\$16.25), 2 가  
 (\$16.14), 3 가 (\$10.88), 4 가 (\$7.76)

< 5 >

( : , % )

	1998	2008		
	1,308	1,135	- 173	- 13
	369	257	- 112	- 30
가	306	209	- 97	- 32
	459	365	- 93	- 20
	2,078	1,997	- 81	- 4
가	600	530	- 71	- 12
	851	794	- 57	- 7
	224	170	- 54	- 24
	192	141	- 50	- 26
	560	529	- 31	- 5
	214	185	- 30	- 14
	689	667	22	- 3
	109	88	- 22	- 20
	216	201	- 15	- 7
	172	161	- 11	- 6
	27	17	- 10	- 38
	79	69	- 10	- 13
	63	54	- 9	- 15
	40	31	- 9	- 23
	58	49	- 9	- 15
	24	16	- 8	- 34
	109	100	- 8	- 8
	13	5	- 8	- 60
	42	34	- 8	- 18
	23	15	- 8	- 33
	23	16	- 7	- 31
가	17	10	- 7	- 42
	75	68	- 7	- 10
	41	34	- 7	- 17
	14	7	- 7	- 48

) 1 가 (\$16.25), 2 가 (\$16.14), 3 가 (\$10.88), 4 가 (\$7.76)

< 6 >

(1998 - 2008 )

( : , % )

					(1998-2008)				1997			
	1998	2008	1998	2008					1	2	3	4
	140,514	160,795	100.0	100.0	20,281	14.4	55,008	100.0	25.0	25.0	25.0	25.0
	1,908	2,215	1.4	1.4	308	16.1	617	1.1	92.2	7.8	0.0	0.0
	996	1,228	0.7	0.8	232	23.3	502	0.9	100.0	0.0	0.0	0.0
	940	1,115	0.7	0.7	174	18.6	374	0.7	97.5	2.5	0.0	0.0
	9,595	11,276	6.8	7.0	1,680	17.5	3,372	6.1	94.1	3.2	2.7	0.0
	17,379	21,596	12.4	13.4	4,217	24.3	7,822	14.2	76.2	19.1	3.3	1.4
	4,930	6,467	3.5	4.0	1,537	31.2	2,422	4.4	70.5	25.3	4.2	0.0
	4,508	5,151	3.2	3.2	643	14.3	1,680	3.1	7.2	60.5	17.2	15.1
	11,174	12,490	8.0	7.8	1,316	11.8	3,699	6.7	26.1	50.7	23.1	0.1
	13,436	14,604	9.6	9.1	1,168	8.7	4,411	8.0	15.9	57.7	7.3	19.1
	20,521	21,952	14.6	13.7	1,430	7.0	6,218	11.3	0.8	55.9	39.8	3.6
	55,125	62,701	39.2	39.0	7,576	13.7	23,890	43.4	0.7	7.8	35.8	55.8

) 1 가 (\$16.25), 2 가 (\$16.14), 3 가 (\$10.88), 4 가 (\$7.76)

99-33

---

---

1999 12 31  
1999 12 31

2 15-1  
: (02) 3485-5000  
: (02) 3485-5007

1998 6 11  
16-1681  
I S B N 89-88198-91-93320