Chapter 5

Skills and the Labour Force

Summary

This chapter focuses on the skills of labour force participants. First, the difference in workers' skills between the top and bottom 25 per cent of performers is compared. This allows for a comparative assessment of the skills supplied in the labour market. Second, the employability of working-age adults is studied. This is done by comparing the likelihood of experiencing labour force inactivity and unemployment over the cycle of one year for persons who are at low and medium to high levels of skill. Finally, the employability analysis is extended to also include younger and older workers.

Summary		105
Chapter Skills and	5 d the Labour Force	105
5.1	Overview and highlights	107
5.2	Competitiveness of labour force populations	108
5.3	Employability of working-age populations	112
5.4	Employability of younger and older working- age populations	116
Referenc	es	119
Annex 5 Data Val	ues for the Figures	121

Skills and the Labour Force

5.1 Overview and highlights

This chapter focuses on the skills of labour force participants. First, the difference in workers' skills between the top and bottom 25 per cent of performers is compared. This allows for a comparative assessment of the skills supplied in the labour market. Second, the employability of working-age adults is studied. This is done by comparing the likelihood of experiencing labour force inactivity and unemployment over the cycle of one year for persons who are at low and medium to high levels of skill. Finally, the employability analysis is extended to also include younger and older workers.

Several key findings arise from the analysis presented in this chapter:

- The Norwegian labour force has the highest top and bottom 25 per cent of performers on the prose, document and problem solving scales. The Swiss labour force is best qualified on the numeracy scale.
- The highest scoring working adults tend to be the most numerous in the group aged 26 to 45 and fewest among older workers aged 46 to 65. The group aged 16 to 25 lies somewhere in between. Many adults aged 26 to 45 have been exposed to learning opportunities at work that reinforce the development of their skills. This may explain why workers in early to mid career display the best skills among the top end of workforces.
- Adults with higher levels of skill of the types measured in ALL tend to be more employable than adults with low skills, but not necessarily. The findings show that low skilled adults are more likely than medium to high skilled adults to experience unemployment in half of the countries and to experience labour force inactivity for six or more months in all countries except Bermuda.
- Among adults who experience unemployment, those who score at higher levels on the document literacy scale have a higher likelihood of re-entering employment sooner. The results are similar for all the skills measured in ALL.

- Proficiency in foundation skills such as document literacy and numeracy is strongly associated with the probability of young adults to find employment. Young adults who score at Levels 1 and 2 have a lower chance of exiting unemployment and tend to be unemployed longer than the more highly skilled.
- Even though unemployment rates tend to be higher among young labour force participants, younger adults are able to exit unemployment more quickly than older adults. In fact, low skilled younger adults have better chances of finding a job than low skilled older adults. This highlights the difficulties that displaced workers face when searching for job at an older age. Even so, older adults with higher skills find it easier to obtain employment than those with lower skills.

5.2 Competitiveness of labour force populations

The challenges of competing in global markets and adopting technological, process and organizational innovations place a premium on the capacity of individuals to adapt to changes in the workplace. Many workers who are faced with these challenges are expected to be highly skilled, not least in foundation skills such as literacy and numeracy, but at all levels they are also increasingly expected to solve problems and create ways to improve the methods they use (Bailey, 1997). Thus the skills measured in ALL, among others, are important for work organisations and countries to adapt and succeed. This section takes a closer look at the distribution of skills among the labour force¹ in each country assessed.

Figures 5.1a-c compare the scores that are at the 75th percentile of each country's skill distribution. This highlights differences among the top 25 per cent of highest scorers. The scores are displayed relative to the ALL international average 75th percentile. Thus countries with higher 75th percentile scores have workers who tend to display higher average levels of ability in the relevant skills domain when comparing the top end of distributions among countries. This would imply that relative to the size of labour force populations, these countries have better "pools of skills" to draw from for market-oriented activities. Presumably, such countries are in a better position to compete for "high-skills" jobs (Brown, Green and Lauder, 2001).

The data indicate that on the combined prose and document literacy scale², Norway and Bermuda score highest at the top end of the distribution. On the numeracy and problem solving scale, the patterns are similar to those observed in Chapter 2, with Switzerland's top performers scoring the highest on the numeracy scale and doing better on the problem solving scale than on the prose and document scales.

FIGURE 5.1 A to C

Skills among labour force populations in the top 25 per cent

Score differences to the 75th percentile of the ALL international population on a scale with range 0 to 500 points, labour force populations aged 16 to 65, 2003



A. Prose and document literacy scales combined

1. The state of Nuevo Leon in Mexico fielded the IALS quantitative literacy assessment rather than the ALL numeracy assessment. Although closely related conceptually, these two scales cannot be directly compared.

Countries are ranked by the difference of persons aged 26 to 45 to the 75th percentile of the ALL international labour force population aged 16 to 65.

FIGURE 5.1 A to C (concluded)

Skills among labour force populations in the top 25 per cent

Score differences to the 75th percentile of the ALL international population on a scale with range 0 to 500 points, labour force populations aged 16 to 65, 2003



C. Problem solving^{1,2} scale

1. United States and Nuevo Leon, Mexico did not field the problem solving skills domain.

2. The problem solving skills scores for Switzerland apply to the German and French speaking communities only since they did not field the problem solving skills domain in the Italian speaking community.

Countries are ranked by the difference of persons aged 26 to 45 to the 75th percentile of the ALL international labour force population aged 16 to 65.

Source: Adult Literacy and Life Skills Survey, 2003.

Similarly, Figures 5.2a-c present skills scores at the 25th percentile, highlighting differences among the bottom 25 per cent of performers. Knowledge economies with higher 25th percentile scores have an advantage because they have fewer workers with low information processing skills. Analysis by Coulombe, Tremblay and Marchand (Statistics Canada, 2004) reveals that the proportion of low skilled workers appears to suppress long-term rates of growth in GDP per capita and productivity in OECD countries. Furthermore, the employability analysis below indicates that workers with higher skills are more employable because they display a lower likelihood of being unemployed, and when they do experience unemployment they have a higher likelihood of re-entering employment sooner.

FIGURE 5.2 A to C

Skills among labour force populations in the bottom 25 per cent

Score differences to the 25th percentile of the ALL international population on a scale with range 0 to 500 points, labour force populations aged 16 to 65, 2003



1. The state of Nuevo Leon in Mexico fielded the IALS quantitative literacy assessment rather than the ALL numeracy assessment. Although closely related conceptually, these two scales cannot be directly compared.

Countries are ranked by the difference of persons aged 26 to 45 to the 25th percentile of the ALL international labour force population aged 16 to 65.

FIGURE 5.2 A to C (concluded)

Skills among labour force populations in the bottom 25 per cent

Score differences to the 25th percentile of the ALL international population on a scale with range 0 to 500 points, labour force populations aged 16 to 65, 2003



C. Problem solving^{1,2} scale

1. United States and Nuevo Leon, Mexico did not field the problem solving skills domain.

2. The problem solving skills scores for Switzerland apply to the German and French speaking communities only since they did not field the problem solving skills domain in the Italian speaking community.

Countries are ranked by the difference of persons aged 26 to 45 to the 25th percentile of the ALL international labour force population aged 16 to 65.

Source: Adult Literacy and Life Skills Survey, 2003.

The higher scoring working adults tend to be the most numerous in the group aged 26 to 45 and fewest among older workers aged 46 to 65. The group aged 16 to 25 lies somewhere in between. Many adults aged 26 to 45 have had the chance to reinforce and develop their skills on the job, while many younger adults have not yet had the chance to apply their skills in demanding work contexts. Further, skills among many older adults may have deteriorated either because of lack of use or because they have become obsolete due to the introduction of new work routines or other innovations. This may explain why workers in early to mid career display the best skills among the top end of the labour force.

5.3 Employability of working-age populations

Employability and *employability skills* are terms increasingly used by researchers and policy makers alike. While there are many definitions, employability essentially refers to the capability of adults to obtain and maintain satisfactory work. Naturally, this involves the skills and knowledge relating to jobs, which are referred to as employability skills. These are numerous, but many efforts have been made to identify and list key employability skills that apply in varying degrees to all jobs (e.g., Carnevale, Gainer, and Meltzer, 1990; SCANS, 1991, HRDC, 2001). Not

surprisingly, most lists feature foundation skills such as literacy, numeracy and problem solving near the top. Accordingly, this section considers the relationship between the skills measured in ALL and the employability of adults.

Even though they are termed "foundation skills", the findings presented in Chapter 2 suggest that many adults have difficulties coping with literacy and numeracy related activities that are common in modern workplaces. Additionally, there is some evidence suggesting that most OECD economies continue to witness a general shift in labour demand from lower to higher levels of skills (Dickerson and Green, 2004; Machin, 2001). Thus adults with low skills, of the type measured in ALL, are likely to face increasing difficulties in gaining access to and securing gainful employment. They are also more likely than high skilled adults to experience unemployment and to not participate in the labour force at all.

Results presented in Figure 5.3 show that compared to persons who score at Levels 3 or higher on the numeracy scale, low scorers have a higher chance of experiencing six or more months of labour force inactivity than being employed all year (see Box 3A - Using odds ratios). In most countries, persons who score at Levels 1 and 2 are two to three times more likely to be outside the labour force for six or more months than those who score at Levels 3 or higher. Only in Bermuda do low and medium to high skilled adults have nearly the same odds of experiencing six or more months of labour force inactivity and being employed all year.

FIGURE 5.3





Odds ratios¹ showing the likelihood of experiencing labour force inactivity for 6 months or more in the last 12 months compared to being employed all year, by numeracy levels, populations aged 16 to 65, excluding students and retirees, 2003

Countries are ranked according to the odds of persons who score at Levels 1 and 2.

 Odds estimates that are not statistically different from one at conventional levels of significance are reported as one in the figure. For the actual estimate and its corresponding significance, see Table 5.3 in the annex to this chapter.
 Source: Adult Literacy and Life Skills Survey, 2003. Furthermore, Figure 5.4 shows that in half of the countries, low skilled adults are more likely than high skilled adults to experience unemployment lasting six or more months. But note that the overall labour market conditions, including the balance between the demand and supply of skilled workers and the economic cycle, which are specific to a country or region, are important to consider in this type of analysis (De Grip, van Loo and Sanders, 2004). For example, in areas where the demand for low skilled workers exceeds the supply, low skilled adults are less likely to be outside the labour force or in unemployment.

FIGURE 5.4

Likelihood of experiencing unemployment by skills levels



Odds ratios¹ showing the likelihood of experiencing unemployment for 6 months or more in the last 12 months compared to being employed all year, by numeracy levels, labour force populations aged 16 to 65, 2003

Countries are ranked according to the odds of persons who score at Levels 1 and 2.

1. Odds estimates that are not statistically different from one at conventional levels of significance are reported as one in the figure. For the actual estimate and its corresponding significance, see Table 5.4 in the annex to this chapter.

