

Scotland

WHAT DO GRADUATES DO?

A region-by-region analysis of
Scotland's graduate labour market

Published April 2024



Please click each number below to navigate to that page ►

3 Introduction

01 SCOTLAND OVERVIEW

8 Graduate Outcomes from
Scottish institutions

02 THE SCOTTISH REGIONS

15 Aberdeen City and Shire
21 Ayrshire and Clyde Valley
27 Edinburgh
33 Fife and the Lothians
39 Forth Valley
45 Glasgow
51 Highlands and Islands
57 South of Scotland
63 Tayside

©Jisc/AGCAS 2023. Material from this publication may be reproduced for non-commercial purposes provided What do graduates do? Scotland is acknowledged. If material is required for commercial use, please contact Jisc in the first instance.

Written by Charlie Ball, head of labour market intelligence, Jisc

Jisc, 4 Portwall Lane, Bristol, BS1 6NB
Telephone: 0161 277 5200
Email: editor@luminare.prospects.ac.uk
Website: luminare.prospects.ac.uk



INTRODUCTION

This report examines the graduate labour market in Scotland. It uses data from the Graduate Outcomes survey from the Higher Education Statistics Agency (HESA) and the Office of National Statistics (ONS) to draw a picture of skilled employment throughout Scotland and to look at some of the occupational and industrial data. It also examines the way students and graduates move within Scotland, to gain a more nuanced understanding of supply and demand.

Scottish geography and culture means that some of the factors affecting local labour markets differ from the rest of the UK. Unlike the other three nations of the UK, Scotland does not have one dominant urban labour market - Glasgow is the largest but Edinburgh is very substantial, and Aberdeen and Dundee are both regionally important. At the same time, Scotland is characterised by many remote and rural areas, and the Orkneys, Shetland and the Western Isles - na h-Eileanan Siar - are island communities of a size and nature that does not exist anywhere else in the UK. This means that a UK wide perspective on the graduate labour market misses a great deal that makes Scotland unique. This report attempts to address that.

The Scottish graduate economy is diverse. The financial services sector, particularly in Glasgow and Edinburgh, contribute significantly to the economy, and these two cities have some of the most diverse graduate opportunities in the UK. The oil and gas industry, centred around Aberdeen, has declined somewhat in recent years but remains extremely important to the Scottish and UK graduate labour market. Scotland is also positioning itself as a hub for renewable technologies, and although it is early days for UK development, the hope is that this will emerge as a local strength in coming years.



01



SCOTLAND OVERVIEW

8 Graduate Outcomes from Scottish institutions



Scotland has a higher proportion of people than the UK average educated to NVQ4+ (degree or equivalent) - the majority of the workforce has this level of qualification - and around the same proportion of professional-level jobs as the UK as a whole. This means that there are slightly more people educated to NVQ4+ level than there are roles at professional level. As we will see, this pattern is consistent across the regions.



50%

- Proportion of Scottish population with NVQ4+ (degree or equivalent) at the end of 2021



57.1%

- Proportion of Scottish workforce with NVQ4+ at the end of 2021



49.2%

- Proportion of Scottish workforce in professional-level employment at the end of 2021



7.6%

- Proportion of graduates from 2020/21 reporting some form of self-employment at the end of 2022



1,428,300

- Number of Scottish workers with NVQ4+ at the end of 2021



1,278,600

- Number of Scottish workers in professional-level employment at the end of 2021

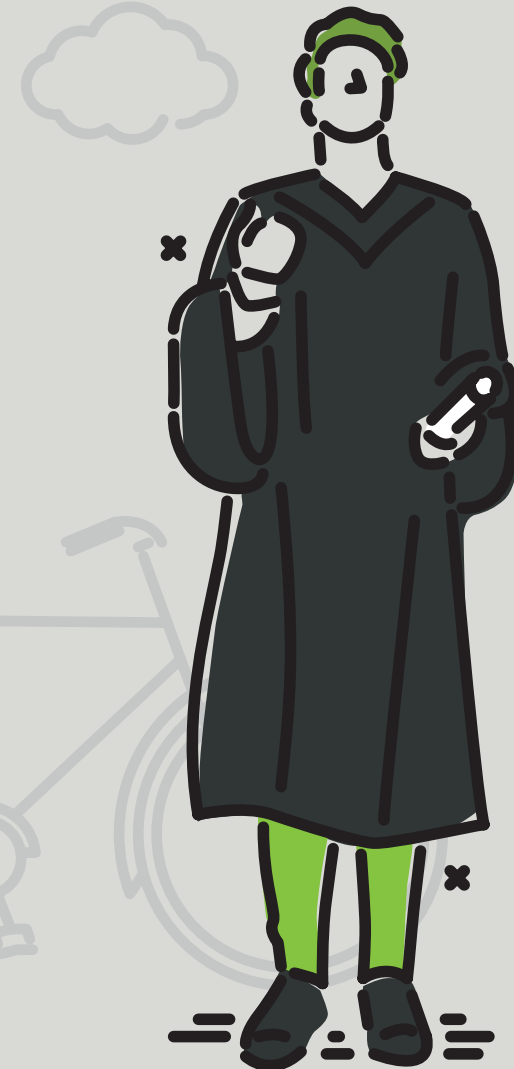


Table 1.1 examines how the major occupational groups changed in Scotland in 2022. Elementary occupations are the largest group, at 9% of the workforce, and steadily increasing in number, but science, technology, engineering and maths (STEM) professionals - at 7.6% of the Scottish workforce - are not far behind.

Overall professional level (SOCs 11 to 35) saw modest growth of around 10,000 workers in 2022, while non-graduate employment fell by around 6,600, with administrative occupations, skilled metal electrical and electronic trades, and customer service roles all seeing substantial falls in employment. These do align with long term UK trends.

Table 1.1: Breakdown of occupations in Scotland from the 2022 Annual Population Survey

Standard Occupational Group (SOC 2020)	Number of employees in 2022	Percentage of workforce in 2022	Year-on-year change from 2021
11 Corporate managers and directors	144,900	5.5	-2,700
12 Other managers and proprietors	87,600	3.3	4,100
21 Science, research, engineering and technology professionals	200,900	7.6	19,300
22 Health professionals	158,800	6	12,400
23 Teaching and other educational professionals	129,200	4.9	-300
24 Business, media and public service professionals	188,800	7.1	-17,200
31 Science, engineering and technology associate professionals	53,200	2	-8,400
32 Health and social care associate professionals	72,800	2.8	6,700
33 Protective service occupations	35,200	1.3	-2,000
34 Culture, media and sports occupations	60,200	2.3	-1,800
35 Business and public service associate professionals	167,500	6.3	10,400
41 Administrative occupations	191,600	7.2	-15,400
42 Secretarial and related occupations	43,100	1.6	2,200
51 Skilled agricultural and related trades	32,700	1.2	-600
52 Skilled metal, electrical and electronic trades	75,300	2.8	-10,700
53 Skilled construction and building trades	76,700	2.9	12,600
54 Textiles, printing and other skilled trades	53,000	2	-4,100
61 Caring personal service occupations	174,900	6.6	11,300
62 Leisure, travel and related personal service occupations	51,200	1.9	-1,500
63 Community and civil enforcement occupations	1,900	0.1	-300
71 Sales occupations	138,400	5.2	-6,300
72 Customer service occupations	58,300	2.2	-11,900
81 Process, plant and machine operatives	63,100	2.4	-4,100
82 Transport and mobile machine drivers and operatives	91,200	3.4	8,400
91 Elementary trades and related occupations	43,700	1.7	13,800
92 Elementary administration and service occupations	237,400	9	21,200

Table 1.2: Projected employee demand in Scotland between 2025 and 2035 (from the Unit for Future Skills)

This table examines the overall net change in employment in each area - some occupational groups are expected to fall in the medium term, largely due to automation, along with replacement demand - the demand for workers generated by replacing those who leave the jobs market (usually through retirement).

As a result of replacement demand, Scotland will still need to recruit workers in all of the areas covered even though some workforces will be smaller overall than in 2025. But the bulk of demand in Scotland (and the UK as a whole) is at graduate level.

Scotland is projected to need 155,000 more STEM professionals, 109,000 new health professionals (mainly doctors and senior nurses), 120,000 more education professionals (mainly teachers), 113,000 more business services professionals (particularly in Glasgow and Edinburgh), 111,000 more health and social care professionals (mainly nurses and social workers) and all areas of graduate level recruitment are expected to increase, with the exception of the Armed Forces.

These are very testing numbers. Scotland needs around 15,000 new STEM professionals every year from 2025 to 2035. Last year just over 2,000 graduates are known to have found roles as STEM professionals, and even at a 50% response rate this falls very far short of the numbers required.

Number of employees (in thousands)	2025 projection	2035 projection	Net Change in number of employee	Replacement Demand	Requirement between 2025 and 2035 (thousands)
11 Corporate managers and directors	155	170	0	83	83
12 Other managers and proprietors	82	92	11	47	59
21 Science, research, engineering and technology professionals	209	242	73	82	155
22 Health professionals	153	173	23	86	109
23 Teaching and other educational professionals	181	198	26	95	120
24 Business, media and public service professionals	167	188	29	84	113
31 Science, engineering and technology associate professionals	60	66	4	26	29
32 Health and social care associate professionals	92	112	56	55	111
33 Protective service occupations	35	37	-6	13	7
34 Culture, media and sports occupations	44	50	4	23	27
35 Business and public service associate professionals	151	162	14	72	86
41 Administrative occupations	279	277	9	134	143
42 Secretarial and related occupations	53	46	-9	26	17
51 Skilled agricultural and related trades	42	46	5	23	28
52 Skilled metal, electrical and electronic trades	81	73	-11	30	19
53 Skilled construction and building trades	58	50	-12	22	10
54 Textiles, printing and other skilled trades	57	55	0	22	22
61 Caring personal service occupations	169	191	39	96	134
62 Leisure, travel and related personal service occupations	54	56	-2	27	24
63 Community and civil enforcement occupations	3	3	-1	2	1
71 Sales occupations	168	163	-10	77	67
72 Customer service occupations	57	63	12	26	38
81 Process, plant and machine operatives	71	66	-1	27	26
82 Transport and mobile machine drivers and operatives	77	71	-7	39	32
91 Elementary trades and related occupations	77	88	45	34	79
92 Elementary administration and service occupations	277	245	-66	127	61

01



GRADUATE OUTCOMES FROM SCOTTISH INSTITUTIONS



The next section examines Graduate Outcomes data for the 2020/21 graduating cohort. These graduates actually left their institutions during the COVID pandemic but were surveyed 15 months later at the end of 2022, after all remaining pandemic restrictions had been lifted, and by which time the labour market was far stronger. The data shows this change: there is little sign of even short-term career damage as a consequence of COVID for the cohort as a whole, although there are likely to be some graduates who found it harder to start their career.

