

Summer Skills Bulletin 2023

Using Cedefop forecasts (2021-2035) to inform
future demand for skills in Ireland



1. Introduction

The Cedefop Skills Forecasting team produce regular forecasts at sectoral and occupational level across European countries.¹ The most recent forecasts produced examine the period from 2021 to 2035. These forecasts are intended primarily as a guide towards future patterns and trends and the estimates should be treated as such, rather than as an exact figure. Although the forecasts take account of global economic developments up to Spring 2022, they do not fully capture the changes that have occurred nationally at detailed sectoral or occupational level, particularly in light of COVID-19. As such, they do not fully reflect the slower recovery in employment in Ireland in recent years in sectors such as accommodation and food, wholesale and retail and construction, or indeed, the sectors that grew strongly during the COVID-19 pandemic such as ICT and manufacturing. Despite this, the forecasts for Ireland provide useful guidance as to the potential direction of change in terms of education and training provision.

Overall employment growth in Ireland is forecast to reach just over 3 million persons in 2035, potentially adding **an additional 650,000 persons** when compared to 2021 levels. Ireland, alongside Luxembourg, is forecast to have the highest annual employment growth rate over the period 2021-2035, at 1.7%, compared to a rate for the EU-27 average of 0.2%. This report focuses primarily on how these employment forecasts relate to change at occupational level. According to Cedefop, changes at occupational level are a reflection of the employment growth at national level, the strength of the main sectors of employment for these occupations, along with changes occurring at skill level within an occupation (e.g. those impacted by automation).

Along with employment growth, recruitment will also be driven by replacement demand; replacing persons who leave an occupation due to retirement, study, ill health etc. is forecast to account for a larger share of persons than is needed for employment growth. Over the forecast period (2021-2035), **1.5 million persons will be required to meet replacement demand**, with a total replacement rate of 3.5%; there is forecast to be significant variance across occupations, particularly for occupations with older or younger age cohorts.

Along with detailing forecasted growth and replacement demand by occupation, the forecasted educational composition by occupation is also outlined. It is estimated in the forecasts that of the 650,000 additional persons employed by 2035, 515,000 will be those holding high qualifications (i.e. tertiary education), 260,000 will relate to those with medium qualifications (i.e. upper secondary education/FET), while there will be a fall in the numbers employed with low qualifications (i.e. lower secondary education or less) of approximately 125,000 persons. It should be noted that this educational profile very much depends on the education level of the available labour force, rather than being a signal of the skills requirement for these roles. Those with lower levels of educational attainment tend to be in the older age cohorts² and as they exit the labour market over the forecast period, they are likely to be replaced by those with higher levels of educational attainment. As some occupations evolve with technological advancement, higher levels of skills attainment may be required. However, skills mismatches are already a feature of the Irish labour market³ and there is potential for the level of skills mismatches to further increase resulting in a higher share of persons employed in occupations for which they are over-qualified.

The report compares the 2021 Cedefop baseline figures with Labour Force Survey (LFS) data reported by Eurostat⁴ for both 2021 and 2022 to determine how closely they align and details the potential implications for interpreting the forecasts when discrepancies occur. An analysis of the forecasts by occupation uses the 2008 International Standard Classification of Occupations (ISCO) as this is the classification used by both Cedefop and Eurostat. This classification is slightly different, but nonetheless broadly comparable, to the Standard Occupation Classification (SOC) more typically used in SLMRU and many CSO publications.

1 For more details on the methodology of the forecasts see: <https://www.cedefop.europa.eu/el/projects/skills-forecast>

2 See Figure 13.2 in the SOLAS (2022) Monitoring Ireland's Skills Supply report

3 SOLAS Spring Skills Bulletin 2021: Skills Mismatch in Ireland's Labour Market

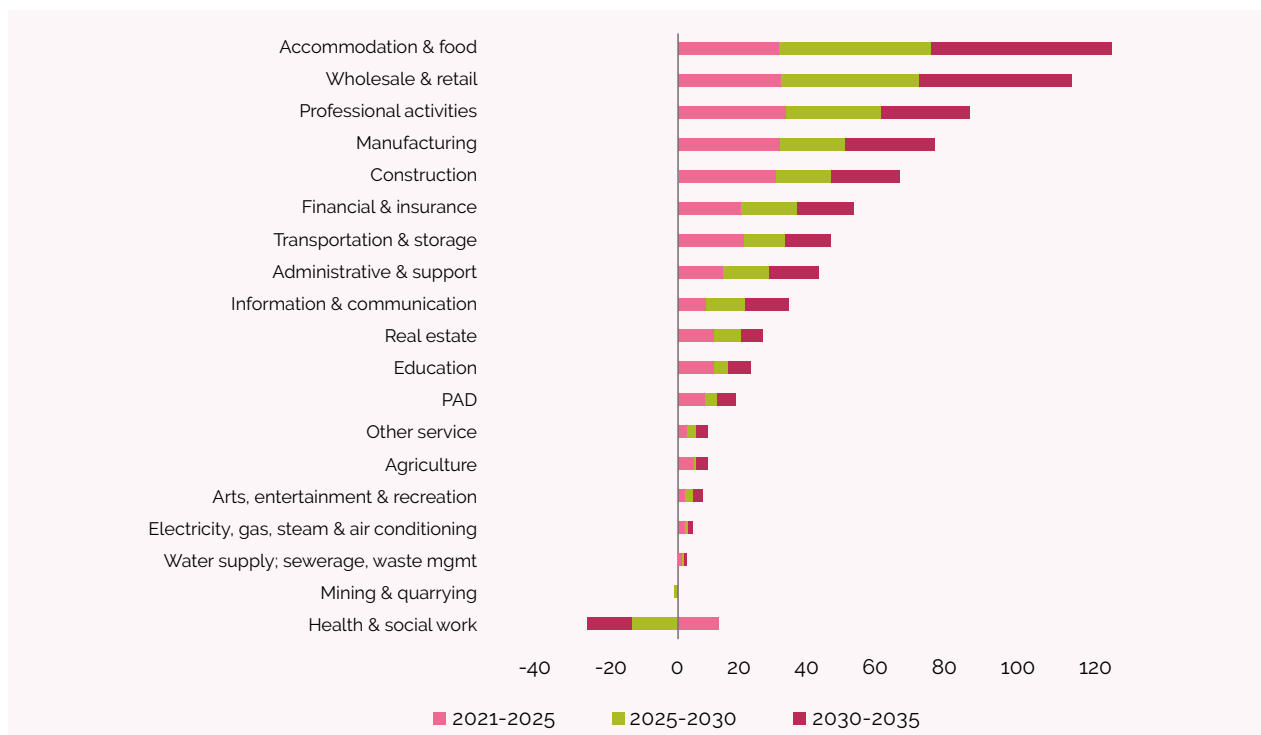
4 Statistics | Eurostat ([europa.eu](https://ec.europa.eu/eurostat))

2. Employment forecasts by sector

Strong employment growth is forecast by Cedefop for Ireland across the three time periods examined for the accommodation and food, wholesale and retail and professional activities sectors, with declines in employment forecast for the health sector for the periods 2025-2030 and 2030-2035 (Figure 1). As noted in the Introduction, there are some discrepancies between the 2021 baseline figures produced by Cedefop and the Labour Force Survey data by sector owing primarily to the mixed fortunes of certain sectors both during and post-COVID-19. When analysing the growth forecasts by sector there are a number of points to be aware of, as detailed below:

- Employment levels in the **accommodation and food sector** have yet to return to pre-COVID levels so growth, particularly initially, may be slower than forecast.
- Employment growth in the **wholesale and retail sector** had been slowing prior to the onset of the pandemic. Although employment levels increased in 2022, according to Eurostat (LFS) data, they remain significantly below the Cedefop forecast figures. The closure of many of the larger high street stores in recent years may restrict the sector from reaching the forecasted growth to 2035.
- While employment in the **health sector** is forecast to grow in the period to 2025, the subsequent two periods are forecast to decline. Despite this decline in employment over the forecast period, there does not appear to be an equivalent decline in employment levels for health occupations, and indeed, strong growth is forecast for personal care workers (which also includes childcare workers). Demand for health services is expected to grow in future years as our population ages, in line with the Sláintecare Action Plan, which is likely to lead to continued employment growth, although government funding will be required to expand the necessary services.
- Employment in the **ICT sector** has seen particularly strong growth in the last two years which is not reflected in the forecast data. As such, employment levels in 2022 (LFS) far exceeded the 2035 forecast figures for this sector. While employment growth is likely to slow for the foreseeable future, due to staff cutbacks across a number of the larger ICT companies, a significant decline in employment is not expected.

Figure 1. Forecast employment change by sector (000s), 2021-2035



Source: Cedefop forecasts

3. Employment forecasts by occupation

Professional occupations accounted for the largest number of persons employed in 2021, with strong growth forecast for this occupational group over the period 2021-2035; indeed, professional occupations are forecast to have the largest growth in employment over the forecast period between 2021 and 2035 with an additional **155,000 persons employed**. Employment growth is expected across all occupational groups with the exception of skilled agricultural and fishery workers and armed forces.

