



OECD Economics Department Working Papers No. 1740

# Policies to increase youth employment in Korea

**Randall S. Jones,  
Jinwoan Beom**

<https://dx.doi.org/10.1787/fe10936d-en>

**ECONOMICS DEPARTMENT****POLICIES TO INCREASE YOUTH EMPLOYMENT IN KOREA****ECONOMICS DEPARTMENT WORKING PAPERS No. 1740**

By Randall S. Jones and Jinwoan Beom

OECD Working Papers should not be reported as representing the official views of the OECD or of its member countries. The opinions expressed and arguments employed are those of the author(s).

Authorised for publication by Isabell Koske, Acting Director, Country Studies Branch, Economics Department.

All Economics Department Working Papers are available at [www.oecd.org/eco/workingpapers](http://www.oecd.org/eco/workingpapers).

**JT03509805**

OECD Working Papers should not be reported as representing the official views of the OECD or of its member countries. The opinions expressed and arguments employed are those of the author(s).

Working Papers describe preliminary results or research in progress by the author(s) and are published to stimulate discussion on a broad range of issues on which the OECD works.

Comments on Working Papers are welcomed, and may be sent to the [Economics Department](#).

All Economics Department Working Papers are available at [www.oecd.org/eco/workingpapers](http://www.oecd.org/eco/workingpapers).

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.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

© OECD (2022)

**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 commercial use and translation rights should be submitted to [PubRights@oecd.org](mailto:PubRights@oecd.org).**

## ABSTRACT/RÉSUMÉ

### Policies to increase youth employment in Korea

Korea's low youth employment rate has negative consequences for the young people concerned and the economy as a whole. Raising youth employment is a priority, particularly as Korea faces the most rapid population ageing among OECD countries. Low youth employment is due to a mismatch between education and the labour market, reflecting a large skill gap between highly-educated youth who race for credentials to secure attractive careers and older workers retiring from jobs that require less human capital. The share of university graduates among young Koreans is the highest in the OECD, but their employment rate is relatively low even as small firms confront serious labour shortages. Dualism in the labour market (between regular and non-regular workers) and the product market (between small and large firms) encourages young people to queue for jobs in large firms and the public sector to avoid low-wage precarious jobs. Raising the youth employment rate requires breaking down dualism while reforming the education system. Vocational education in secondary schools, which has shrunk while becoming another route to tertiary education, should be improved to make it a direct path to employment. Expanding the approach of Meister schools and the work-learning dual programme would help in that regard. Tertiary education should become more flexible and responsive to the demands of employers. Active labour market policies should focus less on direct job creation and more on job placement and training.

This Working Paper relates to the 2022 Economic Survey of Korea

<https://www.oecd.org/economy/korea-economic-snapshot/>

Key words: Korea, labour market, youth employment, employment policies, NEETs, mismatch, non-regular workers, labour market dualism, education, Meister schools, SMEs, product market dualism.

JEL codes: J08; J21; J31; I24; I28

\*\*\*\*\*

### Des politiques visant à accroître l'emploi des jeunes en Corée

Le faible taux d'emploi chez les jeunes en Corée a des conséquences négatives sur cette tranche de la population et sur l'économie en général. Accroître l'emploi chez les jeunes est une priorité, en particulier face au vieillissement de la population qui est le plus rapide des pays de l'OCDE. Le faible taux d'activité des jeunes est dû au décalage entre les études supérieures et les besoins du marché du travail, reflétant un important écart de compétences entre les jeunes très instruits qui font la course aux diplômes pour s'assurer des carrières attrayantes, et les travailleurs plus âgés prenant leur retraite de postes qui exigent moins de capital humain. La proportion de diplômés universitaires parmi les jeunes Coréens est la plus élevée de l'OCDE, mais leur taux d'emploi est relativement faible, alors même que les petites entreprises sont confrontées à de graves pénuries de main-d'œuvre. Le dualisme du marché du travail (entre travailleurs réguliers et non réguliers) et du marché des produits (entre petites et grandes entreprises) encourage les jeunes à faire la queue pour les postes des grandes entreprises et du secteur public afin d'éviter les emplois précaires à bas salaire. Ainsi, pour augmenter le taux d'emploi des jeunes, il faut briser ce dualisme tout en réformant le système éducatif. L'enseignement professionnel dans les écoles secondaires, qui s'est réduit tout en ne devenant qu'une autre voie d'accès à l'enseignement supérieur, doit être amélioré pour en faire une route directe vers l'emploi. A cet égard, il serait utile d'étendre l'approche des écoles Meister et du programme de formation en alternance. L'enseignement supérieur doit devenir plus flexible et mieux répondre aux demandes des employeurs. Les politiques en vigueur sur le marché du travail devraient moins se concentrer sur la création directe d'emplois et davantage sur le placement professionnel et la formation.

Ce document de travail concerne l'Étude économique de la Corée de 2022

<https://www.oecd.org/economy/korea-economic-snapshot/>

Mots clés : Corée, marché du travail, emploi des jeunes, politiques de l'emploi, NEETs, inadéquation, travailleurs non réguliers, dualisme du marché du travail, éducation, écoles Meister, PME, dualisme du marché des produits.

Codes JEL : J08; J21; J31; I24; I28

# Table of contents

<b>Policies to increase youth employment in Korea</b>	<b>5</b>
Trends in youth employment and comparison to other OECD countries	6
Government policies to improve life for youth	10
A race for educational credentials creates labour market mismatch	13
Labour market dualism is deeply entrenched	25
Product market dualism: the gap between SMEs and large firms	32
Recommendations to increase youth employment	38
References	39

## FIGURES

Figure 1. Korea's youth employment rate is below the OECD average	6
Figure 2. Employment trends in Korea during the past two decades	7
Figure 3. Youth employment rates in Korea were below the OECD average in 2021	8
Figure 4. The COVID-19 pandemic had a significant impact on youth employment	9
Figure 5. Employment rates by education level	13
Figure 6. Technological change is reducing the number of production jobs	14
Figure 7. The share of women (aged 25-29) with a university degree is higher than for men	14
Figure 8. Nearly three-quarters of high school graduates advance to tertiary education	15
Figure 9. The share of tertiary graduates among young Koreans is the highest in the OECD	16
Figure 10. Reduced hopes of upward social mobility	17
Figure 11. Career status after graduation from vocational high school	17
Figure 12. The share of NEETs in Korea is high	18
Figure 13. The share of NEETs among women in the 25-29 age group has fallen	19
Figure 14. Field-of-study mismatch in Korea is relatively high	19
Figure 15. Financial returns to tertiary education are relatively low	20
Figure 16. Life satisfaction of Korean adolescents is low	22
Figure 17. An international ranking of the skillset of graduates	23
Figure 18. The share of non-regular workers is high for young people	26
Figure 19. Tertiary education increases the chance of regular employment and higher wages	27
Figure 20. Wages and social insurance coverage are lower for non-regular workers	28
Figure 21. Spending on active labour market policies in Korea is relatively low (in 2019)	30
Figure 22. Korea's minimum wage and participation tax rates are very high	31
Figure 23. The productivity gap between SMEs and large firms in Korea is wide	33
Figure 24. Large firms pay a significant wage premium in Korea	33
Figure 25. Education increases the chance of working at large firms	34
Figure 26. Korea's attitudes toward entrepreneurship show scope for improvement	36

## TABLES

Table 1. The new government's plan to help young people	12
Table 2. Employment rates vary widely by field of study	24
Table 3. The sources of job creation for young people	34

# Policies to increase youth employment in Korea

Randall S. Jones, Non-resident Distinguished Fellow at the Korea Economic Institute and Jinwoan Beom,  
Ministry of Economy and Finance<sup>1</sup>

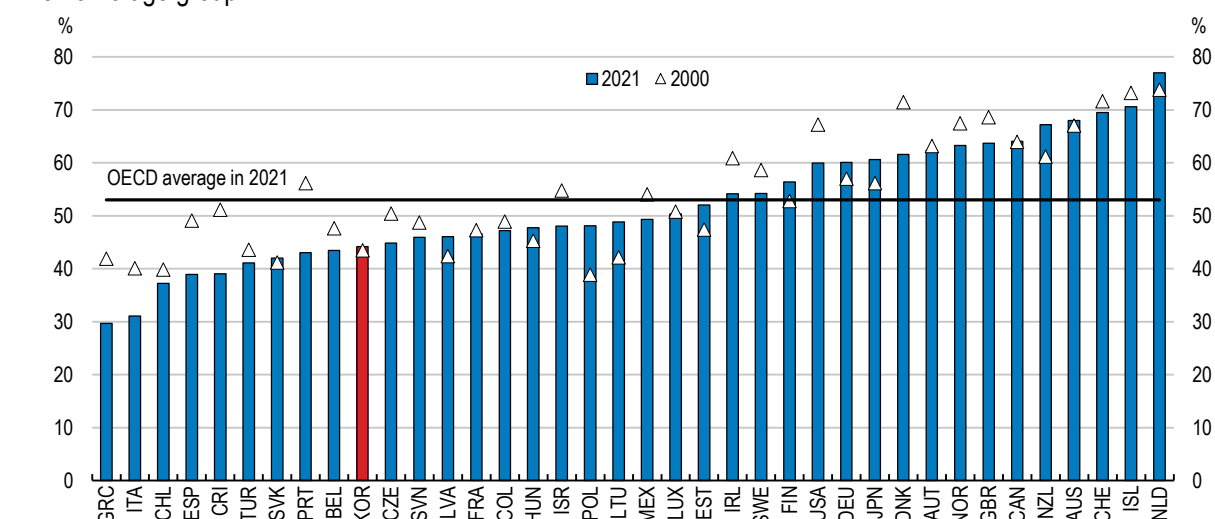
Korean youth face many challenges: intense competition to enter good universities in a society that prioritises education; the high cost of tertiary education, as 77% of students attend private universities; and the lack of affordable housing in the Seoul metropolitan area, where about half of the country's population lives. An increasing number of young people (the so-called "sampo generation") have delayed or given up marriage and having children, as reflected in the drop in the fertility rate to below one. The polarisation of the Korean economy between regular and non-regular jobs and the large wage and productivity gaps between large companies and small and medium-sized enterprises (SMEs) and between manufacturing and services strengthens incentives for higher education. However, despite high educational attainment, the employment rate for youth (the 15-29 age group unless otherwise specified) is well below the OECD average (Figure 1). Moreover, the rate of inactivity is high, particularly among university graduates, reflecting a lack of suitable jobs for those with higher education. Meanwhile, around 40% of SMEs face labour shortages (OECD, 2019).

---

<sup>1</sup> Randall S. Jones, the former head of the Japan/Korea Desk in the Economics Department of the OECD, is currently a Distinguished Non-resident Fellow at the Korea Economic Institute of America, an adjunct professor at Johns Hopkins University and a Professional Fellow at the Center on Japanese Economy and Business at Columbia University. Jinwoan Beom was an economist on the Korea/Sweden Desk at the OECD when the paper was written and is currently the Director for Public Relations at the Ministry of Economy and Finance. The authors would like to thank Nicolas Gonne, Hyunjeong Hwang, Vincent Koen, Isabell Koske, Jon Pareliussen, Alvaro Pereira, Axel Purwin and Emilia Soldani from the OECD Economics Department and Sarah Kups, Veerle Miranda and Glenda Quintini from the OECD Directorate for Employment, Labour and Social Affairs for useful comments and suggestions on earlier versions of this paper. Special thanks go to Axel Purwin for statistical assistance and Sisse Nielsen for editorial assistance.

**Figure 1. Korea's youth employment rate is below the OECD average**

The 15-29 age group



Note: The percentage of employed persons in the 15-29 age group. The OECD average is weighted.

Source: LFS by sex and age, OECD.Stat, accessed 17 June 2022.

StatLink 2 <https://stat.link/ad29x8>

The mismatch between education and the labour market imposes considerable private and social costs. Successful engagement in the labour market is crucial not only for young people's economic prospects and well-being, but also for the Korean economy and social cohesion. Youth unemployment and inactivity have a long-term scarring effect that reduces employment rates later in life and increases the chance of becoming non-regular workers with low wages, with negative effects on health and life satisfaction (Nam and Kim, 2013). The strong link between wages and tenure increases the opportunity cost, even for those who do obtain a regular job after a period of inactivity. A recent study found that vocational secondary education followed by direct entry into the labour market yields better employment status and wages than higher education, once family and individual characteristics are taken into account (Choi, 2021). Low youth employment also slows output growth and boosts fiscal costs. Over the longer term, the loss of skills during periods of inactivity reduces economy-wide productivity and potential growth (IMF, 2018). Low youth employment has also contributed to the decline in Korea's fertility rate, one of the lowest in the world at 0.83 children per woman in 2020, with severe demographic consequences. Indeed, the working-age population has been declining since 2017.

This chapter begins with an overview of trends in Korea's youth employment by age group and sex during 2000-20 in comparison to other OECD countries. The second section discusses recent government initiatives to address the problems facing youth. The mismatch between young people's educational aspirations and the labour market and reforms to education are analysed in the third section. The following sections discuss the factors underlying the mismatch, namely labour market dualism and the polarisation between large and small companies. Recommendations to boost youth employment are shown at the end (p. 38).

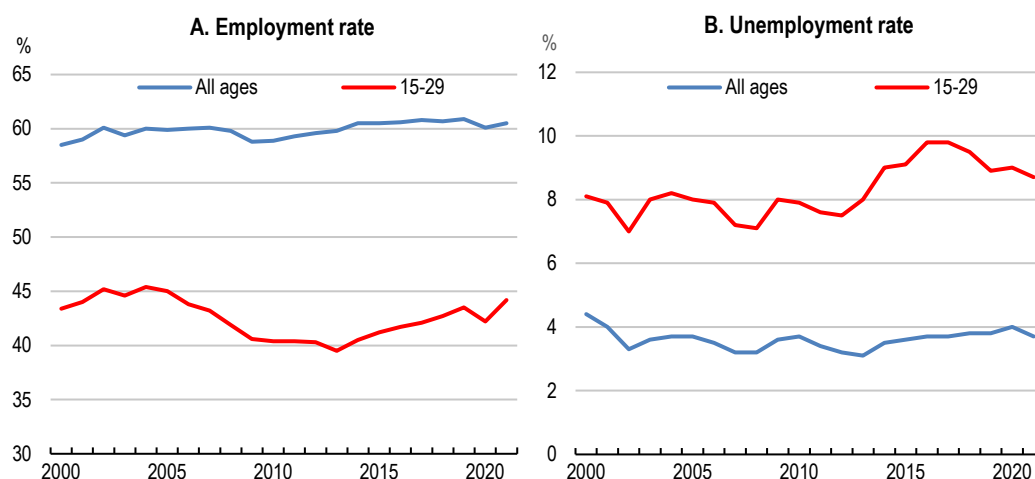
## Trends in youth employment and comparison to other OECD countries

### Youth employment trends in Korea differ between men and women

The number of young people employed has fallen 21% since 2000, tracking the decline in Korea's youth population. The youth employment rate decreased gradually during 2004-13, in part due to the 2008 Global Financial Crisis (Figure 2, Panel A). Although it rebounded from 2013 until the outbreak of the COVID-19

pandemic, Korea's youth employment rate of 44.2% in 2021 was still nearly 9 percentage points below the OECD average (Figure 1). This stems from the large share of youth in education and the relatively low share of students who work, which has been stable at around 12% since 2007. In contrast, one in four students in OECD countries were employed (OECD, 2019). During the past decade, the youth unemployment rate has been 2.5 times higher on average than the rate for the total population, although it fell to 7.8% in 2021 (Figure 2, Panel B) compared to the 12% OECD average. The combination of low rates for employment and unemployment reflects the fact that Korea's youth labour force participation rate (46.4% in 2020) was well below the OECD average (58.0%).

**Figure 2. Employment trends in Korea during the past two decades**



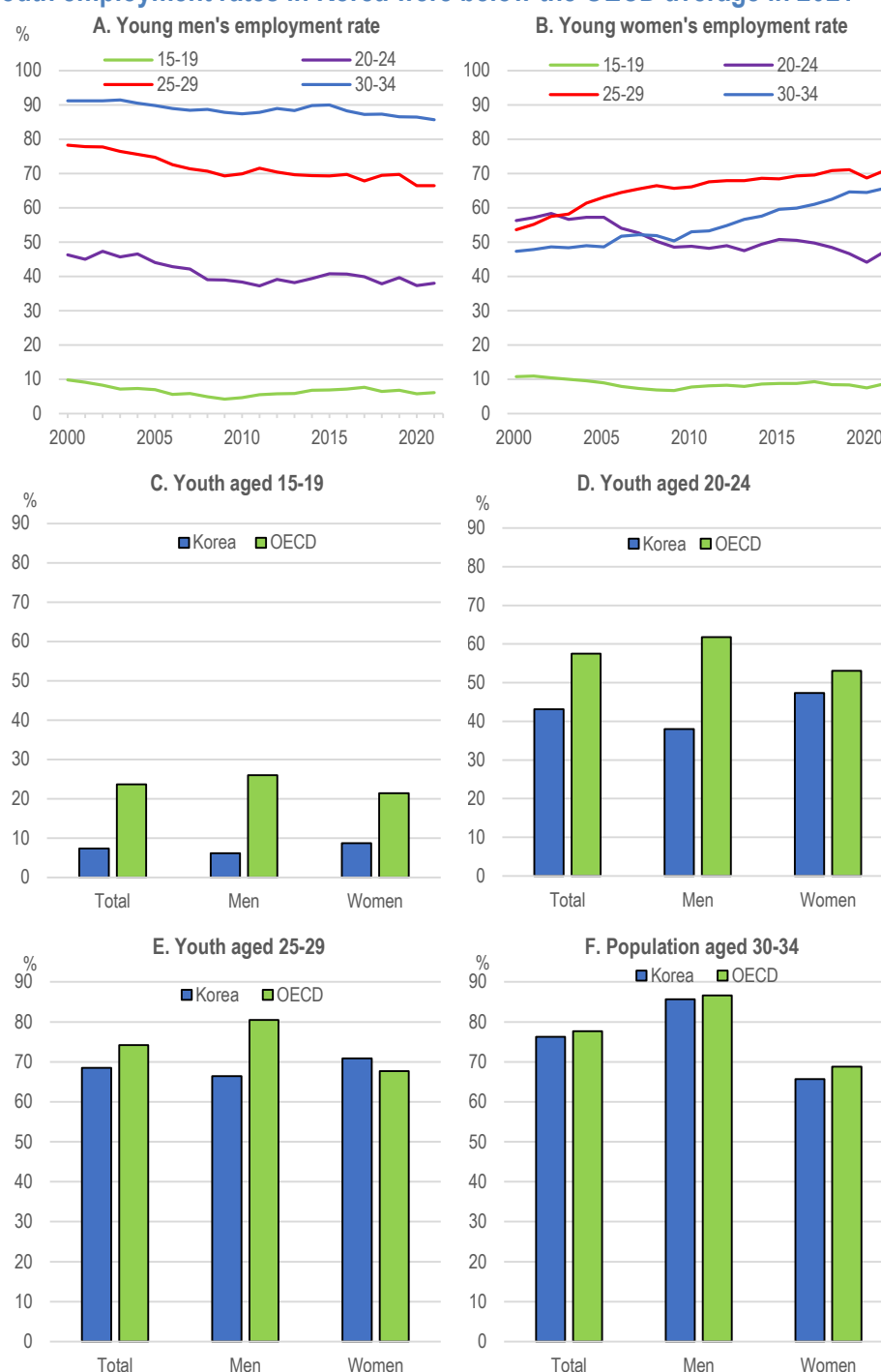
Source: Statistics Korea.