Source: Adult Literacy and Life Skills Survey, 2003.

In general, adults with medium to high skills who experience unemployment have a higher probability of finding a job sooner than persons with low skills. Figure 5.5 reports findings from an analysis pooling the unemployed populations of all countries considered (see Box 5A). The analysis contrasts the probability of exiting unemployment over the course of 52 weeks between adults who are low (Levels 1 and 2) and medium to high skilled (Levels 3 and 4/5). The results clearly indicate that persons with higher proficiency in document literacy are capable of finding employment sooner. For example, after 16 weeks of unemployment, persons scoring at Levels 3 and 4/5 have a 60 per cent chance of exiting unemployment. This increases to 70 per cent after 48 weeks. In contrast, adults who score at Levels 1 and 2 still only have a 50 per cent chance of finding a job even after 52 weeks of unemployment. The results are similar in other skills domains, although labour markets appear to recognize document and numeracy skills the most.

FIGURE 5.5

Probability of exiting unemployment by skills levels

The probabilities of unemployed adults aged 16 to 65 to exit unemployment over a 52 week period, by low (Levels 1 and 2) and medium to high (Levels 3 and 4/5) skills, document scale, 2003



Source: Adult Literacy and Life Skills Survey, 2003.

Box 5A

Measuring the probabilities of exiting unemployment

The probabilities of exiting unemployment that are presented in Figures 5.5, 5.6 and 5.7 are estimated using survival analysis. In particular, the Kaplan and Meier (1958) estimator is used. This type of analysis considers the duration before or after an event occurs as well as the duration of the event itself. The ALL skills survey collected data that describes the duration and frequency of unemployment in the 52 weeks preceding the data collection as well as whether individuals were unemployed at the time of the survey.

In this context, the survival analysis allows for an estimation of the probability that persons will exit unemployment after a certain number of weeks. The survival function is graphed so that the probability of exiting unemployment begins at 0.0 where all persons are unemployed, and approaches 1.0 as time elapses. Notice that some adults leave unemployment very quickly while others remain for up to 52 weeks or longer. But the probability of exiting unemployment rises as the number of weeks in unemployment increases. Eventually, by 52 weeks most persons have left unemployment. Accordingly, the probability of exiting unemployment is very high (close to 1.0) at 52 weeks, but there are still some who remain unemployed more than one year.

5.4 Employability of younger and older working-age populations

When it comes to employment, age can be seen as a barrier. Both younger and older workers can face substantial difficulties in the labour market. The successful integration of young adults into the labour market remains a major political concern in most OECD countries (OECD, 2002). Often, young adults are disadvantaged by their lack of qualifications, foundation skills and work experience (UK Youth, 2002). Similarly, older adults can run into employment difficulties because their skills have become obsolete (De Grip and van Loo, 2002; Dubin, 1972; Rosen, 1975), and employers may be less inclined to invest in retraining for older workers (Heckman, 1999). This section considers the employability of younger and older adults by their levels of skill.

The results presented in Figure 5.6 suggest that higher proficiency in basic employability skills such as document literacy is strongly associated with the probability of young adults aged 16 to 30 to find employment. Young adults who score at Levels 1 and 2 have a lower chance of exiting unemployment and tend to be unemployed longer.

FIGURE 5.6

Probability of younger workers exiting unemployment by skills levels



The probabilities of unemployed adults aged 16 to 30 to exit unemployment over a 52 week period, by low (Levels 1 and 2) and medium to high (Levels 3 and 4/5) skills, document scale, 2003

Source: Adult Literacy and Life Skills Survey, 2003.

Many older unemployed workers face difficulties finding a new job. In general, the average duration of unemployment tends to be higher among older labour force participants, even though the rate of unemployment is higher among younger adults (Ryan, 2001). This is because younger labour force participants are able to exit unemployment more quickly than older adults. Comparing the probability trajectories of exiting unemployment that are presented in Figures 5.6 and 5.7 supports this tendency. In fact, low skilled younger adults appear to have better chances of finding a job than low skilled older adults. This highlights the difficulties that displaced workers face when searching for a job at an older age.

Even so, older adults with higher skills find it easier to obtain employment. Figure 5.7 shows that older labour force participants who score at Levels 3 and 4/5 on the document literacy scale have a higher probability of finding employment more quickly when compared to those scoring at Levels 1 and 2. But note that while this analysis is done using pooled international data, the results are likely to vary according to the relative demand and supply for low skills in specific regions. It is expected that relatively high demand for, and/or low supply of, skilled workers will reduce the difference between the employability of low and medium to high skilled workers.

FIGURE 5.7

Probability of older workers exiting unemployment by skills levels

The probabilities of unemployed adults aged 50 to 65 to exit unemployment over a 52 week period, by low (Levels 1 and 2) and medium to high (Levels 3 and 4/5) skills, document scale, 2003



Source: Adult Literacy and Life Skills Survey, 2003.

For many, the link between foundation skills and employability is not necessarily direct. Employability also depends on the willingness and capacity of workers to participate in training. But adults aged 56 to 65 are the least likely to participate in adult education and training (OECD, 2003). Moreover, participation itself is linked to foundation skills (see Figure 4.4 in Chapter 4). Many lack the basic skills to engage in training that maintains their employability, including younger and older workers.

Those working in jobs requiring predominantly firm-specific or technologyspecific skills for extended periods of time are likely to be the most vulnerable. Evidence suggests that working in an environment with limited complexity or repetitive tasks leads to skills loss over time (Krahn and Lowe, 1998). In particular, low requirements for literacy and numeracy skills at work may be associated with loss of these skills (See Chapter 6). Therefore it is expected that adults with this type of labour force experience face increased difficulties to participate in training courses that are otherwise needed to keep up with changes in skill requirements.

Endnotes

- 1. Persons who were either employed or unemployed and looking for work at the time of the survey are considered active labour force participants.
- 2. The prose and document literacy scales are combined into a composite literacy scale for the purposes of this analysis. Although, it is desirable to maintain two separate literacy scales for many analyses, the theoretical and empirical properties also allow for creating composite skill scales.

References

- Bailey, T. (1997), "Changes in the Nature of Work: Implications for Skills and Assessment", in H.F. O'Neil (ed.), *Workforce Readiness: Competencies and Assessment*, Lawrence Erlbaum Associates, Mahwah, NJ.
- Brown, P., Green, A. and Lauder, H. (eds.) (2001), *High Skills*, Oxford University Press, Oxford.
- Carnevale, A.P., Gainer, L.J. and Meltzer, A.S. (1990), Workplace Basics: The Essential Skills Employers Want, Jossey-Bass, San Francisco.
- Dickerson, A. and Green, F. (2004), "The Growth and Valuation of Computing and Other Generic Skills", *Oxford Economic Papers*, Vol. 56(3), pp. 371-406.
- De Grip, A. and van Loo, J. (2002), "The Economics of Skills Obsolescence: A review", *Research in Labor Economics*, Vol. 21, pp. 1-26.
- De Grip, A., van Loo, J. and Sanders, J. (2004), "The Industry Employability Index: Taking account of supply and demand characteristics", *International Labour Review*, Vol. 143(3), pp. 211-233.
- Dubin, S. (1972), "Obsolescence or Lifelong Education", *American Psychologist*, Vol. 27, pp. 486-498.
- Heckman, J. (1999), "Policies to Foster Human Capital", NBER Working Paper 7288, Cambridge, Massachussetts.
- HRDC (2001, October 12), "Readers' Guide to Essential Skills Profiles, Skills Information Division", Human Resources and Skills Development Canada, Hull, Quebec. Retrieved from http://www15.hrdc-drhc.gc.ca/english/readers_guide_whole.asp.
- Judy, R. and D'Amico, C. (1997), *Workforce 2020: Work and Workers in the 21st Century*, Hudson Institute, Indianapolis, IN.
- Kaplan, E.L. and Meier, P. (1958), "Nonparametric Estimation from Incomplete Observations", *Journal of the American Statistical Association*, Vol. 53, pp. 457-458.
- Krahn, H. and Lowe, G.S. (1998), *Literacy Utilization in Canadian Workplaces*, Statistics Canada and Human Resource Development Canada, Ottawa and Hull.
- Machin, S. (2001), "The Changing Nature of Labour Demand in the New Economy and Skill-biased Technology Change", *Oxford Bulletin of Economics and Statistics*, Vol. 63, pp. 753-776.
- OECD (2002), Employment Outlook, Paris.
- OECD (2003), Employment Outlook, Paris.
- Rosen, S. (1975), "Measuring the Obsolescence of Knowledge", in F.T. Juster (ed.), *Education, Income and Human Behavior*, McGraw-Hill, New York, pp. 199-232.
- Ryan, P. (2001), "The School-to-Work Transition: A Cross-National Perspective", Journal of Economic Literature, Vol. 39(1), pp. 34-92.

- Secretary's Commission on Achieving Necessary Skills (1991), What Work Requires of Schools: A SCANS Report for America 2000, U.S. Department of Labor, Washington, DC.
- Statistics Canada (2004), *Literacy Scores, Human Capital and Growth Across Fourteen OECD Countries*, Ottawa.
- UK Youth (2002), Basic Skills and Young Adults, London.

Contributors

Patrick Werquin, OECD

Isabelle Recotillet, Centre d'études et de recherches sur les qualifications, Marseilles Richard Desjardins, Statistics Canada

Annex 5

Data Values for the Figures

TABLE 5.1

Score of the 75th percentile on a scale with range 0 to 500 points, labour force populations aged 16 to 25, 26 to 45 and 46 to 65, 2003

	Age	75th perc	centile
A. Prose and document literacy scales combined	I		
Bermuda	16 to 25	317.3	(5.2)
	26 to 45	327.8	(3.0)
	46 to 65	311.2	(3.6)
Canada	16 to 25	321.3	(2.7)
	26 to 45	324.8	(1.5)
	46 to 65	312.1	(1.6)
Italy	16 to 25	265.8	(3.2)
	26 to 45	275.8	(2.8)
	46 to 65	262.2	(2.8)
Norway	16 to 25	323.7	(3.3)
	26 to 45	332.1	(2.2)
	46 to 65	313.0	(2.5)
Nuevo Leon, Mexico	16 to 25	261.5	(2.0)
	26 to 45	264.3	(2.0)
	46 to 65	245.7	(3.3)
Switzerland	16 to 25	314.8	(7.1)
	26 to 45	313.1	(1.7)
	46 to 65	296.0	(2.9)
United States	16 to 25	305.8	(4.9)
	26 to 45	310.6	(2.8)
	46 to 65	308.4	(3.4)

TABLE 5.1 (concluded)

Score of the 75th percentile on a scale with range 0 to 500 points, labour force populations aged 16 to 25, 26 to 45 and 46 to 65, 2003