The initial figures for employment levels in 2021 from Cedefop differ from Eurostat (LFS) data for the same year in two key areas:

- The Cedefop forecasts underestimate the employment levels for **professionals** in 2021 by approximately 27,000 persons; as employment levels for professionals also grew strongly in 2022 (LFS), numbers have already reached the forecasted level for 2025. This is discussed in further detail in the section on professionals.
- In contrast, the Cedefop forecasts over-estimate the employment levels for **craft and related trades** in 2021 by approximately 24,000, when compared to Eurostat (LFS) data. This relates to the slowing of the construction sector during the COVID-19 pandemic. However, 2022 employment data (LFS) shows that recovery in employment levels is occurring and may be on track at least for the forecasted employment to 2025.

Figure 2. Employment by occupation in 2021 and for the forecast period 2021-2035 (000s) by five-year intervals



Source: Cedefop forecasts

A total of approximately 1.5 million persons are forecast to be required to meet replacement demand over the forecast period (2021-2035); professional occupations are expected to account for the largest share with 300,000 persons required, followed by service and shop workers (+240,000) and technicians/associate professionals (+175,000). The replacement demand rate for the forecast period (2021-2035) is estimated to be 3.5% across all occupations. The rate is particularly above average for skilled agricultural workers (5.2%), managers (4.4%) and operatives (4.2%); the rate was lowest for armed forces (2.2%) and professionals (3.0%).

An analysis by detailed occupation is provided in the subsequent sections; armed forces and skilled agricultural and fishery workers are excluded from the detailed analysis as overall employment levels are small and forecasted employment change is minimal.

3.1. Managerial occupations

The Cedefop forecasts indicate that **employment for managers will grow by 102,000** over the period 2021-2035. The largest growth is forecast for production and specialised services managers (which includes managers in construction, manufacturing, distribution and ICT services) followed by hospitality, retail and other services managers.

Although employment estimates for 2021 for most occupations in this group were broadly in line with Eurostat (LFS) figures, there was an underestimation of approximately 10,000 persons for production and specialised services managers; indeed, employment growth in 2022 was particularly strong for this occupation with employment levels reaching approximately 90,000 persons, far exceeding the forecasted employment levels for this occupation by 2025.

Figure 3. Forecasted employment growth (000s) for managerial occupations by detailed occupation, 2021-2035



Source: Cedefop forecasts

In addition to employment growth, a further 169,000 persons are forecast to be required to meet replacement demand, with replacement demand particularly strong for production managers and hospitality etc managers, at 64,000 persons each over the forecast period. The replacement rate across all managerial occupations over the forecast period (2021-2035) is above the rate for all occupations, at 3.5%.

Table 1. Net change, replacement demand & total requirement for managerial occupations (000s), 2021-2035

	Employment 2021	Net Change (2021-2035)	Replacement Demand (2021-2035)	Total Requirement (2021-2035)	Replacement rate (%) (2021-2035)
Chief executives, senior officials & legislators	5	4	5	9	5.1%
Administrative & commercial managers	45	30	37	66	4.3%
Production & specialised services managers	69	38	64	102	4.8%
Hospitality, retail & other services managers	84	31	64	94	4.1%
Total	203	102	169	271	4.4%

Source: Cedefop forecasts

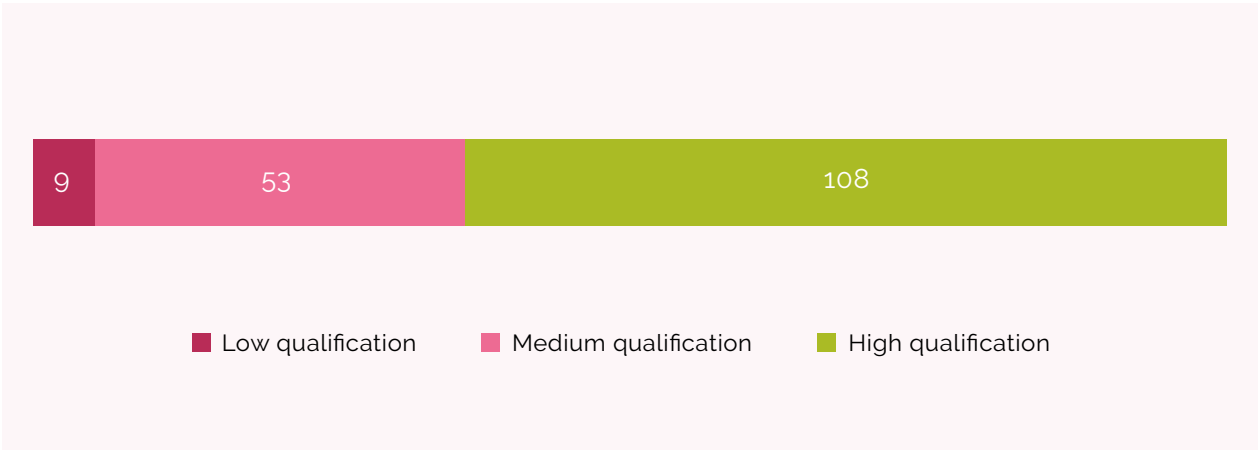
Education profile: Those with high qualifications (i.e. tertiary education) are forecast to account for most of the employment growth for managerial occupations between 2021 and 2035, increasing by 83,000 persons (Figure 4). They are also forecast to account for the highest share of replacement demand over the period (Figure 5).

Figure 4. Composition of employment by level of qualification for managers (000s), 2021 vs 2035



Source: Cedefop forecasts

Figure 5. Replacement demand (2021-2035) by forecasted level of qualification for managers (000s)



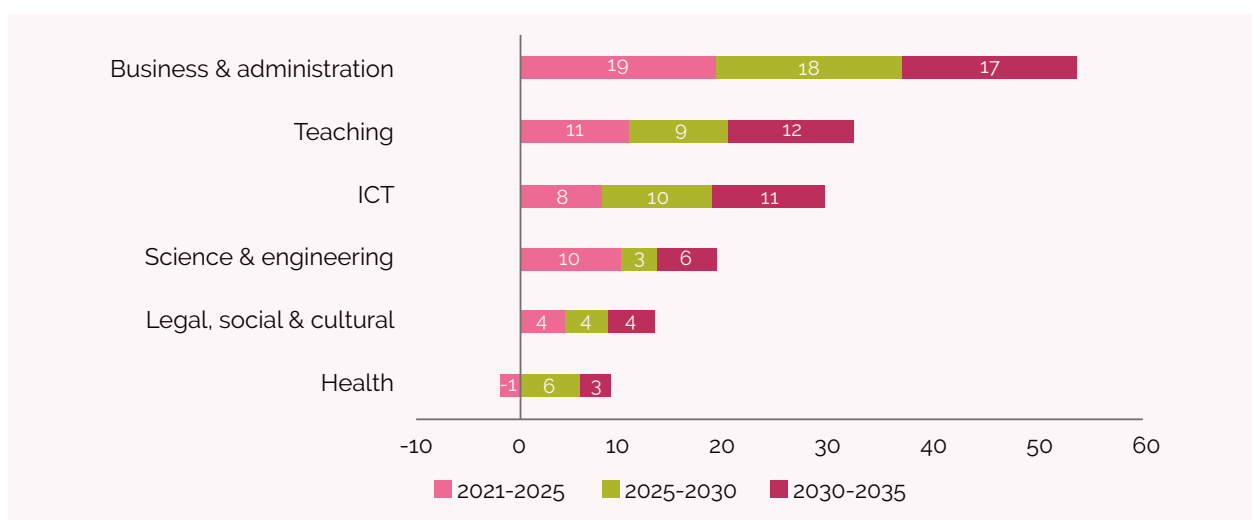
Source: Cedefop forecasts

3.2. Professional occupations

The Cedefop forecasts indicate that **employment for professional occupations will grow by 155,000** over the period 2021-2035. The largest employment growth for professional occupations is forecast to be for those in business and administrative professional roles, followed by teaching professionals. A small decline in employment for health professionals is forecast for the 2025-2030 period, although the overall outlook is for positive growth. As indicated in Section 2, it is not our belief that employment in the health sector will see a decline in the coming years due to increased government funding and demand for services.

As also highlighted in Section 2, employment for ICT professionals has been particularly strong in recent years which has not been captured in the baseline figures for the forecasts. Eurostat (LFS) data indicates that employment in 2021 reached 82,800 in 2021, exceeding Cedefop employment figures for that year by almost 12,000 persons, and indeed exceeding forecasted figures for 2025.

Figure 6. Forecasted employment growth (000s) for professional occupations by detailed occupation, 2021-2035



Source: Cedefop forecasts

In addition to employment growth, replacement demand is expected to account for approximately two thirds of the total requirement for professional occupations over the period from 2021 to 2035. Replacement demand is forecast to be a particular issue for health professionals, accounting for 87% of total requirement. The replacement rate is lowest for ICT professionals, most likely related to the younger age profile of this occupation and the lower-than-average share of female workers.