Outcomes for graduates from Scottish institutions were slightly more positive than the UK as a whole. Unemployment was at the lowest since Graduate Outcomes data was inaugurated, at 4.2%, and full-time work stood just a hair below 60%. Working and studying was also high, at 10.6%, and this group covers people working full time and studying as well, meaning that 70% of Scottish graduates were in full time work of some kind after 15 months, and 20% were in further study.

FIGURE 1.1: WHAT DID GRADUATES FROM SCOTTISH UNIVERSITIES DO?



In common with other regions of the UK, health is the most common occupation for this cohort of graduates, with slightly more than one in six Scottish graduates becoming health professionals. This data tracks the UK balances quite closely, and in Scotland, business HR and finance, driven by the strong labour markets in Glasgow and Edinburgh, were the next most common jobs for new graduates.

Engineering, influenced by the oil and gas sector and Scotland’s historic strength, was the next most common set of professional-level roles and this means that Scotland does not have the same level of engineering shortages that the rest of the UK experiences (although there are still shortfalls).

The large majority of the cohort were in professional-level employment 15 months after graduation - retail and administrative roles were the most important jobs below professional level and longitudinal cohort studies suggest that graduates in administrative occupations often move quite quickly into professional level jobs after gaining work experience. There are concerns, however, about how easily graduates in retail positions find it to move into professional level jobs.

FIGURE 1.2 TYPES OF WORK OF GRADUATES FROM SCOTTISH UNIVERSITIES FROM 2020/21, 15 MONTHS AFTER GRADUATION

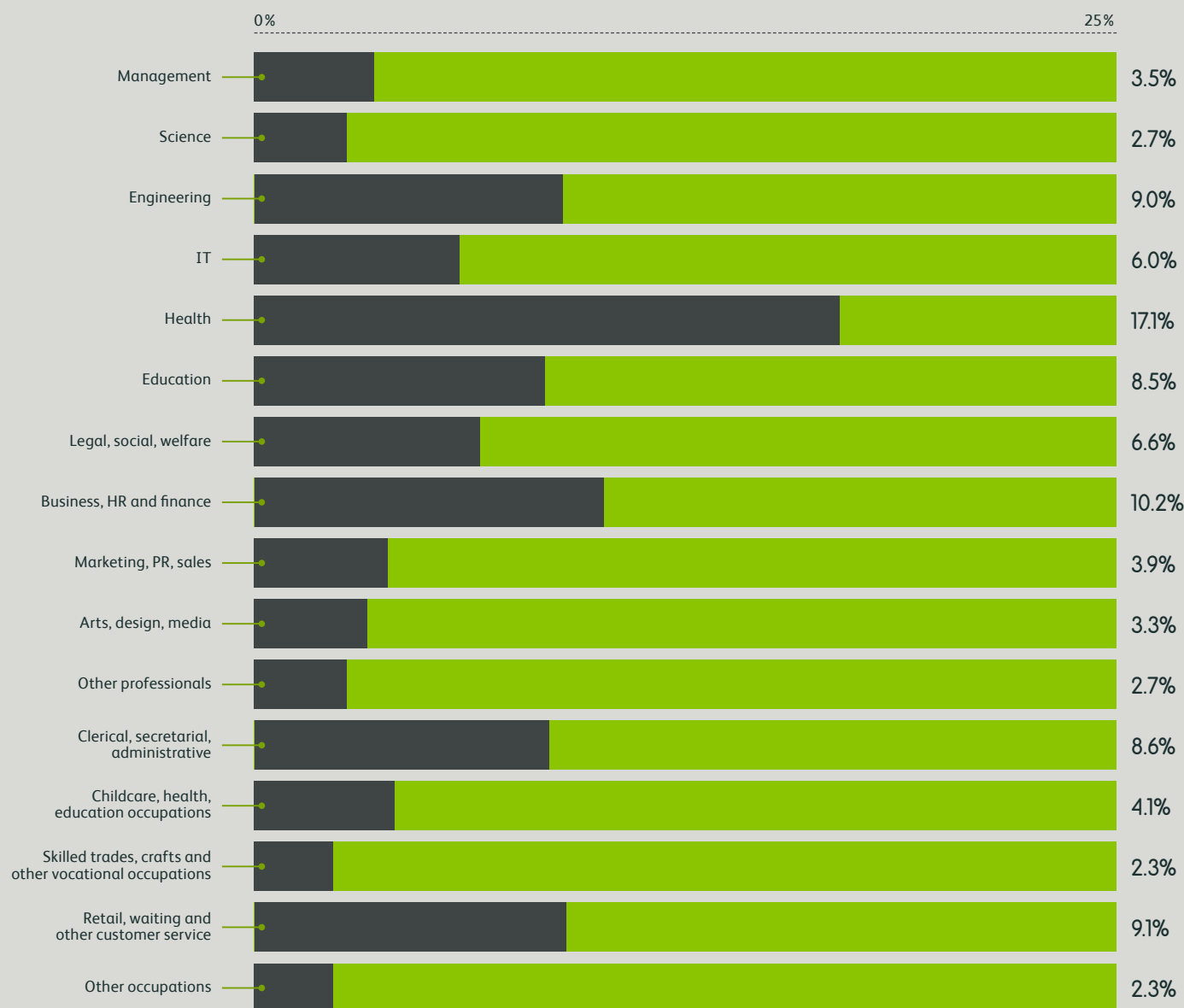
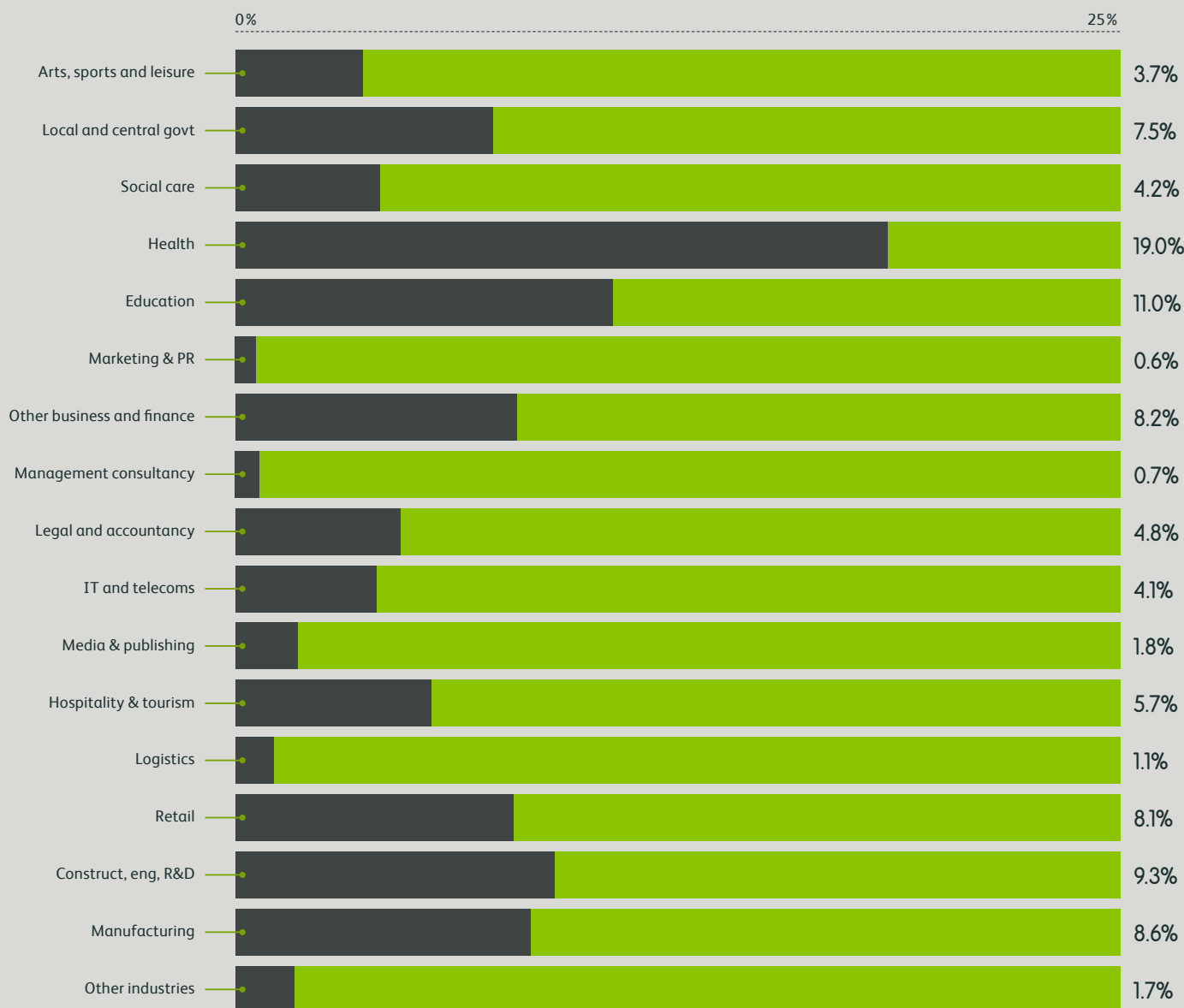


Figure 1.3 examines the industries that graduates worked in rather than the jobs they were doing - this highlights the difference between an accountant working for an accountancy firm, and an accountant working for a manufacturer, for example. In Figure 1.2, both accountants would be classed under their occupation (accountancy), but in Figure 1.3, they will appear under the industry that they work for.

Like almost all of the rest of the UK, the health industry (and specifically the NHS) is the largest employer of graduates, with education a little way behind. But Scotland’s formidable legacy in tech and engineering and the oil and gas industry influence means that construction, engineering and R&D and manufacturing are the next most important sets of industries (in this data we have grouped primary industry with manufacturing), with business services and retail close behind.

In general, reports of the death of manufacturing in the UK are somewhat exaggerated and particularly in Scotland and this data shows the importance of high-tech manufacturing to Scotland - and its need for scarce, highly skilled workers in the sector. Important local manufacturing industries, such as transport in Glasgow and electronics in Dundee, are apparent in this data.