	Age	75th perc	entile
B. Numeracy ¹ scale			
Bermuda	16 to 25	296.3	(7.7)
	26 to 45	315.5	(2.3)
	46 to 65	296.0	(4.2)
Canada	16 to 25	313.9	(3.1)
	26 to 45	320.5	(1.7)
	46 to 65	305.0	(1.9)
Italy	16 to 25	262.9	(4.8)
	26 to 45	277.5	(2.4)
	46 to 65	268.8	(2.5)
Norway	16 to 25	312.2	(3.4)
	26 to 45	324.7	(1.5)
	46 to 65	308.5	(2.2)
Switzerland	16 to 25	324.5	(12.3)
	26 to 45	331.0	(3.1)
	46 to 65	311.9	(2.7)
United States	16 to 25	298.9	(4.5)
	26 to 45	307.1	(2.7)
	46 to 65	304.4	(2.8)
C. Problem solving ² scale			
Bermuda	16 to 25	306.2	(5.9)
	26 to 45	315.6	(2.4)
	46 to 65	297.6	(4.5)
Canada	16 to 25	314.8	(4.6)
	26 to 45	316.0	(1.6)
	46 to 65	301.6	(1.8)
Italy	16 to 25	258.5	(3.7)
	26 to 45	273.5	(3.0)
	46 to 65	258.3	(3.6)
Norway	16 to 25	324.8	(3.6)
	26 to 45	327.8	(1.9)
	46 to 65	301.9	(3.1)
Switzerland ³	16 to 25	316.1	(5.7)
	26 to 45	316.5	(2.4)
	46 to 65	299.1	(3.9)

1. The state of Nuevo Leon in Mexico fielded the IALS quantitative literacy assessment rather than the ALL numeracy assessment. Although closely related conceptually, these two scales cannot be directly compared.

2. United States and Nuevo Leon, Mexico did not field the problem solving skills domain.

3. The problem solving skills scores for Switzerland apply to the German and French speaking communities only since they did not field the problem solving skills domain in the Italian speaking community.

Score of the 25th percentile on a scale with range 0 to 500 points, labour force populations aged 16 to 25, 26 to 45 and 46 to 65, 2003

	Age	25th per	rcentile
A. Prose and document scales combined			
Bermuda	16 to 25	254.9	(9.7)
	26 to 45	259.9	(3.1)
	46 to 65	231.1	(4.1)
Canada	16 to 25	262.1	(3.7)
	26 to 45	259.5	(2.0)
	46 to 65	244.5	(3.1)
Italy	16 to 25	198.6	(4.2)
	26 to 45	204.7	(2.7)
	46 to 65	186.4	(4.4)
Norway	16 to 25	278.9	(4.4)
	26 to 45	279.4	(1.8)
	46 to 65	254.4	(2.1)
Nuevo Leon, Mexico	16 to 25	212.2	(4.1)
	26 to 45	213.5	(2.9)
	46 to 65	187.3	(5.4)
Switzerland	16 to 25	263.2	(10.9)
	26 to 45	252.1	(2.8)
	46 to 65	240.0	(2.5)
United States	16 to 25	242.1	(4.0)
	26 to 45	243.3	(2.3)
	46 to 65	240.4	(3.2)
B. Numeracy ¹ scale			
Bermuda	16 to 25	229.6	(8.5)
	26 to 45	242.0	(3.3)
	46 to 65	217.4	(3.7)
Canada	16 to 25	247.6	(2.7)
	26 to 45	247.0	(2.1)
	46 to 65	234.0	(2.1)
Italy	16 to 25	200.2	(4.8)
	26 to 45	214.8	(2.1)
	46 to 65	202.1	(3.4)
Norway	16 to 25	256.5	(7.1)
	26 to 45	268.9	(2.3)
	46 to 65	248.3	(2.9)
Switzerland	16 to 25	262.3	(9.7)
	26 to 45	266.4	(2.4)
	46 to 65	253.0	(4.2)
United States	16 to 25	220.7	(5.4)
	26 to 45	230.4	(2.4)
	46 to 65	228.6	(4.1)

TABLE 5.2 (concluded)

Score of the 25th percentile on a scale with range 0 to 500 points, labour force populations aged 16 to 25, 26 to 45 and 46 to 65, 2003

	Age	25th percentile	
C. Problem solving ² scale			
Bermuda	16 to 25 26 to 45 46 to 65	237.1(10.5249.5(3.5223.5(3.6	5) 5) 8)
Canada	16 to 25 26 to 45 46 to 65	257.3 (2.7 251.7 (2.2 237.1 (2.7	7) 2) 1)
Italy	16 to 25 26 to 45 46 to 65	187.5 (7.2 198.6 (3.3 184.3 (4.1	2) 3) 1)
Norway	16 to 25 26 to 45 46 to 65	270.3 (5.0 270.1 (2.5 242.8 (3.1	J) 5) 1)
Switzerland ³	16 to 25 26 to 45 46 to 65	258.8 (8.9 247.6 (3.3 237.6 (3.4	Э) 3) 4)

1. The state of Nuevo Leon in Mexico fielded the IALS quantitative literacy assessment rather than the ALL numeracy assessment. Although closely related conceptually, these two scales cannot be directly compared.

2. United States and Nuevo Leon, Mexico did not field the problem solving skills domain.

3. The problem solving skills scores for Switzerland apply to the German and French speaking communities only since they did not field the problem solving skills domain in the Italian speaking community.

Source: Adult Literacy and Life Skills Survey, 2003.

TABLE 5.3

Odds ratios showing the likelihood of experiencing labour force inactivity for 6 months or more in the last 12 months compared to being employed all year, by numeracy levels, populations aged 16 to 65, excluding students and retirees, 2003

	Levels 1 and 2	Levels 3 and 4/5
	Not in labour force for 6 months or more	Employed all year
Bermuda	1.29 (0.24)	1.00
Canada	2.62*** (0.08)	1.00
Italy	3.49*** (0.16)	1.00
Norway	2.80*** (0.21)	1.00
Switzerland	2.17*** (0.19)	1.00
United States	2.61*** (0.17)	1.00

* p<0.10, statistically significant at the 10 per cent level.

** p<0.05, statistically significant at the 5 per cent level.

*** p<0.01, statistically significant at the 1 per cent level.

Note: Standard errors are of the logarithm of the odds ratios.

Odds ratios showing the likelihood of experiencing unemployment for 6 months or more in the last 12 months compared to being employed all year, by numeracy levels, labour force populations aged 16 to 65, 2003

	Levels 1 and 2	Levels 3 and 4/5
	Unemployed for 6 months or more	Employed all year
Bermuda	2.04 (0.74)	1.00
Canada	1.92*** (0.19)	1.00
Italy	1.68** (0.25)	1.00
Norway	2.55 (0.58)	1.00
Switzerland	3.02 (0.64)	1.00
United States	2.36** (0.37)	1.00

* p<0.10, statistically significant at the 10 per cent level.

** p<0.05, statistically significant at the 5 per cent level.

**** p<0.01, statistically significant at the 1 per cent level.

Note: Standard errors are of the logarithm of the odds ratios.

Source: Adult Literacy and Life Skills Survey, 2003.

TABLE 5.5

The probabilities of unemployed adults aged 16 to 65 to exit unemployment over a 52 week period, by low (Levels 1 and 2) and medium to high (Levels 3 and 4/5) skills, document scale, 2003

	Levels 1 and 2	Levels 3 and 4/5	
Weeks	Prot	ability	
0	0.124	0.161	
2	0.253	0.363	
4	0.281	0.392	
7	0.345	0.511	
9	0.350	0.530	
11	0.395	0.578	
13	0.397	0.583	
15	0.420	0.621	
17	0.423	0.626	
20	0.448	0.643	
22	0.453	0.647	
24	0.468	0.660	
26	0.469	0.663	
28	0.474	0.673	
30	0.475	0.675	
33	0.484	0.683	
35	0.485	0.683	
37	0.494	0.687	
39	0.495	0.687	
41	0.500	0.694	
43	0.500	0.696	
46	0.502	0.700	
48	0.502	0.701	
50	0.502	0.701	
52	0.502	0.701	

The probabilities of unemployed adults aged 16 to 30 to exit unemployment over a 52 week period, by low (Levels 1 and 2) and medium to high (Levels 3 and 4/5) skills, document scale, 2003

	Levels 1 and 2	Levels 3 and 4/5
Weeks	Probab	bility
0	0.116	0.169
2	0.262	0.391
4	0.292	0.420
7	0.357	0.531
9	0.363	0.546
11	0.404	0.604
13	0.404	0.607
15	0.425	0.643
17	0.428	0.647
20	0.445	0.661
22	0.447	0.661
24	0.451	0.675
26	0.451	0.679
28	0.457	0.686
30	0.454	0.687
33	0.468	0.696
35	0.469	0.698
37	0.475	0.698
39	0.475	0.699
41	0.480	0.704
43	0.481	0.705
46	0.482	0.707
48	0.482	0.705
50	0.482	0.705
52	0.482	0.705

The probabilities of unemployed adults aged 50 to 65 to exit unemployment over a 52 week period, by low (Levels 1 and 2) and medium to high (Levels 3 and 4/5) skills, document scale, 2003

	Levels 1 and 2	Levels 3 and 4/5	
Weeks	Probability		
0	0.113	0.143	
2	0.192	0.313	
4	0.215	0.323	
7	0.273	0.426	
9	0.280	0.450	
11	0.315	0.499	
13	0.322	0.516	
15	0.342	0.532	
17	0.349	0.548	
20	0.367	0.552	
22	0.387	0.553	
24	0.417	0.558	
26	0.419	0.563	
28	0.427	0.568	
30	0.427	0.574	
33	0.435	0.579	
35	0.438	0.587	
37	0.468	0.587	
39	0.470	0.588	
41	0.471	0.613	
43	0.472	0.616	
46	0.477	0.637	
48	0.491	0.639	
50	0.491	0.639	
52	0.491	0.639	

Introduct	ion	
Foreword		3
Introducti	on	15
Over	view of the study	15
Defin	itions of skill	15
Meas	urement of skills	16
Table I.1	Five levels of difficulty for the prose, document and numeracy domains	17
Table I.2	Four levels of difficulty for the problem solving domain	18
Data	collection	18
Organ	nization of the report	19
References		20
Note to Re	eaders	21
Chapter 1	L	
The Why,	What and How of the ALL Survey	23
1.1	Goals of the ALL survey	25
1.2	The conceptual approach to the ALL survey	26
References		28
Chapter 2		
Comparat	ive Profiles of Adult Skills	29
2.1	Overview and highlights	31
2.2	Comparative distributions of adult skills	32
2.3	Changes in skills profiles from IALS to ALL	39
2.4	Adult skills and age	43
2.5	Adult skills and gender	46
References		48
Annex 2	Data Values for the Figures	49
Chapter 3	}	
Education	and Skills	57
3.1	Overview and highlights	59
3.2	The relationship between education and cognitive skills	60
3.3	Skills of upper secondary graduates	64
3.4	Skills of post-secondary graduates	66
References		70
Annex 3	Data Values for the Figures	71
Chapter 4	4	
Skills and	Adult Learning	79
4.1	Overview and highlights	81
4.2	Participation in organised forms of adult education and training	82
4.3	Who is excluded from adult learning opportunities?	84
4.4	Patterns of informal learning	87