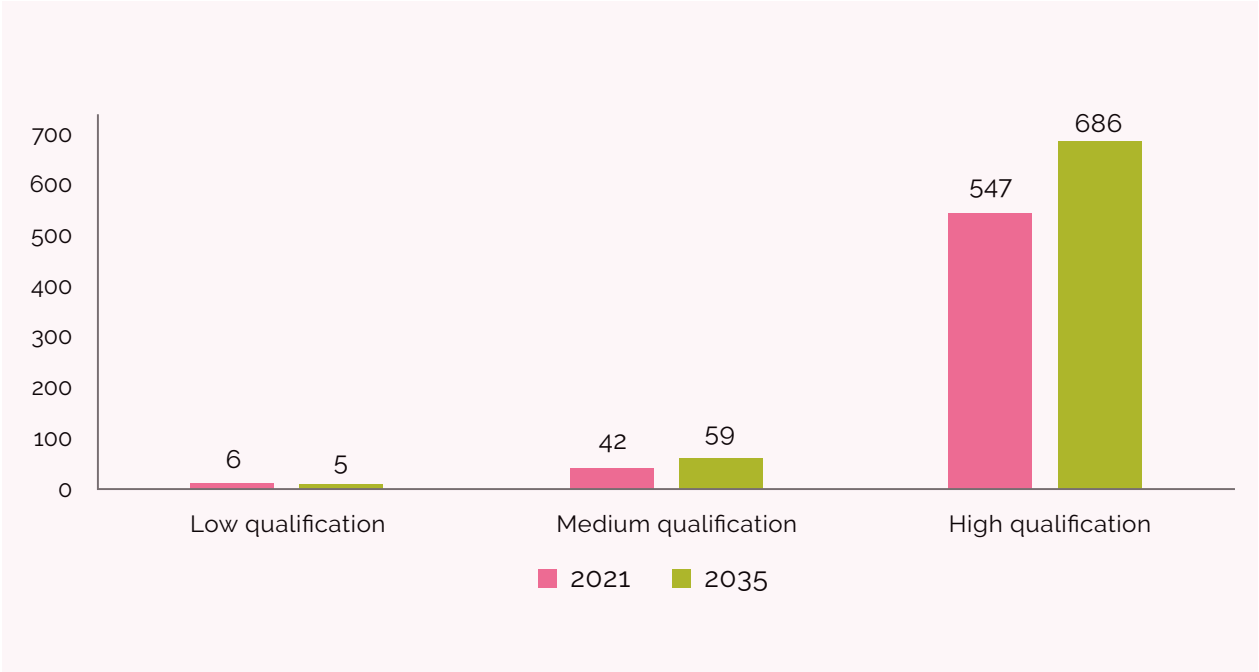
Table 2. Net change, replacement demand & total requirement for professionals (000s), 2021-2035

	Employment 2021	Net Change (2021-2035)	Replacement Demand (2021-2035)	Total Requirement (2021-2035)	Replacement rate (%) (2021-2035)
Science & engineering professionals	96	19	45	64	2.8%
Health professionals	104	8	56	64	3.1%
Teaching professionals	122	32	69	101	3.2%
Business & administration professionals	150	53	74	127	2.9%
ICT professionals	71	29	22	52	2.0%
Legal, social, cultural & related professionals	52	13	38	51	4.0%
Total	595	155	303	458	3.0%

Source: Cedefop forecasts

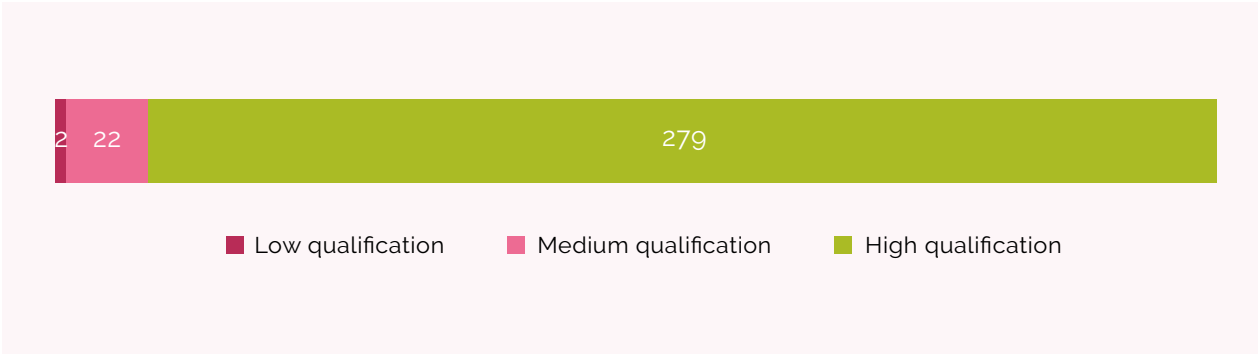
Education profile: Those with high qualifications (i.e. tertiary education) are forecast to account for almost all of the total requirement for professional occupations in the period to 2035, both in terms of employment growth (139,000 additional persons) and replacement demand (279,000 persons).

Figure 7. Composition of employment by level of qualification for professionals (000s), 2021 vs 2035



Source: Cedefop forecasts

Figure 8. Replacement demand (2021-2035) by forecasted level of qualification for professionals (000s)



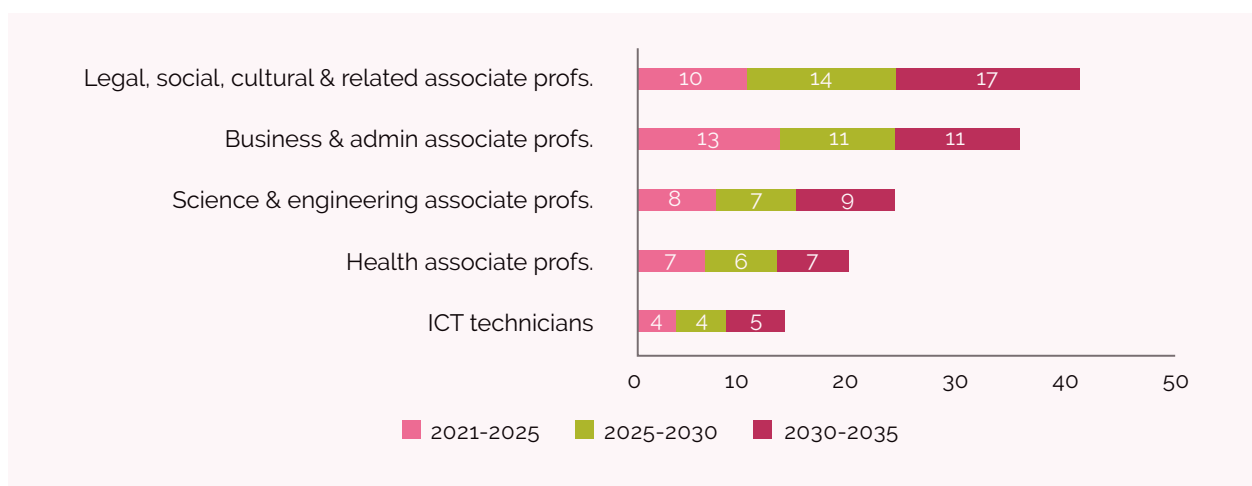
Source: Cedefop forecasts

3.3. Technicians and associate professionals

Cedefop forecasts that **employment for technicians and associate professional occupations will grow by 134,000** over the period 2021-2035. The forecasts indicate that the largest employment growth for these occupations will be for those in legal, social, cultural and related associate professionals⁵ and business and administrative associate professional roles. Combined, these two occupational groups are forecast to account for 57% of the total growth over the period. As the growth for legal, social, cultural and related associate professionals is primarily related to the accommodation and food sector, one can assume it relates mostly to chefs. As employment for chefs has yet to fully recover from COVID-19 restrictions, and may also be impacted by higher rates of inflation and reduced consumer spending in the short-term at least, the significant growth in employment outlined here may be overestimated.

The Cedefop employment levels for 2021 are a little lower than those reported in the Eurostat (LFS) data; this primarily relates to an underestimation by Cedefop of the number of persons employed in ICT roles (22,000 compared to 29,800 reported by Eurostat for 2021). As such, employment for ICT technicians have already reached the forecasted levels for 2030.

Figure 9. Forecasted employment growth (000s) for technicians/associate professional occupations, 2021-2035



Source: Cedefop forecasts

Business and administration associate professionals have the highest forecasted replacement demand over the period to 2035 in absolute terms, with an additional 92,000 persons required. For the most part, the replacement rate for associate professional occupations is broadly in line with that for all occupations (at 3.5%).