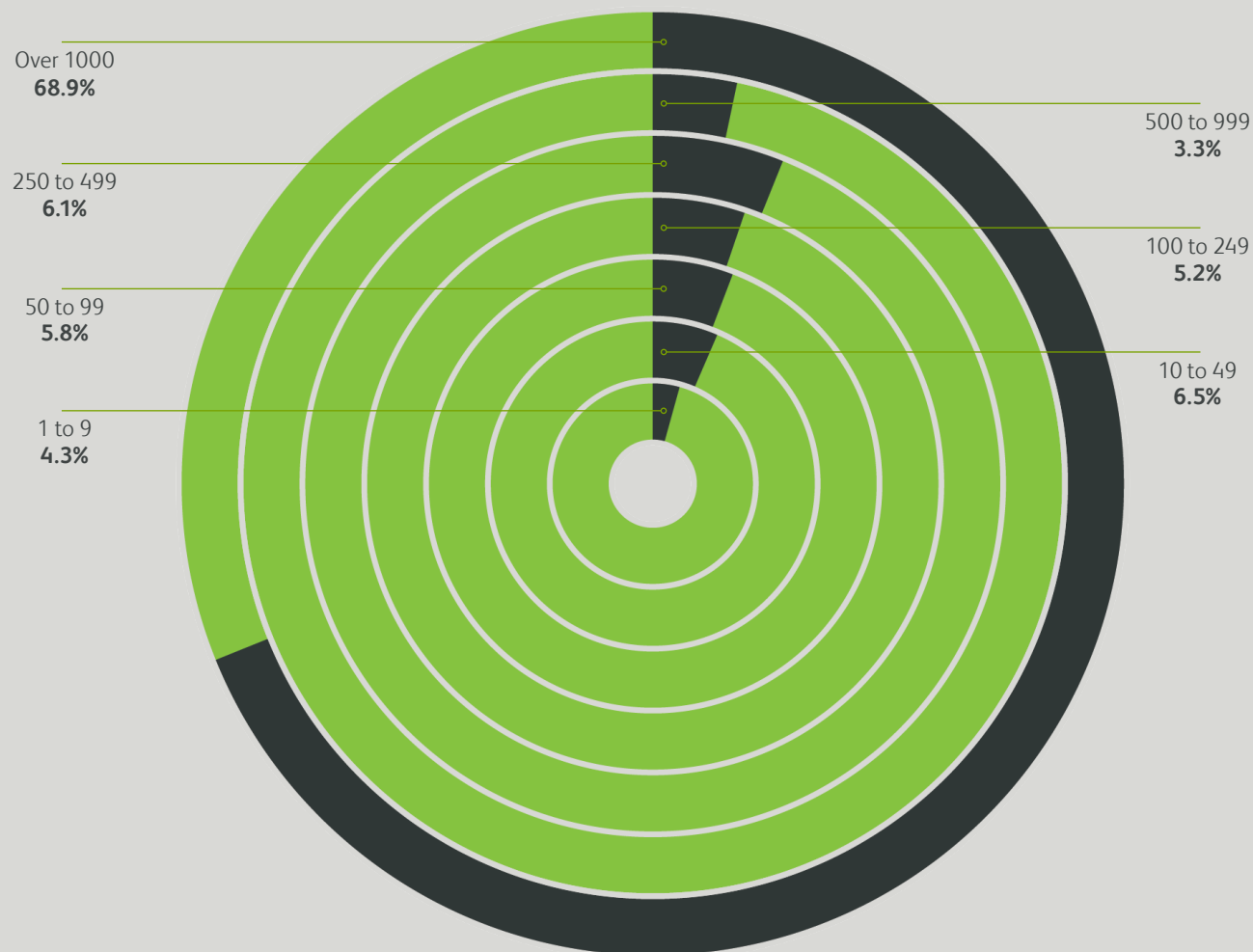
FIGURE 1.3: INDUSTRY OF EMPLOYMENT OF GRADUATES FROM SCOTTISH UNIVERSITIES FROM 2020/21, 15 MONTHS AFTER GRADUATION



Small and medium sized enterprises (SMEs) are a little less important to graduate employment in Scotland than in some other parts of the UK, with 22% of graduates starting their career at an SME. SME employment has fallen since the COVID pandemic and has only recently begun to improve as SMEs were disproportionately affected, so we hope to see this figure increasing in the future, but it is likely that SMEs wishing to recruit graduates may need support from institutions.

Many are competing with larger businesses with better branding and marketing spend and more experience recruiting graduates, and in sectors with workforce shortages and operate at a significant disadvantage as a consequence.

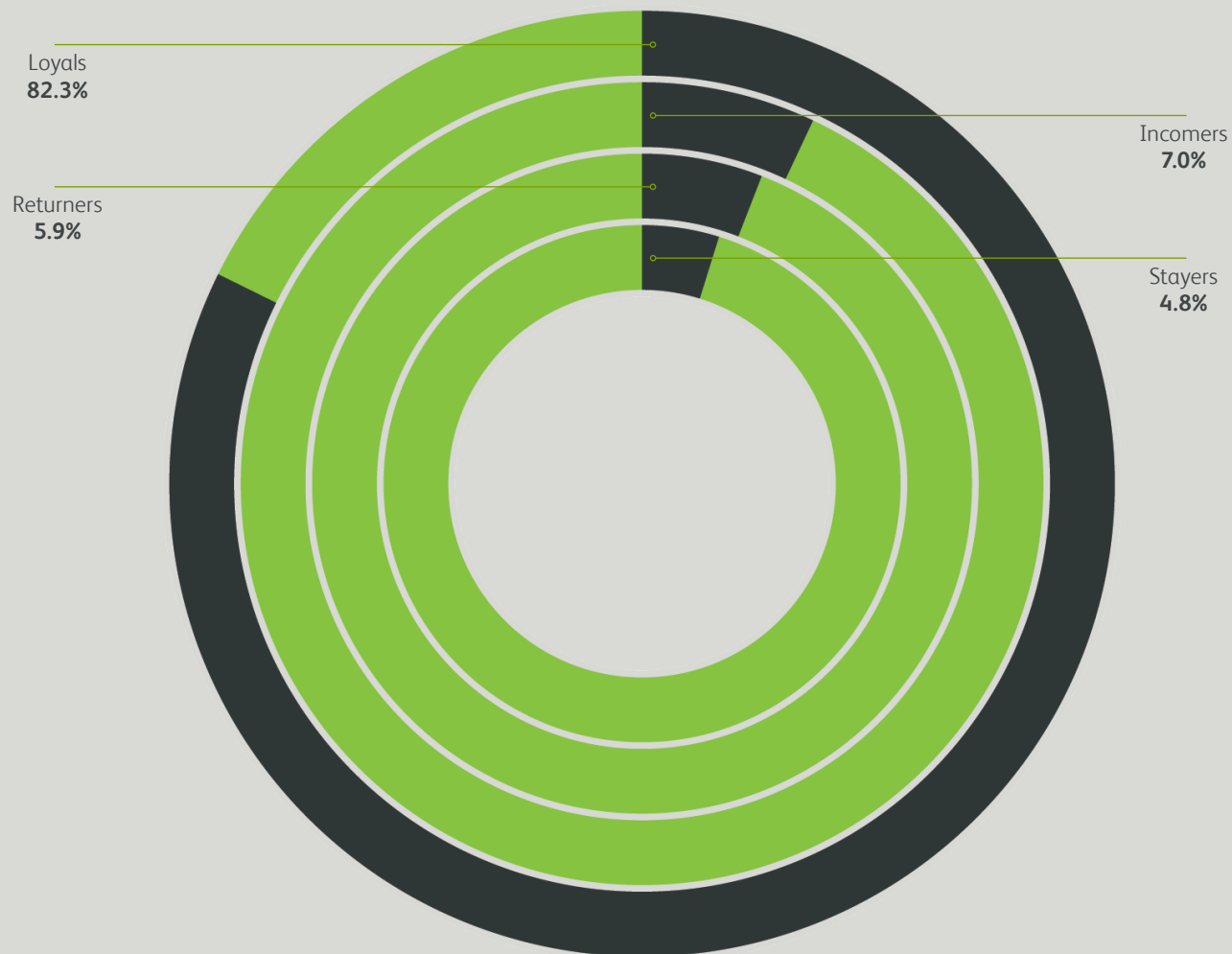
FIGURE 1.4 SIZE OF EMPLOYER OF GRADUATES FROM SCOTTISH UNIVERSITIES FROM 2020/21 15 MONTHS AFTER GRADUATION



This analysis uses the standard graduate migration groups developed by the author.

- Loyals - graduates from Scotland and who studied in Scotland - make up the very large majority of Scottish graduate employees.
- Stayers are those from elsewhere in the UK who studied in Scotland and stay in Scotland to work - they are often Northern Irish, and tend to be in the larger cities.
- Returners are Scots who left Scotland to study and return home to work, and are spread across Scotland.
- Incomers are graduates who are not from Scotland and didn't attend Scottish institutions, but work in Scotland. They're often found in highly-paid roles in health, finance and the oil and gas industry. The following sections will also examine migration within Scotland in somewhat more detail.

FIGURE 1.5: GRADUATE MIGRATION GROUPS FOR UK DOMICILED GRADUATES FROM 2020/21 WORKING IN SCOTLAND AFTER 15 MONTHS.



THE SCOTTISH REGIONS

- 15 Aberdeen City and Shire
- 21 Ayrshire and Clyde Valley
- 27 Edinburgh
- 33 Fife and the Lothians
- 39 Forth Valley
- 45 Glasgow
- 51 Highlands and Islands
- 57 South of Scotland
- 63 Tayside



Scotland has been split into regions in order to examine local labour markets in more detail. This has been done by grouping local authority areas using a method first applied in the HECSU/AGCAS publication, 'The Scottish Graduate Labour Market'.¹

This region, also called North East Scotland, consists of the local authorities of Aberdeen City and Aberdeenshire. Universities in the region are Aberdeen and Robert Gordon, both based in Aberdeen.

This is an important local economy based around the oil and gas and manufacturing hub of Aberdeen. Renewables, food and drink, and travel and tourism are also important to the region, which is crucial to Scottish exports, and has a highly educated workforce.

- Proportion of regional population with NVQ4+ at the end of 2021: 51.9%
- Proportion of regional workforce with NVQ4+ at the end of 2021: 57%
- Proportion of regional workforce in professional level employment at the end of 2022: 46.7%
- Proportion of 2020/21 graduates reporting some form of self-employment or preparation for self-employment 15 months after graduation: 9.4%

Many of the roles that this region specialises in are in shortage - this may be less about a fall in absolute opportunities and more about a difficulty replacing workers leaving the jobs market.