StatLink 2 <https://stat.link/chipat>

The decline in the male employment rate for the 25-29 and 30-34 age groups and for both men and women in the 20-24 age group are particularly problematic (Figure 3, Panels A and B):

- The lower employment rate in Korea for the 15-19 age cohort accounts for more than two-fifths of the 8.8 percentage-point gap with the OECD average (Panel C). However, this is not a concern, as it reflects the higher enrolment rate in upper secondary and tertiary education in Korea. The employment rate has been relatively stable at less than 10% since 2004 for both men and women.
- The gap between Korea and the OECD average employment rate for the 20-24 age cohort increased from 8.2 percentage points in 2000 to 14.4 points in 2021 (Panel D), as the employment rates for Korean men and women both fell by between eight and nine percentage points. This is a concern, as the decline is not explained by enrolment in higher education. The share of high school graduates who advanced to college or university has edged down from its 2005 peak.



**Figure 3. Youth employment rates in Korea were below the OECD average in 2021**

Source: LFS by sex and age, OECD.Stat, accessed 17 June 2022.

StatLink 2 <https://stat.link/1kesyj>

- Korea's employment rate for the 25-29 age group has edged up towards the OECD average, as a 17 percentage-point increase for women over 2000-21 more than offset a double-digit decline for men (Panel E). Indeed, the employment rate for women in Korea exceeds that of men for each of the five-year age cohorts from 15 to 29. This employment increase reflects delayed marriage and childbirth, as many Korean women withdraw from the labour force at the time of marriage or childbirth. The median age of first marriage for Korean women has risen by nearly four years, from

26.5 years in 2000 to 30.8 years in 2021, while the mean age at which mothers give birth to their first child reached 32.6 years in 2017, the highest among OECD countries.

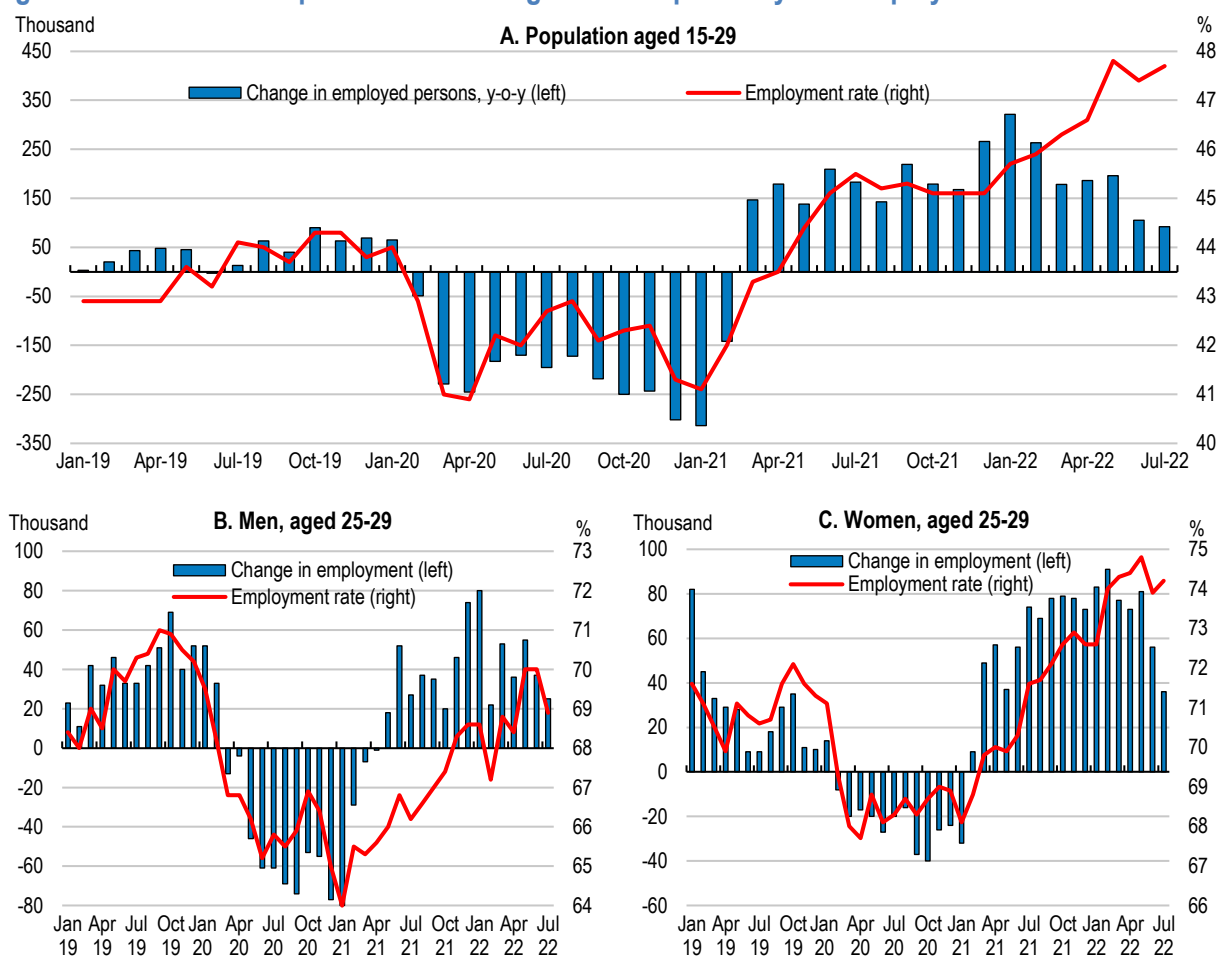
- An 18 percentage-point rise in the female employment rate in the 30-34 age group (which is included in the definition of youth in the 2020 Youth Framework Act) more than offset a decline in the rate for men over 2000-21 and brought this group close to the OECD average (Panel F).

### Youth employment was affected by the COVID-19 pandemic

The youth employment rate is more sensitive to economic shocks than that of persons aged 30 and above. Young people are more likely to be dismissed during a downturn as they have had less time to accumulate firm-specific skills (World Bank, 2012). Moreover, more than 40% of youth in Korea are non-regular workers and thus have less employment protection (see below). Nevertheless, real GDP growth only explained about 20% of the variation in Korea's youth unemployment rate before the pandemic, which is a low share compared to other OECD countries (IMF, 2018).

However, the COVID-19 pandemic led to considerable volatility, as companies reduced new hires and cut employment in the service industry, where many young people work. The youth employment rate fell by 1.3 percentage points in 2020, a drop twice as large as for the population aged 30 and older (Figure 4, Panel A). It rebounded to its highest level since 2005 with the economic recovery in 2021.

**Figure 4. The COVID-19 pandemic had a significant impact on youth employment**



Source: Statistics Korea.

StatLink 2 <https://stat.link/6b7oel>

The pandemic affected gender and age groups differently. In particular, while the employment rate for women in the 25-29 age cohort increased by 2.1 percentage points in 2021, the rate for men was unchanged (Panels B and C). However, the larger increase for women was accompanied by a rising share of temporary jobs, which provide less employment security and lower wages (see below). Indeed, the share of employed young women (aged 15-29) working in non-regular jobs (part-time, fixed-term and atypical employees) in August 2021 was 3.7 percentage points higher than a year earlier, compared to a 0.4 percentage-point increase for men (see below). Consequently, the share of youth who were non-regular workers jumped from 39.9% in 2020 to 42.1% in 2021 (Statistics Korea, 2021).

## Government policies to improve life for youth

### *Past government initiatives*

The government has focused extensively on youth employment during the past two decades. Each administration introduced policies, such as Comprehensive Measures for Youth Unemployment (2003), Project to Construct Tomorrow for Young People (2010), Comprehensive Measures to Remove Youth Employment Barriers (2015) and Measures for Youth Employment (2018). However, the president of the government's Korea Labour Institute stated that “there are over 200 job policies in place under different central Ministries and local authorities, using up an enormous budget, without providing employment or income solutions that are actually felt by young people”. The goal should be to “reduce the redundancy and inefficiency in the youth employment policies that are instituted in a haphazard fashion” (S. Kim, 2017).

The government has implemented educational reforms to reduce mismatch, for example by expanding public funding for career guidance in secondary schools. The government, industry and educational institutions have developed National Competency Standards (NCS). The NCS, which define the knowledge, skills and attitude required to perform a job, have been incorporated into vocational high school curricula since 2018. As of February 2022, 1 064 NCS have been developed and they are annually updated to respond to demand from the labour market. The government introduced Meister high schools in 2010, which follow the German model of combining education and work experience in order to improve vocational education at the secondary level. Their curriculum is developed jointly with industry representatives, and internships are mandatory. Today, 52 Meister schools have been established and their graduates have achieved employment rates of more than 90% for five consecutive years (Yu et al., 2020). Only about one-third of graduates of regular vocational high schools enter the job market, while the remainder enrol in tertiary education. In addition, the 2013 Work-Study Dual Programme and the 2018 Work First-Study Later scheme have allowed students to combine study with internships. These initiatives are welcome, though relatively small in scale, as only 3% of all high school students attend a Meister school or participate in an apprenticeship programme, placing Korea at the bottom of OECD countries in this regard (OECD, 2019).

Government policies address labour demand and supply to reduce mismatch, including financial incentives to increase demand for young workers. In 2015, the government introduced a tax credit of KRW 5 million (USD 4 135) for SMEs for each young person hired as a permanent worker. In addition, SMEs receive 150% tax deductions for increases in wages paid to youth who are permanent employees. In 2017, an additional subsidy was introduced that pays KRW 20 million a year for up to three years to SMEs that hire three youth as regular workers. In 2022, this was replaced by a new programme that offers up to KRW 9.6 million for one year to SMEs who hire youth who have struggled to remain employed as regular workers. There is a risk that such policies encourage firms to replace older workers with younger workers, with limited effects on overall employment. Nevertheless, given that the subsidy programme requires that not only the number of young employees but also the total number of employees should increase in recipient SMEs, it can have positive effects on employment.

The 2018 Measures for Youth Employment marked a shift from indirect measures to policies that directly benefit youth, such as income tax exemptions, cash benefits and in-work benefits. The goal was to increase the supply of young workers by bringing the net earnings of SME employees closer to those of large

enterprise employees. The 2016 income tax exemption for young people employed at SMEs was expanded in 2018 by raising the exemption rate from 70% to 90%, the age limit from 29 to 34 years and the duration from three to five years. This resulted in more than a four-fold increase during 2018-21 in the amount of income exempted. The 2018 plan also introduced transport cards for young people working at SMEs and expanded a mutual savings plan in which SMEs and the government help young employees build up savings.

In 2019, the Earned Income Tax Credit (EITC), an in-work benefit introduced in 2008, was extended to workers under 30 without a spouse and dependent child. Consequently, the number of recipients in their 20s soared 40-fold from 30 000 in 2017 to 1.24 million in 2019. The benefit for a single person is relatively generous at 4.2% of average income, which may encourage more young people to accept low-paying jobs (OECD, 2019). However, tapering rules for employment insurance and Basic Livelihood Support benefits may erode work incentives (Chapter 2). Total outlays more than tripled during 2017-19 to KRW 4.5 trillion (0.2% of GDP). One study found that the 2019 expansion of coverage had a positive effect on the employment and working hours of single households (Kim and Kim, 2020).

The government also uses quotas to raise youth employment. Since 2014, the government has required that unemployed youth account for 3% of hiring by public entities and local public enterprises. There are discussions about raising the quota to 5%. As with other policies, quotas may encourage firms to replace older workers with younger workers, limiting overall employment effects. Youth entrepreneurship has also been promoted through the Young Entrepreneurs Start-up Academy, the Youth Development Fund, and the provision of seed money for youth enterprises.

During the past few years, Korea has shifted from short-term policies to help young people to a long-term strategy based on a comprehensive, whole-of-government approach. Policies implemented at the ministry level have been overseen by the Office for Government Policy Coordination (OGPC) since 2019 to ensure a more integrated approach. A key step was the 2020 Youth Framework Act, which laid the foundation for youth policy and set out central and local government responsibilities in implementing that policy. In addition, the government placed greater priority on incorporating the views of young people. The first point in its “1+4” approach was to “build governance through youth engagement”. To this end, a Youth Policy Coordination Committee, chaired by the Prime Minister and supported by a secretariat in the OGPC, was created. The 40-person Committee, which includes more than 10 young people, produced the “How to Improve Young People’s Lives” plans in 2020. The OGPC received 880 policy proposals through the meetings with young people (OGPC, 2020c).

Another notable development has been the shift from the job-oriented focus of past youth policies to a broader approach. The Five-Year Basic Plan was presented as “the first comprehensive plan that goes beyond job-driven youth policy and spans the entire life of young people” (OGPC, 2020a). In the 1+4 approach, the four points included living support, housing and education in addition to employment. “How to Improve Young People’s Lives” noted, for example, that a higher proportion of young people live in housing rated below the minimum residential standard compared to households of all age groups (OGPC, 2020b).

The policy measures in the first and second plans on How to Improve Young People’s Lives were included in the Five-Year Basic Plan for 2021-25. The Basic Plan contained a total of 270 measures. In addition, the August 2021 “Comprehensive Measures for Youth” included 87 measures to alleviate the adverse impact of COVID-19 on young people and narrow economic and social gaps within the young generation.

In sum, recent governments have introduced a wide range of policies to promote youth employment, including expanding the EITC, employment subsidies, tax benefits, hiring quotas, asset building programmes, housing and transport subsidies, etc. According to a study by a government research institute, it is very challenging to estimate the impact of a specific programme given the synergic effects of the wide range of policies, which influence both economic activities and non-economic activities (such as

marriage decisions). It is important to improve the effectiveness of existing programmes rather than continue creating new ones (Kim et al., 2020).

### ***The youth employment policies of the new government***

One of the promises made by Korea's new president, Yoon Suk-yeol, is to "build a bridge of hope to support young people's dreams" by achieving three objectives: i) custom support tailored to youth's housing, job, and learning needs; ii) fair opportunities for youth; and iii) creating greater opportunities for youth's participation and inclusion in policymaking (Table 1). The key objective is to give young people hope for the future, in part by addressing unfair practices and eradicating corruption in recruitment and hiring. In addition, the measures aim to expand opportunities for young people to participate in government. Increased employment of young people, combined with housing policy measures, is expected to promote asset accumulation for persons in their 20s and 30s, in part through home ownership and by reducing the burden of tuition.

**Table 1. The new government's plan to help young people**

Objectives	Key details
<b>Custom support tailored to youth's housing, job and learning needs</b>	
Restore a bridge to homeownership for younger generations through greater opportunities for them to own their home	<ul style="list-style-type: none"> <li>Expand youth's access to homeownership by providing 500 thousand units of sell-at-cost or other affordable housing for young, newlywed, and first-time homebuyers.</li> <li>Ease the loan-to-value ratio on housing loans cap from the current 60%-70% to 80% for young people and first-time homebuyers.</li> <li>Better reflect young people's future income prospects when calculating their debt service ratio.</li> </ul>
Create job opportunities through greater youth-specific employment and entrepreneurship support	<ul style="list-style-type: none"> <li>Provide custom employment and career planning and consulting early on for young people still in education by creating new youth-specific employment support services.</li> <li>Offer quality work experience opportunities through public-private cooperation, such as various work experience programmes and business-led programmes for local youth.</li> <li>Nurture future entrepreneurs from an early age and develop a package of support measures to encourage youth's bold entrepreneurial initiatives and the growth of their enterprises.</li> </ul>
Cultivate new tech talents and expand learning opportunities for youth	<ul style="list-style-type: none"> <li>Expand the cross-ministry talent cultivation programme that offers educational curricula specialised in new technologies and provide support for research activities to discover and develop top talents earlier.</li> <li>Expand the number of universities that accept credit for learning acquired during military service.</li> <li>Reduce the financial burden of education costs, including tuition, by improving the quality of state scholarship programmes and expanding loans for student loan repayment during employment.</li> </ul>
<b>Fair opportunities for youth to make a leap</b>	
Bolster systematic support to ensure fair opportunities for younger generations	<ul style="list-style-type: none"> <li>Disseminate a culture of fairness by eradicating unfair recruitment and hiring.</li> <li>Remove the unfair special advantages available in the national licensing examination system.</li> <li>Root out corruption in public-sector recruitment and employment via ongoing monitoring and inspection, reporting, and self-initiated investigation as well as training and consulting through the 'Integrated Recruitment and Employment Corruption Report Centre'.</li> <li>Expand one-stop remedy support to help young part-time workers experiencing an infringement of their rights at work.</li> <li>Bolster public campaigns and awareness programmes to better monitor unfair practices and spread a culture of fairness in recruitment and hiring.</li> </ul>
Provide asset-building support for young people experiencing difficulties building financial independence during their transition into the job market	<ul style="list-style-type: none"> <li>Launch Youth's Leap Savings Account (tentative title), a matching savings programme in which the government complements youth savings deposits.</li> <li>Offer tax incentives for interest and dividend income from the savings programme.</li> <li>Overhaul the vulnerable youth identification and support system.</li> <li>Motivate young people who abandoned their job search, monitor the status of vulnerable young people (young people in transition to independent living, providing care for family members, or who are socially isolated and establish and expand custom support measures).</li> </ul>
<b>Create a larger platform for youth's participation and inclusion</b>	
Expand the range of opportunities for young people to participate in policy development, establish a system to implement comprehensive youth policies, and overhaul the related social infrastructure	<ul style="list-style-type: none"> <li>Stimulate young people's economic activities by eliminating unreasonable legal hurdles against them and support their transition to early financial independence.</li> <li>Revitalise the channels for reflecting youth's opinions in public administration and push for greater inclusion of youth and young advisors in central government committees (which total 190).</li> </ul>

	<ul style="list-style-type: none"> <li>• Improve an online and offline youth support system to provide a package of youth policy information, enable interactive communication, and promote youth activities.</li> <li>• Develop and support businesses that meet the needs of youth through collaboration between a central government department or agency and local governments and youth organisations.</li> <li>• Seek measures to raise funds for proactive and flexible responses to youth issues and consider establishing a research centre dedicated to developing the grounds for evidence-based policies.</li> </ul>
Stimulate young people's economic activities by eliminating unreasonable legal hurdles against them and support their transition to early financial independence	<ul style="list-style-type: none"> <li>• Improve licensing systems that are unfair to young people who are working while studying or enrolling in education after getting a job or that are blocking young people from achieving financial independence at an early stage.</li> </ul>

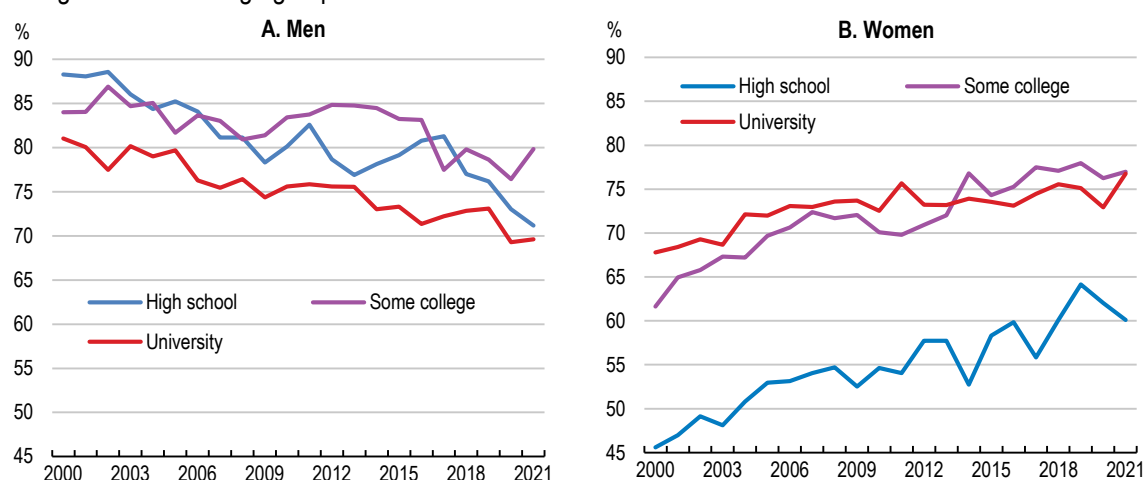
Source: Office for Government Policy Cooperation.