4.5	Financial support for adult learning
References	
Annex 4	Data Values for the Figures

Chapter 5		
Skills and th	e Labour Force	105
5.1	Overview and highlights	107
5.2	Competitiveness of labour force populations	108
5.3	Employability of working-age populations	112
5.4	Employability of younger and older working-age populations	116
References		119
Annex 5	Data Values for the Figures	121
Chapter 6		
Skills and th	ne Nature of the Workplace	129
6.1	Overview and highlights	131
6.2	Skills in knowledge economies	132
6.3	The relationship between job tasks and skills	137
6.4	Match and mismatch between job tasks and observed skills	143
References		147
Annex 6	Data Values for the Figures	149
Chapter 7		
Skills and E	conomic Outcomes	163
7.1	Overview and highlights	165
7.2	Earnings returns to skills and education	166
7.3	Skills, social assistance and investment income	171
References		173
Annex 7	Data Values for the Figures	175
Chapter 8		
Skills and Ir	nformation and Communications Technologies	179
8.1	Overview and highlights	181
8.2	Connectivity and income as a key determinant	182
8.3	ICTs and literacy skills	184
8.4	ICT use and familiarity by key demographic characteristics	187
8.5	ICT use and outcomes	193
References		195
Annex 8	Data Values for the Figures	197
Chapter 9		
Skills and Ir	nmigration	203
9.1	Overview and highlights	205
9.2	The significance of immigration in OECD countries	206
9.3	Education credentials and observed skills of immigrants	208
9.4	The relationship between language status and skills	212
9.5	Skills and labour market outcomes of immigrants	213
References		216
Annex 9	Data Values for the Figures	217

Chapter 1	0	
Skills, Pare	ntal Education and Literacy Practice in Daily Life	225
10.1	Overview and highlights	227
10.2	The relationship between parents' education and skills of youth	228
10.3	Comparison of socio-economic gradients for three cohorts of adults	234
10.4	Engagement in literacy practices at home and in daily life	237
References		241
Annex 10	Data Values for the Figures	243
Chapter 1	1	
Skills and H	Iealth	247
11.1	Overview and highlights	249
11.2	Skills and general health status	250
11.3	Skills and work-related health status	256
References		261
Annex 11A	Data Values for the Figures	263
Annex 11E	General and Work Related Health Questions	267
Conclusio	n	
Directions f	for further work	269
Figure C1	The depth of risk	270
Priorities fo	or further analysis	270
Priorities fo	or future adult skill assessments	271
References		272
Data Value	s for the Figures	273
Table C1	Number of adults aged 16 to 65 at Levels 1 and 2 in prose literacy,	
	document literacy and numeracy as a per cent of the total population at Level 1 and 2 in any domain by country, 2003	273
Annex A		
A Construc	ct-Centered approach to Understanding What was Measured	
in the Adul	t Literacy and Life Skills (ALL) Survey	275
Overview		277
Introductio	n	277
Scaling	g the literacy, numeracy and problem solving tasks in ALL	278
Measu	ring prose and document literacy in ALL	280
	Defining prose and document literacy	280
Measu	ring numeracy in ALL	291
	Defining numeracy in ALL	291
Measu	ring problem solving in ALL	302
	Defining problem solving in ALL	302
Conclusion		309
References		311
Annex B		
Adult Liter	acy and Life Skills Survey Survey Methodology	313
Survey	r methodology	315
Assess	ment design	315
Target	population and sample frame	316
Sample	e design	317