Table 2.1.1: Occupational change in the North East Scotland workforce in 2022

Standard Occupational Group (SOC 2020)	Number of employees in 2022	Percentage of workforce in 2022	Year-on-year change from 2021
11: corporate managers and directors	14,900	5.9	1,400
12: other managers and proprietors	5,600	2.2	-1,200
21: science, research, engineering and technology profs	21,600	8.6	-3,600
22: health professionals	13,800	5.5	-600
23: teaching and educational professionals	10,700	4.2	-100
24: business, media and public service professionals	16,200	6.4	1,600
31: science, engineering and technology associate profs	8,700	3.5	100
32: health & social care assoc. professionals	3,400	1.4	-2,600
33: protective service occupations	2,100	0.8	-900
34: culture, media and sports occupations	6,400	2.5	1,200
35: business & public service assoc. professionals	14,600	5.8	2,100
41: administrative occupations	20,700	8.2	1,600
42: secretarial and related occupations	5,100	2.0	2,700
51: skilled agricultural and related trades	3,900	1.5	-1,700
52: skilled metal, electrical and electronic trades	10,400	4.1	-4,300
53: skilled construction and building trades	7,600	3.0	700
54: textiles, printing and other skilled trades	5,400	2.2	800
61: caring personal service occupations	18,700	7.4	-400
62: leisure, travel and related personal service occupations	4,100	1.6	200
71: sales occupations	11,300	4.5	400
72: customer service occupations	2,700	1.1	-300
81: process, plant and machines operatives	8,000	3.2	2,000
82: transport & mobile machine drivers/operatives	7,000	2.8	-2,000
91: elementary trades and related occupations	2,800	1.1	100
92: elementary administration & service occupations	24,000	9.5	600

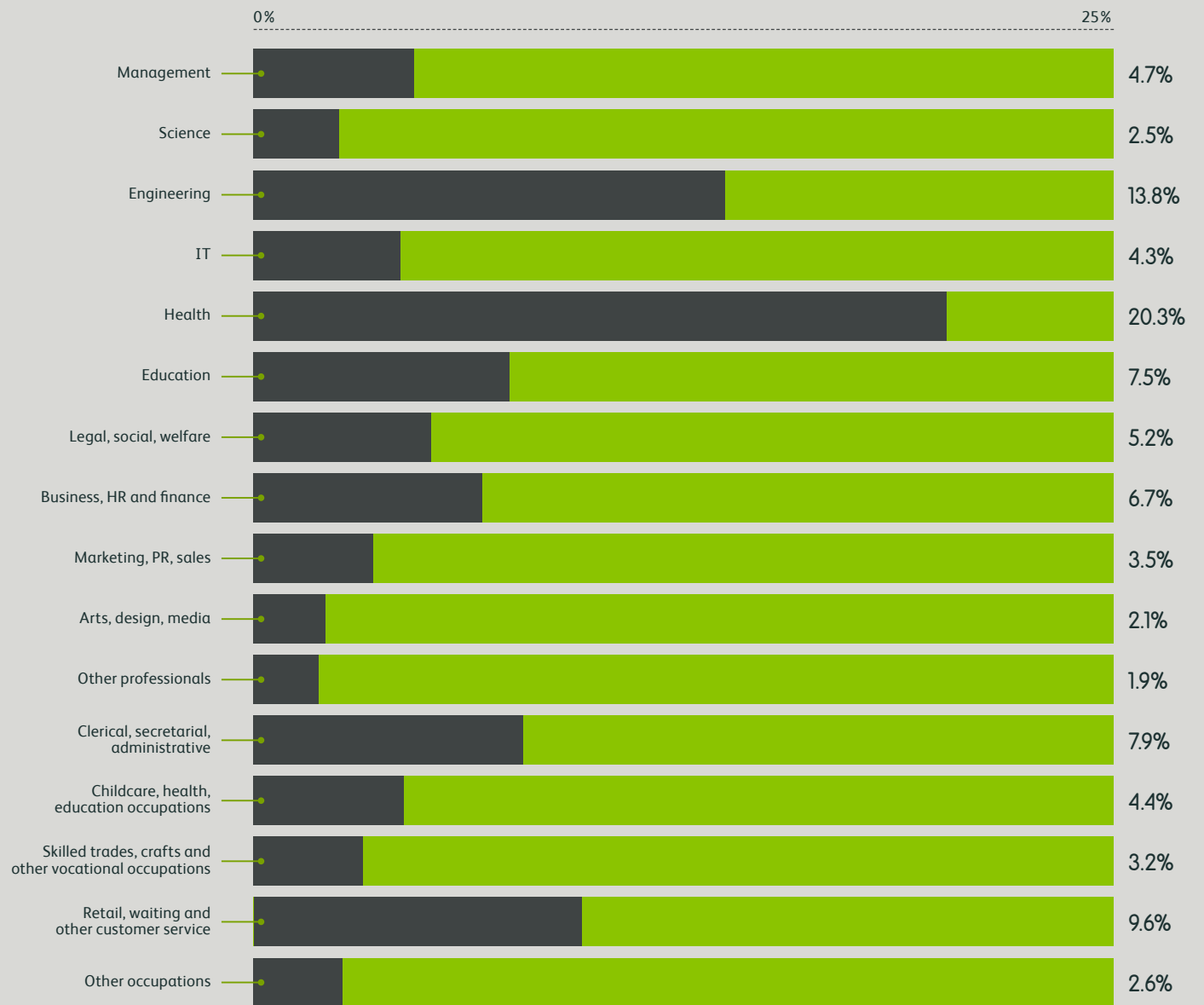
¹The Scottish Graduate Labour Market, AGCAS Scotland, 2020.

Data from 2022 reveals that the number of professional-level jobs in the region (this data examines the whole workforce, not just new graduates) fell in 2022, fuelled by an ongoing fall in the numbers working in high tech roles around the oil and gas industry. These occupations make up 8.6% of the whole local workforce so anything that has an adverse effect on them makes a particular difference to the region as a whole. Although the North East of Scotland is less reliant on public sector employment than many others, anything that hits major private sector businesses is an issue for the region.

Nevertheless, employment remains strong and nearly half of all local jobs are at professional-level, and the regional also has a relatively healthy proportion of well-paid non-graduate skilled trade and administrative jobs. And it is important to remember that many of the roles that this region specialises in are in shortage - this may be less about a fall in absolute opportunities and more about a difficulty replacing workers leaving the jobs market. The engineering and tech workforce is aging and replacement demand in the sector is significant. It is quite possible that an increase in worker supply alone would mitigate or even reverse employment falls as demand may still be present, it is simply being unmet.

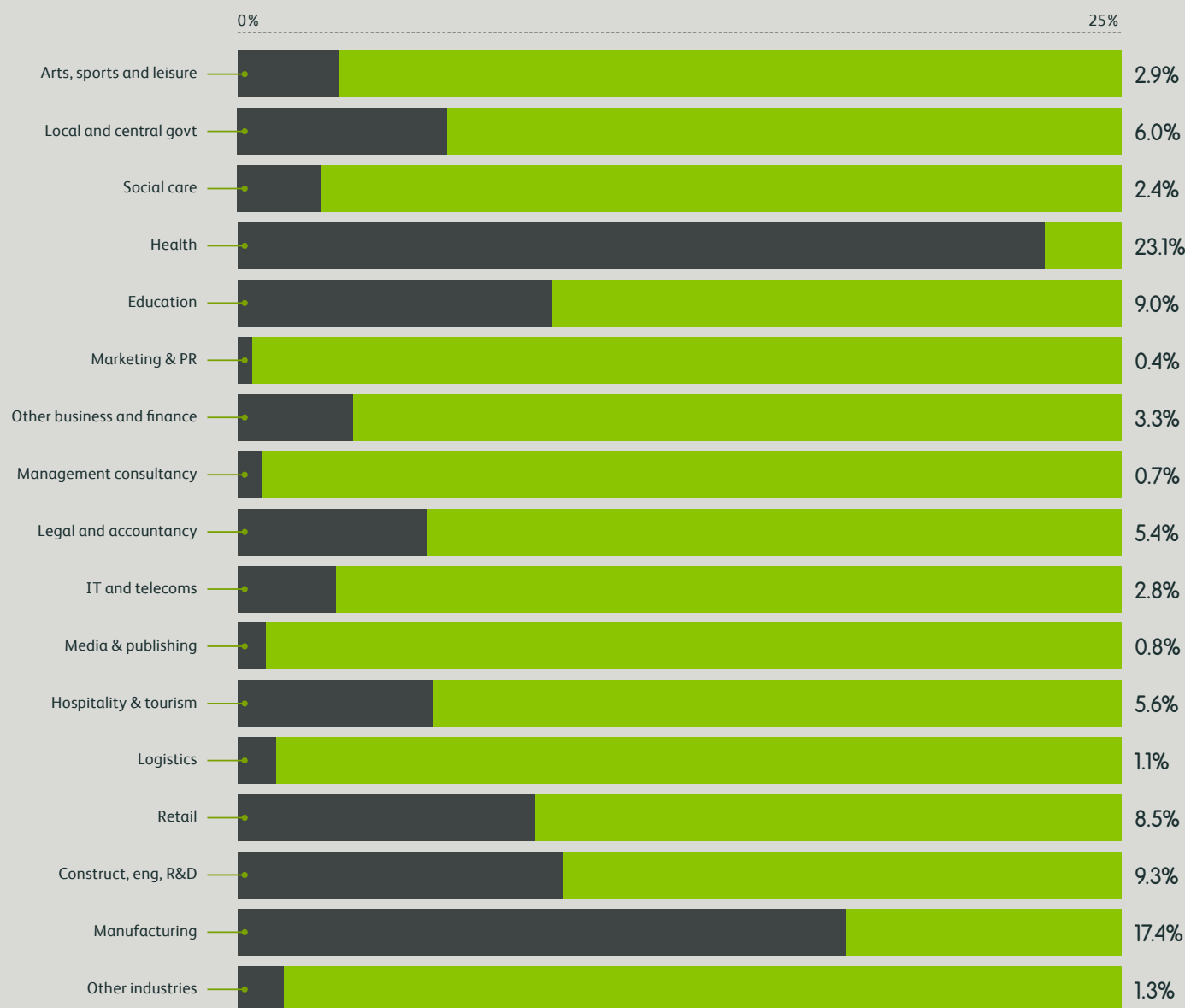
This region is one of the most important in the entire UK for engineering employment, and nearly one in seven new graduates starting their careers locally was an engineer. As mentioned in the previous section, the STEM workforce appears to be temporarily falling in the region as a whole but graduate demand is clearly still very strong and this also suggests that worker supply as well as employer demand may be a factor. Just over one in five new graduates entered roles in health locally - this is slightly higher than average but illustrates how important the NHS is to graduate employment even in a strong private sector labour market.

FIGURE 2.1.1: TYPES OF WORK OF GRADUATES FROM 2020/21 WORKING IN ABERDEEN CITY AND SHIRE 15 MONTHS AFTER GRADUATION



Health is again the most important employer, but the region’s powerful oil and gas industry means that manufacturing and primary industry is the next largest graduate recruiter - a very unusual employment pattern for much of the UK. The other side of the coin is that business services industries in marketing and finance, and the media industry, all took a rather lower share of new graduates than in many other regions and there may be room for those sectors to grow graduate demand.

FIGURE 2.1.2: INDUSTRY OF EMPLOYMENT OF GRADUATES FROM 2020/21 WORKING IN ABERDEEN CITY AND SHIRE 15 MONTHS AFTER GRADUATION



Although most oil and gas employers are large, the region's infrastructure of high tech manufacturing and related industries means that local graduates are a little more likely to work for an SME than Scottish graduates as a whole, particularly in small (10 to 50 employees) businesses, often specialist or niche businesses.