## A race for educational credentials creates labour market mismatch

The employment rate for male high school graduates in the 25-29 age cohort fell from 88% in 2000 to 71% in 2021 (Figure 5, Panel A). The decline suggests that vocational education at the secondary level has become less effective in preparing students for the job market. This might be due in part to technological changes in Korea's increasingly knowledge-intensive economy. In addition, the employment rate for male university graduates in that age cohort dropped below 70%, reflecting several factors. First, the increase in new jobs requiring a university education has fallen behind the growth in the number of graduates. Second, lower-ranked universities expanded their enrolment, as the emphasis on higher education pushes students to attend even universities with low employment rates for graduates.

**Figure 5. Employment rates by education level**

Percentage of the 25-29 age group



Note: As a share of the population that has graduated (those still in school are excluded). High school refers to high school graduates or less. "Some college" is those with less than four years. University refers to graduates of four or five-year universities and graduate work.

Source: Calculations by Kyungsoo Choi from Statistics Korea, the Economically Active Population Survey, micro datasets.

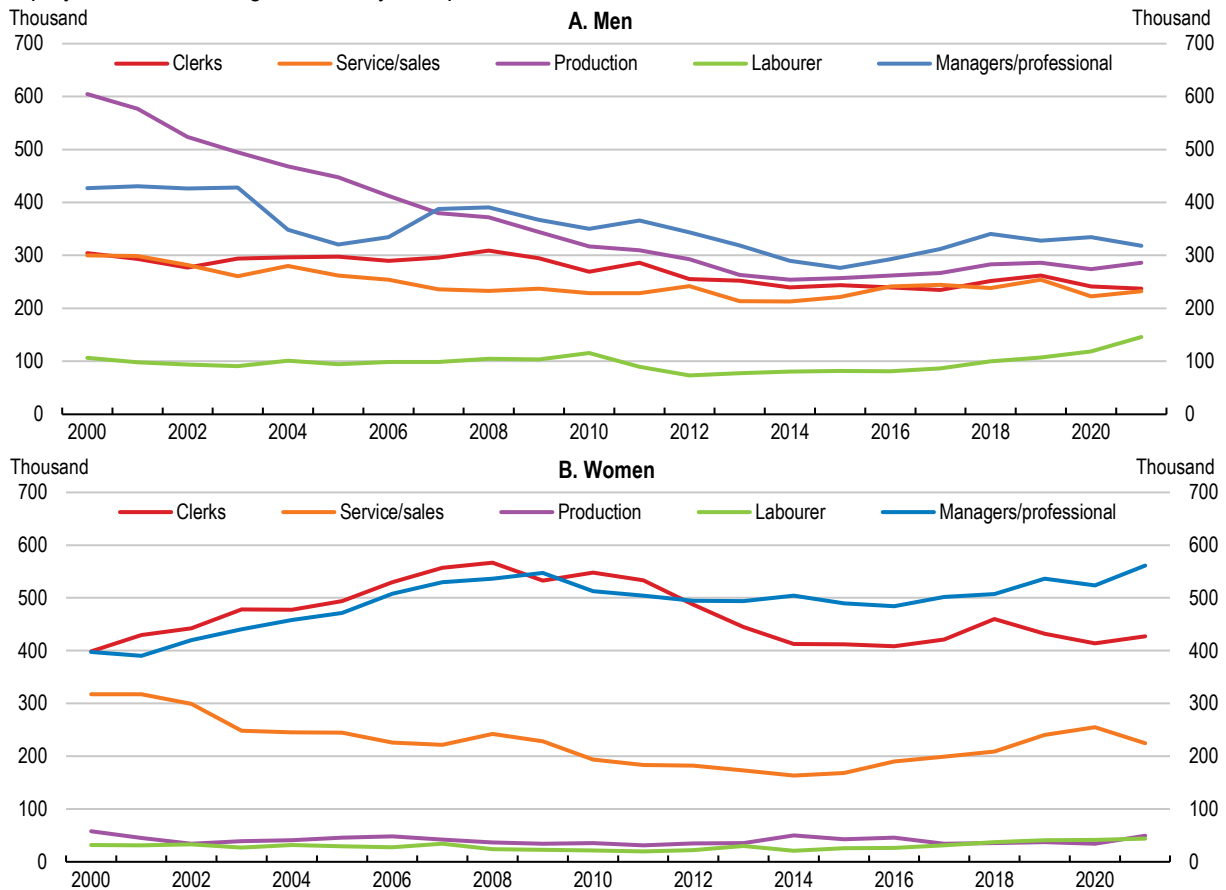
StatLink 2 <https://stat.link/yn2wp>

In contrast to men, the employment rate for women in the 25-29 age cohort has trended up for all levels of education (Figure 5, Panel B). As noted above, the trend toward later marriage and childbirth has more than offset the factors driving down male employment. In addition, structural changes have contributed to the divergent trends. The number of men (aged 25-29) working in production jobs – traditionally a major source of employment for young men but less important for women – more than halved from around 600 thousand in 2000 to less than 300 thousand in 2021 (Figure 6, Panel A). Meanwhile, young women's share of managerial and professional jobs jumped from 48% to 64%, driven by women's higher rate of university education. The gender gap in university graduation rates for those aged 25-29 increased from

approximately zero in 2012 to nine percentage points in 2021 in favour of women (Figure 7). However, this early career advantage for women is short-lived: the share of women who are non-regular workers is much higher than for men for those aged 30 and above (see below) and the share of managers in Korea who are women is the lowest among OECD countries.

**Figure 6. Technological change is reducing the number of production jobs**

Employment for those aged 25-29 by occupation

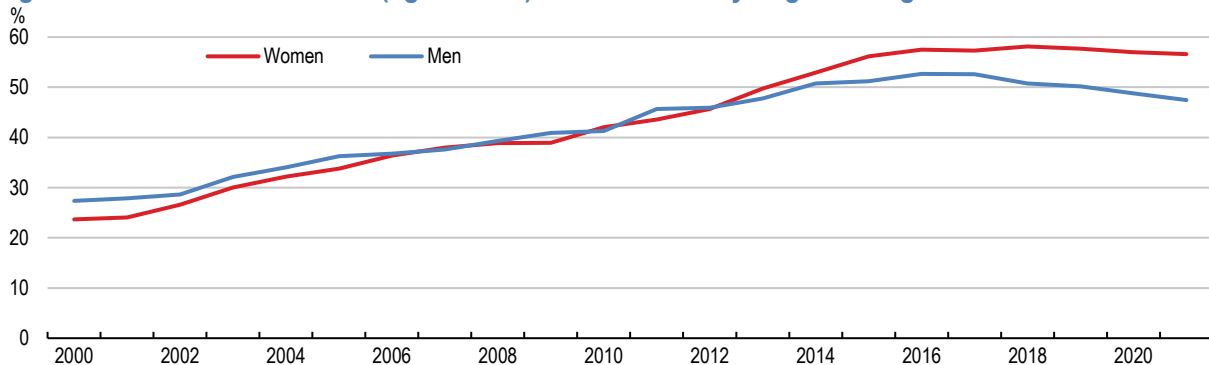


Note: Korea Standard Occupation Classification, revisions 5, 6 and 7.

Source: Calculations by Kyungsoo Choi from Statistics Korea, the Economically Active Population Survey, micro datasets.

StatLink 2 <https://stat.link/41urci>

**Figure 7. The share of women (aged 25-29) with a university degree is higher than for men**



Source: Calculations by Kyungsoo Choi from Statistics Korea, the Economically Active Population Survey, micro datasets.

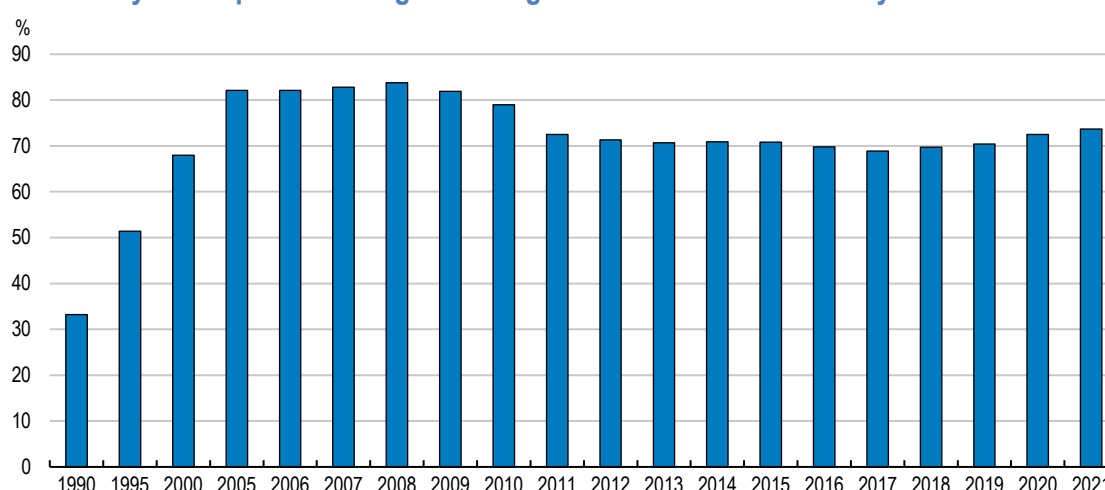
StatLink 2 <https://stat.link/3dk6q8>



### ***The focus on higher education and the decline in vocational education***

The low rate of youth employment in Korea is primarily due to a mismatch between skills acquired in education and skills demanded by employers. Korea is known worldwide for its emphasis on education, which has played a major role in its economic development. In recent decades, a university degree has become the minimum academic achievement for a majority. More than 80% of teenagers plan to obtain at least a four-year university degree and 90% of parents share that ambition (Jones, 2013). Indeed, nearly three-quarters of high school graduates advanced to college or university in 2021 (Figure 8), and the proportion of the 25-34 age group with tertiary education is the highest in the OECD (Figure 9). In contrast, the share of older persons (aged 55-64) with tertiary education is below the OECD average, leaving Korea with one of the largest skill gaps between youth and older generations in the OECD (OECD, 2020a). Consequently, the jobs vacated by retiring older workers tend to poorly match the skills of more educated young people, even though technological progress is boosting skill requirements over time. The mismatch between the aspirations of young people and the jobs available is a serious impediment to youth employment.

**Figure 8. Nearly three-quarters of high school graduates advance to tertiary education**



Source: Statistics Korea, *Social Indicators*.

StatLink 2 <https://stat.link/isqo7u>

Korea faces an “education bubble” according to a former Minister of Education (Lee et al., 2014). Korea’s extraordinary zeal for education has strengthened credentialism – a reliance on academic qualifications as the best measure of an individual’s intelligence or ability to perform a particular job. Credentialism has led to “education inflation”, which requires job candidates to obtain higher degrees for positions that formerly had lower requirements. This trend is in part reflected in the declining share of students in two-year colleges, traditionally significant providers of vocational education, and a larger share in four-year universities. For example, a two-year college degree in cosmetology faces competition from a four-year university (bachelor) degree in cosmetology (OECD, 2019). Education inflation has undermined the value of work experience and diplomas from all but the most prestigious universities (Choi, 2021).

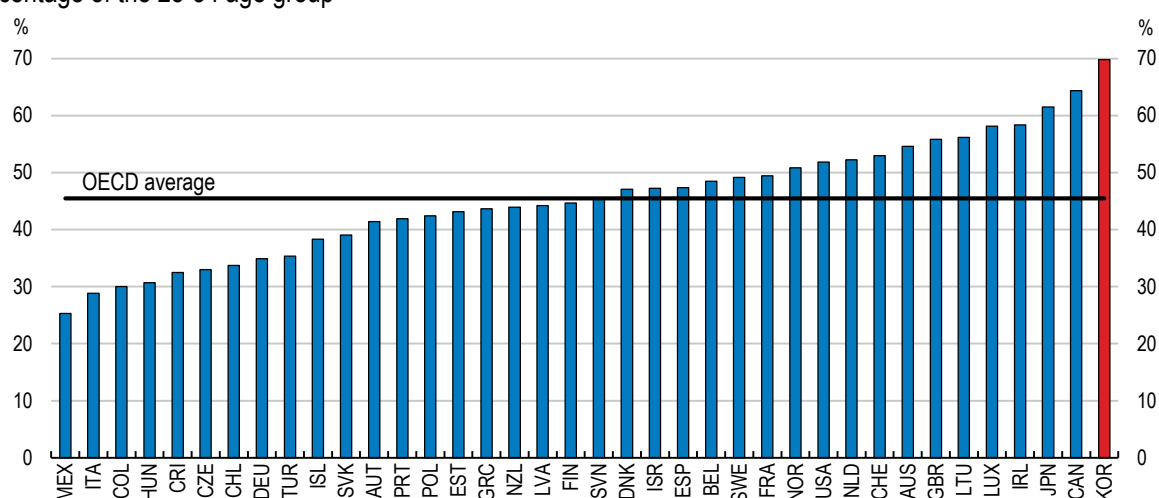
One negative consequence of credentialism is that economic and social status is closely linked to one’s educational achievements and the prestige of the university attended (Jones, 2013). Such a link reduces social mobility, as educational achievements depend increasingly on the socio-economic status of the parents. Indeed, the admission rate to Seoul National University, Korea’s most prestigious university, for high school students in Seoul is nearly double the national average. Moreover, among its students from Seoul, the share who attended one of the 15 special-purpose high schools rose from 23% in 2002 to 41% in 2011. These high schools use their own admission procedures and predominantly accept students from



high-income families. About half of their students in 2011 were from households with a monthly income of more than KRW 5 million (about one-third above the national average). In contrast, 58% of students at vocational high schools were from households with a monthly income of less than KRW 2 million (about half of the national average) (H. Kim, 2015). Already in a 2011 survey of teachers, professors and researchers, 68% disagreed that “admission into a prestigious school can be granted based on personal skills and hard work, regardless of the family’s economic status”. Of those in their 20s and 30s, 83% disagreed with that statement (Ryu, 2011). In sum, admission to a prestigious university depends to an increasing degree on access to outstanding high schools and *hagwons* (private tutoring institutions), which are expensive.

**Figure 9. The share of tertiary graduates among young Koreans is the highest in the OECD**

Percentage of the 25-34 age group



Source: OECD (2021a), Education at a Glance.

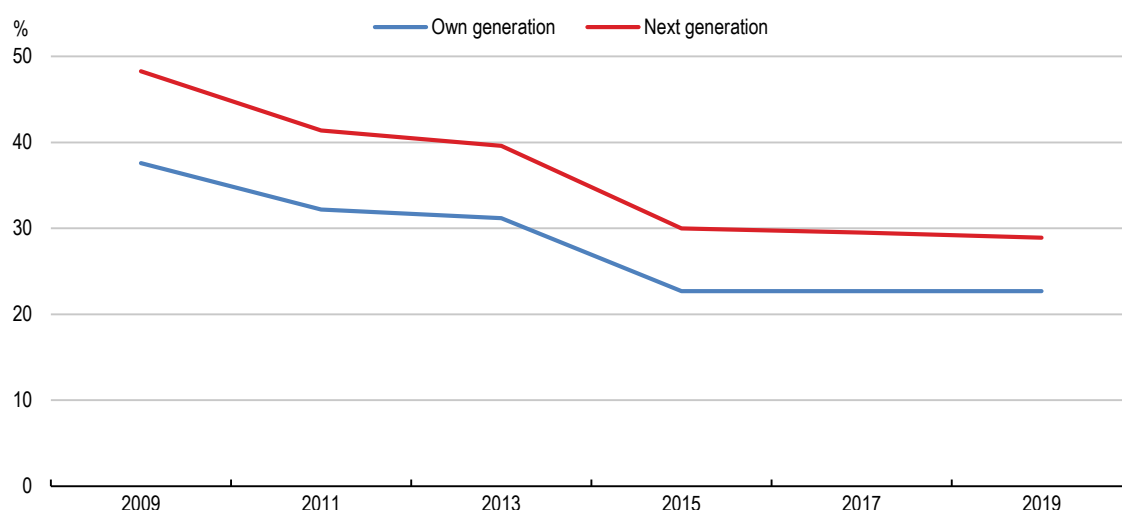
StatLink 2 <https://stat.link/hug4rw>

The wide education gap between different income categories is making education a means for intergenerational transfer of social status, in contrast to Korea’s high-growth era when the expansion of primary and secondary schools promoted social mobility (H. Kim, 2009). A biennial government survey found that the share of the population that believes that the possibility of social mobility is high has declined (Figure 10). The reduced hope for upward mobility weakens faith in the rewards for individual efforts. According to a survey (Kim, 2015), 76% of those in their 60s believe that hard work – rather than personal connections or luck – is the key to success. That view was shared by only 51% of those in their 20s, a low score compared to similar surveys in China, Japan and the United States.

The emphasis on tertiary education as the key to success has diminished the role of secondary vocational education and training, which is crucial. Such schools have played an important role in Korea’s economic development by providing useful skills to students that enabled them to enter the labour market directly after graduation. In 1995, nearly 40% of high school students attended vocational high schools and only 19% of their graduates entered tertiary education. Students aiming for higher education usually attended general high schools instead. However, with the rapid expansion of tertiary education, the share of high school students in vocational high schools fell to only 18% by 2021, well below the 44% OECD average. The government has responded to diminishing demand by converting some vocational high schools to general high schools and promoting the specialisation of vocational high schools to promote the employment of their graduates (OECD, 2019). Thanks to a policy designed to promote the employment of vocational high school graduates, their employment rate doubled from 26% in 2011 to 52% in 2017, but it fell to 29% in 2021 (Figure 11). However, the share of vocational high school graduates not employed or enrolled in higher education doubled from 13% to 26% over 2011-21. Participation in higher education

does not ensure higher wages and quality employment and can lead to lower youth employment. As noted above, a recent study found that students who advance directly from vocational secondary education to the labour market have more favourable outcomes on average (Choi, 2021), suggesting that too much emphasis is placed on university education.