Data collection 321 Scoring of tasks 324 Survey response and weighting 326 Annex C Principal Participants in the Project 329 List of Figures 329 Chapter 2 Figure 2.1 Multiple comparisons of skills proficiencies 34 Figure 2.1 Multiple comparisons of skills scores 36 Figure 2.2 Comparative distributions of skills scores 40 Figure 2.3 Changes in distributions of skills scores 40 Figure 2.4 Changes in instributions of skills levels 42 Figure 2.7 Age and adult skills 44 Figure 2.8 Skills-age profiles controlling for educational attainment 45 Figure 3.1 Educational attainment and skills proficiencies 62 Figure 3.1 Educational attainment and skills proficiencies 62 Figure 3.1 Education and training participation rates 83 Figure 4.1 Adult education and training participation rates 83 Figure 4.1 Adult education and training participation rates 83 Figure 4.2 Changes in adult education participation rates 83 <	Sample	size	320
Scoring of tasks 324 Survey response and weighting 326 Annex C Principal Participants in the Project 329 List of Figures 329 Chapter 2 Figure 2.1 Multiple comparisons of skills proficiencies 34 Figure 2.2 Comparative distributions of skills scores 36 Figure 2.3 Comparative distributions of skills levels 37 Figure 2.4 Changes in distributions of skills levels 42 Figure 2.5 Changes in mean scores from IALS to ALL 41 Figure 2.7 Age and adult skills 44 Figure 2.9 Gender differences in skills levels 42 Figure 3.1 Educational attainment and skills proficiencies 62 Figure 3.2 Age, educational attainment and skills proficiencies 63 Figure 3.1 Educational attainment and skills proficiencies 63 Figure 3.1 Likelihood of soring at low skill levels by upper secondary education status 65 Figure 4.1 Adult education and training participation rates 83 Figure 4.2 Changes in adult education participation rates 83 Figure 4.1 Adult education partic	Data collection		321
Survey response and weighting 326 Annex C Principal Participants in the Project 329 List of Figures Chapter 2 Figure 2.1 Multiple comparisons of skills proficiencies 34 Figure 2.2 Comparative distributions of skills scores 36 Figure 2.3 Comparative distributions of skills scores 40 Figure 2.4 Changes in distributions of skills levels 42 Figure 2.7 Age and adult skills 44 Figure 2.8 Skills-age profiles controlling for educational attainment 45 Figure 2.8 Skills ording for educational attainment 45 Figure 3.1 Educational attainment and skills proficiencies 62 Figure 3.2 Age, educational attainment and skills proficiencies 62 Figure 3.1 Educational attainment and skills proficiencies 63 Figure 3.1 Education and training participation rates 83 Figure 4.1 Adult education and training participation rates 83 Figure 4.2 Changes in adult education and training participation rates 83 Figure 4.1 Adult education and training participation rates 83 Figure	Scoring	of tasks	324 326
Annex C Principal Participants in the Project 329 List of Figures	Survey	response and weighting	
Principal Participants in the Project 329 List of Figures Chapter 2 Figure 2.1 Multiple comparisons of skills proficiencies 34 Figure 2.2 Comparative distributions of skills scores 36 Figure 2.3 Comparative distributions of skills scores 40 Figure 2.4 Changes in distributions of skills scores 40 Figure 2.5 Changes in distributions of skills levels 41 Figure 2.6 Changes in distributions of skills levels 42 Figure 2.7 Age and adult skills 44 Figure 2.8 Skills-age profiles controlling for educational attainment 45 Figure 3.1 Educational attainment and skills proficiencies 62 Figure 3.1 Educational attainment and skills proficiencies 62 Figure 3.1 Education and training participation rates 63 Figure 4.1 Adult education and training participation rates 83 Figure 4.1 Adult education and training participation rates 83 Figure 4.2 Changes in adult education participation 85 Figure 4.3 Literacy and adult education participation 86 Figure 4.4 Likelihood of participation in active modes of informal learning 88 Figure 4.5 C	Annex C		
List of Figures Chapter 2 Figure 2.1 Multiple comparisons of skills proficiencies 34 Figure 2.2 Comparative distributions of skills scores 36 Figure 2.3 Comparative distributions of skills scores 37 Figure 2.4 Changes in distributions of skills scores 40 Figure 2.5 Changes in mean scores from IALS to ALL 41 Figure 2.6 Changes in mean scores from IALS to ALL 44 Figure 2.7 Age and adult skills 44 Figure 2.8 Skills-age profiles controlling for educational attainment 45 Figure 3.1 Educational attainment and skills proficiencies 62 Figure 3.2 Age, educational attainment and skills proficiencies 63 Figure 3.3 Likelihood of scoring at low skill levels by upper secondary education status 65 Figure 4.1 Adult education and training participation rates 83 Figure 4.2 Changes in adult education and training participation rates 83 Figure 4.1 Adult education and training participation rates 83 Figure 4.2 Changes in participation rates by literacy levels 86 Figure 4.3 Liter	Principal Pa	rticipants in the Project	329
Chapter 2 Figure 2.1 Multiple comparisons of skills proficiencies 34 Figure 2.2 Comparative distributions of skills scores 36 Figure 2.3 Comparative distributions of skills scores 37 Figure 2.4 Changes in distributions of skills scores 40 Figure 2.5 Changes in distributions of skills levels 42 Figure 2.6 Changes in distributions of skills levels 42 Figure 2.7 Age and adult skills 44 Figure 2.8 Skills-age profiles controlling for educational attainment 45 Figure 2.9 Gender differences in skills 47 Chapter 3 Educational attainment and skills proficiencies 62 Figure 3.1 Educational attainment and skills proficiencies 62 Figure 3.3 Likelihood of scoring at low skill levels by upper secondary education status 65 Figure 4.1 Adult education and training participation rates 83 Figure 4.2 Changes in adult education participation rates 83 Figure 4.5 Changes in participation rates by literacy levels 86 Figure 4.6 Engagement in informal learning pricipation rates by literacy levels 86 <td>List of Fi</td> <td>gures</td> <td></td>	List of Fi	gures	
Figure 2.1Multiple comparisons of skills proficiencies34Figure 2.2Comparative distributions of skills scores36Figure 2.3Comparative distributions of skills levels37Figure 2.4Changes in distributions of skills scores40Figure 2.5Changes in mean scores from IALS to ALL41Figure 2.6Changes in distributions of skills levels42Figure 2.7Age and adult skills44Figure 2.8Skills-age profiles controlling for educational attainment45Figure 3.1Educational attainment and skills proficiencies62Figure 3.1Educational attainment and skills proficiencies63Figure 3.2Age, educational attainment and skills proficiencies63Figure 3.3Likelihood of scoring at low skill levels by upper secondary education status65Figure 4.1Adult education and training participation rates83Figure 4.2Changes in adult education participation rates83Figure 4.3Literacy and adult education participation85Figure 4.4Likelihood of participation rates by literacy levels86Figure 4.5Changes in participation rates by literacy levels86Figure 4.6Engagement in informal learning88Figure 4.7Informal learning by level of education89Figure 4.8Likelihood of participation in active modes of informal learning by literacy levels92Figure 5.1Skills among labour force populations in the top 25 per cent109Figure 5.2Sk	Chapter 2		
Figure 2.2Comparative distributions of skills scores36Figure 2.3Comparative distributions of skills levels37Figure 2.4Changes in distributions of skills levels40Figure 2.5Changes in mean scores from IALS to ALL41Figure 2.6Changes in distributions of skills levels42Figure 2.7Age and adult skills44Figure 2.8Skills-age profiles controlling for educational attainment45Figure 2.9Gender differences in skills47Chapter 3Educational attainment and skills proficiencies62Figure 3.1Educational attainment and skills proficiencies62Figure 3.4Skills of post-secondary graduates68Chapter 4Figure 4.1Adult education and training participation rates83Figure 4.3Literacy and adult education participation rates83Figure 4.4Likelihood of participation velocition85Figure 4.5Changes in active poly literacy levels86Figure 4.6Engagement in informal learning by literacy levels89Figure 4.7Informal learning by level of education89Figure 4.8Likelihood of participation in active modes of informal learning by literacy levels89Figure 5.1Skills among labour force populations in the top 25 per cent109Figure 5.2Skills among labour force populations in the bottom 25 per cent111Figure 5.4Likelihood of experiencing unemployment by skills levels113Figure 5.5Probability o	Figure 2.1	Multiple comparisons of skills proficiencies	34
Figure 2.3Comparative distributions of skills levels37Figure 2.4Changes in distributions of skills scores40Figure 2.5Changes in mean scores from IALS to ALL41Figure 2.6Changes in distributions of skills levels42Figure 2.7Age and adult skills44Figure 2.8Skills-age profiles controlling for educational attainment45Figure 2.9Gender differences in skills47Chapter 3Figure 3.1Educational attainment and skills proficiencies62Figure 3.1Educational attainment and skills proficienciesFigure 3.1Educational attainment and skills proficienciesFigure 3.1Education attaining participation ratesFigure 4.1Adult education and training participation ratesFigure 4.1Adult education participation ratesFigure 4.2Changes in participation rates by literacy levelsFigure 4.3Literacy and adult education participation ratesFigure 4.4Education and training participation ratesFigure 4.7Informal learningFigure 4.7Informal learning <tr< td=""><td>Figure 2.2</td><td>Comparative distributions of skills scores</td><td>36</td></tr<>	Figure 2.2	Comparative distributions of skills scores	36
Figure 2.4 Changes in distributions of skills scores 40 Figure 2.5 Changes in mean scores from IALS to ALL 41 Figure 2.6 Changes in distributions of skills levels 42 Figure 2.7 Age and adult skills 44 Figure 2.8 Skills-age profiles controlling for educational attainment 45 Figure 2.9 Gender differences in skills 47 Chapter 3 Educational attainment and skills proficiencies 62 Figure 3.1 Educational attainment and skills proficiencies 63 Figure 3.3 Likelihood of scoring at low skill levels by upper secondary education status 65 Figure 4.1 Adult education and training participation rates 83 Figure 4.2 Changes in adult education participation rates 83 Figure 4.3 Literacy and adult education participation rates 86 Figure 4.4 Likelihood of participation rates by literacy levels 86 Figure 4.5 Changes in participation rates by literacy levels 86 Figure 4.6 Engagement in informal learning 88 Figure 4.7 Informal learning by level of education 89 Figure 4.8 Likelihood of p	Figure 2.3	Comparative distributions of skills levels	37
Figure 2.5Changes in mean scores from IALS to ALL41Figure 2.6Changes in distributions of skills levels42Figure 2.7Age and adult skills44Figure 2.8Skills-age profiles controlling for educational attainment45Figure 2.9Gender differences in skills47Chapter 3Chapter 3Figure 3.1Educational attainment and skills proficiencies62Figure 3.2Age, educational attainment and skills proficiencies63Figure 3.4Skills of post-secondary graduatesChapter 4Figure 4.1Adult education and training participation ratesR3Figure 4.1Adult education and training participation ratesFigure 4.2Changes in adult education participationFigure 4.1Adult education participationFigure 4.2Changes in participation rates by literacy levelsFigure 4.4Likelihood of participation in active modes of informal learningFigure 4.5Changes in participation in active modes of informal learningby literacy levelsFigure 4.9Sources of financial support for adult education and training91Figure 4.1Skills among labour force populations in the top 25 per cent109Figure 4.1Skills among labour force populations in the bottom 25 per cent <td>Figure 2.4</td> <td>Changes in distributions of skills scores</td> <td>40</td>	Figure 2.4	Changes in distributions of skills scores	40
Figure 2.6Changes in distributions of skills levels42Figure 2.7Age and adult skills44Figure 2.8Skills-age profiles controlling for educational attainment45Figure 2.9Gender differences in skills47Chapter 3Figure 3.1Educational attainment and skills proficiencies62Figure 3.2Age, educational attainment and skills proficiencies63Figure 3.3Likelihood of scoring at low skill levels by upper secondary education status65Figure 3.4Skills of post-secondary graduates68Chapter 4Figure 4.1Adult education and training participation ratesR3Figure 4.2Changes in adult education participationR4Likelihood of participation by literacy levelsR6Figure 4.2Changes in participation by literacy levelsR6Figure 4.2Changes in participation participationR6Figure 4.2Changes in participation participationFigure 4.5Changes in participation participationFigure 4.1Adult education and trainingFigure 4.2Changes in participation in active modes of informal learningFigure 4.5Changes in participation in active modes of informal learningby literacy levelsFigure 4.1Informal learning by level of ducation and train	Figure 2.5	Changes in mean scores from IALS to ALL	41
Figure 2.7Age and adult skills44Figure 2.8Skills-age profiles controlling for educational attainment45Figure 2.9Gender differences in skills47Chapter 3Figure 3.1Educational attainment and skills proficiencies62Figure 3.2Age, educational attainment and skills proficiencies63Figure 3.3Likelihood of scoring at low skill levels by upper secondary education status65Figure 3.4Skills of post-secondary graduates68Chapter 4Figure 4.1Adult education and training participation ratesR3Figure 4.1Adult education and training participation ratesFigure 4.2Changes in adult education participationStigure 4.3Literacy and adult education participationFigure 4.4Likelihood of participation ty literacy levelsR6Figure 4.5Changes in participation rates by literacy levelsStigure 4.6Engagement in informal learningFigure 4.7Informal learning by level of educationFigure 4.8Likelihood of participation in active modes of informal learning by literacy levelsFigure 4.9Sources of financial support for adult education and trainingFigure 4.1Skills among labour force populations in the top 25 per centFigure 5.1Skills among labour force populations in the bottom 25 per centFigure 5	Figure 2.6	Changes in distributions of skills levels	42
Figure 2.8Skills-age profiles controlling for educational attainment45Figure 2.9Gender differences in skills47Chapter 3Figure 3.1Educational attainment and skills proficiencies62Figure 3.2Age, educational attainment and skills proficiencies63Figure 3.3Likelihood of scoring at low skill levels by upper secondary education status65Figure 3.4Skills of post-secondary graduates68Chapter 4Figure 4.1Adult education and training participation rates83Figure 4.2Changes in adult education participation85Figure 4.3Literacy and adult education participation86Figure 4.4Likelihood of participation tates by literacy levels86Figure 4.5Changes in participation rates by literacy levels86Figure 4.6Engagement in informal learning88Figure 4.7Informal learning by level of education89Figure 4.8Likelihood of participation in active modes of informal learning by literacy levels89Figure 5.1Skills among labour force populations in the top 25 per cent109Figure 5.2Skills among labour force populations in the bottom 25 per cent119Figure 5.3Likelihood of experiencing unemployment by skills levels113Figure 5.4Likelihood of experiencing unemployment by skills levels114Figure 5.5Probability of younger workers exiting unemployment by skills levels116Figure 5.7Probability of older workers exiting unemployment by skills levels	Figure 2.7	Age and adult skills	44
Figure 2.9Gender differences in skills47Chapter 3Figure 3.1Educational attainment and skills proficiencies62Figure 3.2Age, educational attainment and skills proficiencies63Figure 3.3Likelihood of scoring at low skill levels by upper secondary education status65Figure 3.4Skills of post-secondary graduates68Chapter 4Figure 4.1Adult education and training participation rates83Figure 4.2Changes in adult education participation rates83Figure 4.3Literacy and adult education participation85Figure 4.4Likelihood of participation rates by literacy levels86Figure 4.5Changes in participation rates by literacy levels86Figure 4.6Engagement in informal learning88Figure 4.7Informal learning by level of education89Figure 4.8Likelihood of participation in active modes of informal learning by literacy levels89Figure 5.1Skills among labour force populations in the top 25 per cent109Figure 5.2Skills among labour force populations in the top 25 per cent109Figure 5.3Likelihood of parce inactivity by skills levels113Figure 5.4Likelihood of experiencing unemployment by skills levels114Figure 5.5Probability of exiting unemployment by skills levels114Figure 5.6Probability of jounger workers exiting unemployment by skills levels116Figure 5.7Probability of older workers exiting unemployment by skills levels116 <td>Figure 2.8</td> <td>Skills-age profiles controlling for educational attainment</td> <td>45</td>	Figure 2.8	Skills-age profiles controlling for educational attainment	45
Chapter 3Figure 3.1Educational attainment and skills proficiencies62Figure 3.2Age, educational attainment and skills proficiencies63Figure 3.3Likelihood of scoring at low skill levels by upper secondary education status65Figure 3.4Skills of post-secondary graduates68Chapter 4Figure 4.1Adult education and training participation rates83Figure 4.2Changes in adult education and training participation rates83Figure 4.3Literacy and adult education participation85Figure 4.4Likelihood of participation by literacy levels86Figure 4.5Changes in participation rates by literacy levels86Figure 4.6Engagement in informal learning88Figure 4.7Informal learning by level of education89Figure 4.8Likelihood of participation in active modes of informal learning by literacy levels89Figure 4.9Sources of financial support for adult education and training91Figure 5.1Skills among labour force populations in the top 25 per cent109Figure 5.2Skills among labour force populations in the bottom 25 per cent111Figure 5.4Likelihood of experiencing unemployment by skills levels113Figure 5.5Probability of exiting unemployment by skills levels114Figure 5.6Probability of older workers exiting unemployment by skills levels116Figure 5.7Probability of older workers exiting unemployment by skills levels116	Figure 2.9	Gender differences in skills	47