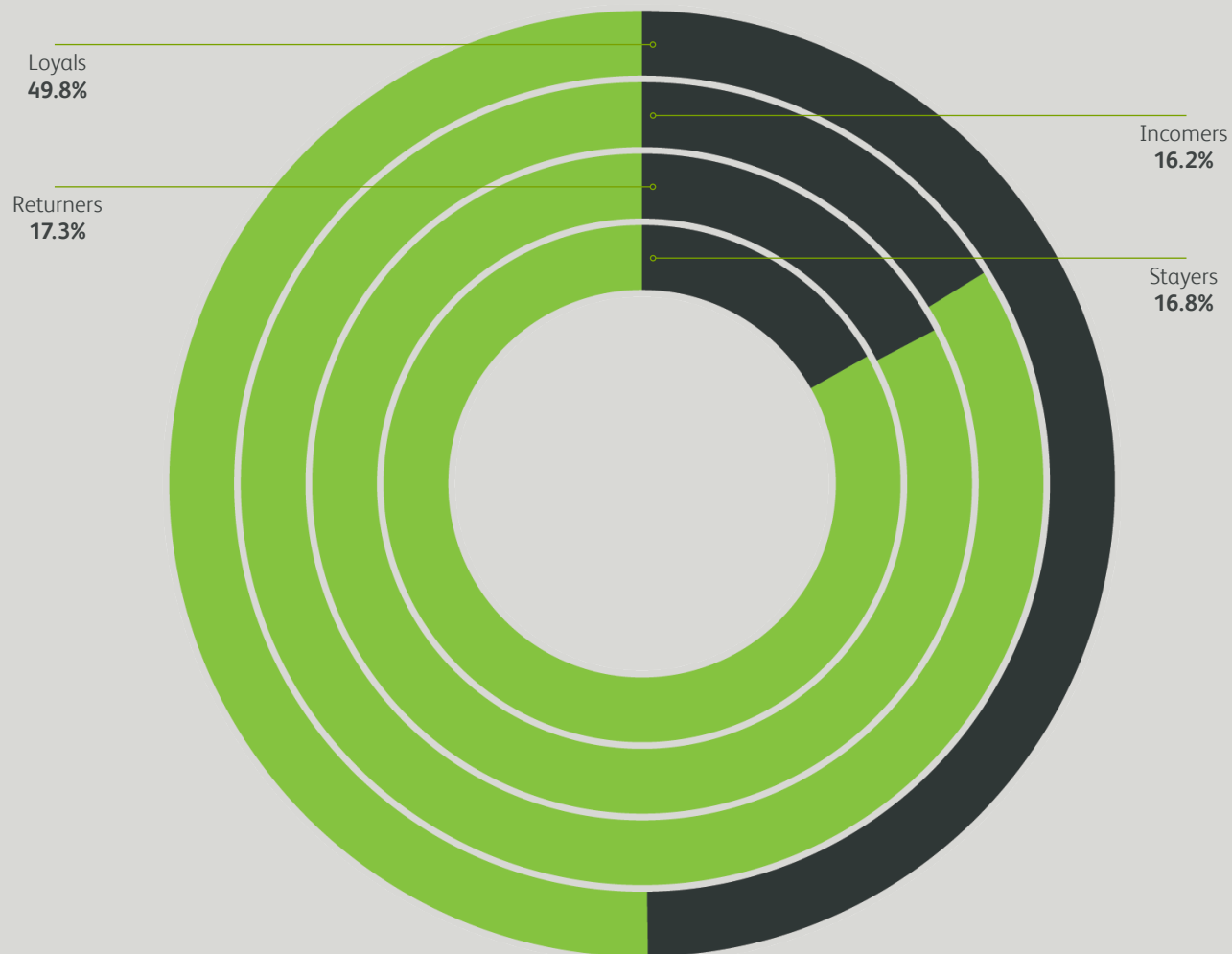
FIGURE 2.1.3: SIZE OF EMPLOYER OF GRADUATES FROM 2020/21 WORKING IN ABERDEEN CITY AND SHIRE 15 MONTHS AFTER GRADUATION



Almost exactly half of graduates working locally were from North East Scotland, had attended Aberdeen or Robert Gordon, and had remained locally to work. But the draw of well-paid jobs in the oil and gas industry means that the other half are split almost equally between graduates from outside the area who had studied at one of the Aberdeen institutions and stayed for work (the Stayers), Returners, graduates from Aberdeen and Aberdeenshire who had gone to another institution (usually in Glasgow or Edinburgh) and returned home to work, and Incomers, who were mainly Scots (but not always) and had usually studied elsewhere in Scotland before coming to work in the region.

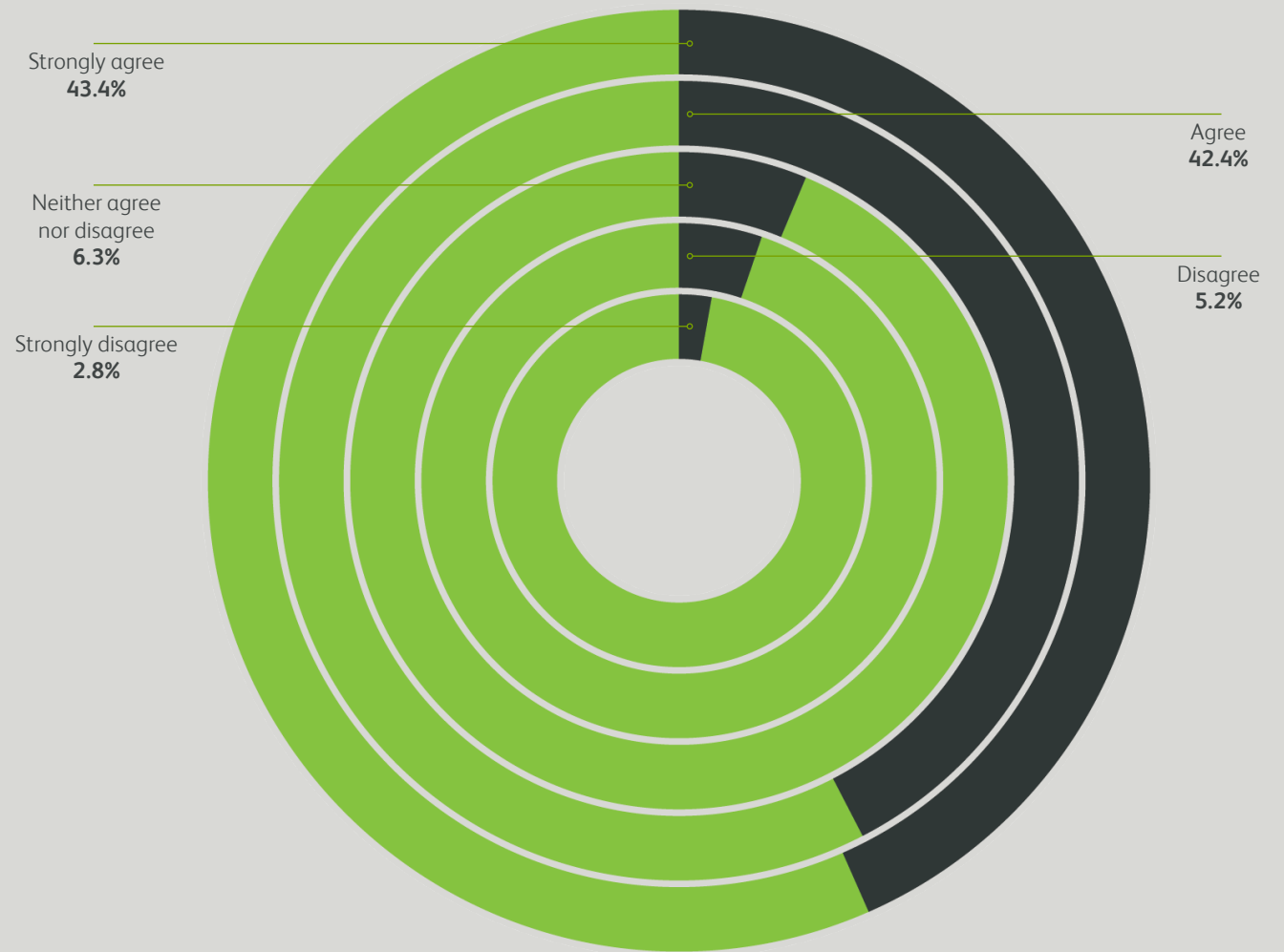
Although some were in engineering and related jobs, they were a little more likely to be in healthcare roles (medicine being the most important) and in finance or business support - it's notable that the region imported about a third of new accountants from outside last year, despite some local provision. The data suggests that current local provision might not have been sufficient to meet demand in the reporting period.

FIGURE 2.1.4: MIGRATION GROUPS OF GRADUATES FROM 2020/21 WORKING IN ABERDEEN CITY AND SHIRE 15 MONTHS AFTER GRADUATION



Graduates working locally were overwhelmingly positive about the value of their job. Even large numbers of graduates who were in roles considered below professional level nevertheless felt that their jobs were meaningful (as a counterpoint, although the very large majority of graduates in graduate-level employment think that their jobs were meaningful, not all of them did) and fewer than 1 in 10 felt their job lacked meaning - these were mainly graduates in retail and service industries who had studied locally and were originally from the region.

FIGURE 2.1.5: RESPONSE TO STATEMENT 'MY JOB IS MEANINGFUL' FOR GRADUATES FROM 2020/21 WORKING IN ABERDEEN CITY AND SHIRE 15 MONTHS AFTER GRADUATION



This is a large region consisting of the local authorities of East Ayrshire; East Dunbartonshire; East Renfrewshire; Inverclyde; North Ayrshire; North Lanarkshire; Renfrewshire; South Ayrshire; South Lanarkshire and West Dunbartonshire. The region was once at the heart of Scottish mining and shipbuilding, but with the withdrawal of those industries, now has a different economic mix and graduates often find roles in business services or within industries linked to regeneration, as well as the public sector.

Although a large region, the only institution with a campus in the region is the University of the West of Scotland, but there are many other universities in neighbouring regions.

- Proportion of regional population with NVQ4+ at the end of 2021: 44.3%
- Proportion of regional workforce with NVQ4+ at the end of 2021: 51.3%
- Proportion of regional workforce in professional level employment at the end of 2022: 44.5%
- Proportion of 2020/21 graduates reporting some form of self-employment or preparation for self-employment 15 months after graduation: 9.4%

This region was the most likely place for new Scottish quantity surveyors - one of the hardest roles to fill - to start work.