**Figure 10. Reduced hopes of upward social mobility**

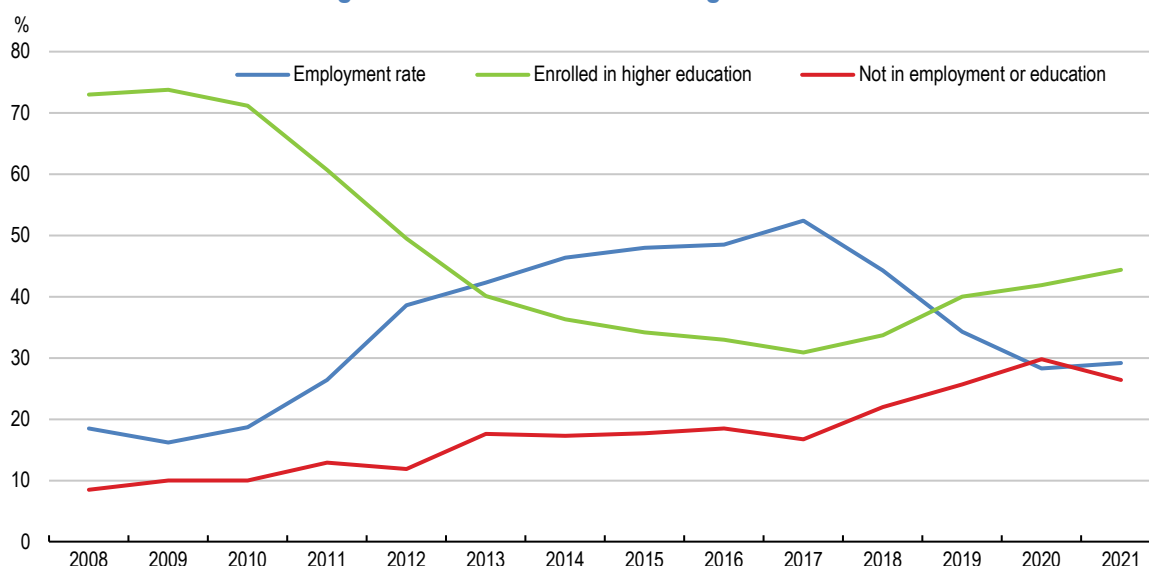


Note: Answers to a government survey that asked if individuals see a high possibility of social mobility for their own generation and the following generation.

Source: Statistics Korea, 2019 Social Survey.

StatLink 2 <https://stat.link/cnroq6>

**Figure 11. Career status after graduation from vocational high school**



Source: J. Ahn and S. Kim (2022), "The Career Trends of Vocational High School Graduates and the Relationship with Economic Indicators", *KRIVET Issue Brief*, No.236, Korea Research Institute for Vocational Education and Training, Sejong (in Korean).

StatLink 2 <https://stat.link/zwkinr>

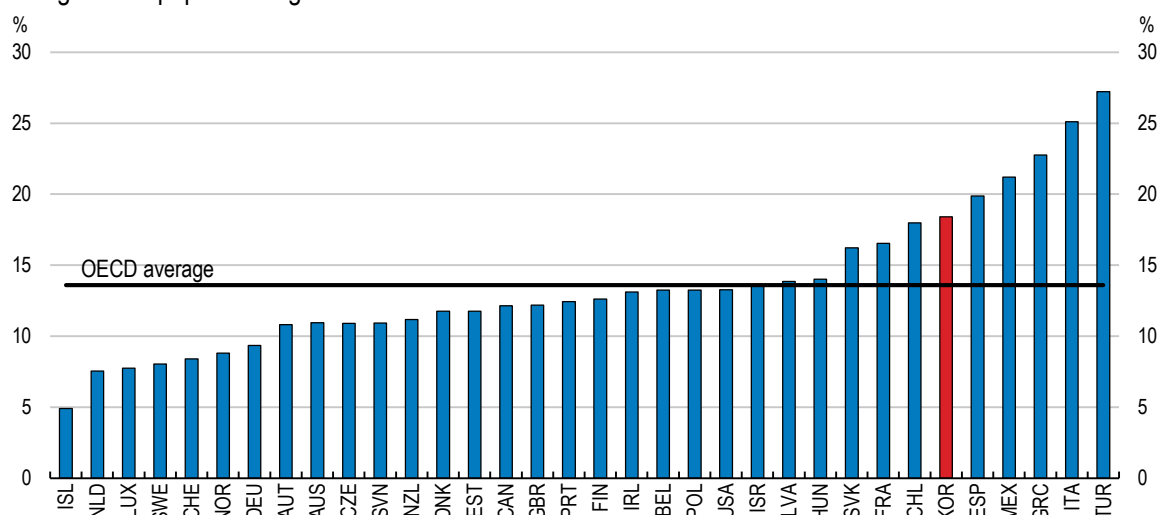
### ***Skill mismatch helps explain youth's low labour market participation***

The mismatch between the skills learned in education and those demanded by employers contributes to the high proportion of youth not in the labour market. The share of youth aged 15 to 29 who are neither employed, nor engaged in formal education or training (the so-called NEETs) was 18.4% in 2017, the sixth highest among OECD countries according to the OECD definition (Figure 12). The NEET rate is exceptionally high among college and university graduates; 45% of NEETs in Korea have a tertiary degree compared to 18% in the OECD area (OECD, 2019). In contrast, the share of NEETs is relatively low for youth with vocational education and training (Yoo, 2019). The share of NEETs in the 25-29 age group has risen significantly for men since 2000, but has been offset by the falling share for women as their employment rate rose significantly (Figure 13). By 2021, the NEET rate had converged at 21% for both men and women.

Education mismatches are driven in part by expectations mismatches. Young people who fail in their initial efforts to find a job often seek to improve their employment chances by pursuing additional education both formally and informally, such as foreign language classes, rather than accepting a job below their expectations. A 2017 government survey found that 17% of NEETs were preparing for company entrance exams, 6% were preparing for university entrance exams and 16% were engaged in other types of informal education (OECD, 2019). Such training does not increase wages, productivity or employability (H. Kim, 2015). Another study found that former NEETs have lower employment rates and wages and higher rates of unemployment and economic inactivity. Moreover, the longer the NEET experience, the stronger the negative impact (Nam and Kim, 2013). Repeated job-seeking delays the transition to the labour market and imposes high opportunity costs.

**Figure 12. The share of NEETs in Korea is high**

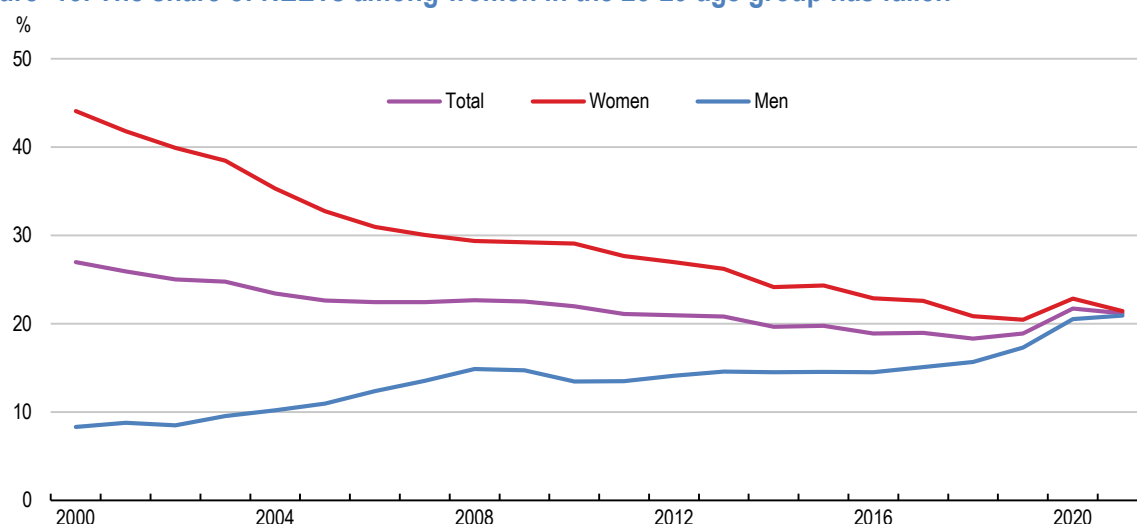
Percentage of the population aged 15-29 in 2017



Note: The Korean government considers that young people engaged in informal education should be excluded from the definition of NEETs. The OECD definition includes those in informal education, in part to ensure international comparability. The share of NEETs in Korea is calculated from the government's Economically Active Population Survey.

Source: OECD (2018), Education at a Glance; OECD (2019), Investing in Youth: Korea.

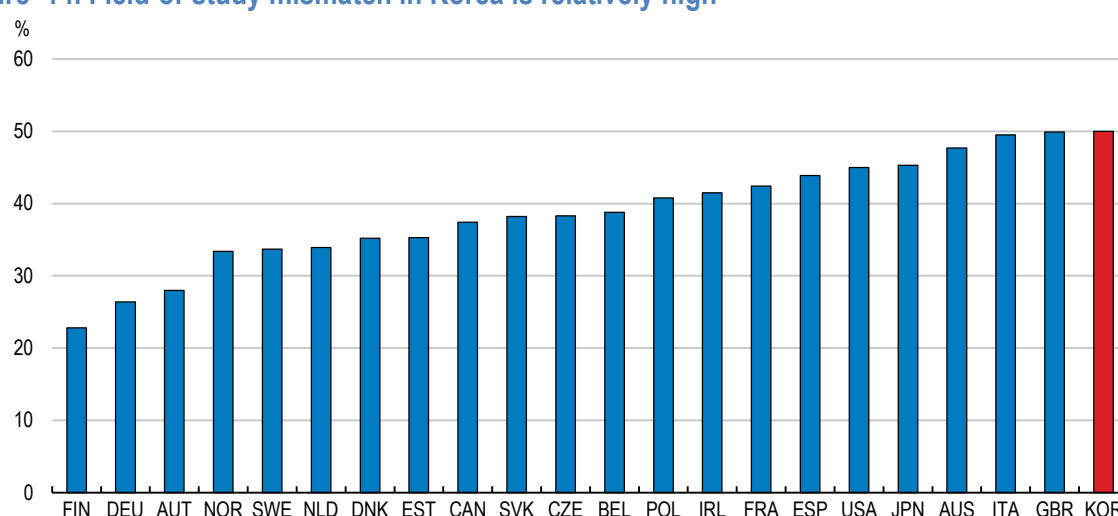
StatLink 2 <https://stat.link/m0scpq>

**Figure 13. The share of NEETs among women in the 25-29 age group has fallen**

Source: Calculations by Kyungsoo Choi from Statistics Korea, the Economically Active Population Survey, micro datasets.

StatLink 2 <https://stat.link/t27l2g>

Labour market mismatch also hurts those who do find jobs. The field-of-study mismatch is relatively high in Korea: 50% of university graduates are employed in a field unrelated to their field of study (Figure 14). Credentialism contributes to mismatch by encouraging students to focus on attending the most prestigious university rather than on finding a programme that corresponds to their field of interest. College and university graduates spend around nine months on average searching for a job. Despite the lengthy job search, young Koreans stayed at their first job for only 1½ years on average in 2017. For the 20-24 age cohort, the average was only about nine months, half of the OECD average. Almost three out of five young people left their first job because they were dissatisfied with their work conditions or promotion chances. In 2015, 44.5% of university graduates and 78.5% of post-graduate degree holders reported that they were over-qualified for their job. In contrast, less than 10% of high school graduates felt over-qualified, while one-third reported that they were under-qualified, suggesting weaknesses in vocational high schools (OECD, 2019).

**Figure 14. Field-of-study mismatch in Korea is relatively high**

Note: Belgium includes only Flanders and the United Kingdom includes only England and Northern Ireland.

Source: Montt (2015).

StatLink 2 <https://stat.link/q6gicx>

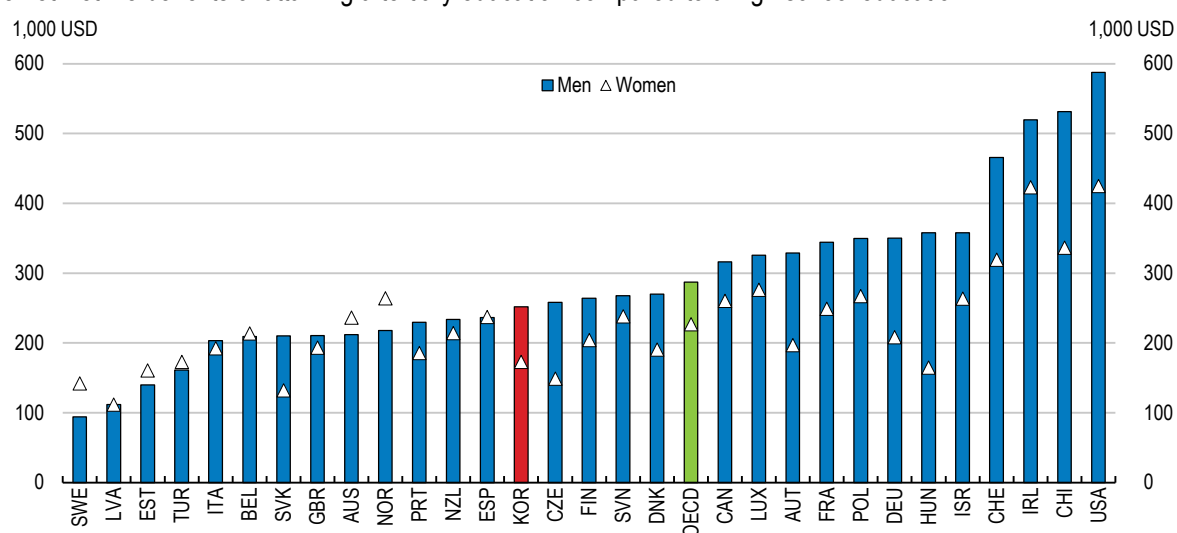
### What drives the demand for higher education given the mismatch problem?

The high share of tertiary graduates compared to other OECD countries is not driven by financial returns to education, as the large supply of university graduates deflates the value of their degrees and earning prospects. In 2019, the wage premium for tertiary graduates relative to high school graduates was 20%, about half of the OECD average. In 2017, 29% of college and 18% of university graduates earned less than the average earnings of high school graduates (OECD, 2019). Consequently, the financial return to tertiary education, taking into account tuition fees and foregone earnings while in school, is relatively low (Figure 15) and varies widely depending on the institution attended. Indeed, the financial return is negative for a substantial share of university and college graduates. Tuition costs are relatively high, as the government provides only around 40% of the funding for tertiary institutions, well below the 66% OECD average. Tuition fees for bachelor's programmes at public institutions in Korea are the eighth-highest among the 27 countries with available data (OECD, 2021a). Moreover, four-fifths of students attend private universities, where tuition is 77% higher than in public universities (Han, 2022).

Young people and their parents thus invest significant time and money to gain educational qualifications that provide relatively meagre rewards by international standards in hopes of obtaining regular (i.e., permanent) employment in large firms or the government. Tertiary graduates who initially fail to find a job that matches their degree are often reluctant to accept other positions, reflecting high reservation wages and expectations regarding their careers. Moreover, accepting a job that is not commensurate with one's education can be a “trap”, as it may send a negative signal to other potential employers, particularly in Korea's segmented labour market. In addition, on-the-job search intensity tends to decrease and the human capital gained in school diminishes. A study in Belgium found that accepting a job for which one is overeducated substantially delays the transition to an appropriate job (IMF, 2018). In sum, the decision to reject jobs below their education level contributes to low employment rates and high levels of NEETs but may be rational for many educated young people, despite the risk of a scarring effect from unemployment and inactivity.

**Figure 15. Financial returns to tertiary education are relatively low**

The net lifetime benefits of attaining a tertiary education compared to a high school education



Note: In USD converted using PPPs for GDP. Future costs and benefits are discounted at a rate of 2%.

Source: OECD (2021a).

StatLink 2 <https://stat.link/p8mxcj>

## ***Reforming the education system to reduce mismatch with labour demand***

Education reforms to ensure that education and the labour market work well together need to overcome the widely-held belief that the only path to success is a degree from a top university leading to a regular job at a large corporation or in the public sector. Education should encourage students to follow their own interests and develop their talents by providing a wider range of paths to success. Creating such paths requires shifting the focus of the education system from fostering competition to building human capital (Y. Kim, 2015). Such an approach would avoid excluding those who fail in the traditional path leading to prestigious universities (H. Kim, 2015). This would also promote social inclusion, as success in higher education is increasingly linked to socio-economic status. To be fully effective, educational reforms must be accompanied by measures to break down labour market dualism and raise SME productivity and wages, thereby encouraging young people with tertiary education to accept jobs in smaller firms rather than queueing for jobs in large firms and the public sector (see below).

### *Secondary education*

Secondary education should provide a range of skills to boost students' employability and productivity but has instead become excessively focused on university admission. The emphasis on measurable skills, such as mathematics, Korean and English, comes at the detriment of less measurable skills such as creativity, critical thinking, collaboration and communication, which are sometimes referred to as the 4Cs (Han, 2020). The latter are equally valuable to employers and society and crucial to cultivating new competencies that meet future demands.

Changing secondary education requires reforming the university application process by reducing the importance of the College Scholastic Ability Test (CSAT), the critical university entrance exam given nationwide once a year. Most companies open late on exam day to minimise traffic and flights are grounded during the English listening comprehension test to reduce noise. Applicants dissatisfied with their results can take the test again. Around one-fifth of applicants sit out of formal education for a year in order to prepare to take the exam a second time and gain admission to a higher-ranked university (the so-called *Jaesoosaeng*). Some even take it three times, further delaying their entry to university and the job market. The intense pressure to gain admission to high-ranked universities and the long hours at school and *hagwon* to prepare students for the CSAT reduces the well-being of young people. In the 2015 OECD PISA study, Korean 15-year-olds had the lowest share reporting high life satisfaction among OECD countries and the second-highest share reporting low satisfaction (Figure 16). A lack of free time – reflecting the longest hours spent studying among OECD countries – contributes to low life satisfaction. Korea is the only OECD country where young people devote less time to leisure and personal care than adults.