Table 3. Net change, replacement demand & total requirement for technicians/associate professionals (000s), 2021-2035

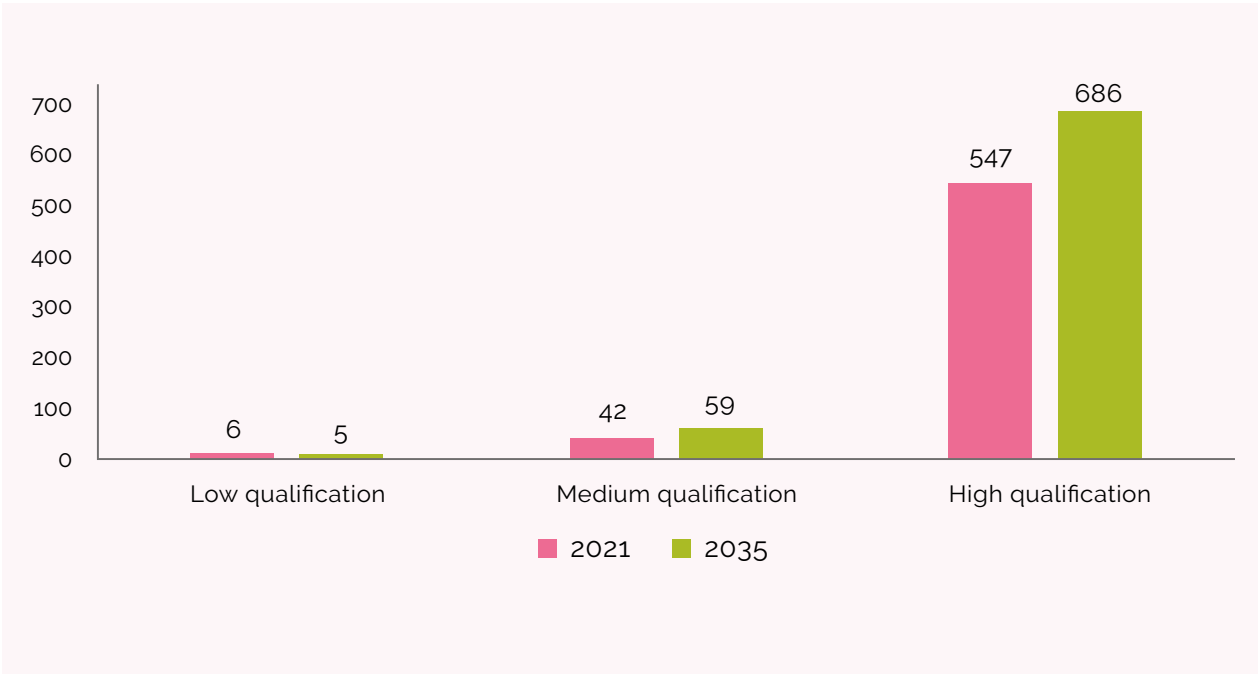
	Employment 2021	Net Change (2021-2035)	Replacement Demand (2021-2035)	Total Requirement (2021-2035)	Replacement rate (%) (2021-2035)
Science & engineering	41	24	22	46	3.2%
Health	23	20	15	35	3.7%
Business & administration	137	36	92	127	3.7%
Legal, social, cultural & related	57	41	34	75	3.4%
ICT	22	14	11	24	2.9%
Total	279	134	174	308	3.5%

Source: Cedefop forecasts

5 Legal, social, cultural and related associate professionals include legal assistant, paralegal, community/welfare support worker, athletes and sports players, coaches, photographers, interior designers, and chefs.

Education profile: Those with high qualifications are forecast to account for 90% of total employment growth, with an additional 139,000 persons employed (Figure 10). In addition, two-thirds of replacement demand is forecast to be for those with high qualifications (Figure 11).

Figure 10. Composition of employment by level of qualification for technicians/associate professional occupations (000s), 2021 vs 2035



Source: Cedefop forecasts

Figure 11. Replacement demand (2021-2035) by forecasted level of qualification for technicians/associate professional occupations (000s)



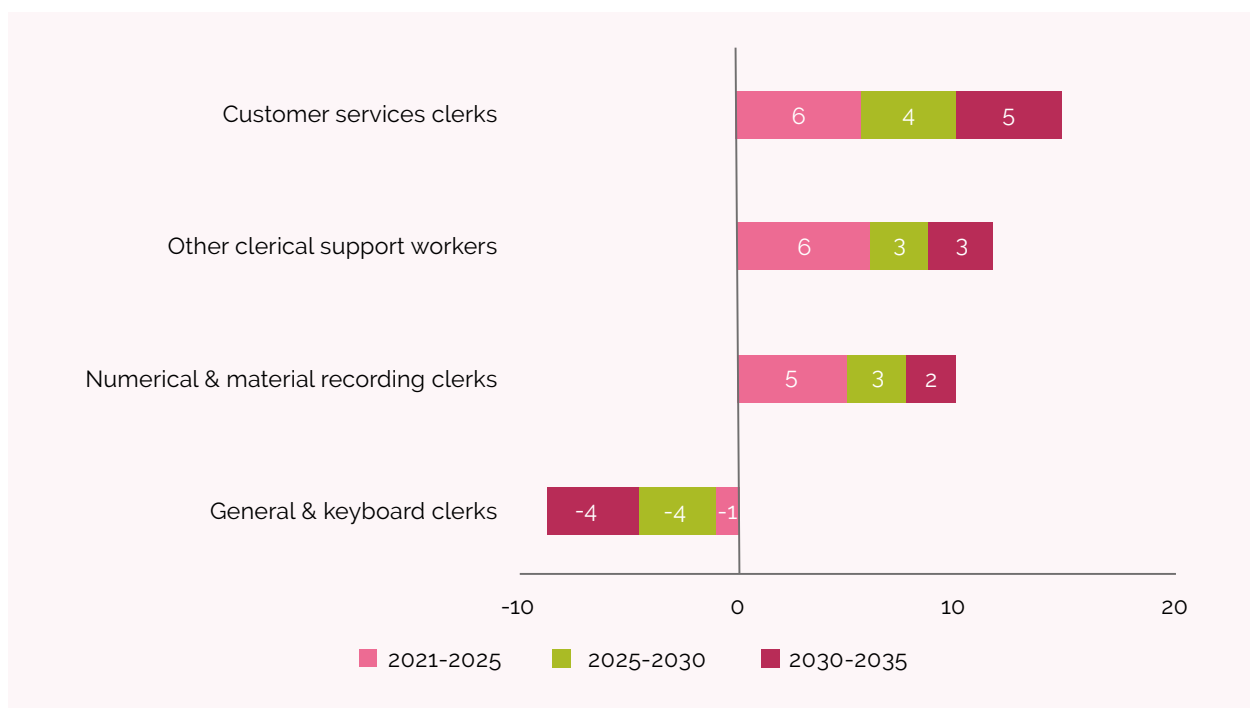
Source: Cedefop forecasts

3.4. Clerks

Cedefop forecasts that **employment for clerical occupations will grow by 28,000** over the period 2021-2035. In absolute terms, this is the second lowest employment growth forecast, after elementary occupations. The forecasts indicate that the largest employment growth for these occupations will be for those employed as customer services clerks and other clerical support workers. Employment for general and keyboard clerks is forecast to decline in each five-year period to 2035.

The 2021 baseline Cedefop employment levels across the clerical occupations are broadly in line with Eurostat (LFS) data for 2021.

Figure 12. Forecasted employment growth (000s) for clerical occupations, 2021-2035



Source: Cedefop forecasts

Although employment growth for clerks is forecast to be relatively low to 2035, replacement demand is expected to account for a significant share of total requirement; this is particularly the case for other clerical support workers where an additional 60,000 persons will be required to meet replacement demand. The replacement rate for both general/keyboard clerks and other clerical support workers exceeds the rate for all occupations (3.5%), mostly likely related to the older age profile of these occupations.