Figure 3.1Educational attainment and skills proficiencies62Figure 3.2Age, educational attainment and skills proficiencies63Figure 3.3Likelihood of scoring at low skill levels by upper secondary education status65Figure 3.4Skills of post-secondary graduates68Chapter 4Figure 4.1Adult education and training participation rates83Figure 4.2Changes in adult education participation85Figure 4.3Literacy and adult education participation85Figure 4.4Likelihood of participation rates by literacy levels86Figure 4.5Changes in participation rates by literacy levels86Figure 4.7Informal learning by level of education89Figure 4.8Likelihood of participation in active modes of informal learning by literacy levels89Figure 4.9Sources of financial support for adult education and training91Figure 5.1Skills among labour force populations in the top 25 per cent109Figure 5.2Skills among labour force populations in the bottom 25 per cent111Figure 5.4Likelihood of experiencing unemployment by skills levels113Figure 5.5Probability of exiting unemployment by skills levels114Figure 5.6Probability of older workers exiting unemployment by skills levels116Figure 5.7Probability of older workers exiting unemployment by skills levels116	Chapter 3		
Figure 3.2Age, educational attainment and skills proficiencies63Figure 3.3Likelihood of scoring at low skill levels by upper secondary education status65Figure 3.4Skills of post-secondary graduates68Chapter 4Figure 4.1Adult education and training participation rates83Figure 4.2Changes in adult education participation rates83Figure 4.3Literacy and adult education participation85Figure 4.4Likelihood of participation rates by literacy levels86Figure 4.5Changes in participation rates by literacy levels86Figure 4.6Engagement in informal learning88Figure 4.7Informal learning by level of education89Figure 4.8Likelihood of participation in active modes of informal learning by literacy levels89Figure 4.10Sources of financial support for adult education and training91Figure 5.1Skills among labour force populations in the top 25 per cent109Figure 5.2Skills among labour force populations in the bottom 25 per cent111Figure 5.4Likelihood of abour force inactivity by skills levels113Figure 5.5Probability of exiting unemployment by skills levels114Figure 5.6Probability of older workers exiting unemployment by skills levels116Figure 5.7Probability of older workers exiting unemployment by skills levels116	Figure 3.1	Educational attainment and skills proficiencies	62
Figure 3.3Likelihood of scoring at low skill levels by upper secondary education status65Figure 3.4Skills of post-secondary graduates68Chapter 4Figure 4.1Adult education and training participation rates83Figure 4.2Changes in adult education and training participation rates83Figure 4.3Literacy and adult education participation85Figure 4.4Likelihood of participation by literacy levels86Figure 4.5Changes in participation rates by literacy levels86Figure 4.6Engagement in informal learning88Figure 4.7Informal learning by level of education89Figure 4.8Likelihood of participation in active modes of informal learning by literacy levels89Figure 4.9Sources of financial support for adult education and training91Figure 5.1Skills among labour force populations in the top 25 per cent109Figure 5.2Skills among labour force populations in the bottom 25 per cent111Figure 5.4Likelihood of experiencing unemployment by skills levels113Figure 5.5Probability of exiting unemployment by skills levels114Figure 5.6Probability of sving unemployment by skills levels116Figure 5.7Probability of older workers exiting unemployment by skills levels116	Figure 3.2	Age, educational attainment and skills proficiencies	63
Figure 3.4Skills of post-secondary graduates68Chapter 4Figure 4.1Adult education and training participation rates83Figure 4.2Changes in adult education participation rates83Figure 4.3Literacy and adult education participation85Figure 4.4Likelihood of participation by literacy levels86Figure 4.5Changes in participation rates by literacy levels86Figure 4.6Engagement in informal learning88Figure 4.7Informal learning by level of education89Figure 4.8Likelihood of participation in active modes of informal learning by literacy levels89Figure 4.9Sources of financial support for adult education and training by literacy levels92Figure 4.11Employer sponsored training by level of practice engagement93Chapter 5Figure 5.1Skills among labour force populations in the top 25 per cent109Figure 5.3Likelihood of labour force inactivity by skills levels113Figure 5.4Likelihood of experiencing unemployment by skills levels114Figure 5.5Probability of exiting unemployment by skills levels115Figure 5.6Probability of younger workers exiting unemployment by skills levels116Figure 5.7Probability of older workers exiting unemployment by skills levels117	Figure 3.3	Likelihood of scoring at low skill levels by upper secondary education status	65
Chapter 4Figure 4.1Adult education and training participation rates83Figure 4.2Changes in adult education and training participation rates83Figure 4.3Literacy and adult education participation85Figure 4.4Likelihood of participation by literacy levels86Figure 4.5Changes in participation rates by literacy levels86Figure 4.6Engagement in informal learning88Figure 4.7Informal learning by level of education89Figure 4.8Likelihood of participation in active modes of informal learning by literacy levels89Figure 4.9Sources of financial support for adult education and training by literacy levels91Figure 4.10Sources of financing by document literacy levels92Figure 5.1Skills among labour force populations in the top 25 per cent109Figure 5.2Skills among labour force populations in the bottom 25 per cent111Figure 5.3Likelihood of experiencing unemployment by skills levels113Figure 5.4Likelihood of experiencing unemployment by skills levels114Figure 5.5Probability of exiting unemployment by skills levels115Figure 5.7Probability of older workers exiting unemployment by skills levels116Figure 5.7Probability of older workers exiting unemployment by skills levels117	Figure 3.4	Skills of post-secondary graduates	68
Figure 4.1Adult education and training participation rates83Figure 4.2Changes in adult education and training participation rates83Figure 4.3Literacy and adult education participation85Figure 4.4Likelihood of participation by literacy levels86Figure 4.5Changes in participation rates by literacy levels86Figure 4.6Engagement in informal learning88Figure 4.7Informal learning by level of education89Figure 4.8Likelihood of participation in active modes of informal learning by literacy levels89Figure 4.9Sources of financial support for adult education and training91Figure 4.10Sources of financing by document literacy levels92Figure 5.1Skills among labour force populations in the top 25 per cent109Figure 5.2Skills among labour force populations in the bottom 25 per cent111Figure 5.3Likelihood of experiencing unemployment by skills levels113Figure 5.5Probability of exiting unemployment by skills levels115Figure 5.6Probability of older workers exiting unemployment by skills levels116Figure 5.7Probability of older workers exiting unemployment by skills levels117	Chapter 4		
Figure 4.2Changes in adult education and training participation rates83Figure 4.3Literacy and adult education participation85Figure 4.3Literacy and adult education participation86Figure 4.4Likelihood of participation rates by literacy levels86Figure 4.5Changes in participation rates by literacy levels86Figure 4.6Engagement in informal learning88Figure 4.7Informal learning by level of education89Figure 4.8Likelihood of participation in active modes of informal learning by literacy levels89Figure 4.9Sources of financial support for adult education and training91Figure 4.10Sources of financing by document literacy levels92Figure 5.1Skills among labour force populations in the top 25 per cent109Figure 5.2Skills among labour force populations in the bottom 25 per cent111Figure 5.3Likelihood of experiencing unemployment by skills levels113Figure 5.4Likelihood of experiencing unemployment by skills levels114Figure 5.5Probability of exiting unemployment by skills levels115Figure 5.6Probability of older workers exiting unemployment by skills levels116Figure 5.7Probability of older workers exiting unemployment by skills levels117	Figure 4.1	Adult education and training participation rates	83
Figure 4.3Literacy and adult education participation85Figure 4.4Likelihood of participation by literacy levels86Figure 4.5Changes in participation rates by literacy levels86Figure 4.6Engagement in informal learning88Figure 4.7Informal learning by level of education89Figure 4.8Likelihood of participation in active modes of informal learning by literacy levels89Figure 4.9Sources of financial support for adult education and training91Figure 4.10Sources of financing by document literacy levels92Figure 4.11Employer sponsored training by level of practice engagement93Chapter 5Figure 5.1Skills among labour force populations in the top 25 per cent109Figure 5.2Skills among labour force inactivity by skills levels113Figure 5.4Likelihood of experiencing unemployment by skills levels114Figure 5.5Probability of exiting unemployment by skills levels115Figure 5.6Probability of odder workers exiting unemployment by skills levels116Figure 5.7Probability of odder workers exiting unemployment by skills levels117	Figure 4.2	Changes in adult education and training participation rates	83
Figure 4.4Likelihood of participation by literacy levels86Figure 4.5Changes in participation rates by literacy levels86Figure 4.6Engagement in informal learning88Figure 4.7Informal learning by level of education89Figure 4.8Likelihood of participation in active modes of informal learning by literacy levels89Figure 4.9Sources of financial support for adult education and training91Figure 4.10Sources of financing by document literacy levels92Figure 4.11Employer sponsored training by level of practice engagement93Chapter 5Figure 5.1Skills among labour force populations in the top 25 per cent109Figure 5.2Skills among labour force inactivity by skills levels113Figure 5.4Likelihood of experiencing unemployment by skills levels114Figure 5.5Probability of exiting unemployment by skills levels115Figure 5.6Probability of older workers exiting unemployment by skills levels116Figure 5.7Probability of older workers exiting unemployment by skills levels117	Figure 4.3	Literacy and adult education participation	85
Figure 4.5Changes in participation rates by literacy levels86Figure 4.6Engagement in informal learning88Figure 4.7Informal learning by level of education89Figure 4.8Likelihood of participation in active modes of informal learning by literacy levels89Figure 4.9Sources of financial support for adult education and training91Figure 4.10Sources of financing by document literacy levels92Figure 4.11Employer sponsored training by level of practice engagement93Chapter 57Skills among labour force populations in the top 25 per cent109Figure 5.1Skills among labour force populations in the bottom 25 per cent111Figure 5.3Likelihood of abour force inactivity by skills levels113Figure 5.4Likelihood of experiencing unemployment by skills levels114Figure 5.5Probability of exiting unemployment by skills levels116Figure 5.7Probability of older workers exiting unemployment by skills levels117	Figure 4.4	Likelihood of participation by literacy levels	86
Figure 4.6Engagement in informal learning88Figure 4.7Informal learning by level of education89Figure 4.8Likelihood of participation in active modes of informal learning by literacy levels89Figure 4.9Sources of financial support for adult education and training91Figure 4.10Sources of financing by document literacy levels92Figure 4.11Employer sponsored training by level of practice engagement93Chapter 5Figure 5.1Skills among labour force populations in the top 25 per cent109Figure 5.2Skills among labour force populations in the bottom 25 per cent111Figure 5.3Likelihood of experiencing unemployment by skills levels113Figure 5.4Likelihood of experiencing unemployment by skills levels115Figure 5.5Probability of exiting unemployment by skills levels116Figure 5.7Probability of older workers exiting unemployment by skills levels117	Figure 4.5	Changes in participation rates by literacy levels	86
Figure 4.7Informal learning by level of education89Figure 4.8Likelihood of participation in active modes of informal learning by literacy levels89Figure 4.9Sources of financial support for adult education and training91Figure 4.10Sources of financing by document literacy levels92Figure 4.11Employer sponsored training by level of practice engagement93Chapter 5Figure 5.1Skills among labour force populations in the top 25 per cent109Figure 5.2Skills among labour force populations in the bottom 25 per cent111Figure 5.3Likelihood of labour force inactivity by skills levels113Figure 5.4Likelihood of experiencing unemployment by skills levels114Figure 5.5Probability of exiting unemployment by skills levels115Figure 5.6Probability of older workers exiting unemployment by skills levels116	Figure 4.6	Engagement in informal learning	88
Figure 4.8Likelihood of participation in active modes of informal learning by literacy levels89Figure 4.9Sources of financial support for adult education and training91Figure 4.10Sources of financing by document literacy levels92Figure 4.11Employer sponsored training by level of practice engagement93Chapter 5Figure 5.1Skills among labour force populations in the top 25 per cent109Figure 5.2Skills among labour force populations in the bottom 25 per cent111Figure 5.3Likelihood of labour force inactivity by skills levels113Figure 5.4Likelihood of experiencing unemployment by skills levels114Figure 5.5Probability of exiting unemployment by skills levels116Figure 5.6Probability of older workers exiting unemployment by skills levels117	Figure 4.7	Informal learning by level of education	89
Figure 4.9Sources of financial support for adult education and training91Figure 4.10Sources of financing by document literacy levels92Figure 4.11Employer sponsored training by level of practice engagement93Chapter 5Figure 5.1Skills among labour force populations in the top 25 per cent109Figure 5.2Skills among labour force populations in the bottom 25 per cent111Figure 5.3Likelihood of labour force inactivity by skills levels113Figure 5.4Likelihood of experiencing unemployment by skills levels114Figure 5.5Probability of exiting unemployment by skills levels115Figure 5.6Probability of younger workers exiting unemployment by skills levels116Figure 5.7Probability of older workers exiting unemployment by skills levels117	Figure 4.8	Likelihood of participation in active modes of informal learning by literacy levels	89
Figure 4.10Sources of financing by document literacy levels92Figure 4.11Employer sponsored training by level of practice engagement93Chapter 5Skills among labour force populations in the top 25 per cent109Figure 5.2Skills among labour force populations in the bottom 25 per cent111Figure 5.3Likelihood of labour force inactivity by skills levels113Figure 5.4Likelihood of experiencing unemployment by skills levels114Figure 5.5Probability of exiting unemployment by skills levels115Figure 5.6Probability of younger workers exiting unemployment by skills levels116Figure 5.7Probability of older workers exiting unemployment by skills levels117	Figure 4.9	Sources of financial support for adult education and training	91
Figure 4.11Employer sponsored training by level of practice engagement93Chapter 5Figure 5.1Skills among labour force populations in the top 25 per cent109Figure 5.2Skills among labour force populations in the bottom 25 per cent111Figure 5.3Likelihood of labour force inactivity by skills levels113Figure 5.4Likelihood of experiencing unemployment by skills levels114Figure 5.5Probability of exiting unemployment by skills levels115Figure 5.6Probability of younger workers exiting unemployment by skills levels116Figure 5.7Probability of older workers exiting unemployment by skills levels117	Figure 4.10	Sources of financing by document literacy levels	92
Chapter 5Figure 5.1Skills among labour force populations in the top 25 per cent109Figure 5.2Skills among labour force populations in the bottom 25 per cent111Figure 5.3Likelihood of labour force inactivity by skills levels113Figure 5.4Likelihood of experiencing unemployment by skills levels114Figure 5.5Probability of exiting unemployment by skills levels115Figure 5.6Probability of younger workers exiting unemployment by skills levels116Figure 5.7Probability of older workers exiting unemployment by skills levels117	Figure 4.11	Employer sponsored training by level of practice engagement	93
Figure 5.1Skills among labour force populations in the top 25 per cent109Figure 5.2Skills among labour force populations in the bottom 25 per cent111Figure 5.3Likelihood of labour force inactivity by skills levels113Figure 5.4Likelihood of experiencing unemployment by skills levels114Figure 5.5Probability of exiting unemployment by skills levels115Figure 5.6Probability of younger workers exiting unemployment by skills levels116Figure 5.7Probability of older workers exiting unemployment by skills levels117	Chapter 5		
Figure 5.2Skills among labour force populations in the bottom 25 per cent111Figure 5.3Likelihood of labour force inactivity by skills levels113Figure 5.4Likelihood of experiencing unemployment by skills levels114Figure 5.5Probability of exiting unemployment by skills levels115Figure 5.6Probability of younger workers exiting unemployment by skills levels116Figure 5.7Probability of older workers exiting unemployment by skills levels117	Figure 5.1	Skills among labour force populations in the top 25 per cent	109
Figure 5.3Likelihood of labour force inactivity by skills levels113Figure 5.4Likelihood of experiencing unemployment by skills levels114Figure 5.5Probability of exiting unemployment by skills levels115Figure 5.6Probability of younger workers exiting unemployment by skills levels116Figure 5.7Probability of older workers exiting unemployment by skills levels117	Figure 5.2	Skills among labour force populations in the bottom 25 per cent	111
Figure 5.4Likelihood of experiencing unemployment by skills levels114Figure 5.5Probability of exiting unemployment by skills levels115Figure 5.6Probability of younger workers exiting unemployment by skills levels116Figure 5.7Probability of older workers exiting unemployment by skills levels117	Figure 5.3	Likelihood of labour force inactivity by skills levels	113
Figure 5.5Probability of exiting unemployment by skills levels115Figure 5.6Probability of younger workers exiting unemployment by skills levels116Figure 5.7Probability of older workers exiting unemployment by skills levels117	Figure 5.4	Likelihood of experiencing unemployment by skills levels	114
Figure 5.6Probability of younger workers exiting unemployment by skills levels116Figure 5.7Probability of older workers exiting unemployment by skills levels117	Figure 5.5	Probability of exiting unemployment by skills levels	115
Figure 5.7Probability of older workers exiting unemployment by skills levels117	Figure 5.6	Probability of younger workers exiting unemployment by skills levels	116
	Figure 5.7	Probability of older workers exiting unemployment by skills levels	117