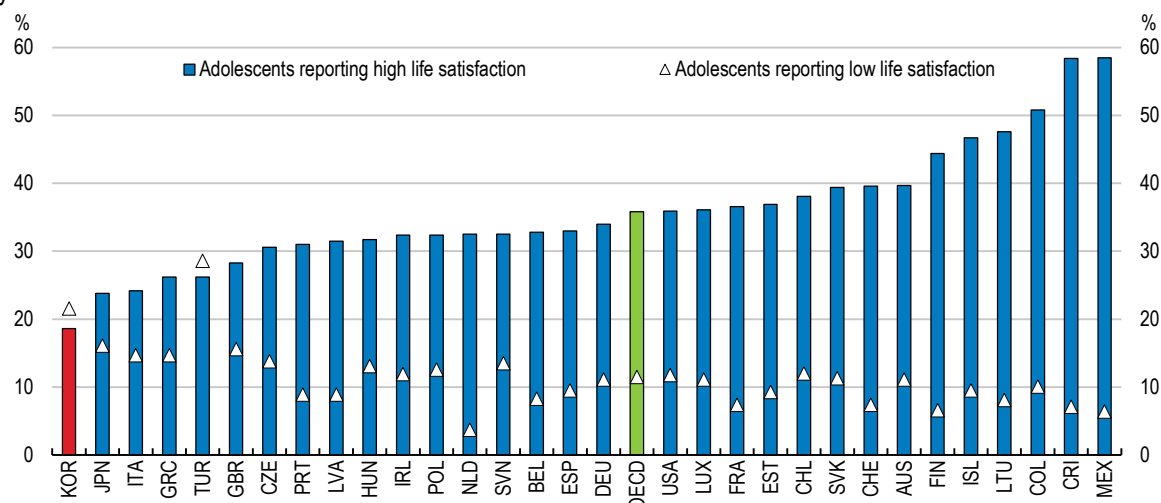
A number of countries have moved away from requiring that university applicants take standardised exams. In the United States, for example, Ivy League universities no longer require applicants to take standardised exams (the SAT and ACT). Korea moved in that direction in 2008 with the introduction of the “admissions officer system”, which includes a number of criteria for admission including school grades, essays, interviews and recommendations from teachers, in addition to the CSAT. The new system was aimed in part at reducing the role of *hagwons*. However, *hagwons* have adapted by providing courses helping students with the additional criteria, such as essays and interviews. With about three-quarters of students from primary to high school participating in private education, spending reached a record KRW 23.4 trillion (USD 18.8 billion, 1.2% of GDP) in 2021. Moving further away from the CSAT would reduce the intense pressure on students while improving secondary education.

Enhancing career guidance and counselling is essential to improve students' educational choices and facilitate transition from school to work. At least one “career teacher” must be assigned to each primary, middle, and high school. By 2020, career teachers had been assigned to 91% of middle and high schools, and surveys of students suggest that it has been effective. Greater involvement of employers in student

career counselling, which has had positive effects in many countries, would be beneficial (OECD, 2019). It is also important to focus on disadvantaged students. In the 2015 Programme for International Student Assessment, 52% of Korean students from high socio-economic backgrounds had met with a career advisor compared to 42% from low backgrounds, who would likely benefit most.

**Figure 16. Life satisfaction of Korean adolescents is low**

15-year-olds in 2015



Source: Children Well Being: Activities and Life Satisfaction, OECD.Stat, accessed 23 February 2022.

StatLink 2 <https://stat.link/y0fmqg>

Vocational education should allow graduates to be hired directly from high school, thus avoiding excessive and unnecessary competition to obtain additional educational qualifications. Meister schools and the Work-Learning Dual System are important steps in that regard. However, as noted above, only 3% of high school students attend a Meister school or participate in an apprenticeship programme. Around 95% of firms participating in the Work-Learning Dual System are SMEs, indicating a lack of interest from large companies (OECD, 2019). Moreover, there is a lack of commitment by firms of all sizes despite government subsidies to participating firms (Y. Kim, 2015). The participation of firms could be increased by reducing the costs of apprenticeships through redesigning training requirements and arranging joint training (OECD, 2019).

Demand for admission to Meister schools is weak despite the high share of graduates employed after graduation. Moreover, students can use Meister schools as an alternative path to university under the “post-learning” system. Students who work for three years after graduation from a Meister school can enter university under alternative admission procedures. In 2017, about a quarter of students who had graduated from Meister schools in 2013-14 were attending tertiary education, primarily universities. The government could consider creating Meister schools in new industries, including in services. Meister schools should create more links to employers, including SMEs, and continuously update their curricula to meet changing industry demands (Yu et al., 2020). Such elements should be incorporated into regular vocational high schools.

### *Tertiary education*

Many university graduates rely on additional informal education to land their first job, suggesting that universities do not provide the necessary skills to launch their careers. Moreover, large firms use their own entrance exams, indicating a lack of trust in degrees conferred by the education system. The rapid expansion of Korean universities has come at some expense to quality (OECD, 2012). The Global Competitiveness Report, which asks business executives and experts to rank the skillset of graduates,

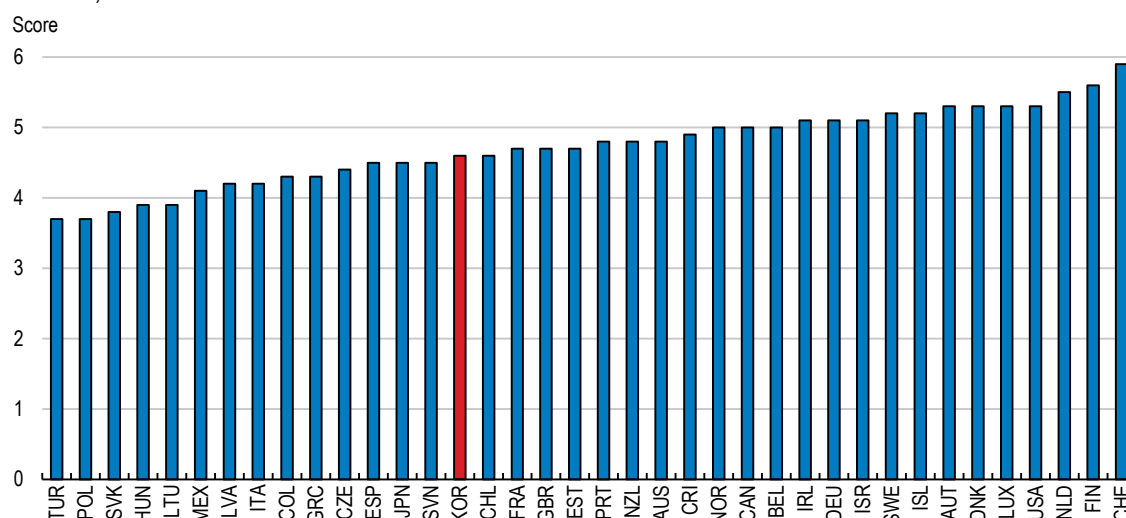
ranked Korea below the OECD average in 2019 (Figure 17). A 2014 government plan aims to reduce student enrolment in colleges and universities by 160 thousand during 2015-23 by requiring low-quality institutions to shut down or accept fewer students. However, the government's leverage is limited, as nearly four-fifths of university students attend private institutions, which are primarily funded through tuition fees. Korea could implement the US-style “gainful employment” regulation by refusing government loans and grants to students who attend institutions where the ratio between students’ debt and their later earnings is large. With nearly one-third of tertiary students receiving a need-based grant and more than one-sixth receiving direct loans, this approach could be quite effective in improving the quality of universities (OECD, 2019).

The quality of university education could also be boosted by shifting some funding from primary and secondary schools, which receive a fixed proportion of internal taxes (all national taxes excluding customs duties and ear-marked taxes, such as the transportation tax and the education tax), despite the falling number of school-age children, to tertiary institutions. Korea’s public spending per student (as a share of per capita GDP) is the highest in the OECD for primary and secondary students but ranks only 32nd for tertiary education. As the number of school-age children is projected to decline by almost one-half over 2020-60, the imbalance will widen. Under the current funding formula, spending per primary and secondary students would rise by 5.4 times by 2060, far outstripping GDP growth (H. Kim, 2021).

The continued decline in the number of high school graduates will drive the consolidation of colleges and universities going forward. Colleges and universities have to make public the employment rates of their graduates. Requiring tertiary institutions to enhance transparency by providing more information, such as salaries and employment rates by major, would enhance the effectiveness of consolidation as a tool for raising quality. However, capping student enrolment in universities in the Seoul metropolitan area (the cities of Seoul and Incheon and Gyeonggi province) weakens universities’ incentives to improve their performance to attract more students. The government’s power to regulate admissions in the Seoul metropolitan area under the Higher Education Act is a legacy of policies in place since the 1960s to limit the growth of the capital region, which accounts for about half of Korea’s population and 40% of university students (Han, 2022). To improve the quality of universities, caps on student enrolment should be gradually phased out, combined with more effective measures to assist lagging regions. In particular, increased investment in universities outside of the Seoul metropolitan area would reduce the dominance of Seoul-based universities in the ranking of Korean universities (Eichengreen et al., 2015).

**Figure 17. An international ranking of the skillset of graduates**

Seven is best; zero is worst



Source: World Economic Forum, Global Competitiveness Report 2019.

StatLink 2 <https://stat.link/anfyph>



Universities' usual practice of admitting only a strictly fixed number of students per major also constrains university students' field-of-study choices. A survey of private universities in the Seoul area found that the ratio of applicants to admissions in the preceding year had almost no effect on the number of students by department, indicating little incentive to adjust that number in line with demand given the caps set by the government on the total number of students that they can accept. This is because of population concentration in the Seoul area, which is home to wide-ranging facilities and infrastructure. Thus, universities in the Seoul area have no difficulty recruiting applicants even if they do not adjust the admission cap on each department. In contrast, in private universities outside of Seoul, which do not face caps on total admission, and where population decline contributes to competition for students, the number of students by department was sensitive to student demand (Han, 2022). Caps set by the government on total enrolment are thus a factor explaining the relatively rigid distribution of university students by department despite significant changes in demands from employers, resulting in a mismatch between education and the labour market (Han, 2022).

The lack of flexibility in student enrolment per major thus makes it difficult for higher education to keep pace with technological change. Indeed, the distribution of students by major has remained rigid despite changing demand from employers (Han, 2022). During 2010-15, the number of students who graduated with a computer science major increased by 50% in the United States, while it decreased by 5% in Korea. In the Stanford University engineering school, 43% of students enrolled in computer science compared to only 7% in Seoul National University Engineering School (J. Kim, 2017). Another study found that the number of computer science graduates at Stanford increased by more than five-fold during 2008-20, reaching 745 graduates in 2020 compared to a 27% increase at Seoul National University to 70 graduates (Oh, 2020). Indeed, Korea's labour shortage in the ICT sector is estimated at 0.4 million people. A first step to make universities more responsive to market demands could be allowing universities to expand admission to departments related to emerging or expanding industries, as is currently being discussed by the government in the case of students for the semiconductor industry. However, additional policies to encourage universities to shift resources according to social and labour market demand may still be required.

Allowing students more flexibility in choosing and changing their major would also reduce mismatch. Students apply for a specific combination of a university and a department (major). Applicants thus face a trade-off between choosing a major in which they can be accepted by a prestigious university or a major in line with their individual talents and interests. Consequently, many students abandon their preferred field of study to enter a highly-ranked university. The result is a deviation from the social optimum that depends on placing the right person in the right major, leading to a more talented workforce (Han, 2020). More flexibility in the choice of a major might also reduce the wide variation in employment rates by field of study (Table 2).

**Table 2. Employment rates vary widely by field of study**

Field of study	Engineering	Social sciences	Arts and physical education	Humanities	Natural sciences	Medicine	Education	Total
Students (%)	26.6	25.6	11.2	10.8	10.0	9.6	6.2	100.0
Employment rates (%)	71.7	64.2	64.2	57.1	64.2	83.3	64.1	67.7

Note: Employment rates are for 2018 and the share of students by field is for 2021.

Source: Korea Educational Development Institute.

It is also difficult for students to change their field of study, resulting in mismatch as students expand their horizon and discover new abilities and interests. The distribution of bachelor's degrees conferred by four-year universities is very similar to the distribution of first-year students by department (with a four-year time

lag). The dropout rate is typically low, and the possibility of changing majors by transferring to other departments or universities is very limited (Han, 2022). A 2018 survey found that 28.2% of students wanted to change their field of study, with the highest proportions in humanities (42.5%), natural sciences (35.7%) and social sciences (30.0%). A relatively large share of students who had chosen their field of study by following others or by seeking to gain admission to a prestigious university regretted their choice (46% and 37%, respectively), compared to only 15% of students who chose their field of study based on their aptitude (Han, 2020).

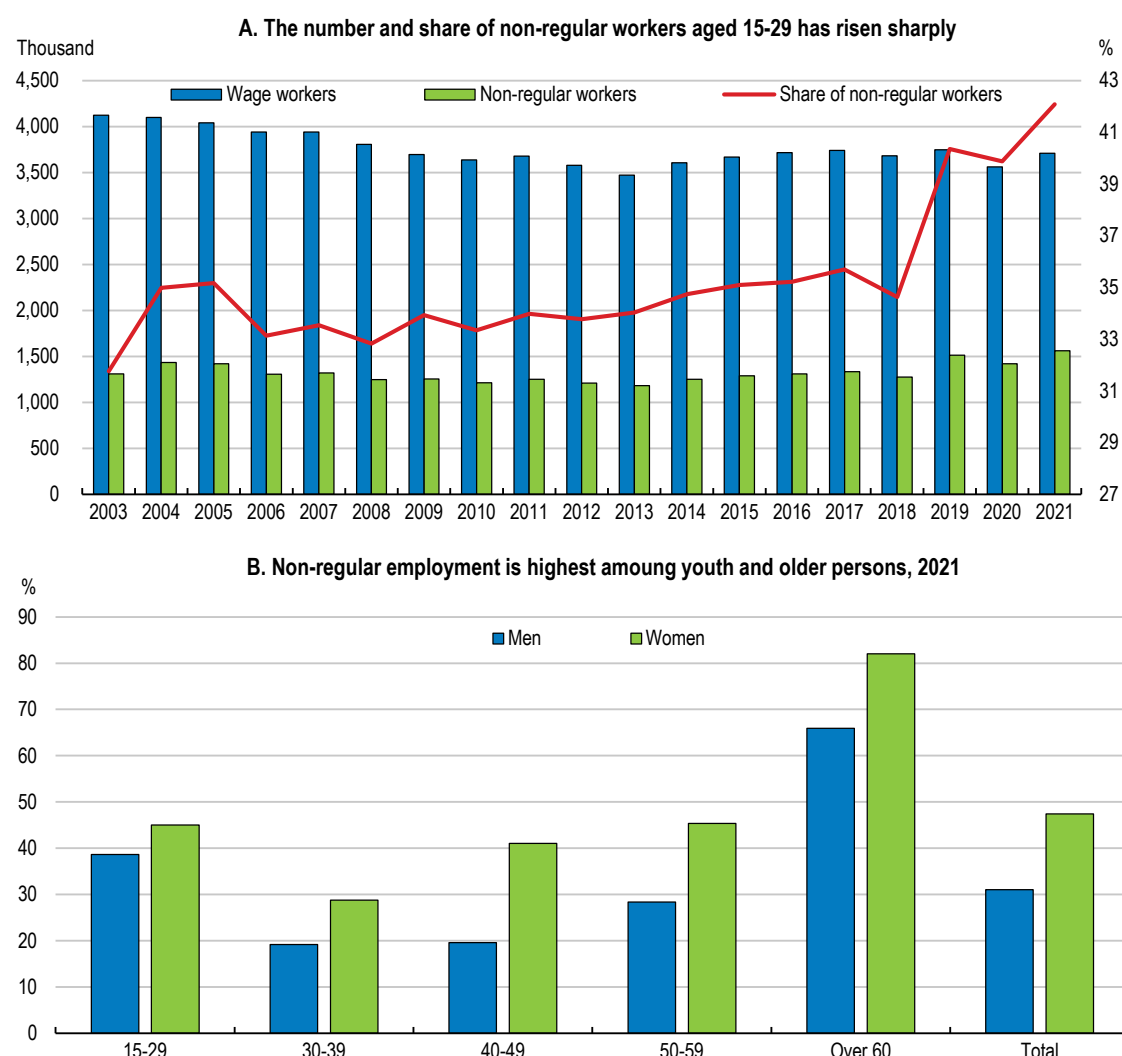
Continued improvement in career counselling would help high school graduates in their choice of a university and a field of study. Universities should allow students time to explore a range of fields after they are admitted. Most importantly, as noted above, lifting the government-set cap on total student enrolment would promote flexibility in department size, thereby allowing students to change their field of study as they discover their aptitudes (Han, 2020). Such flexibility, combined with greater collaboration between firms and universities, would help universities respond more quickly to emerging workplace trends. The ultimate goal should be an education system in which institutions distinguish themselves more by their educational specialties than their overall rank. This would also weaken students' focus on attending the most prestigious institutions.

### Labour market dualism is deeply entrenched

The mismatch in young people's educational and career aspirations and the demands of employers is driven by the polarisation of the Korean economy. Reform of the education system alone will not resolve that mismatch. The report on the first meeting of the Youth Policy Coordination Committee in 2020 (OGCP, 2020c), chaired by the Prime Minister, stated that "It is difficult to expand youth employment and improve the quality of jobs due to changes in the industrial structure and the dualistic structure of the labour market such as regular jobs versus non-regular jobs and large enterprises versus small firms" (Figure 18). This and the following section address these two obstacles.

Dualism is deeply entrenched in Korea's labour market. Regular workers receive high wages and social insurance coverage and strong employment protection (see below). Non-regular workers receive lower wages, are less likely to be enrolled in social insurance and work in precarious jobs. Non-regular workers, which includes fixed-term, part-time workers and atypical workers, edged up from 33% of wage-earners in the 15-29 age group in 2008 to 35% in 2018. A broadening of the definition of fixed-term workers boosted non-regular workers' share to 40% in 2019 and it jumped another 2 percentage points to 42% in 2021 (Figure 18, Panel A). In 2021, 45% of young female employees and 39% of young male employees were non-regular, the highest of any group except the elderly (Panel B). The increase may reflect firms' preference for the flexibility of non-regular workers to cope with possible new waves of the virus and uncertainty about the new normal as the pandemic fades.

The incidence of non-regular employment is higher for young people without tertiary education. Indeed, 72% of college graduates and 78% of university graduates were employed as regular workers in 2017, compared to less than 40% of high school graduates (Figure 19, Panel A). This contributes to higher incomes for those with tertiary education. Only 12% of university graduates were in the lowest income quartile in 2017, while 38% were in the highest quartile (Panel B). In contrast, nearly half of high school graduates were in the lowest quartile. The low income from non-regular employment, the weaker social insurance coverage (see below and Chapter 2) and the limited opportunities to move from non-regular to regular employment are key drivers of high enrolment in tertiary education, the high rate of NEETs and the low youth employment rate.

**Figure 18. The share of non-regular workers is high for young people**

Note: Non-regular workers are defined as fixed-term (i.e., non-permanent), part-time and non-typical workers (including on-call, contingent and subcontracted workers). The results are for August of each year. In 2018, the definition of part-time workers was revised and hence the data for 2019-21 should not be compared to the data up to 2018.

Source: Supplementary results of the Economically Active Population Survey by Employment Type.