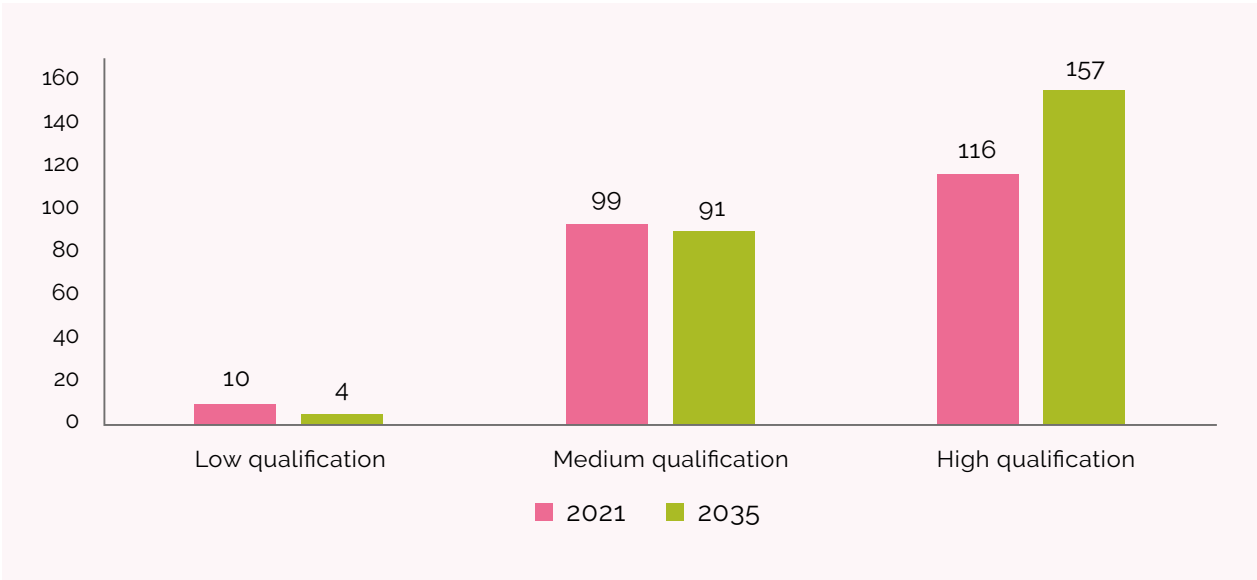
Table 4. Net change, replacement demand & total requirement for clerical occupations (000s), 2021-2035

	Employment 2021	Net Change (2021-2035)	Replacement Demand (2021-2035)	Total Requirement (2021-2035)	Replacement rate (%) (2021-2035)
General & keyboard clerks	35	-9	24	15	3.8%
Customer services clerks	60	15	31	45	3.0%
Numerical and material recording clerks	50	10	31	41	3.5%
Other clerical support workers	80	12	60	72	4.1%
Total	225	28	145	173	3.6%

Source: Cedefop forecasts

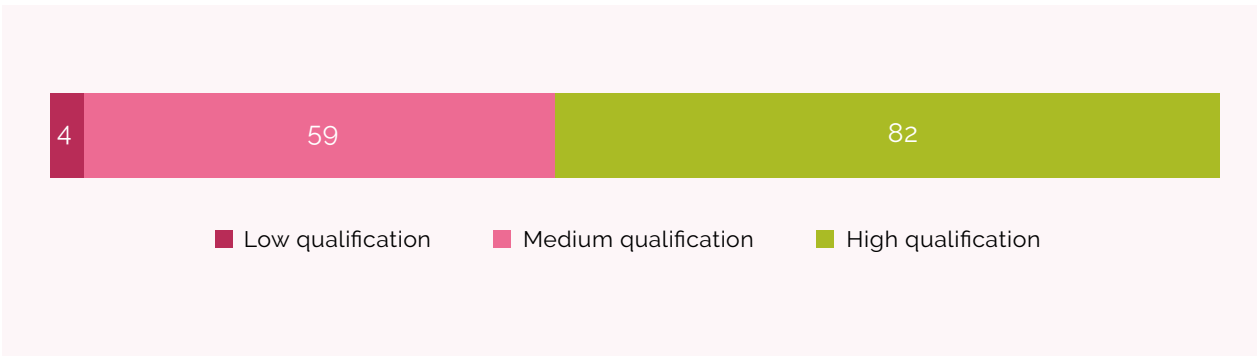
Education profile: The number of persons in employment in clerical roles with low and medium qualifications is forecast to decline over the forecast period to 2035, whereas an additional 41,000 persons with high qualifications are forecast to be employed in these roles (Figure 13). In addition, those with high qualifications are forecast to account for the highest share of persons for replacement demand (Figure 14). This is most likely a reflection of the higher educational attainment in the labour force as the forecast period progresses and may lead to increased skills mismatches in these roles.

Figure 13. Composition of employment by level of qualification for clerical occupations (000s), 2021 vs 2035



Source: Cedefop forecasts

Figure 14. Replacement demand (2021-2035) by forecasted level of qualification for clerical occupations (000s)



Source: Cedefop forecasts

3.5. Service workers and shop and market sales workers

Cedefop forecasts **an increase of 98,000 persons employed as service and shop sales workers** between 2021-2035. Personal care workers (e.g. child care practitioners, healthcare assistants, home care workers) are expected to account for the largest increase followed by personal service workers (e.g. hairdressers, waiters, bar staff). Employment is forecast to decline across all periods for protective services workers (e.g. police officers, prison guards, security guards). Although sales workers account for a relatively small share of forecasted employment growth for this occupational group, it is a large occupation and will be dependent on the strength of the wholesale and retail sector in the coming years; as highlighted in Section 2, the growth forecast for this sector may not accurately reflect the impact of COVID-19 and changing consumer behaviour in Ireland in recent years.

The 2021 baseline Cedefop employment levels across the clerical occupations are broadly in line with Eurostat (LFS) data for 2021.

Figure 15. Forecasted employment growth (000s) for service & shop/market sales occupations, 2021-2035



Source: Cedefop forecasts

In addition to the increase in employment, a further 241,000 persons are forecast to be required to meet replacement demand for this occupation, with a total recruitment requirement of 338,000 persons over the period 2021-2035. Replacement demand is forecast to be particularly strong for personal care workers, where 94,000 additional persons will be needed to replace those who leave, with a replacement rate of 4%. Although overall employment is expected to decline for protective services workers, job opportunities are still forecast to arise due to replacement demand.

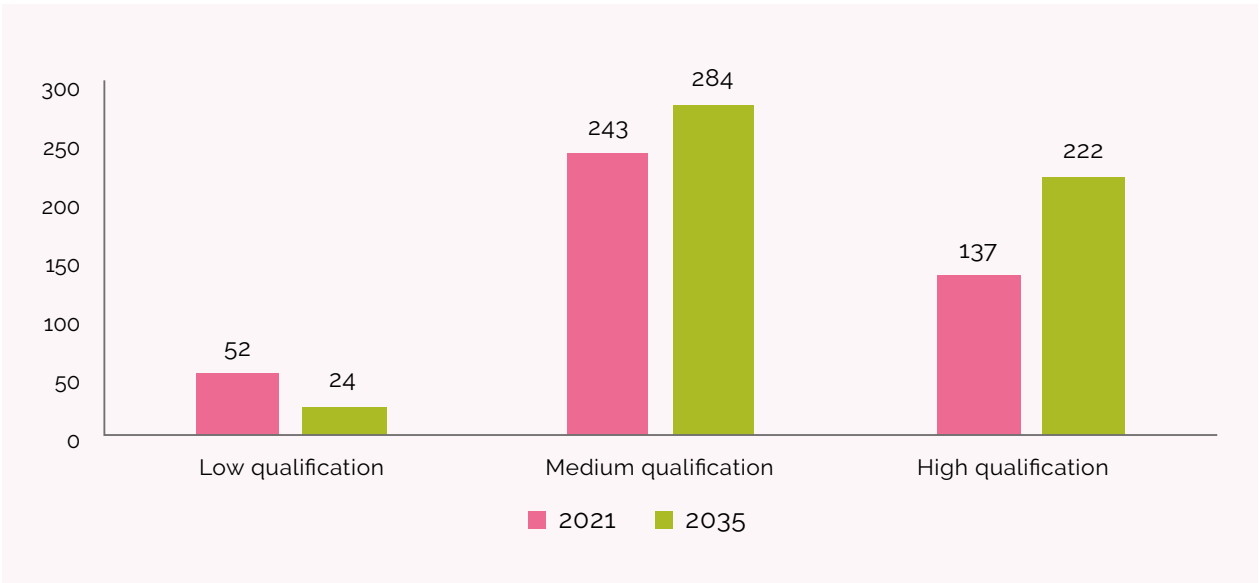
Table 5. Net change, replacement demand & total requirement for service & shop/market sales occupations (000s), 2021-2035

	Employment 2021	Net Change (2021-2035)	Replacement Demand (2021-2035)	Total Requirement (2021-2035)	Replacement rate (%) (2021-2035)
Personal service workers	98	37	53	90	3.1%
Sales workers	168	23	77	99	2.7%
Personal care workers	129	43	94	137	4.0%
Protective services workers	37	-4	17	12	2.7%
Total	432	98	241	338	3.2%

Source: Cedefop forecasts

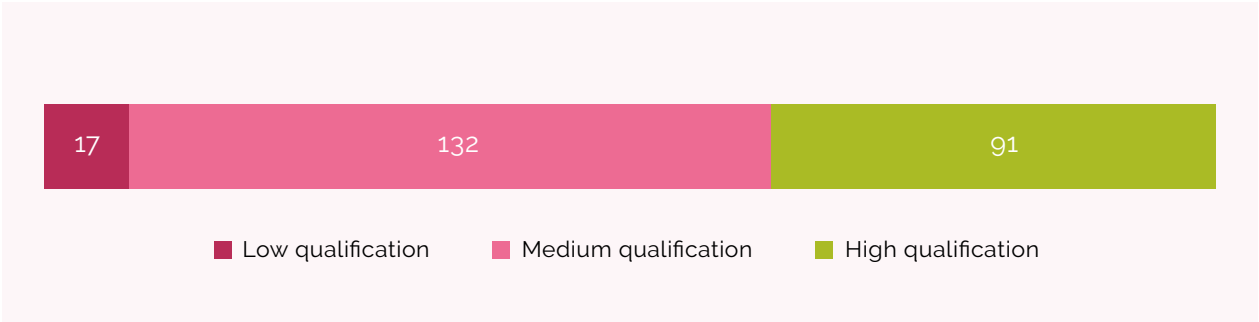
Education profile: The number of persons with low qualifications employed in service and sales roles is forecast to decline by 28,000 persons over the period 2021 to 2035 (Figure 16). Although those with medium qualifications are still forecast to account for the largest share of persons employed in these roles in 2035, their share of total employment is forecast to decline as the number employed with high qualifications is forecast to have the largest increases over the period. Of the total forecasted replacement demand, 132,000, or 55%, relates to persons with medium qualifications (Figure 17). Again, skills mismatches may become an increasing feature for this occupational group.