Chapter 6

Figure 6.1	Knowledge- and technology-based industry classification by skills	134
Figure 6.2 Knowledge-based occupational classification by skills		136
Figure 6.3	Practice engagement at work by skills levels	139
Figure 6.4	Practice engagement at work and skills, controlling for education	140
Figure 6.5	Practice engagement at work by occupational types	142
Figure 6.6	"Match" and "mismatch" between individual skills and practice	
0	engagement in the workplace	145
Chapter 7		
Figure 7.1	Returns to skills and education	168
Figure 7.2	Earnings premiums associated with occupational types	170
Figure 7.3	Likelihood of low-skilled adults collecting social assistance payments	171
Figure 7.4	Likelihood of medium to high-skilled adults earning investment income	172
Chapter 8		
Figure 8.1	Home computer and internet access at home	183
Figure 8.2	Home computer access by income quartiles	184
Figure 8.3	Skills of computer users and non-users	185
Figure 8.4	Index scores of ICT use and familiarity	185
Figure 8.5	Use of computers for task-oriented purposes by literacy skills	186
Figure 8.6	Use of computers for task-oriented purposes by age groups	188
Figure 8.7	Use of computers for task-oriented purposes by gender	189
Figure 8.8	Use of computers for task-oriented purposes by educational attainment	190
Figure 8.9	Use of computers for task-oriented purposes by type of occupation	191
Figure 8.10	Likelihood of being a high-intensity computer user by literacy skill levels	192
Figure 8.11	Combined literacy and computer use profiles	194
Figure 8.12	Likelihood of being a top income quartile earner by combined skill and user profiles	194
Chapter 9		
Figure 9.1	Natural population growth in OECD countries	207
Figure 9.2	Per cent of foreign-born in population and in labour force	
0	for OECD countries participating in ALL, 2001	208
Figure 9.3	Recent versus established immigrant status by educational attainment	209
Figure 9.4	Recent versus established immigrant status by skill level	210
Figure 9.5	Native versus foreign language status of immigrants by skill level	213
Figure 9.6	Likelihood of being unemployed among native-born and foreign-born by skill level	214
Figure 9.7	Likelihood of earning low income among native-born and	
	toreign-born by skill level	215
Chapter 10		
Figure 10.1	Socio-economic gradients of youth	230
Figure 10.2	Changes in socio-economic gradients of youth from IALS to ALL	233
Figure 10.3 Socio-economic gradients for three cohorts of adults		235
Figure 10.4 Literacy skills and literacy practices at home and in daily life		239

Chapter 11

Classification of general health status	252
General health status by country	254
Skills and general health status by key demographic variables	255
Classification of work-related health status	257
Work-related health status by country	259
Skills and work-related health status by key demographic variables	260
	Classification of general health status General health status by country Skills and general health status by key demographic variables Classification of work-related health status Work-related health status by country Skills and work-related health status by key demographic variables

List of Tables

Chapter 2

Table 2.1	Comparisons of countries based on average scores, populations aged 16 to 65, 2003	34
Table 2.2	Mean scores with .95 confidence interval and scores at the 5th, 25th, 75th and 95th percentiles on skills scales ranging from 0 to 500 points, populations aged 16 to 65, 2003	49
Table 2.3	Per cent of populations aged 16 to 65 at each skills level, 2003	50
Table 2.4	Mean scores with .95 confidence interval and scores at the 5th, 25th, 75th and 95th percentiles on skills scales ranging from 0 to 500 points, populations aged 16 to 65, IALS 1994/1998 and ALL 2003	51
Table 2.5	Summary of changes in mean scores from IALS to ALL, by statistical significance at the five per cent level, populations aged 16 to 65, IALS 1994/1998 and ALL 2003	41
Table 2.6	Differences between IALS 1994/1998 and ALL 2003 in the per cent of adults aged 16 to 65 at each skills level	52
Table 2.7A	Mean scores with .95 confidence interval and scores at the 5th, 25th, 75th, and 95th percentiles on the document scale, population aged 16 to 25, 26 to 45 and 46 to 65, 2003	52
Table 2.7B	Per cent of populations aged 16 to 25, 26 to 45 and 46 to 65 at each level on the document scale, 2003	53
Table 2.8	Relationship between age and literacy scores on the document literacy scale, with adjustment for level education and language status, populations aged 16 to 65, 2003	53
Table 2.9	Mean skills proficiencies between men and women on the prose, document, numeracy and problem solving scales, 2003	55