StatLink 2 <https://stat.link/q2t19f>

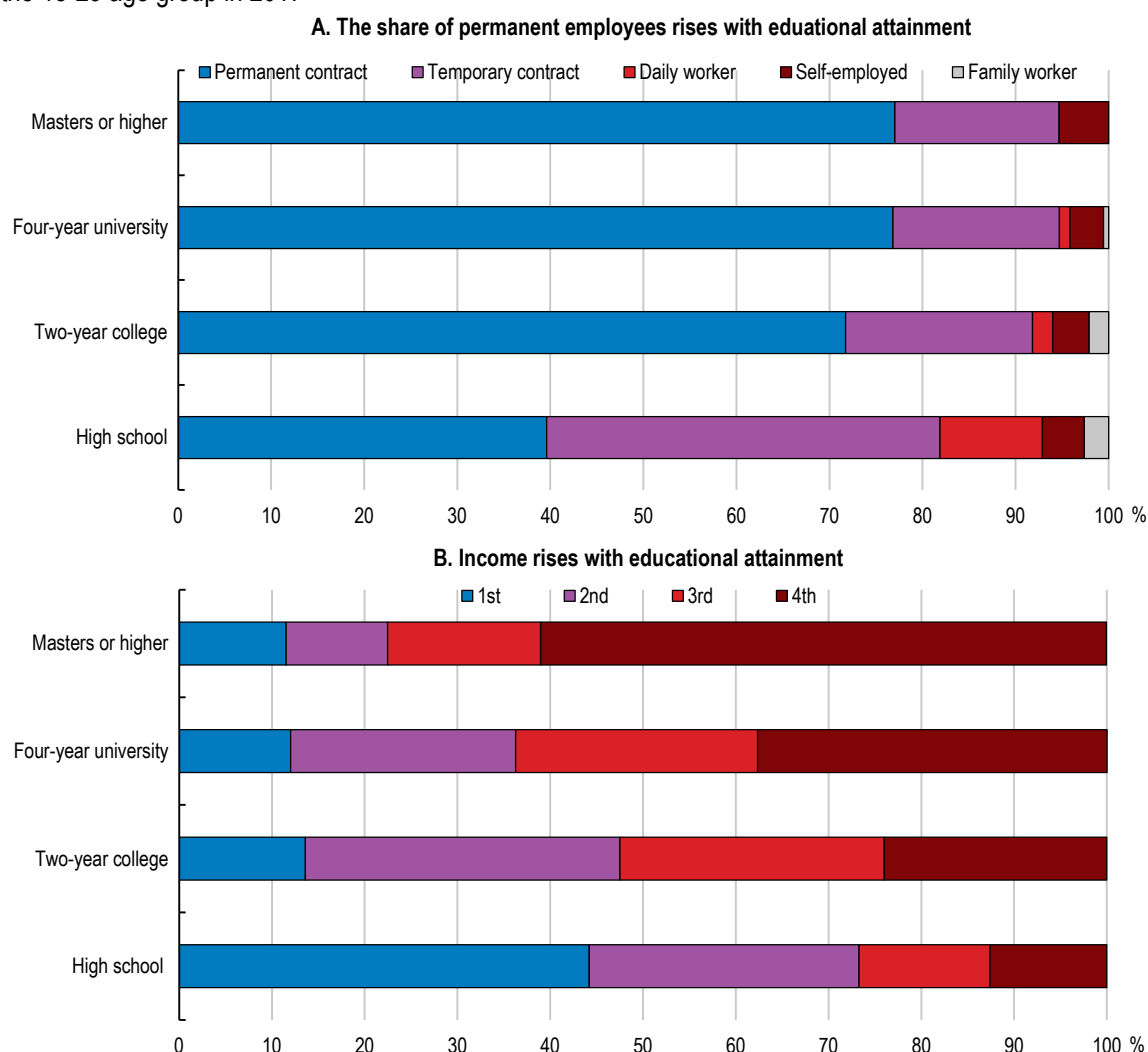
About two-thirds of non-regular workers (of all ages) are fixed-term. Consequently, the share of temporary employment in Korea was 26% in 2020, the second highest in the OECD and more than double the 11% OECD average. In 2006, fixed-term contracts were limited to two years, at which point workers are considered to be regular (permanent) and covered by standard job protection. In practice, most fixed-term workers are dismissed and replaced by new fixed-term workers within two years, as granting them regular status significantly increases costs to employers and limits their flexibility to adjust their workforce over the business cycle. The 2006 reform, aimed at promoting the transition of workers from fixed-term to regular status, has instead increased precariousness by forcing many fixed-term workers to change employers every two years.

The 2006 reform also prohibited discrimination against non-regular workers who perform similar tasks to regular workers in the same firm. The earnings gap between regular and non-regular workers, however, remains large. In 2020, the hourly wage of non-regular workers averaged KRW 15 015 (USD 13.2), 72% of that of regular workers (Figure 20, Panel A). The earnings gap is even larger in practice, as 62% of

regular workers received company bonus payments, which account for around a quarter of annual earnings, compared to 21% of non-regular workers (Panel B). Fixed-term workers are penalised by their relatively short tenure, given the strong link between tenure and wages in Korea. While only around 2.4% of permanent employees left their jobs in 2016, 18.8% of temporary and daily workers did so (Schauer, 2018). The large wage gap appears to be inconsistent with employees' skill levels. The OECD's 2013 Survey of Adult Skills found that the literacy skills of temporary workers in Korea were equivalent to those of permanent workers in the 25-64 age group and even higher in the 16-24 age group (OECD, 2013c).

**Figure 19. Tertiary education increases the chance of regular employment and higher wages**

For the 15-29 age group in 2017



Note: The share of graduates at each level by employment status and income quartile. The "less than high school" category is excluded because of the small number of observations. Each income quartile in Panel B represents approximately 25% of employed youth.

Source: OECD (2019), Investing in Youth.

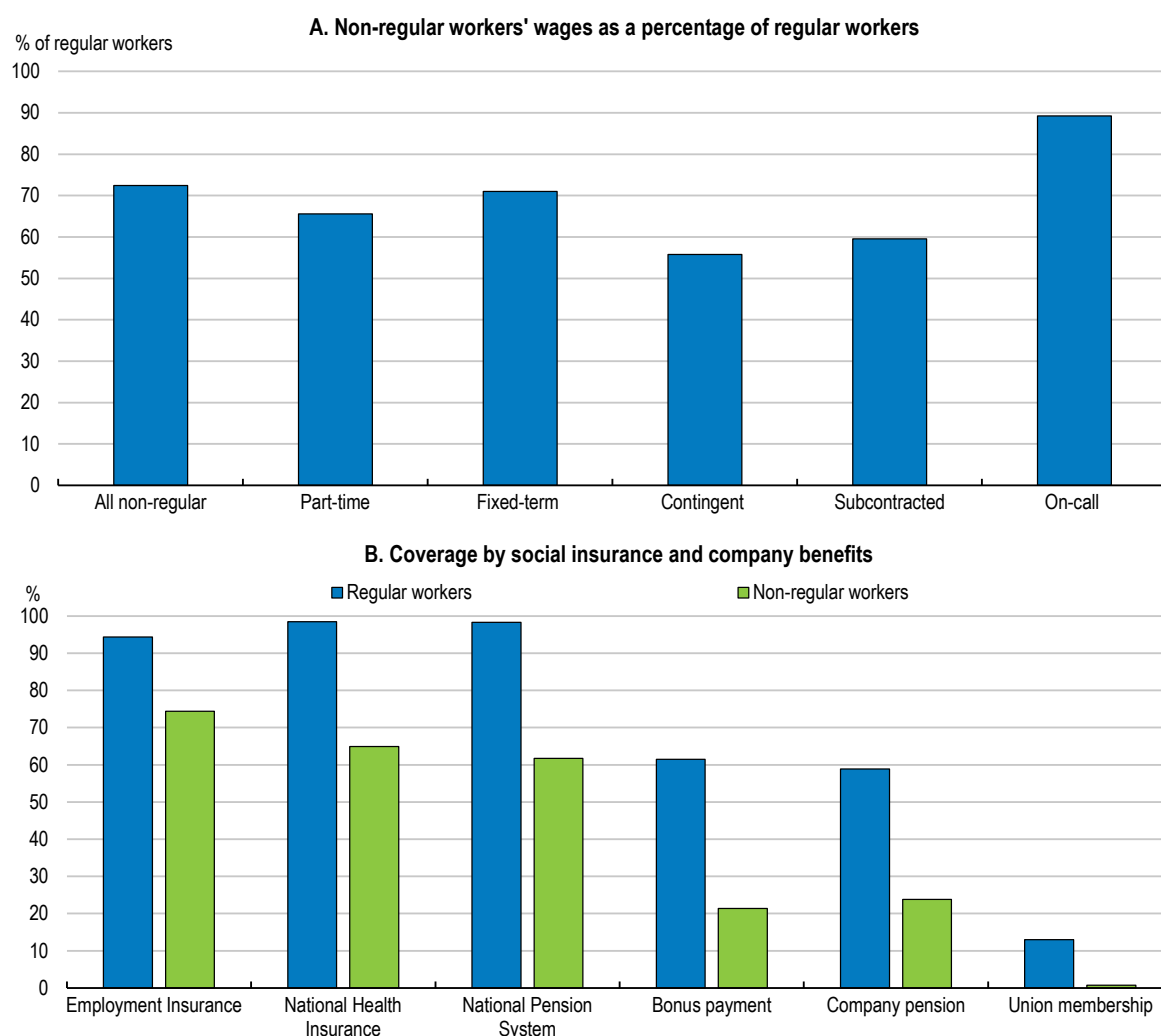
StatLink 2 <https://stat.link/coq5vs>

The proportion of non-regular workers enrolled in the National Pension System (62%), National Health Insurance (65%) and Employment Insurance (74%) in 2020 was well below the more than 90% for regular workers despite subsidised contributions for low-income workers (Figure 20, Panel B). Moreover, less than a quarter of non-regular workers were enrolled in company pension systems compared to 59% of regular workers (Ha and Lee, 2013). Finally, less than 1% of non-regular workers belong to labour unions compared to 13% of regular workers and more than one-third of regular workers in large firms. The labour

unions' focus on the interests of regular employees, particularly those in large companies and the public sector, has accelerated the dualization of the labour market (H. Kim, 2015).

**Figure 20. Wages and social insurance coverage are lower for non-regular workers**

In 2020 for all age groups of workers



Source: Ministry of Employment and Labour, Survey Report on Labour Conditions by Employment Type, [http://laborstat.moel.go.kr/hmp/tblInfo/tblInfoPopup.do?listId=118\\_161](http://laborstat.moel.go.kr/hmp/tblInfo/tblInfoPopup.do?listId=118_161).

StatLink 2 <https://stat.link/4lhfb6>

The large wage gaps between regular and non-regular workers are a major source of income inequality and poverty in Korea. In 2020, 47% of female employees (all ages) were non-regular workers compared to 31% of men (Figure 18, Panel B), making dualism a major cause of Korea's gender wage gap, which is the largest in the OECD. Moreover, non-regular workers have lower marriage and fertility rates (Jones and Fukawa, 2016). Dualism has long-lasting equity implications for future generations, as education spending in households of non-regular workers is only about half of that in regular worker households. Labour market segmentation also limits social mobility, as non-regular jobs are often traps that keep workers in low-quality jobs rather than stepping stones to regular employment (OECD, 2016). The transition rate from non-regular to regular jobs has been falling (H. Kim, 2015). Temporary and part-time workers in Korea are less likely to move to a regular job during the following year than unemployed people with similar characteristics (OECD, 2015), reflecting the stigma attached to non-regular employment. Labour market segmentation between regular and non-regular jobs tends to entrench the initial conditions of young workers' entry into

the labour market (Han, 2018). The transition from non-regular to regular jobs is most likely for highly-educated workers with longer tenure in unionised (typically large) firms, thus reinforcing the emphasis on education and large firms (Ha and Lee, 2013).

In addition to the impact on social inclusion, labour market dualism slows output growth. First, the high level of temporary employment and short average tenure discourages firm-based training, with negative consequences for productivity growth. Non-regular workers receive only 1.8% of the training opportunities provided via employers (Yun, 2016). Second, it could also encourage firms to rely on low-wage workers rather than invest in innovative technologies (Schauer, 2018). Third, the high rate of non-regular employment among youth, women and older persons discourages labour force participation. Removing obstacles to employment is a priority as Korea faces rapid population ageing.

### ***Policies to break down labour market dualism and boost youth employment***

The government has implemented many policies during the past 15 years to address labour market dualism (OECD, 2016), but as noted above, the share of non-regular workers remains high and continues to increase. Breaking down dualism requires addressing the fundamental factors that encourage firms to hire non-regular workers. Government surveys of employers report that they hire non-regular workers to ensure labour market flexibility to respond to market fluctuations, thereby avoiding the cost of laying off regular workers (OECD, 2013a). A second reason for hiring non-regular workers is their low labour costs, which are due in part to their low enrolment rate in social insurance. Breaking down labour market dualism requires a comprehensive strategy of relaxing employment protection for regular workers and increasing the enrolment rate in social insurance and training for non-regular workers.

The OECD Action Plan for Youth stated that “strict and uncertain procedures concerning the firing of permanent workers along with high severance payments tend to make employers reluctant to hire youth on an open-ended contract” (OECD, 2013b). In other words, it is not the cost of hiring or employing workers but the cost of dismissal that limits the availability of regular employment. Employment protection for regular workers is thus an important cause of low youth employment in Korea (IMF, 2018).

Weakening firms’ incentives to hire non-regular workers requires relaxing employment protection for regular workers to reduce the cost and uncertainty of dismissal. Regular workers are protected from dismissal by labour laws, court decisions, business practices, social customs and labour unions (Koh et al., 2010). In terms of legislation, employment protection for regular workers in Korea was the 13<sup>th</sup> strictest in the OECD in 2019 (OECD, 2021c). In 2017, Korea was ranked at 106<sup>th</sup> in the world in labour market flexibility and 112<sup>th</sup> in the cost of redundancy in the Global Competitive Index (World Economic Forum, 2017). Dismissals for managerial reasons require many procedures, including consultations with workers, criteria for selecting the employees to be dismissed and 60 days advance notice. Dismissals above a certain threshold must be reported to the government. In addition, there must be “urgent managerial reasons”, which are set by the court and firms must make every effort to avoid dismissals. Thus, the high costs of dismissal are accompanied by significant uncertainty of long and complex court rulings. Furthermore, Korea has a high frequency of reinstatement orders in cases of unfair dismissals (OECD, 2016). Consequently, the share of permanent workers laid off in 2016 was only 0.4%, compared to 14.2% for temporary and daily workers (Schauer, 2018).

At the same time, relaxing restrictions on the use of non-regular workers would expand opportunities for those who prefer more flexible working hours and conditions. For example, regulations limit the employment of temporary workers and dispatched workers (i.e., workers sent from temporary employment agencies) to a maximum of two years and dispatched workers are limited to 32 specific job categories and prohibited from production jobs. In Korea, as in other countries, the share of young people who prefer greater job flexibility and more leisure has increased.

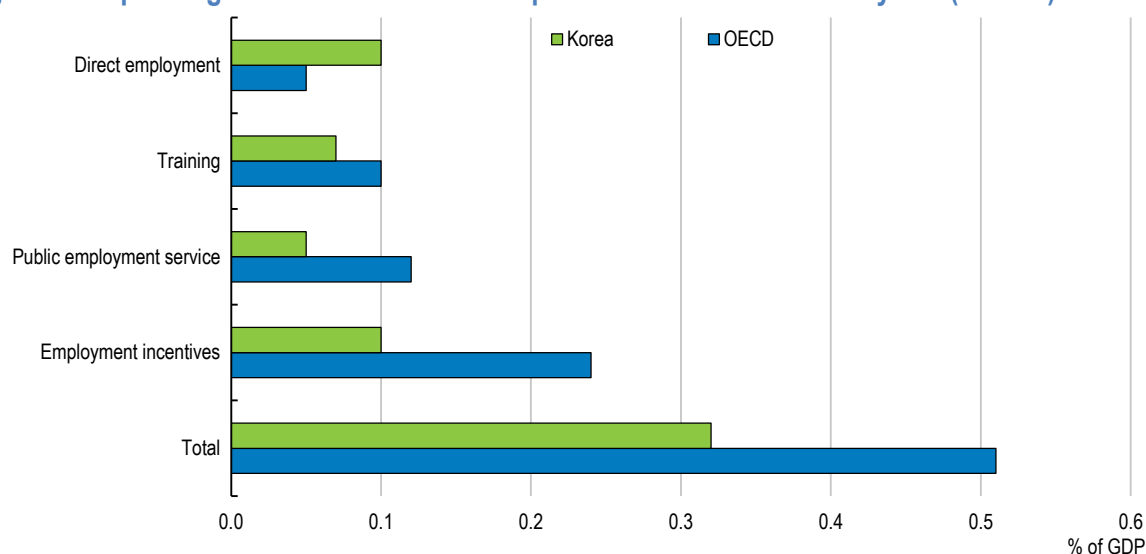
A second motivation for hiring non-regular workers is to reduce labour costs. As noted above, their wages are significantly lower than those of regular workers and they are less likely to be enrolled in social

insurance (Figure 20). Hiring workers who are not enrolled in national pension, health and unemployment insurance lowers employers' labour costs by about 8-9% (OECD, 2016). Increasing the enrolment rate, in part through the plan to centralise the collection of contributions in the National Tax Service, is a priority (see Chapter 2).

Training for non-regular workers is important to facilitate the shift of non-regular workers to regular status. As noted above, very few non-regular workers receive firm-based training. Moreover, government spending on training is well below the OECD average as a share of GDP (Figure 21). Total spending on active labour market policies (ALMPs) was 0.3% of GDP in 2019 compared to the 0.5% OECD average. The only category of ALMPs where Korea surpasses the OECD average is direct job creation, which accounted for a third of ALMP spending in 2019 and increased further during the COVID-19 pandemic. In 2019, 47% of the spending for direct job creation was used to create jobs for older persons and the average age of participants in the programmes for older persons was about 75. However, a summary of over 200 recent studies of ALMPs finds that direct job creation programmes are generally ineffective in the short and longer term and might even have negative employment effects (Card et al., 2018). Possible reasons include the lack of transferable skills acquired, the stigma of public jobs, a reduction in job search efforts and a crowding out of private-sector job creation. In an effort to improve direct job creation programmes, the government evaluates programme outcomes based on information on participants submitted by relevant ministries, examining their rate of private sector employment within six months of leaving the programme, job retention length, and job placement period. The government has also been improving efficiency by cutting the budget of, or scrapping, programmes ranked in the bottom 10-20% of evaluations.

The relaxation of employment protection for regular workers and expansion of the enrolment rate in the social safety net and training for non-regular workers are essential steps in a shift from protecting jobs to protecting workers, an approach often described as “flexicurity”. Further development of the social safety net (see Chapter 2) is also a key element of moving towards flexicurity. Such a strategy would boost the employment of young people, as well as women and older persons, and reduce income inequality. Flexicurity would enhance resource allocation and thereby increase productivity and accelerate structural change by reducing product market dualism – the wide productivity and wage gaps between SMEs and large firms (see below) – which is linked to labour market dualism. However, additional spending on social insurance and ALMPs must be financed, and increased social protection balanced against potential negative impacts on work incentives from raising the tax wedge on employment (see Chapter 2).