Figure 16. Composition of employment by level of qualification for service & shop/market sales occupations (000s), 2021 vs 2035



Source: Cedefop forecasts

Figure 17. Replacement demand (2021-2035) by forecasted level of qualification for service & shop/market sales occupations (000s)



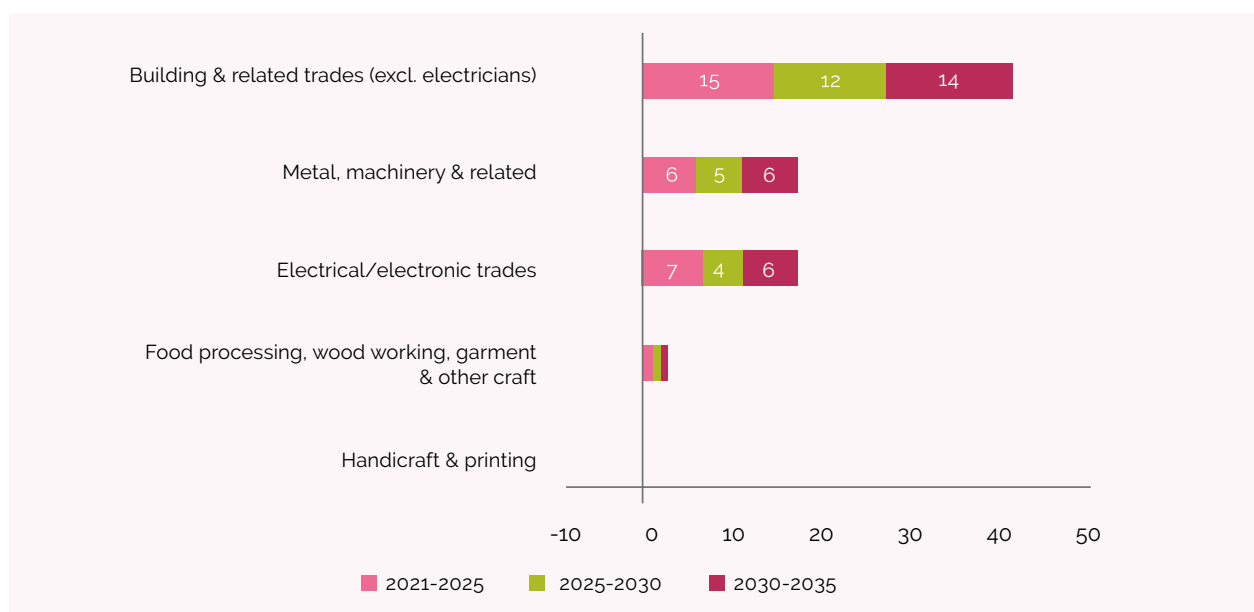
Source: Cedefop forecasts

3.6. Craft and related trades workers

Cedefop forecasts **an increase of 79,000 persons employed as craft and related workers** between 2021-2035. Building and related trades are forecast to account for the largest increase in employment, increasing by 42,000 by 2035, with growth expected to be spread relatively evenly across the three five-year periods.

Many of those employed in craft trades occupations were impacted by COVID-19 restrictions. As such, although the Cedefop forecasts of employment in 2021 exceeded that reported in the Eurostat (LFS) data by approximately 24,000, 2022 saw a recovery in employment levels across the occupations in this group. Demand for construction workers is expected to continue, at least in the short-medium term given Government targets for housing and climate change.

Figure 18. Forecasted employment growth (000s) for craft and related trades workers, 2021-2035



Source: Cedefop forecasts

An additional 132,000 persons are forecast to be required to meet replacement demand for craft and related trades workers across the forecast period, with building and related trades accounting for the largest number, at 55,000 persons. Replacement rates for the period 2021-2035 only exceeded the national level for all occupations (of 3.5%) for building and related trades at 4%.

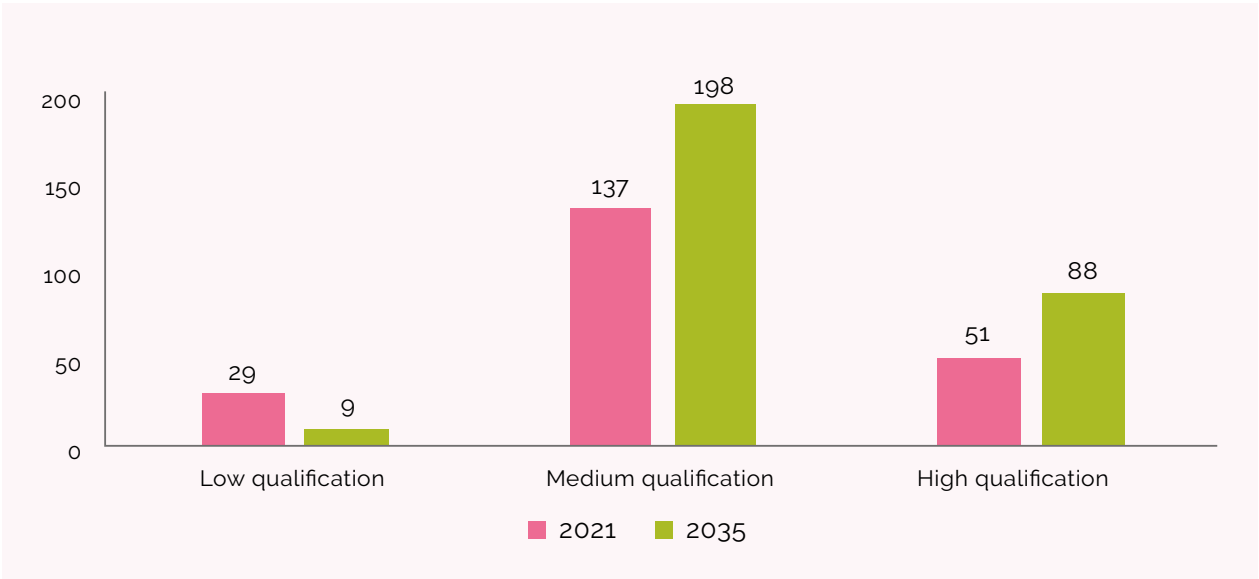
Table 6. Net change, replacement demand & total requirement for craft & related trades workers (000s), 2021-2035

	Employment 2021	Net Change (2021-2035)	Replacement Demand (2021-2035)	Total Requirement (2021-2035)	Replacement rate (%) (2021-2035)
Building & related trades (excl. electricians)	75	42	55	97	4.0%
Metal, machinery & related	57	17	34	52	3.4%
Handicraft & printing	8	0	4	4	2.8%
Electrical/electronic trades	37	17	20	37	3.1%
Food processing, wood working, garment & other craft	40	3	19	22	2.9%
Total	217	79	132	212	3.5%

Source: Cedefop forecasts

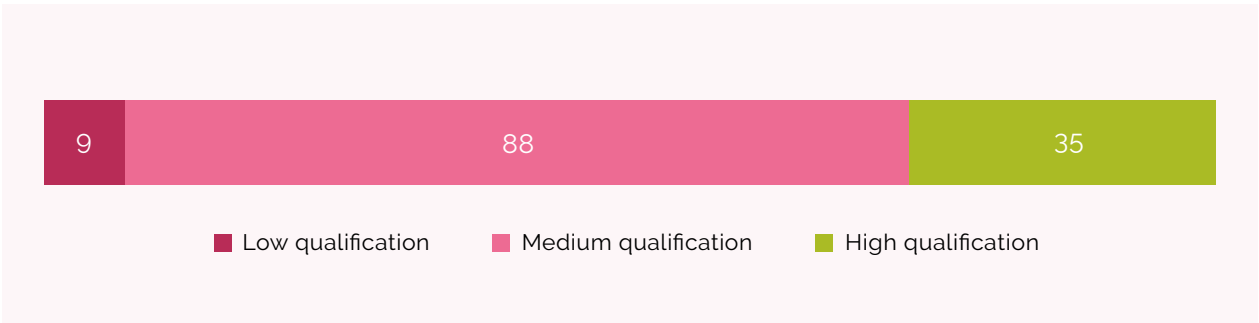
Education profile: Over 70% of the total requirement for craft and related trades workers over the period 2021-2035 is forecast to be for those with medium qualifications, with employment growth of 61,000 persons (Figure 19) and an additional 88,000 persons forecast to be required to meet replacement demand (Figure 20). There will be a net loss of persons with low qualifications, which is a reflection of the expected fall in the number of persons in the labour force with this level of education. Both employment increases and replacement demand are forecast to be met to some degree by those with high levels of qualification; although the skills requirements for some of these occupations are expected to change as a result of new methods of construction, skills mismatching may occur if this share of persons with high qualifications employed in craft-related occupations is realised.