Table 2.2.1: Occupational change in the Ayrshire and Clyde Valley workforce in 2022

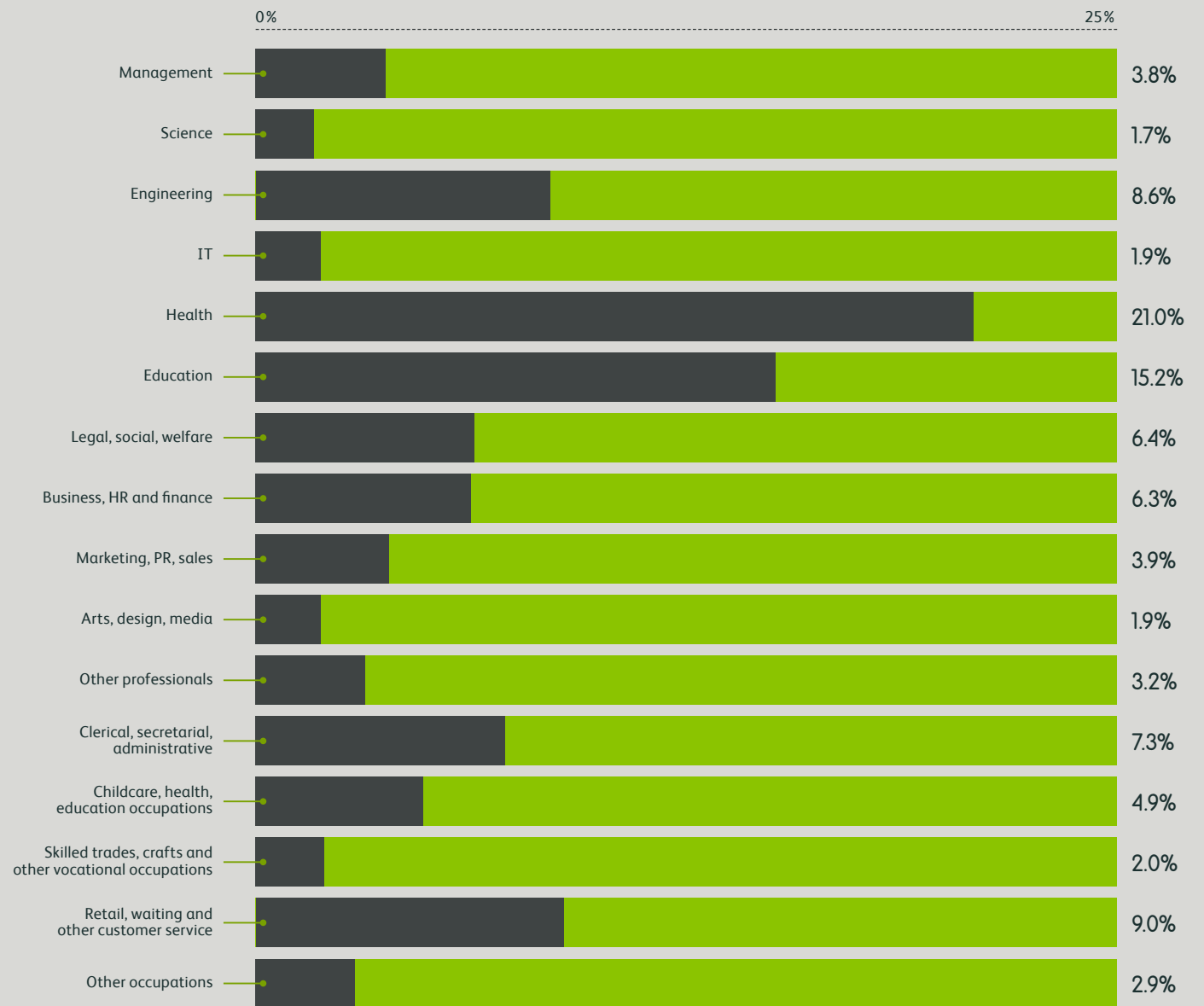
Standard Occupational Group (SOC 2020)	Number of employees in 2022	Percentage of workforce in 2022	Year-on-year change from 2021
11: corporate managers and directors	33,400	4.8	200
12: other managers and proprietors	24,000	3.5	3,200
21: science, research, engineering and technology profs	30,900	4.5	-4,300
22: health professionals	39,300	5.7	6,000
23: teaching and educational professionals	30,200	4.4	-3,400
24: business, media and public service professionals	41,800	6.1	-5,300
31: science, engineering and technology associate profs	10,000	1.5	-3,100
32: health & social care assoc. professionals	21,300	3.1	2,100
33: protective service occupations	13,100	1.9	2,600
34: culture, media and sports occupations	14,100	2.0	300
35: business & public service assoc. professionals	44,700	6.5	100
41: administrative occupations	52,500	7.6	-5,200
42: secretarial and related occupations	9,100	1.3	-1,800
51: skilled agricultural and related trades	6,500	0.9	-300
52: skilled metal, electrical and electronic trades	23,600	3.4	-3,600
53: skilled construction and building trades	21,000	3.0	5,400
54: textiles, printing and other skilled trades	12,300	1.8	-4,500
61: caring personal service occupations	49,100	7.1	2,500
62: leisure, travel and related personal service occupations	15,000	2.2	-100
71: sales occupations	47,000	6.8	100
72: customer service occupations	23,000	3.3	-6,500
81: process, plant and machines operatives	18,400	2.7	-400
82: transport & mobile machine drivers/operatives	7,000	2.8	5,800
91: elementary trades and related occupations	2,800	1.1	6,500
92: elementary administration & service occupations	66,300	9.0	11,200

Ayrshire and the Clyde Valley saw a small fall in the number of graduate level roles in 2022 - down by 1,600, or 0.5% of the graduate labour market. It also saw the largest rise in positions below graduate level, with particular increases in skilled trades, a traditional strength of the region. Business services (as we will see) are important to new graduates but the number of roles fell over the region - this can often happen when an aging workforce leaves the jobs market (through retirement, for example) and are partially replaced. This is how a workforce can shrink overall but still maintain a healthy level of recruitment, although it is more common in occupational categories in administration and skilled trades, which are slowly shrinking over time but which still experience substantial replacement demand.

Public sector employment in health and education dominated, making up over a third of graduate recruitment in the region - indeed, this region recruited more teachers than any other from this cohort. Although not as strong as the oil and gas regions of north-east Scotland, this areas has a strong engineering sector and so 8.6% of new graduates employed locally were in engineering, with civil, mechanical and specialist (usually naval) engineering prominent.

It's notable that this region recruited a relatively small number of graduates working in IT. It is not clear if this is due to a lack of demand, or if local employers struggle to attract in-demand graduates to areas outside the larger cities; it is likely that there is a mixture of both factors. That said, this region was the most likely place for new Scottish quantity surveyors - one of the hardest roles to fill - to start work. Business and legal services made up about one in eight new roles for graduates in the region; these are largely in small businesses spread across the region. Overall, 73.9% of newly employed graduates in the region were in professional-level employment in the region.

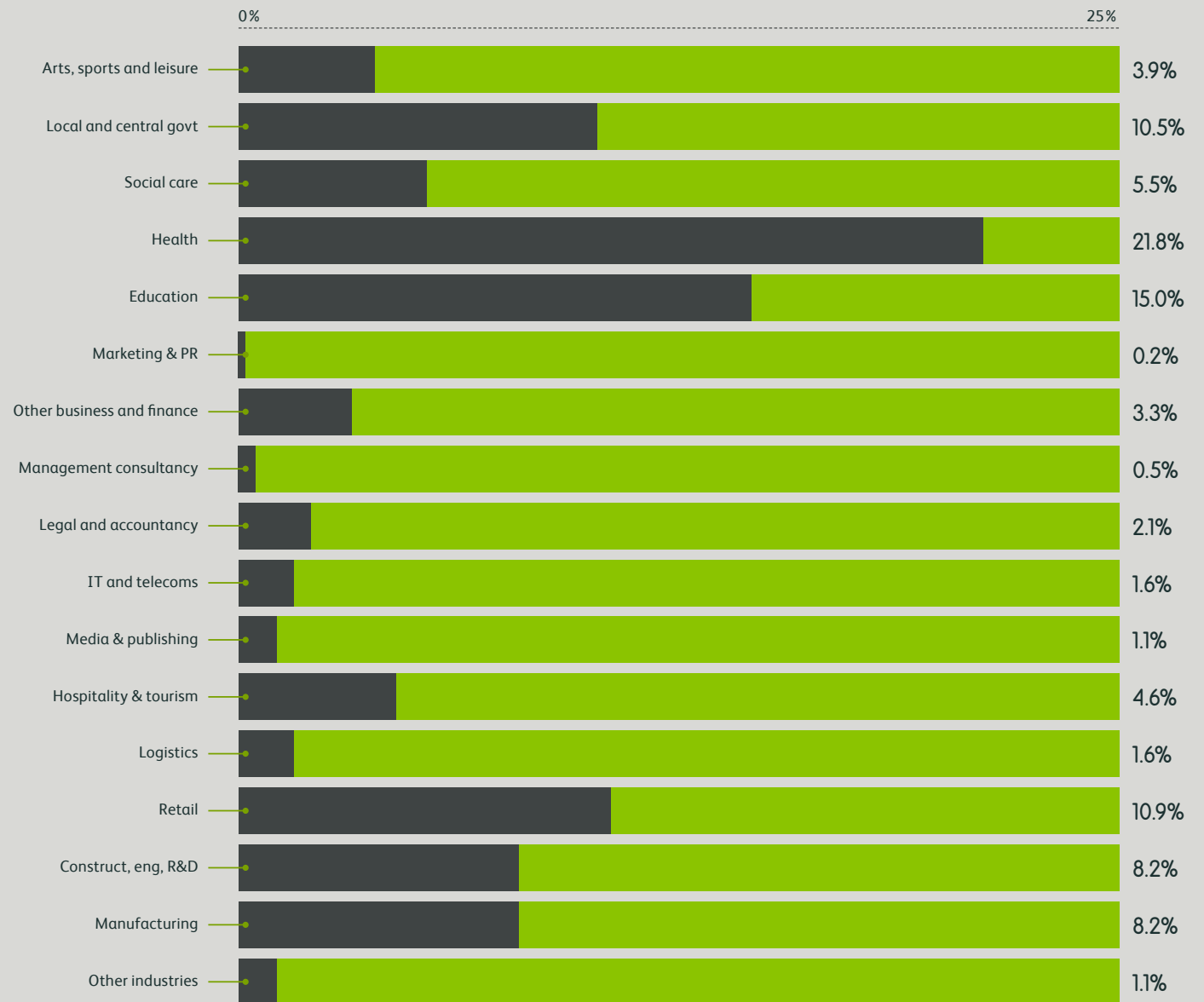
FIGURE 2.2.1 TYPES OF WORK OF GRADUATES FROM 2020/21 WORKING IN AYRSHIRE AND CLYDE VALLEY 15 MONTHS AFTER GRADUATION



Nearly half of graduate recruitment was in local and central government (which includes social care), health and education. But in common with the region’s history, manufacturing and construction and engineering together recruited around one in six new graduates, with computing and vehicle manufacture, and specialist construction and civil engineering industries also important.

Meanwhile, business services and related industries (marketing, law, media, management consultancy) had a much lower share of new graduate recruitment than in many other regions, reflecting the lack of substantial urban areas in the region. These are industries that are more located in large cities.