**Figure 21. Spending on active labour market policies in Korea is relatively low (in 2019)**



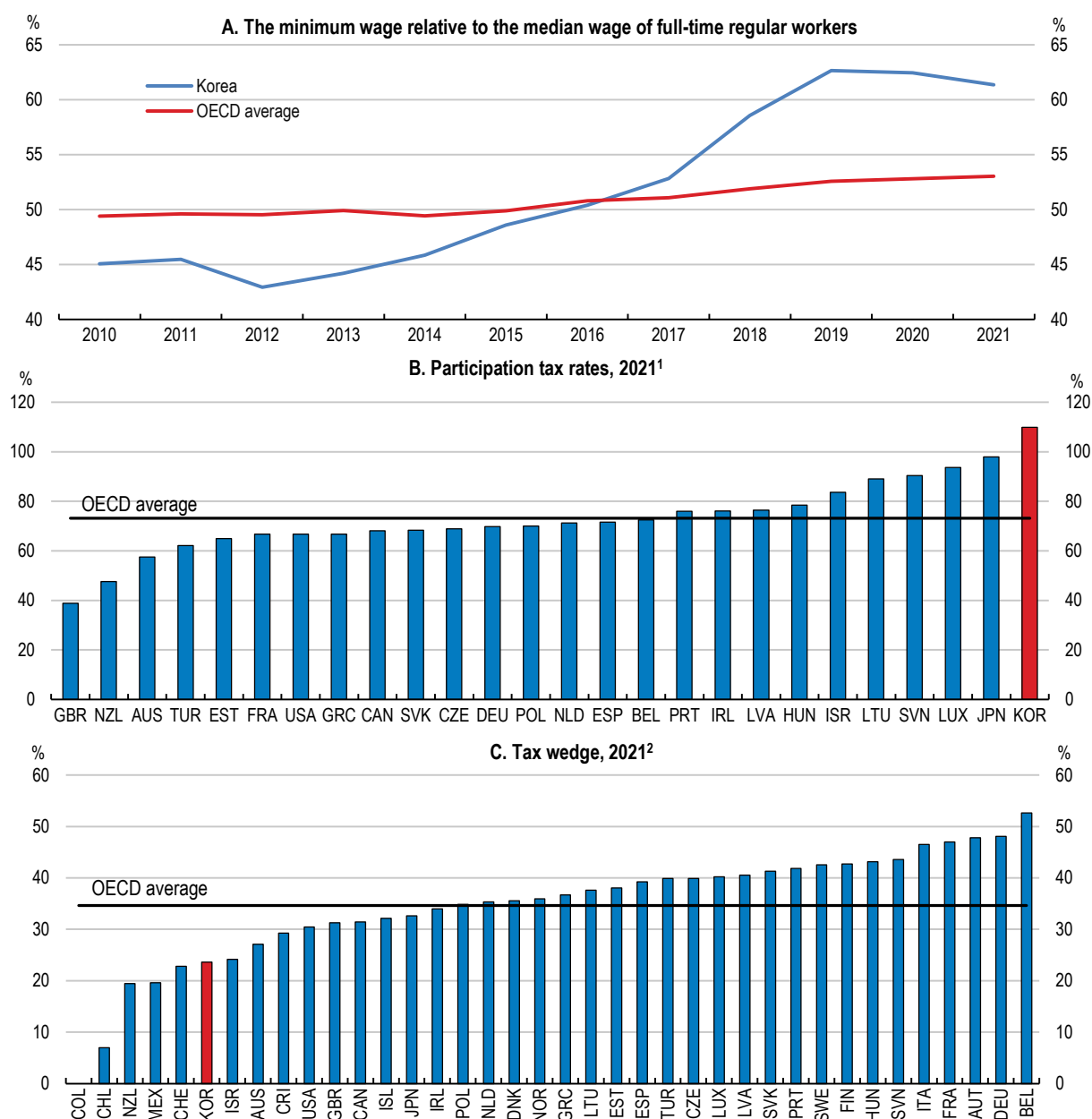
Source: Public expenditure and participant stocks on LMP, OECD.Stat, accessed on 10 March 2022.

StatLink 2 <https://stat.link/dop3q7>

### Other labour market policies to promote youth employment

Korea's minimum wage has increased sharply, from 43% of the median wage of full-time regular workers in 2012 to 63% in 2019 (Figure 22, Panel A). The increase has reduced the incidence of low pay (the share of workers earning less than two-thirds of median earnings) from 24% to 17%, bringing it closer to the 14% OECD average. Raising the minimum wage may contribute to productivity growth by making labour unaffordable in low-productivity firms, thus shifting workers to higher level activities.

**Figure 22. Korea's minimum wage and participation tax rates are very high**



1. The fraction of income which is deducted by the combined effect of taxes and benefit withdrawals when entering or returning to work. Calculations based on a single person without children who was working full-time in a job that pays the minimum wage.

2. Calculated as the sum of personal income tax, employee and employer social security contributions plus any payroll taxes, minus any benefits received by the employee, as a percentage of labour costs for a single person earning the average wage.

Source: "Minimum relative to average wages of full-time workers", OECD.Stat, accessed 9 September 2022; OECD Tax and Benefit Models; OECD (2022), Taxing Wages 2022.

StatLink 2 <https://stat.link/ya3bvp>



However, if raised too quickly, it may entail sudden cuts in employment. The 29% hike in the minimum wage during 2018-19 led to a slowdown in overall employment growth despite five sets of measures to help small firms cope with the increase and a sharp rise in public employment (OECD, 2018). The government conducted in-depth surveys in 2018-19 of vulnerable industries, such as wholesale and retail, food and lodging, and small and medium-sized manufacturing industries, to analyse the impact of the minimum wage hike. To cope with the hike, firms reduced employment and working hours, changed the wage structure, in part by including bonuses in basic salary, and took steps to improve productivity and management. Subsequently, the minimum wage increased by less (+2.9% in 2020, +1.5% in 2021 and +5.0% in 2022). Going forward, continued moderate minimum wage increases are called for to avoid pricing lesser-skilled young people out of the labour market and take into account conditions in vulnerable industries, particularly SMEs, where 90% of youth are employed.

In addition, the incentives for low-wage workers to return to work are weakened by the high level of employment insurance benefits (Chapter 2). Benefit recipients who take a job paying the minimum wage face a “participation tax rate” that was the highest among OECD countries in 2021 and the only one that exceeds 100% (Figure 22. Panel B). The negative effect on employment is likely to be largest for young people, who have lower wages on average.

The tax wedge measures the difference between labour costs to the employer and the net take-home pay of the employee. A higher tax wedge weakens incentives to work and lowers employment. The tax wedge for a single person in Korea earning the average wage is one of the lowest in the OECD and thus has little impact on young people’s incentives to work (Figure 22. Panel C). Limiting the rise in the tax wedge as social spending rises with population ageing is important to sustain employment.

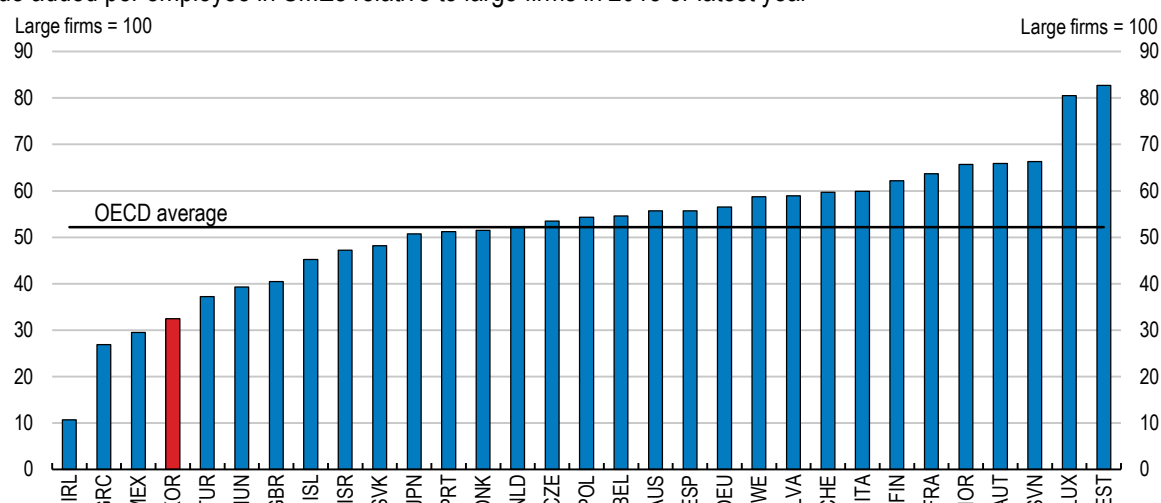
### Product market dualism: the gap between SMEs and large firms

Employment policies for youth “are rarely effective because they cannot go to the heart of the problem, which is creating decent jobs in the private sector” (S. Kim, 2017). Youth employment is likely to depend increasingly on SMEs. During Korea’s high-growth era, job creation was driven by large firms, particularly those associated with the business groups (known as *chaebols*). However, large firms are increasingly internationalised, have shifted to a more capital and technology-intensive product mix and rely more on outsourcing (OECD, 2018). By 2016, Korean SMEs – defined as firms with less than 300 employees – accounted for 80% of business sector employment, the second highest share in the OECD, and well above Japan (53%) and the United States (42%) (OECD, 2020a). When large firms do increase employment, they tend to hire experienced workers rather than new graduates, given uncertainty about their skills. Increasing youth employment therefore depends largely on the growth of innovative SMEs. However, productivity in Korean SMEs is only one-third of that in large firms compared to the OECD average of over one-half (Figure 23). This is linked to low productivity in Korea’s service sector, where SMEs account for about 90% of employees.

The large productivity gap holds back economic growth and is an important factor behind wage inequality. Firms with at least 300 employees pay youth 50% higher wages than those with less than ten (Figure 24). The gap widens to 140% among workers aged 55 to 64. Relatively low productivity makes it difficult for SMEs to offer high-quality and well-paid regular jobs. Consequently, the share of non-regular workers was 48% at firms with less than five workers, 32% at those with five to 300, and 14% at those with more than 300 (OECD, 2016). SMEs are trapped in a vicious circle; they face labour shortages because their low productivity and wages mean they cannot attract high-quality workers and end up with less-skilled non-regular workers, while the failure to acquire high-quality workers prevents SMEs from raising productivity and wages. SMEs report skill shortages, including for skills that only require high school degrees. Labour market dualism is thus linked to the dualism between large firms and SMEs, and youth employment cannot be increased in a sustainable way without addressing this dualism.

**Figure 23. The productivity gap between SMEs and large firms in Korea is wide**

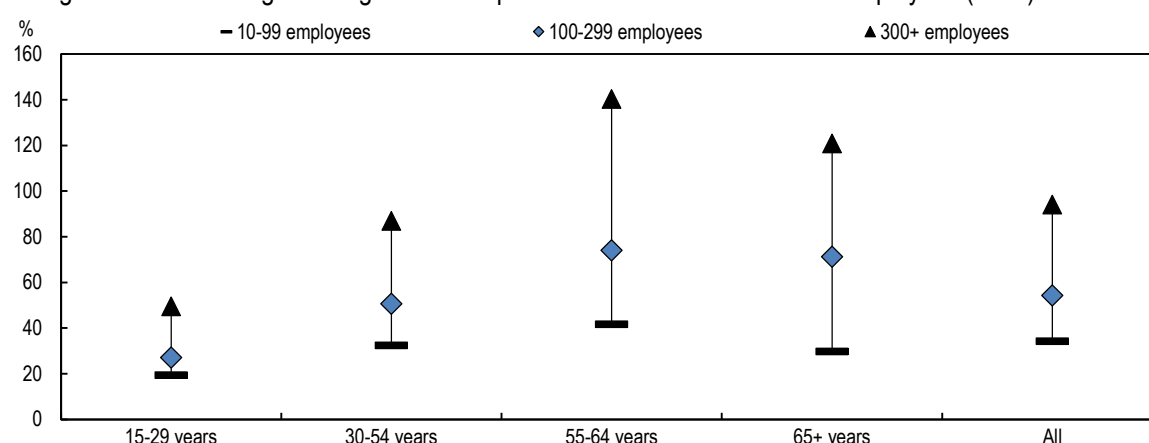
Value added per employee in SMEs relative to large firms in 2015 or latest year



Source: OECD (2018), OECD Economic Survey of Korea 2018.

StatLink 2 <https://stat.link/pdukgy>**Figure 24. Large firms pay a significant wage premium in Korea**

Percentage difference in wages in large firms compared to firms with less than ten employees (2017)

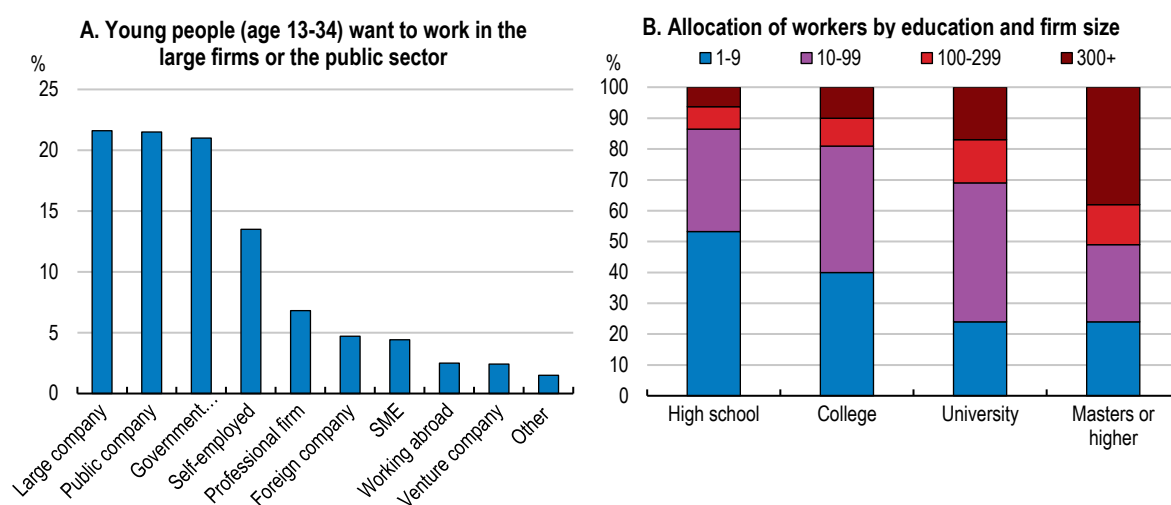


Note: The sample is restricted to full-time employees only, defined as those working 30 hours or more per week.

Source: OECD (2019), Investing in Youth: Korea.

StatLink 2 <https://stat.link/h5efly>

Only 4% of young people want to work in an SME, given the low wages, according to a 2021 government survey of people aged 13 to 34 (Figure 25, Panel A). Many SMEs employees face a “double penalty”: a high risk of being a non-regular worker and being paid less than non-regular workers in large firms (Ha and Lee, 2013). Instead, nearly two-thirds of young people hope to work at large firms, government agencies or public companies. The probability of working at a large company rises with educational attainment, fuelling the drive for tertiary education. In 2017, 38% of workers with a master’s degree or higher worked in companies with at least 300 employees, compared to only 10% and 6% for college and high school graduates, respectively (Panel B). In contrast, 86% of high school graduates worked in firms with less than 100 workers. Tertiary graduates who are initially unsuccessful in obtaining a job in the public sector or large companies tend to queue for such jobs rather than fill labour shortages at SMEs.

**Figure 25. Education increases the chance of working at large firms**

Source: Statistics Korea, 2021 Social Survey; OECD (2019), Investing in Youth: Korea.

StatLink 2 <https://stat.link/yg4lrb>

### ***Innovative SMEs are an important source of job creation for young people***

A study of all firms included in the employment insurance database each year during 2014-17 ranked firms by their total employment growth. The top 15% of firms increased their youth employment by 270 thousand, an annual increase of 33% (Table 3, Panel A). However, the bottom 35% of firms reduced youth employment by 588 thousand. Firms in the top 15% stood out in several aspects: i) they were relatively small, with an average of fewer than five employees in 2014, compared to 22.6 employees for the bottom 35%; ii) they were relatively young; and iii) their R&D spending increased extremely rapidly, while that in the bottom 35% declined. Small, innovative firms are thus a key driver of youth employment.

This conclusion is supported by comparing firms by the number of employees (Table 3, Panel B). Large firms (300 employees or more) expanded their youth employment by 16 thousand over 2014-17. However, young people accounted for only 4.7% of their increased employment, as large firms prefer to hire experienced employees rather than new graduates. In SMEs (less than 300 employees), youth employment fell by nearly 88 thousand, reflecting young people's aversion to working at SMEs given their low wages and the prevalence of non-regular employment. However, there exists considerable heterogeneity among SMEs. The sharp decline in youth employment in micro-firms (fewer than ten employees) was partially offset by an increase in firms with ten to 299 employees.

**Table 3. The sources of job creation for young people**

A. A small share of firms account for a large part of the growth in youth employment (2014-17)<sup>1</sup>

Percentile	Change in employment			Business characteristics		
	1 000 workers	Annual growth (%)	Share of the increase (%)	Employment in 2014	Years in business	R&D spending (annual % growth)
95-100	157.0	54.3	30.4	3.1	6.1	40.3
85-95	112.6	21.5	21.8	4.7	7.3	29.2
75-85	191.8	12.3	37.2	13.7	9.1	18.3
35-75	54.4	3.7	10.5	14.4	9.6	9.4
Growing firms	515.9	13.3	100.0		10.2	
0-35	-587.8	-22.2		22.6	9.3	-0.4
Total	-71.9	-2.3		15.6		10.2

B. Innovative small firms are driving youth employment (2014-17)<sup>1</sup>

Type of firm	Share of firms (%)	Change in employment		Youth's share (%) of total hires	Total 2017 employment (in 1 000)	Years in business	R&D spending (annual % growth)
		Total (1 000 workers)	Youth (1 000 workers)				
300+ employees	0.5	344.3	16.0	4.7	1,077.2	14.7	34.2
1-9 employees	75.0		-119.3		3.4	8.8	32.2
10-299 employees	24.4		31.3		32.7	10.9	37.9
1-299 employees	99.4	136.3	-88.0		10.6	9.3	33.6
Venture firms <sup>2</sup>	3.0	103.6	27.5	26.5	29.1	9.0	61.1
Inno-Biz firms <sup>3</sup>	1.9	46.9	10.7	22.8	49.3	13.8	38.1
Innovative firms <sup>4</sup>	3.9	114.9	29.1	25.3	33.9	10.4	50.7
Total	100.0	480.6	-71.9				

1. Includes all firms included in the employment insurance database each year from 2014-17 (892 561 firms in total).

2. SMEs that have received investment from a venture capital fund.

3. SMEs that have been in business for at least three years and have received a high score from the Korean Technology Finance Corporation.

4. Firms classified as venture and/or Inno-Biz (the categories overlap). In 2016, there were 51 322 such firms.

Source: Yoon et al. (2019).

The key driver of youth employment has been “innovative SMEs” (firms certified as venture and/or Inno-Biz firms by the government). During 2014-17, young people accounted for a quarter of hiring by innovative SMEs. Consequently, their increase in youth employment was 1.8 times larger than in large companies (Table 3, Panel B). Venture businesses, in particular, stand out for their relatively small size, young age and investment in R&D, which increased at an annual rate of 61% over 2014-17.