Figure 19. Composition of employment by level of qualification for craft & related trades workers (000s), 2021 vs 2035



Source: Cedefop forecasts

Figure 20. Replacement demand (2021-2035) by forecasted level of qualification for craft & related trades workers (000s)



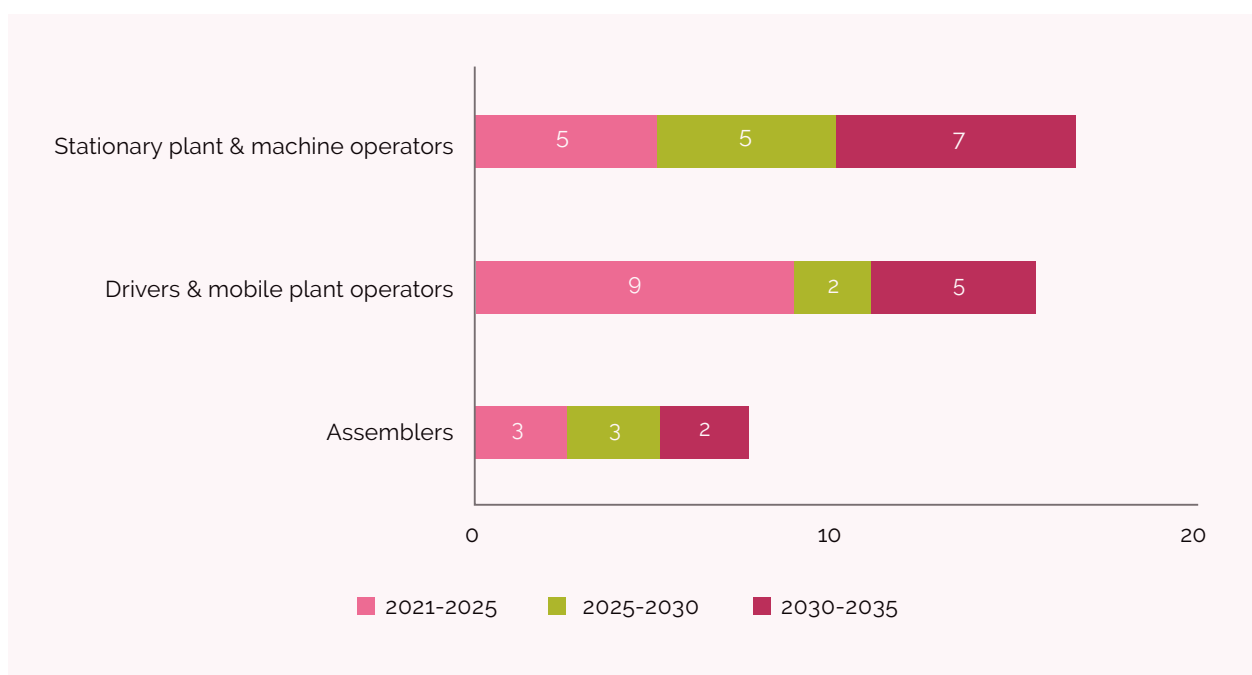
Source: Cedefop forecasts

3.7. Plant and machine operators and assemblers

Cedefop forecasts **an increase of 40,000 persons employed as plant and machine operators and assemblers** between 2021-2035. Stationary plant and machine operators are forecast to have the largest increase in employment by 2035, of 17,000 persons, with relatively similar growth expected across the three five-year periods. Employment growth for drivers and mobile plant operators is expected to be particularly strong at the beginning of the forecast period with an expansion of 9,000 persons employed by 2025.

Although the Cedefop baseline figures for 2021 are broadly in line with the Eurostat (LFS) data for assemblers and stationary plant and machine operators, they overestimate the employment levels for drivers and mobile plant operators (by approximately 11,000); although employment numbers for drivers increased in 2022, they remained below the Cedefop baseline figures and are unlikely to reach the forecasted levels for 2025.

Figure 21. Forecasted employment growth (000s) for plant and machine operators & assemblers, 2021-2035



Source: Cedefop forecasts

Replacement demand, alongside employment growth, will also add to the total requirement for operative roles over the forecast period. The replacement demand is highest for drivers and mobile plant operators in absolute terms at 77,000 persons (representing a rate of 5.8%), resulting in a total requirement for this occupation of 92,000 persons by 2035; the older age profile of this occupation is likely to be a contributing factor to the high level of replacement demand.

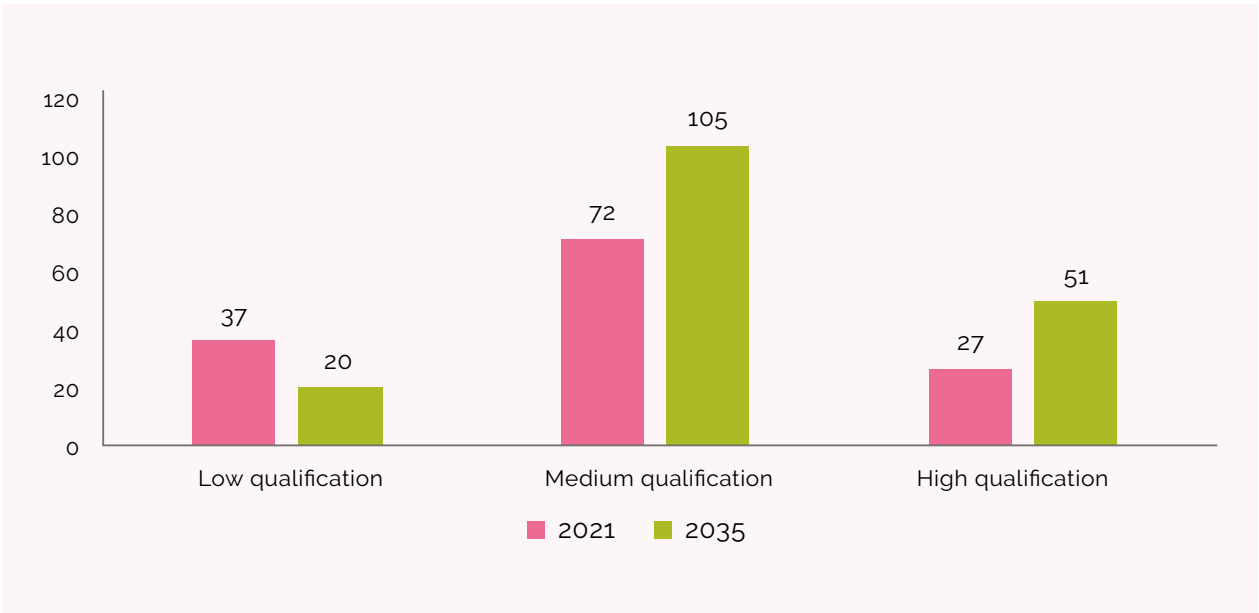
Table 7. Net change, replacement demand & total requirement for plant and machine operators & assemblers (000s), 2021-2035

	Employment 2021	Net Change (2021-2035)	Replacement Demand (2021-2035)	Total Requirement (2021-2035)	Replacement rate (%) (2021-2035)
Stationary plant & machine operators	23	17	17	33	4.5%
Assemblers	27	8	13	21	2.9%
Drivers & mobile plant operators	86	16	77	92	5.8%
Total	136	40	106	146	4.2%

Source: Cedefop forecasts

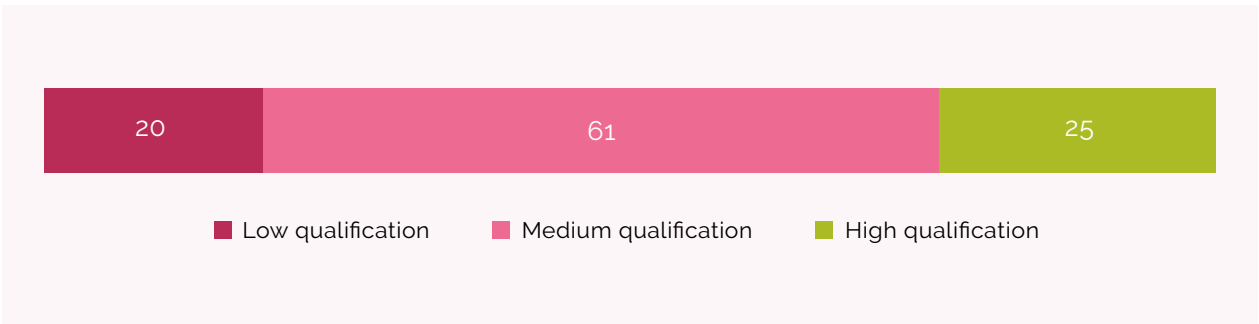
Education profile: Those with medium qualifications are forecast to account for the largest increase in employment for these occupations over the forecast period, with an additional 33,000 persons employed (Figure 22). A fall is forecast for the number of persons employed in operative roles who are holders of lower secondary qualifications or less (low qualifications). The additional 24,000 persons forecast to be employed with high qualifications will further accentuate issues with skills mismatching for this occupation. Those exiting operative roles over the period 2021-2035 are forecast to be replaced primarily by those with medium qualification levels (Figure 23).