Chapter 3

Table 3.1A	Mean numeracy scores on a scale with range 0 to 500 points, by level of	
	educational attainment, populations aged 16 to 65, 2003	71
Table 3.1B	Mean problem solving scores on a scale with range 0 to 500 points, by level of educational attainment, populations aged 16 to 65, 2003	72
Table 3.2A	Mean combined prose and document scores on a scale with range 0 to 500 points, by level of educational attainment, populations aged 26 to 35, 2003	73
Table 3.2B	Mean combined prose and document scores on a scale with range 0 to 500 points, by level of educational attainment, populations aged 56 to 65, 2003	74
Table 3.3A	Odds of scoring at Levels 1 or 2 on the problem solving scale by upper secondary education status, adjusted for age and native language status, persons aged 16 to 30, 2003	75
Table 3.3B	Odds of scoring at Levels 1 or 2 on the numeracy scale by upper secondary education status, adjusted for age and native language status, persons aged 16 to 30, 2003	75
Table 3.4	ALL skills-education profiles for persons aged 16 to 35 who have completed at least upper secondary education, adjusted for age and native language status, problem solving scale (United States on combined prose	
	and document scale), 2003	76

Chapter 4

Table 4.1	ble 4.1 Per cent of populations aged 16 to 65 receiving adult education and training during the year preceding the interview, by type of participation, 2003	
Table 4.2	'able 4.2Per cent of populations aged 16 to 65 receiving adult education and training during the year preceding the interview, IALS 1994/1998 and ALL 2003	
Table 4.3	Per cent of populations aged 16 to 65 receiving adult education and training during the year preceding the interview, by document literacy levels, 2003	98
Table 4.4	Adjusted odds ratios showing the likelihood of adults aged 16 to 65 receiving adult education and training during the year preceding the interview, by document literacy levels, 2003	98
Table 4.5	Changes in the per cent of adults aged 16 to 65 in adult education and training between IALS 1994/1998 and ALL 2003, by document literacy levels	99
Table 4.6	Per cent of populations aged 16 to 65 participating in informal learning activities during the year preceding the interview, by mode of engagement, 2003	99
Table 4.7	Per cent of populations aged 16 to 65 participating in active modes of informal learning in the year preceding the interview, by education attainment, 2003	100
Table 4.8	Adjusted odds ratios showing the likelihood of adults aged 16 to 65 participating in active modes of informal adult learning during the year preceding the interview, by document literacy levels, 2003	101
Table 4.9	Per cent of men and women participating in adult education and training who receive financial support from various sources, populations aged 16 to 65, 2003	101
Table 4.10	Per cent of participants in adult education and training who received financial support from various sources, by document literacy, populations aged 16 to 65 who worked in the last 12 months, 2003	102
Table 4.11	Adjusted odds ratios showing the likelihood of receiving employer sponsored adult education and training during the year preceding the interview, by combined levels of engagement in reading, writing and numeracy practices at work, populations aged 16 to 65, 2003	103
Chapter 5		
Table 5.1	Score of the 75th percentile on a scale with range 0 to 500 points, labour force populations aged 16 to 25, 26 to 45 and 46 to 65, 2003	121
Table 5.2	Score of the 25th percentile on a scale with range 0 to 500 points, labour force populations aged 16 to 25, 26 to 45 and 46 to 65, 2003	123
Table 5.3	Odds ratios showing the likelihood of experiencing labour force inactivity for 6 months or more in the last 12 months compared to being employed all year, by numeracy levels, populations aged 16 to 65, excluding students and retirees, 2003	124
Table 5.4	Odds ratios showing the likelihood of experiencing unemployment for 6 months or more in the last 12 months compared to being employed all year, by numeracy levels, labour force populations aged 16 to 65, 2003	125
Table 5.5	The probabilities of unemployed adults aged 16 to 65 to exit unemployment over a 52 week period, by low (Levels 1 and 2) and medium to high (Levels 3 and 4/5) skills, document scale, 2003	125
Table 5.6	The probabilities of unemployed adults aged 16 to 30 to exit unemployment over a 52 week period, by low (Levels 1 and 2) and medium to high (Levels 3 and 4/5) skills, document scale, 2003	126
Table 5.7	The probabilities of unemployed adults aged 50 to 65 to exit unemployment over a 52 week period, by low (Levels 1 and 2) and medium to high (Levels 3 and 4/5) skills, document scale, 2003	127

Chapter 6		
Table 6.1	Per cent of labour force populations aged 16 to 65 at document literacy Levels 3 and 4/5, by type of industry, 2003	149
Table 6.2	Per cent of labour force populations aged 16 to 65 at skills Levels 3 and $4/5$ by type of occupation 2003	
Table 6.3	able 6.3 Index scores of reading, writing and numeracy engagement at work on a standardized scale (centred on 2), by skills levels, labour force populations aged 16 to 65, 2003	
Table 6.4	Relationship between combined index scores of reading, writing and numeracy engagement at work on a standardized scale (centred on 2) and skills scores on scales 0 to 500 points, adjusted for years of schooling and native language status, labour force populations aged 16 to 65, 2003	155
Table 6.5	Index scores of reading, writing and numeracy engagement at work on a standardized scale (centred on 2) by aggregated occupational types, labour force populations aged 16 to 65, 2003	159
Table 6.6	Per cent of labour force populations aged 16 to 65 whose skills match or mismatch their level of practice engagement at work, 2003	162
Chapter 7		
Table 7.1	Three stage least squares estimates of the effect of observed skills (percentile scale) on weekly log-earnings, prose, document, numeracy and problem solving scales, labour force populations aged 16 to 65, 2003	175
Table 7.2	Per cent difference of expected weekly earnings for each occupational type relative to "goods related" occupations, labour force populations aged 16 to 65, 2003	177
Table 7.3	Adjusted and unadjusted odds ratios showing the likelihood of low skilled adults (Levels 1 and 2) collecting social assistance payments, numeracy scale, populations aged 16 to 65, 2003	178
Table 7.4	Adjusted and unadjusted odds ratios showing the likelihood of medium to high skilled adults (Levels 3 and 4/5) earning investment income, numeracy scale, populations aged 16 to 65, 2003	178
Chapter 8		
Table 8.1	Per cent of adults aged 16 to 65 who report having access to a computer and the Internet at home, 2003	197
Table 8.2	Per cent of adults aged 16 to 65 who report having access to a computer at home, by household income quartiles, 2003	197
Table 8.3	Mean scores on the prose literacy scale ranging from 0 to 500 points,	
	populations aged 16 to 65, 2003	198
Table 8.4	Mean index scores on three scales of ICT use and familiarity, perceived usefulness and attitude toward computers, diversity and intensity of Internet use, and use of computers for specific task-oriented purposes, populations aged 16 to 65, 2003	198
Table 8.5	Mean index scores on a scale measuring the intensity of use of computers for specific task-oriented purposes, by prose literacy levels, populations aged 16 to 65, 2003	198
Table 8.6	Mean index scores on a scale measuring the intensity of use of computers for specific task-oriented purposes, by age groups, populations aread 16 to 65, 2003	100
Table 8.7	Mean index scores on a scale measuring the intensity of use of computers for specific task-oriented purposes, by gender, populations aged 16 to 65, 2003	199
Table 8.8	Mean index scores on a scale measuring the intensity of use of computers for specific task-oriented purposes, by educational attainment, populations aged 16 to 65, 2003	199
Table 8.9	Mean index scores on a scale measuring the intensity of use of computers	1//
	for specific task-oriented purposes, by type of occupations, populations aged 16 to 65, 2003	200

Table 8.10Adjusted odds ratio showing the likelihood of adults aged 16 to 65 of being high-intensity computer users, by prose literacy levels, 2003		200
Table 8.11	e 8.11 Per cent of adults aged 16 to 65 in each combined literacy and computer use profile, 2003	
Fable 8.12Adjusted odds ratio showing the likelihood of adults aged 16 to 65 of being a top income quartile earning, by combined literacy and computer user profiles, 2003		201
Chapter 9		
Table 9.1	The number of births minus number of deaths from 1950 to 1999 and projections to 2050	217
Table 9.2	Per cent of foreign-born in population and in labour force for OECD countries participating in ALL, 2001	208
Table 9.3	Per cent of populations aged 16 to 65 at each level of educational attainment, by recent vs established immigration status, 2003	218
Table 9.4	Per cent of populations aged 16 to 65 at each skill level, by recent vs established immigrant status, 2003	219
Table 9.5	Per cent of adults aged 16 to 65 at each literacy level on the prose scale, by whether their native tongue is same or different from the official language(s) of host country, 2003	223
Table 9.6	Adjusted odds ratios indicating the likelihood of low skilled (Levels 1 and 2) and medium to high skilled (Levels 3 and 4/5) foreign- born and native-born populations aged 16 to 65 of being unemployed, prose literacy scale, 2003	224
Table 9.7	Adjusted odds ratios indicating the likelihood of low skilled (Levels 1 and 2) and medium to high skilled (Levels 3 and 4/5) foreign-born and native-born populations aged 16 to 65 of being in the lowest personal earnings income quartile, prose literacy scale, 2003	224
Chapter 10)	
Table 10.1	Relationship between respondent's prose literacy scores and parents' education in years, populations aged 16 to 25, 2003	243
Table 10.2	Relationship between respondent's prose literacy scores and parents' education in years, populations aged 16 to 25, IALS 1994/1998	244
Table 10.3	1.3 Relationship between respondent's prose literacy scores and parents' education in years, populations aged 16 to 25, 26 to 45 and 46 to 65, 2003	
Table 10.4	Relationship between prose literacy scores and engagement in literacy practices at home and in daily life, adjusted for respondent's and parents' education, populations aged 16 to 25, 26 to 45 and 46 to 65, 2003	245
Chapter 11		
Table 11.1	Response profiles in the four latent classes based on general health status, populations aged 16 to 65, 2003	263
Table 11.2	Per cent of adults in each of four general health status groups by country, populations aged 16 to 65, 2003	263
Table 11.3	Mean scores on the prose, document and numeracy scales ranging from 0 to 500 points by key demographic variables,	264
Table 11.4	Response profiles in the four latent classes based on work-related	204
Table 11.5	Per cent of adults in each of four work-related health status groups	205
Table 11.6	Mean scores on the prose, document and numeracy scales ranging from 0 to 500 points by key demographic variables,	200
	populations agou 10 to 05, 2005	200

Annex A Table A1	Problem-solving steps and instantiations	305
Annex B		
Table B1	Sample frame and target population exclusions	317
Table B2	Sample size by assessment language	321
Table B3	Survey collection period	322
Table B4	Interviewer information	323
Table B5	Scoring – percent reliability by domain	325
Table B6	Scoring operations summary	325
Table B7	Benchmark variables by country	327
Table B8	Sample size and response rate summary	327



From: Learning a Living First Results of the Adult Literacy and Life Skills Survey

Access the complete publication at: https://doi.org/10.1787/9789264010390-en

Please cite this chapter as:

OECD/Statistics Canada (2005), "Skills and the Labour Force", in *Learning a Living: First Results of the Adult Literacy and Life Skills Survey*, OECD Publishing, Paris.

DOI: https://doi.org/10.1787/9789264010390-7-en

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to rights@oecd.org. Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at info@copyright.com or the Centre français d'exploitation du droit de copie (CFC) at contact@cfcopies.com.