FIGURE 2.2.2: INDUSTRY OF EMPLOYMENT OF GRADUATES FROM 2020/21 WORKING IN AYRSHIRE AND CLYDE VALLEY 15 MONTHS AFTER GRADUATION



Although the majority of business in the region are small, only 17% of graduates locally started work in small businesses. Part of this is because the NHS is such an important local employer, but also because in a large, dispersed, suburban and rural labour market with little local HE provision, small employers with low visibility can struggle to get to graduate talent. This is one of the key local challenges for institutions and recruiters. Local industries where SMEs are important include schools (many schools count in this measure), law, accountancy, retail pharmacy and veterinary services.

FIGURE 2.2.3 SIZE OF EMPLOYER OF GRADUATES FROM 2020/21 WORKING IN AYRSHIRE AND CLYDE VALLEY 15 MONTHS AFTER GRADUATION



The majority of graduates working in this region were those from the region but who had studied elsewhere (usually a neighbouring region of Scotland) and then returned home to work - including most of the large education workforce. This is a large region with only limited local HE provision, so Loyals (who are from the region and studied locally) are a minority, albeit an important one. Nearly one-in-three Loyals were nurses and midwives - Loyals tend to dominate most local workforces where there is nursing provision, and this region is no exception.

There is clearly a level of local regional attachment at play though as evidenced by how many graduates return home after studying, often vocational qualifications, elsewhere and this local attachment is an important factor for Scottish graduate employment. Incomers make up over one in five of the local graduate workforce and as in other regions, they are often found in high pay, high status roles in medicine and engineering.

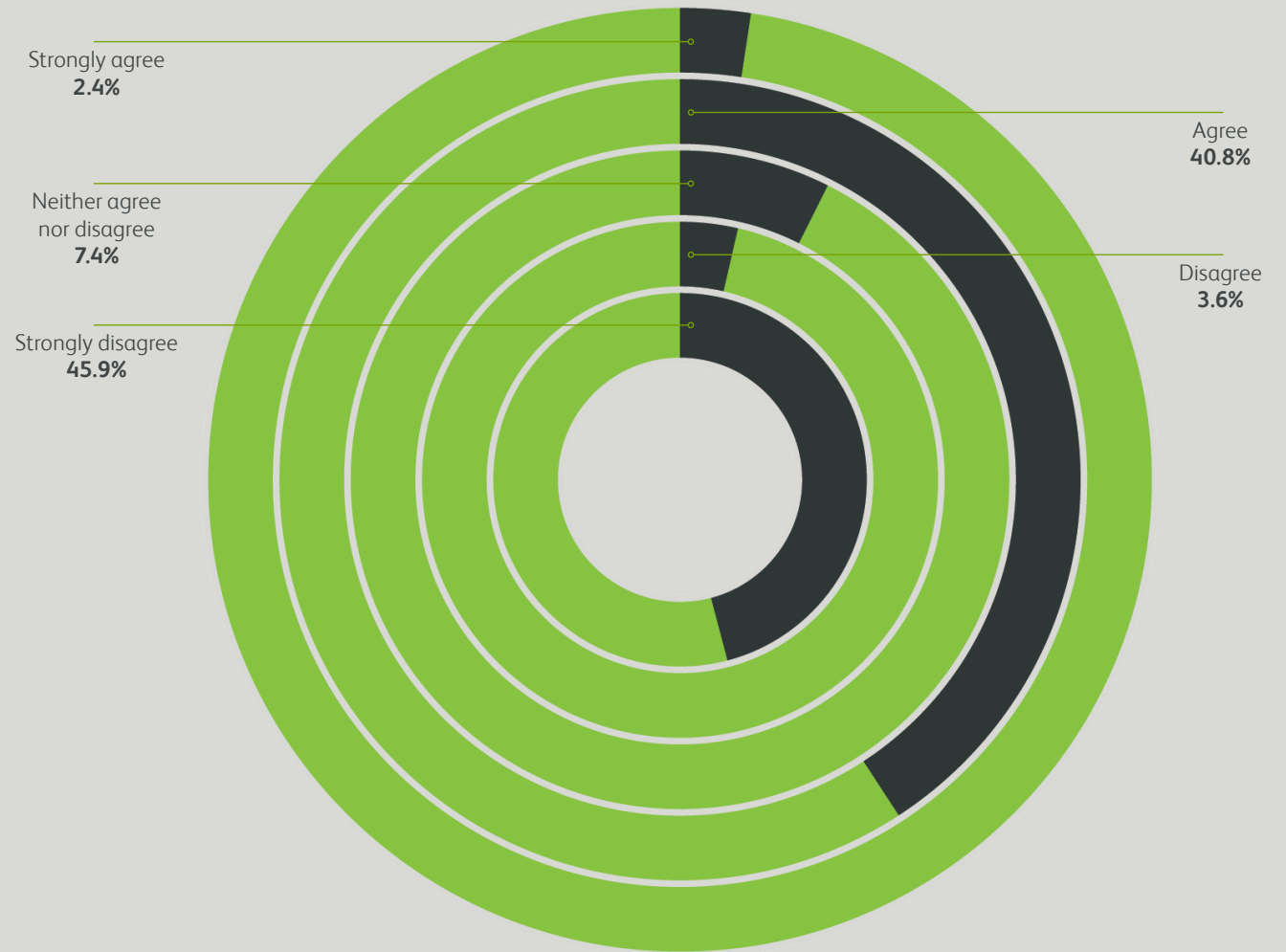
FIGURE 2.2.4: MIGRATION GROUPS OF GRADUATES FROM 2020/21 WORKING IN AYRSHIRE AND CLYDE VALLEY 15 MONTHS AFTER GRADUATION



More rural regions of Scotland tend to have slightly higher levels of graduate agreement that their role has meaning. In Ayrshire and the Clyde Valley, the proportion of graduates saying that their job was meaningful was 86.7% - but 64% of graduates in roles not considered graduate level said that nevertheless they were in meaningful work.

This does ask questions of some of the value judgements placed on the quality of post-degree activities, particularly in regions where personal attachment to place are important; a university education can be a vehicle to attain fulfilling work in local jobs markets regardless of whether an external authority deems that job to be appropriate for a graduate.

FIGURE 2.2.5: RESPONSE TO STATEMENT 'MY JOB IS MEANINGFUL' FOR GRADUATES FROM 2020/21 WORKING IN AYRSHIRE AND CLYDE VALLEY 15 MONTHS AFTER GRADUATION



Scotland's capital is one of the UK's strongest graduate labour markets, and has one of the best qualified workforces in the county, with over three quarters of the workforce possessing higher education or equivalent qualifications. And nearly 70% of jobs in Edinburgh are in professional roles. One in six Edinburgh workers are tech workers, and one in eight work in finance and business services - this is a potent knowledge economy.

Edinburgh is a graduate city, and contains three institutions: Edinburgh Napier, Heriot-Watt, and the University of Edinburgh (Queen Margaret University, although branded 'Edinburgh', is actually in East Lothian).

- Proportion of regional population with NVQ4+ at the end of 2021: 69.1%
- Proportion of regional workforce with NVQ4+ at the end of 2021: 76.6%
- Proportion of regional workforce in professional level employment at the end of 2022: 69%
- Proportion of 2020/21 graduates reporting some form of self-employment or preparation for self-employment 15 months after graduation: 10.8%

Edinburgh was the most important labour market in Scotland for new IT workers, for PR, for advertising, for accountancy and for law.

Table 2.3.1: Occupational change in the Edinburgh workforce in 2022

Standard Occupational Group (SOC 2020)	Number of employees in 2022	Percentage of workforce in 2022	Year-on-year change from 2021
11: corporate managers and directors	16,800	5.8	-5,600
12: other managers and proprietors	8,700	3.0	-200
21: science, research, engineering and technology profs	47,700	16.5	15,700
22: health professionals	23,900	8.3	3,800
23: teaching and educational professionals	20,200	7.0	4,000
24: business, media and public service professionals	35,100	12.1	-16,700
31: science, engineering and technology associate profs	7,200	2.5	-600
32: health & social care assoc. professionals	6,500	2.2	-1,000
33: protective service occupations	n/a	n/a	n/a
34: culture, media and sports occupations	11,700	4.0	4,000
35: business & public service assoc. professionals	21,300	7.4	1,800
41: administrative occupations	17,100	5.9	-4,000
42: secretarial and related occupations	10,000	3.5	5,800
51: skilled agricultural and related trades	n/a	n/a	n/a
52: skilled metal, electrical and electronic trades	n/a	n/a	n/a
53: skilled construction and building trades	4,300	1.5	1,300
54: textiles, printing and other skilled trades	n/a	n/a	n/a
61: caring personal service occupations	15,000	5.2	4,300
62: leisure, travel and related personal service occupations	2,700	0.9	300
71: sales occupations	n/a	n/a	200
72: customer service occupations	9,600	3.3	-800
81: process, plant and machines operatives	3,800	1.3	n/a
82: transport & mobile machine drivers/operatives	n/a	n/a	-2,100
91: elementary trades and related occupations	2,700	0.9	1,500
92: elementary administration & service occupations	15,200	5.3	1,400

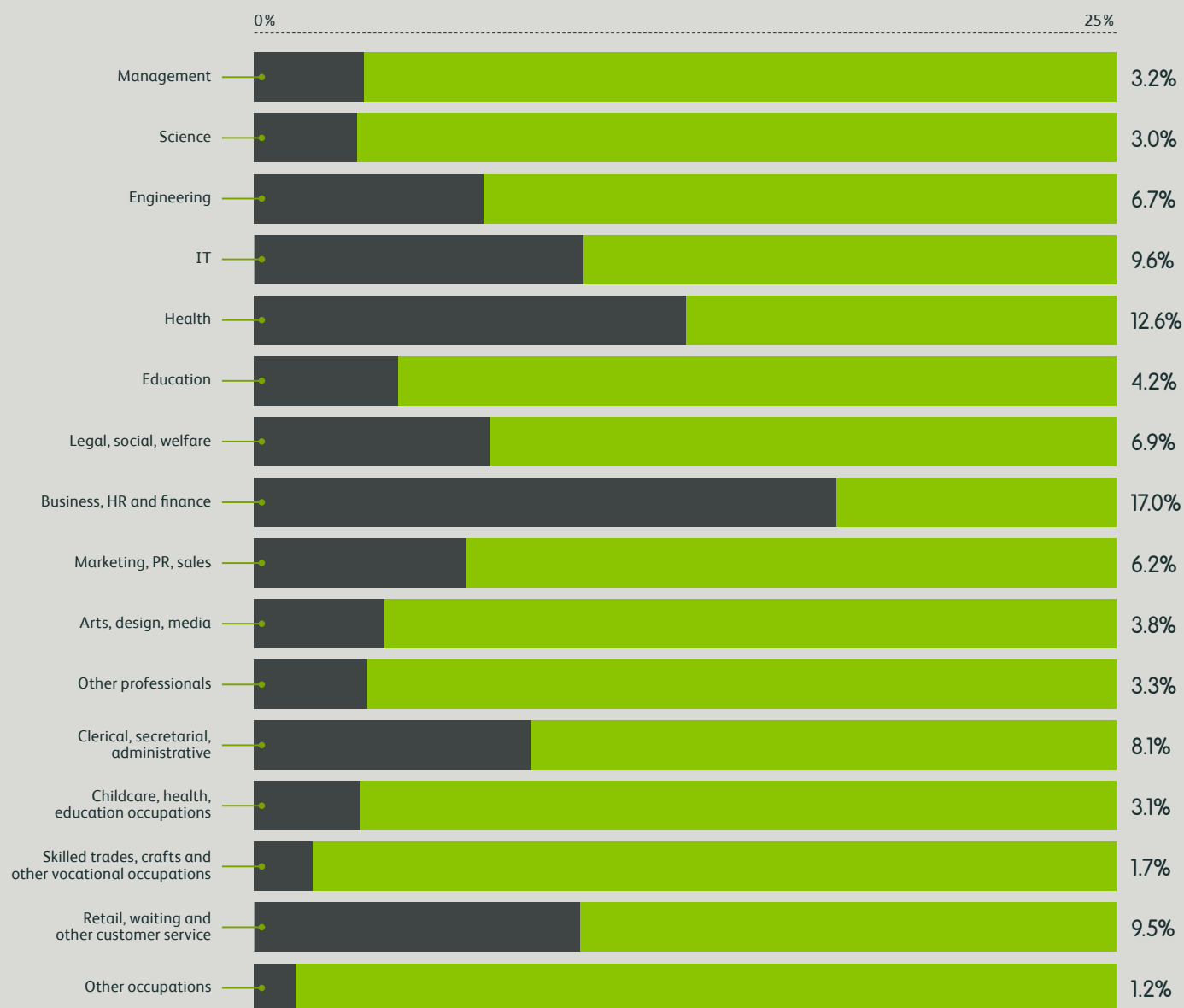
(n/a means that there are not enough workers to measure in one of the years in question.)