Figure 22. Composition of employment by level of qualification for plant and machine operators and assemblers (000s), 2021 vs 2035



Source: Cedefop forecasts

Figure 23. Replacement demand (2021-2035) by forecasted level of qualification for plant and machine operators and assemblers (000s)



Source: Cedefop forecasts

3.7. Elementary occupations

Cedefop forecasts **an increase of 27,000 persons employed in elementary occupations** between 2021-2035 bringing total employment to 214,000 by 2035. Those employed as refuse and other elementary workers are forecast to experience the largest increase with an additional 19,000 persons employed by 2035, most likely driven by climate change activities. A further 16,000 persons are forecast for food preparation assistants. Declines in employment are forecast for both agricultural, forestry and fishery labourers and labours in mining, construction, manufacturing and transport over the period to 2035.

The Cedefop 2021 baseline figures for 2021 are broadly in line with the Eurostat (LFS) data for the majority of the occupations within this group; there is an overestimation of the refuse and other elementary workers, although increases in 2022 in the LFS data bring levels closer aligned.

Figure 24. Forecasted employment growth (000s) for elementary occupations, 2021-2035



Source: Cedefop forecasts

In addition to the increase in employment, a further 110,000 persons are forecast to be required to meet replacement demand for these occupations with a total recruitment requirement of 137,000 persons over the period 2021-2035. Refuse and other elementary workers have the highest replacement rate over the forecast period, at 4.5%, with 25,000 persons expected to be required for replacement alone. Although employment for labourers in mining, construction, manufacturing and transport is forecast to decline in the period to 2035, replacement demand alone will result in additional demand with a total requirement of 26,000 persons for this occupation.

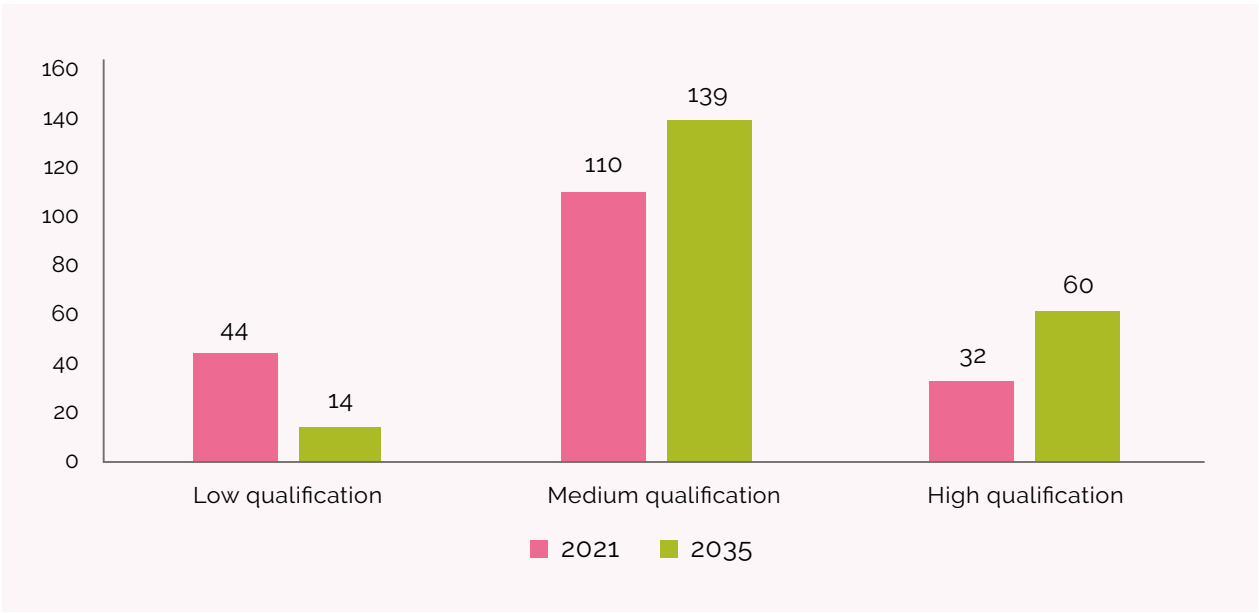
Table 8. Net change, replacement demand & total requirement for elementary occupations (000s), 2021-2035

	Employment 2021	Net Change (2021-2035)	Replacement Demand (2021-2035)	Total Requirement (2021-2035)	Replacement rate (%) (2021-2035)
Cleaners & helpers	41	4	28	32	3.8%
Agricultural, forestry & fishery labourers	18	-6	8	2	2.6%
Labourers in mining, construction, manufacturing & transport	66	-7	33	26	3.0%
Food preparation assistants	32	16	15	32	2.8%
Refuse & other elementary workers	29	19	25	44	4.5%
Total	187	27	110	137	3.4%

Source: Cedefop forecasts

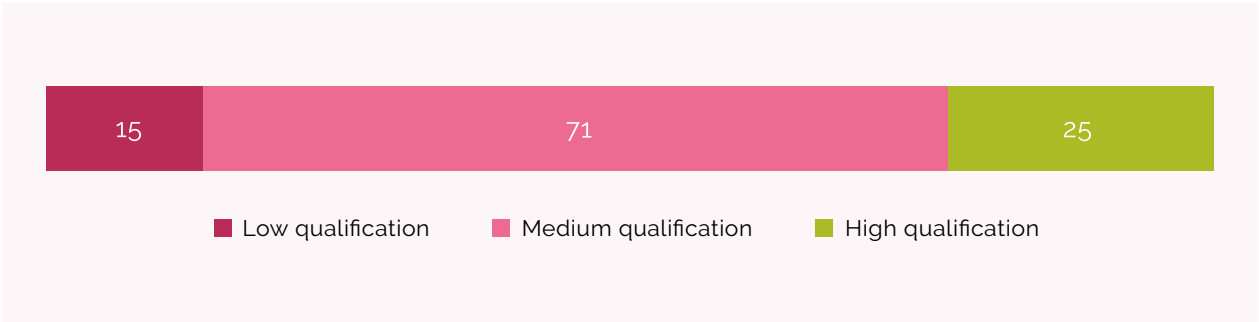
Education profile: By 2035, a net loss of 30,000 persons is forecast for those with low qualifications employed in elementary occupations, most likely a result of the expected fall in the number of persons in the labour force with lower levels of education attainment by 2035. An additional 100,000 persons with medium qualifications are forecast to be required (when employment growth and replacement demand are combined). If the number of persons employed with higher qualifications grows as forecasted (an additional 28,000 persons by 2035), issues relating to over-qualification, already a feature of employment in this occupation, will increase.

Figure 25. Change in composition of employment by level of qualification for elementary occupations (000s), 2021 and 2035



Source: Cedefop forecasts

Figure 26. Replacement demand (2021-2035) by forecasted level of qualification for elementary occupations (000s)



Source: Cedefop forecasts

4. Concluding remarks

The forecasts produced by the Skills Forecasting team in Cedefop point to substantial skills requirements in Ireland over the period from 2021 to 2035 when employment growth and replacement demand are combined. This presents both significant opportunities and challenges for the education and training system as it strives to ensure that Ireland's population has the necessary skills mix to meet the potential future demand.

Employment is forecast to grow across all occupational groups, with the exception of skilled agricultural and fishery workers and armed forces, with the largest employment increases for professionals, associate professionals and managers. At detailed occupational level, the largest employment increases are forecast for business and administration professionals, personal care workers and building and related trades workers. Some occupations are forecast to decline over the period such as general/keyboard clerks, protective services workers and labourers (e.g. construction and agriculture). Even in occupations with declining employment levels, replacement demand will lead to a positive net requirement across all occupations examined here.

The forecasts indicate that persons with high qualifications (i.e. tertiary education) will account for 85% of total employment growth and just over half of replacement demand. Employment growth for persons with high qualifications will be particularly strong in professional and associate professional occupations. As the number of persons in the labour force with lower levels of educational attainment is expected to fall over the forecast period, they will be replaced by those with medium or high qualifications. For lower skilled occupations, this may result in a further increase in the level of persons who are over-qualified.

Although the Cedefop forecasts do not fully align with the most recent changes at detailed sectoral and occupational level in Ireland, the overall direction of change provides a useful guide to education and training providers.

SOLAS

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