### ***Policies to promote innovative SMEs and start-ups as drivers of youth employment***

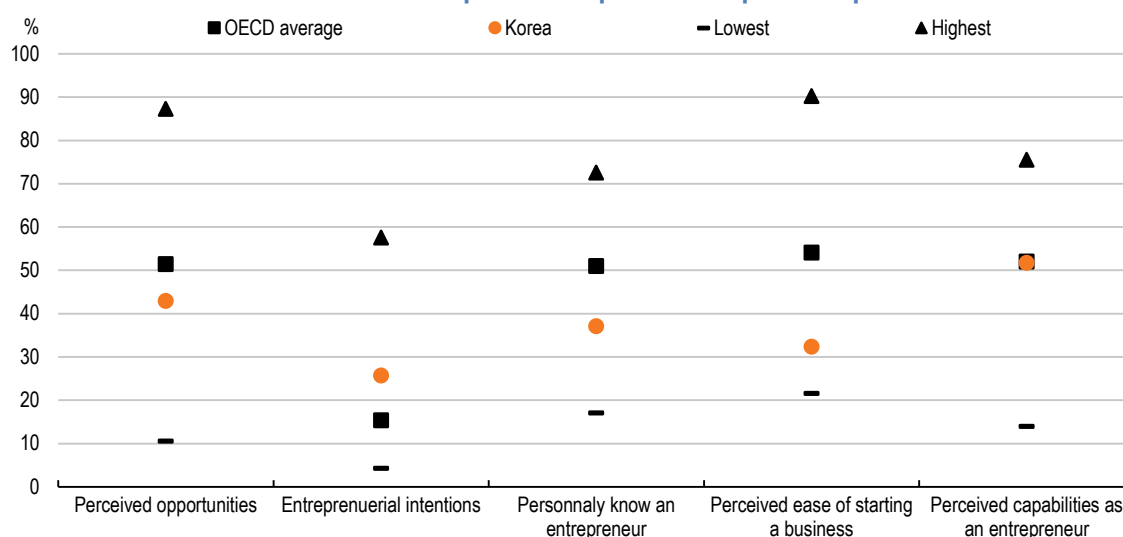
Past *OECD Economic Surveys of Korea* have focused on policies to raise productivity in SMEs and facilitate the creation of innovative start-ups:

- Innovation: narrowing productivity gaps between large firms and SMEs and between manufacturing and services requires greater diffusion of technology. While Korea is a global leader in digital technology and infrastructure, small firms in particular have significant scope for digitalisation. However, SMEs show limited capacity to invest in new technologies, such as cloud computing, big data, and AI, reflecting obstacles such as inadequate funds to invest in innovation and a lack of human resources (OECD, 2018). Implementing the Digital New Deal and the project to increase the number of smart SME factories should help narrow the gap between SMEs and large firms (OECD, 2020b).
- Public support for SMEs: Korea provides a high level of support to SMEs relative to the OECD average, including public loan guarantees that are among the highest in the OECD. Around 43% of SMEs in Korea receive government support (OECD, 2021). Studies have found that government support for SMEs has lowered the productivity of recipient firms and increased the survival probability of incompetent ones (Chang, 2016a; Chang, 2016b). To tackle these challenges, the government introduced a graduation scheme for policy loans in 2019 and in 2020, limited the number of support programmes that an SME can benefit from to three during the preceding five years. In 2018, the government reduced the use of technology credit guarantees of a corporate

business to a maximum of seven years. Finally, in 2019, the government introduced an evaluation scheme, the SMEs Integrated Management System, to track SME central government support programmes of KRW 5 billion or more, in order to enhance the effectiveness of such policies.

- **Regulatory reform:** the OECD's 2018 product market regulation index shows that Korea's regulations are the sixth-most stringent among OECD countries. Moreover, regulations impinge more heavily on services, with adverse impacts on SMEs given their concentration in that sector. Further tailoring regulations to company size would help reduce the burden on SMEs, which tend to have less capacity to conform to regulatory standards. Regulatory reform should include a comprehensive negative-list system and expanded use of regulatory sandboxes, which facilitate the creation of firms using new technologies and producing new goods and services (OECD, 2018).
- **Reduce obstacles to SME financing:** SMEs rely primarily on bank loans that are guaranteed by collateral, typically real estate. Firm failure thus imposes heavy burdens on SME owners and limits second chances. Increasing lending based on firms' technology by expanding public institutions that provide technical analysis to private lending institutions would reduce the reliance on loan collateral. Further development of venture capital, in part through the Korea New Exchange (KONEX), founded in 2013 to help attract financing for early-stage SMEs and start-ups, would promote entrepreneurship and the creation of innovative SMEs (OECD, 2018).
- **Entrepreneurship:** Koreans rank above the OECD average in the Global Entrepreneurship Monitor survey (Figure 26) in terms of interest in starting a company and average in terms of their perceived capabilities as an entrepreneur. However, they rank relatively low in the perceived ease of starting a business, opportunities for starting a business, and the percentage that know an entrepreneur. Promoting female entrepreneurs is a priority, given that the gender gap in entrepreneurship (defined as self-employed persons with employees) in Korea was the third highest in the OECD in 2016 (OECD, 2018).

**Figure 26. Korea's attitudes toward entrepreneurship show scope for improvement**



Note: The figure is based on 25 OECD countries included in the survey.

Source: GEM (2020), Global Entrepreneurship Monitor 2019/2020 Global Report, London Business School, GEM Global Entrepreneurship Monitor ([gemconsortium.org](http://gemconsortium.org)).

StatLink 2 <https://stat.link/rt3wen>

- **Competition from firms in the large business groups (*chaebols*):** although *chaebols* have played a key role in Korea's development, the concentration of economic power is often blamed for stifling firm creation and the growth of small firms. Improving corporate governance, phasing out existing

circular shareholding by firms belonging to the same business group and monitoring intra-group transactions would bring more transparency to the business groups and promote fair competition. In addition, preventing unfair subcontracting practices by large firms would benefit SMEs (Jones, 2018).

- Less training: SMEs provide less training for their workers than large firms. In 2015, only 43% of small firms provided training (other than mandatory), compared to 53% of medium-sized firms and 64% of large firms. The major constraints on training in smaller companies is a lack of time for employees, in the context of labour shortages, and the financial costs. Policies to reduce the cost of training for SMEs would be beneficial. In addition, further increasing the employment insurance enrolment rate (see Chapter 2) would allow more SME workers to benefit from the financial incentives for training that are conditional on employment insurance coverage. Using the National Competency Standards would improve the quality of training (OECD, 2020a).

## Recommendations to increase youth employment

FINDINGS (Main findings in bold)	RECOMMENDATIONS (key recommendations in bold)
<b>Improving policies for youth</b>	
Youth employment remains consistently low despite the implementation of more than 200 initiatives to boost employment.	Consolidate the already large number of programmes to boost youth employment and focus on improving the effectiveness of existing schemes.
<b>Breaking down labour market dualism</b>	
<b>Over 40% of the employed 15-29 year-olds are non-regular workers. The low wages and low legal and effective social insurance coverage of such jobs prompt young people to queue for regular jobs rather than accept non-regular jobs.</b>	<b>Break down labour market dualism by relaxing employment protection for regular workers and making it more transparent, while expanding social insurance enrolment and training for non-regular workers.</b>
<b>Breaking down product market dualism</b>	
<b>The productivity gap between large and small firms is among the largest in the OECD, reflecting stringent product market regulation. Firms with at least 300 employees pay youth 50% higher wages than those with less than ten, and the gap widens with age.</b>	<b>Reduce the stringency of product market regulation by shifting to a comprehensive negative-list regulatory system, expanding the use of regulatory sandboxes and generalising reforms successfully trialled.</b>
<b>Government support for SMEs is higher than the OECD average. To enhance the effectiveness of supporting policies, the government introduced a graduation scheme for technology credit guarantees in 2018 and for policy loans in 2019. It introduced an evaluation scheme, supported by the SMEs Integrated Management System (SIMS), in 2019.</b>	<b>Expand the coverage of the SME Integrated Management System to ensure that public support for SMEs encourages the growth of innovative firms rather than the survival of non-viable ones, while supporting affected workers and providing training and employment services.</b>
SMEs lag far behind large companies in the use of digital technologies.	Provide more basic ICT courses to SME employees and older persons and reduce training costs for SMEs by increasing the coverage of Employment Insurance in small firms.
Less than half of venture capital investment is in firms at an early stage. The reliance on bank lending based primarily on collateral discourages the creation and growth of start-ups.	Activate the KONEX market, which focuses on SMEs, to increase venture capital in start-ups. Expand lending based on firms' technology.
Large business groups may be in a position to unfairly squeeze their small and medium-sized suppliers.	Intensify enforcement by the Korea Fair Trade Commission and encourage subcontracting firms to diversify, including by going international.
<b>Reforming the education system</b>	
<b>The priority on admission to top universities leads to intense pressure on students, large outlays on private tutoring and a relatively low employment rate for tertiary graduates, while reducing interest in vocational education.</b>	<b>Allow students more scope to develop their individual interests and talents, notably by reducing the emphasis on the standardized university entrance exam.</b>
Universities' practice of admitting only a strictly fixed number of students per major weakens competition among universities, a sector facing over-capacity, and slows their response to rapidly changing labour market demands.	Phase out the total enrolment caps imposed on universities in the Seoul metropolitan area to incentivise universities to eliminate their student enrolment limits by major to promote competition, quality improvement and labour market relevance.
Graduates of Meister schools and the Work-Learning Dual System have high employment rates after leaving high school, but they account for only 3% of all high school students.	Expand the designation of Meister high schools and the Work-Learning Dual System, and revitalise school-industry links to foster talent meeting various industry demands and encouraging successful labour market entry.
The share of students attending vocational high schools fell from 40% in 1995 to 18% in 2021. Moreover, the share of vocational high school graduates entering tertiary education rose from 19% to 44%.	Improve the quality of regular vocational high schools by incorporating elements of Meister schools, notably their strong connection with the business sector.
Nearly three-quarters of high school graduates advance to tertiary education, the highest share in the OECD.	Further expand and improve career counselling in secondary schools to shift students' focus on gaining admission to prestigious universities to developing a career path based on their talents and interests.
To gain admission to top-ranked universities, many students apply to departments that do not correspond to their interests and capabilities, resulting in sub-optimal use of talent.	Allow university students more flexibility in choosing and changing their field of study to reduce mismatches between the education system and the labour market.
<b>Other labour market policies</b>	
Government spending (as a share of GDP) on direct job creation is double the OECD average, while outlays on training and the public employment service are below it. Non-regular workers receive little firm-based training as most are hired on fixed-term contracts.	Reduce spending on direct job creation, while expanding other active labour market policies, notably training and job counselling.
Korea's minimum wage was hiked by 29% during 2018-19, raising it to 63% of the median wage of full-time workers, compared to the 50% OECD average. Given the COVID-19 pandemic and economic and employment situations, the minimum wage increased by only 2.9% in 2020, 1.5% in 2021, and 5.0% in 2022.	Use caution in setting the minimum wage to avoid pricing lesser-skilled young people out of the labour market, while taking into account conditions in vulnerable industries.



## References

- Card, D., J. Kluve and A. Weber (2018), "[What Works? A Meta Analysis of Recent Active Labor Market Program Evaluations](#)", *Journal of the European Economic Association*, Vol. 16, No. 3.
- Chang, W. (2016a), "[Is Korea's Public Funding for SMEs Achieving its Intended Goals?](#)", *KDI Focus*, No. 63, Korea Development Institute, Sejong.
- Chang, W. (2016b), "[Performance Evaluation and Improvement Direction of Financial Support for Start-up Small and Medium Businesses: Focusing on Policy Finance](#)", *KDI Working Paper*, Korea Development Institute, Sejong (in Korean).
- Choi, K. (2017), "[Why Korea's Youth Unemployment Rate Rises](#)", *KDI Focus*, No. 88, Korea Development Institute, Sejong.
- Choi, S. (2021), "[The Impact of Education Levels and Paths on Labor Market Outcomes in South Korea: Focusing on Vocational High School Graduates](#)", *Social Sciences & Humanities Open*, Vol. 4, No. 1.
- Eichengreen, B., W. Lim, Y. Park and D. Perkins (2015), *The Korean Economy: From a Miraculous Past to a Sustainable Future*, Cambridge: Harvard University Press.
- Ha, B. and S. Lee (2013), "[Dual Dimensions of Non-regular Work and SMEs in the Republic of Korea](#)", *ILO Employment Working Paper*, No. 148, Geneva.
- Han, J. (2018), "Long-Term Effects of Labour Market Entry Conditions: The Case of Korea," *Global Economic Review*, Vol. 47, No.4, DOI: 10.1080/1226508X.2018.1512417.
- Han, J. (2020), "[Mismatches in the Labor Market for College Graduates: Focusing on Field-of-Study Choice](#)", *KDI Focus*, No. 99, Korea Development Institute, Sejong.
- Han, J. (2020), "College Majors in Limited Supply: The Case of Private Universities in Korea", *The Korean Economic Review*, Summer.
- International Monetary Fund (2018), "[Youth Un\(employment\) in Korea – Recent Trends and Drivers](#)", Republic of Korea: Selected Issues, *IMF Staff Country Reports*, 2018(041), Washington DC.
- Jones, R. (2013), "[Education Reform in Korea](#)", *OECD Economics Department Working Papers*, No. 1067, OECD Publishing, Paris.
- Jones, R. (2018), "[Reforming the Large Business Groups to Promote Productivity and Inclusion in Korea](#)", *OECD Economics Department Working Papers*, No. 1509, OECD Publishing, Paris.
- Jones, R. and K. Fukawa (2016), "[Labour Market Reforms in Korea to Promote Inclusive Growth](#)", *OECD Economics Department Working Papers*, No. 1325, OECD Publishing, Paris.
- Jones, R. and J. Lee (2018), "[Enhancing Dynamism in SMEs and Entrepreneurship in Korea](#)", *OECD Economics Department Working Papers*, No. 1510, OECD Publishing, Paris.
- Kim, Hagsoo (2021), "[Local Education Finance; Why and How to Fix it?](#)", *KDI Focus*, No. 110, Sejong, (in Korean).
- Kim, Hisam (2009), "[Analysis on Intergenerational Economic Mobility in Korea](#)", *KDI Policy Study*, 2009-03, Korea Development Institute, Sejong.
- Kim, Hisam (2015), "[Resetting Education Policy to Restore Social Mobility](#)", *KDI Focus*, No. 54, Korea Development Institute, Sejong.
- Kim, J. (2017), "Inclusive Growth: Challenges and Opportunities", *2017 KDI Journal of Economic Policy Conference*, 15 December, Sejong.
- Kim, M. and B. Kim (2020), "[An Analysis of the Effect of the Expanded and Revamped EITC on the Labour Supply](#)", Korea Institute of Public Finance, Sejong.
- Kim, M., J. Oh and W. Cho (2020), "[Taxation and Fiscal Policies and Firms' Labor Adjustment: the Case of Youth Subsidies and Youth Employment Tax Credits](#)", *Korea Institute of Public Finance Research Report*, No. 20-14, Sejong (in Korean).



- Kim, S. (2017), "[Overview: Employment and Labor Policies in Transition](#)", *KLI Working Paper*, 2017-07, Korea Labor Institute, Sejong.
- Kim, Y. (2015), "[The Youth Labor Market in Korea: Current Situation and Employment Policy](#)", *Korea Labor Institute Issue Paper*, No. 162, Sejong.
- Koh, Y., S. Kim, C. Kim, Y. Lee, J. Kim, S. Lee and Y. Kim (2010), "Social Policy", in *The Korean Economy: Six Decades of Growth and Development*, edited by SaKong, I. and Y. Koh, Korea Development Institute, Sejong.
- Lee, J., H. Jeong and S. Hong (2014), "[Education Bubble Formation and Its Labor Market Evidence](#)", *KDI School of Public Policy and Management Paper*, No. 14-03, Sejong.
- Montt, G. (2015), "[The Causes and Consequences of Field-of-Study Mismatch](#)", *OECD Social, Employment and Migration Working Papers*, No. 167, OECD Publishing, Paris.
- Nam, J., and S. Kim (2013), "[Korean NEETs: Characteristics and Labor Market Performance](#)", *Korea Labor Institute Research Projects*, No. 535, Korea Labor Institute, Sejong (in Korean).
- OECD (2012), [OECD Economic Survey of Korea 2012](#), OECD Publishing, Paris.
- OECD (2013a), [Strengthening Social Cohesion in Korea](#), OECD Publishing, Paris.
- OECD (2013b), "[The OECD Action Plan for Youth: Giving Youth a Better Start in the Labour Market](#)", Meeting of the OECD Council at Ministerial Level, 29-30 May 2013, Paris.
- OECD (2013c), [The Survey of Adult Skills: Reader's Companion](#), OECD Publishing, Paris.
- OECD (2015b), [In It Together: Why Lower Inequality Benefits All](#), OECD Publishing, Paris.
- OECD (2016), [OECD Economic Survey of Korea 2016](#), OECD Publishing, Paris.
- OECD (2018), [OECD Economic Survey of Korea 2018](#), OECD Publishing, Paris.
- OECD (2019), [Investing in Youth: Korea](#), OECD Publishing, Paris.
- OECD (2020a), *Enhancing Training Opportunities in SMEs in Korea, Getting Skills Right*, OECD Publishing, Paris.
- OECD (2020b), [OECD Economic Survey of Korea 2020](#), OECD Publishing, Paris.
- OECD (2021a), [Education at a Glance 2021: OECD Indicators](#), OECD Publishing, Paris.
- OECD (2021b), [OECD SME and Entrepreneurship Outlook 2021](#), OECD Publishing, Paris.
- OECD (2021c), "[Strictness of Employment Protection – Individual and Collective Dismissals \(Regular Contracts\)](#)", OECD Statistics.
- Office for Government Policy Cooperation (2020a), "[Second Youth Policy Coordination Committee](#)", Press Release, (in Korean), 23 December.
- Office for Government Policy Cooperation (2020b), "[1st Plan on How to Improve Young People's Lives: 34 Improvement Tasks Identified in Five Areas](#)", Press Release, (in Korean), 26 March.
- Office for Government Policy Cooperation (2020c), "[2nd Plan on How to Improve Young People's Lives: 43 Improvement Tasks Identified in Five Areas](#)", Press Release, (in Korean), 18 September.
- Oh, J. (2020), "The Number of Computer Science Graduates at Stanford Increased by More than Five Times in Ten Years, Compared to an Increase of 15 Students at Seoul National University over 16 Years", *Seoul Economic Daily*, 25 November (in Korean).
- Ryu, B. (2011), "Measures to Expand Education Opportunities and Social Engagement for the Low-income Class", *Education Development*, Vol. 38, No. 1.
- Schauer, J. (2018), "[Labor Market Duality in Korea](#)", *IMF Working Paper*, No. WP/18/126, International Monetary Fund, Washington DC.
- Statistics Korea (2021), [Social Trends in Korea, 2021](#).
- World Bank (2012), [Youth Employment Programs: An Evaluation of World Bank and International Finance Corporation Support](#), Washington DC.

- World Economic Forum (2017), *Global Competitiveness Index 2017-18*, Geneva, <http://reports.weforum.org/global-competitiveness-index-2017-2018/>.
- Yoo, S. (2019), "[Characterization and Cost Estimates of Youth NEETs and Policy Implications](#)", *KERI Insight*, 19-12, Korea Economic Research Institute, Seoul.
- Yoon, Y., H. Bang and Y. Nho (2019), "[Innovative SMEs and Job Creation for Youth](#)", *Korea Labor Institute Working Paper*, 2019-03, Sejong.
- Yu, J., S. Kim, H. Yoon, M. Lee and H. Kwon (2020), [Meister High School System in Korea 2020](#), Korea Research Institute for Vocational Education and Training, Sejong.
- Yun, H. (2016), "[Implications of the Performance Evaluation of the Job Creation Project](#)", *KDI Focus*, No. 73, Korea Development Institute, Sejong.