Edinburgh’s job market grew substantially in 2022, both in professional-level and those jobs not considered professional level. But the data does record a sharp fall in one of the city’s strengths, business service roles. These jobs are particularly likely to be done in a hybrid way, and urban workers are particularly likely to work hybrid, so this could represent workers migrating out of costly city offices (property costs in Edinburgh being high) and working at home.

It is also counterbalanced by a substantial increase in the number of tech workers in the city in 2022. These changes bear monitoring in the future to see if the balance of work is changing - there could also be movement of some of these roles to the larger labour market in Glasgow, another strong professional jobs market with a thriving professional services workforce.

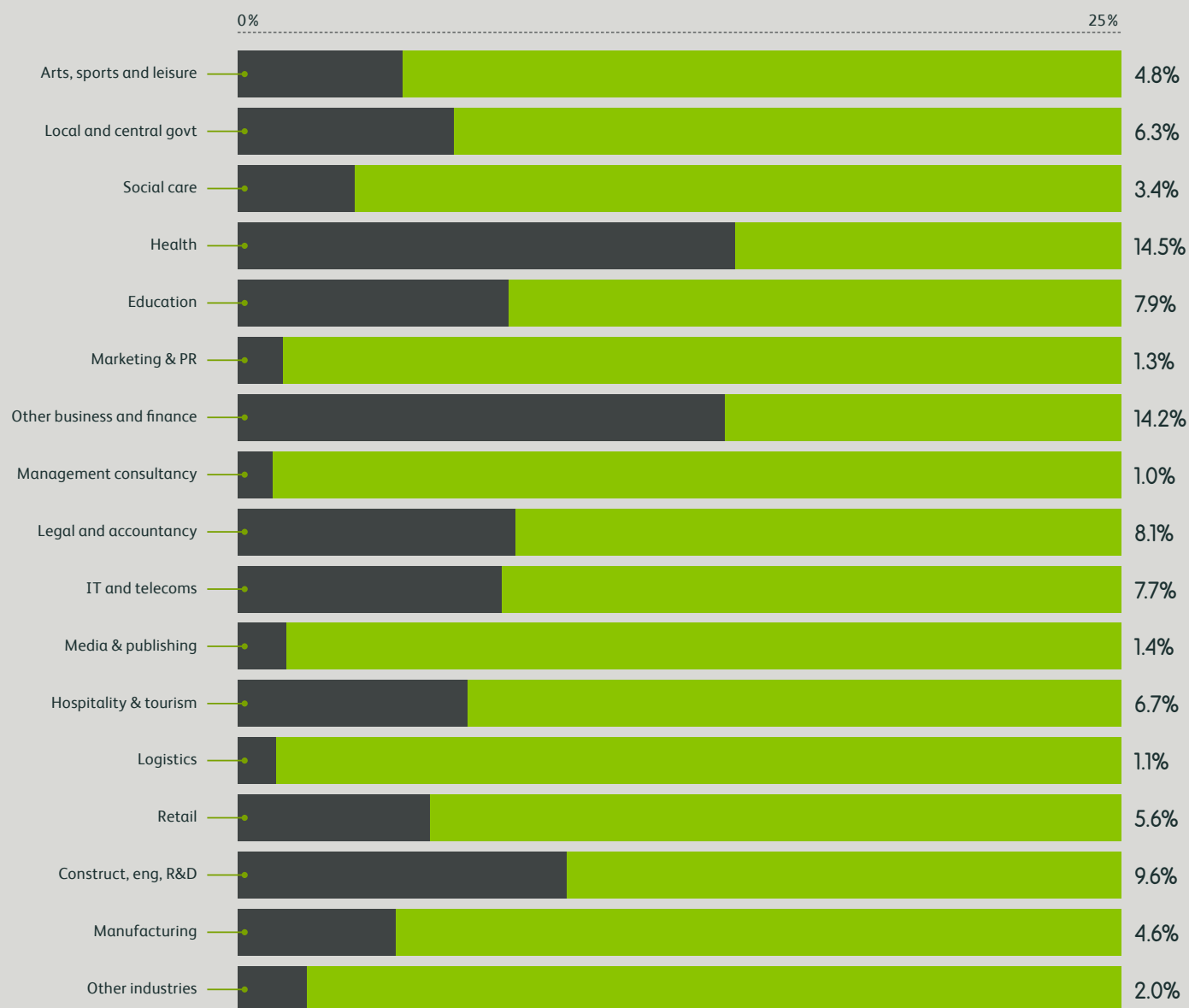
The strength of Edinburgh’s professional services sector is shown in Figure 2.3.1. Business, HR and finance roles are the most important employers of new graduates - although, like most areas of the UK, nursing is the most common job for new graduates. IT, medicine, accountancy and law are the other top five most common jobs for new graduates. Edinburgh was the most important labour market in Scotland for new IT workers, for PR, for advertising, for accountancy and for law.

FIGURE 2.3.1: TYPES OF WORK OF GRADUATES FROM 2020/21 WORKING IN EDINBURGH 15 MONTHS AFTER GRADUATION



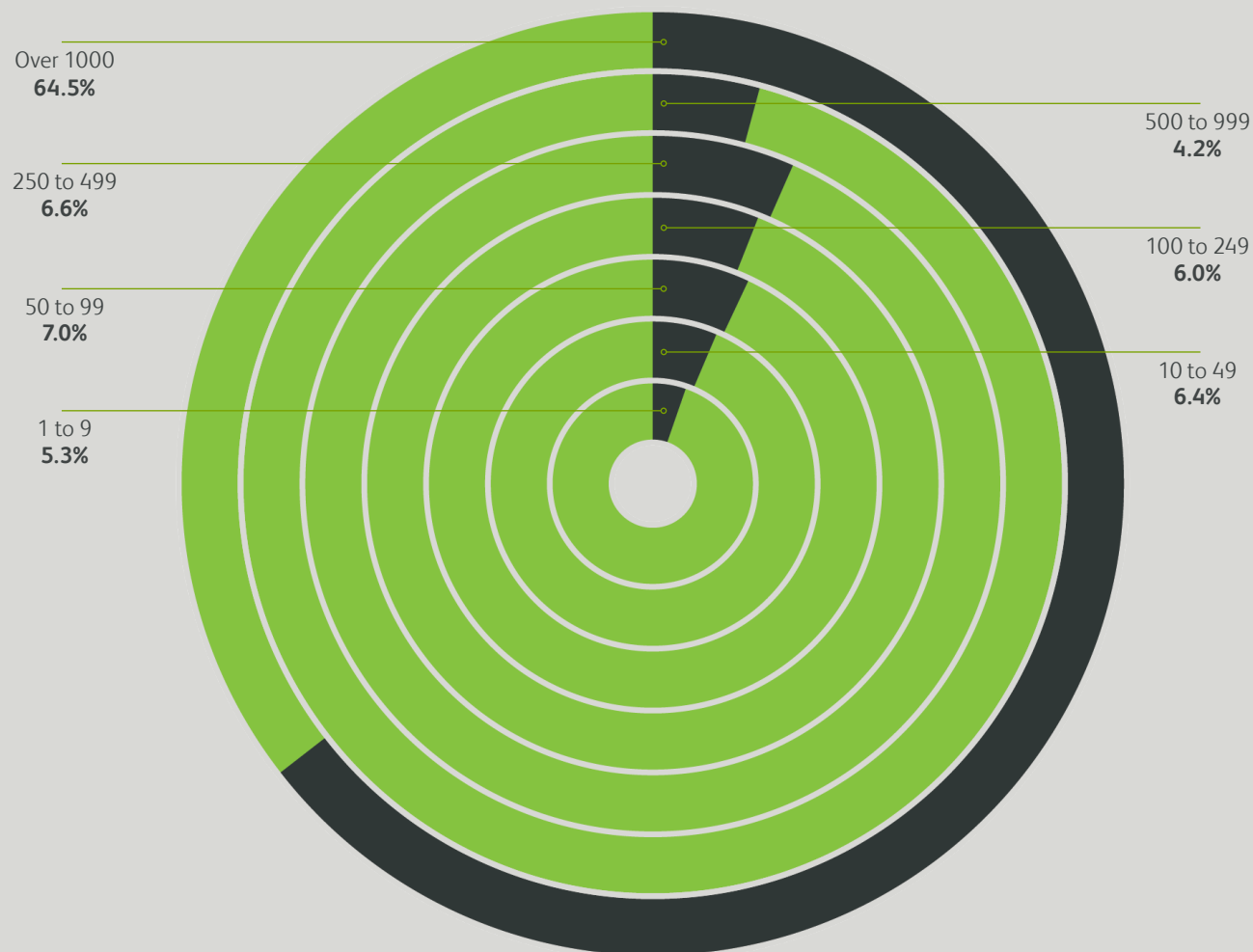
Health and business services are the most important industries for new graduates in Edinburgh, and the other crucial industries track the major occupations; social care, education, IT, financial services, law, accountancy and engineering consultancy and architecture are all vital contributors to Edinburgh's graduate economy.

FIGURE 2.3.2: INDUSTRY OF EMPLOYMENT OF GRADUATES FROM 2020/21 WORKING IN EDINBURGH 15 MONTHS AFTER GRADUATION



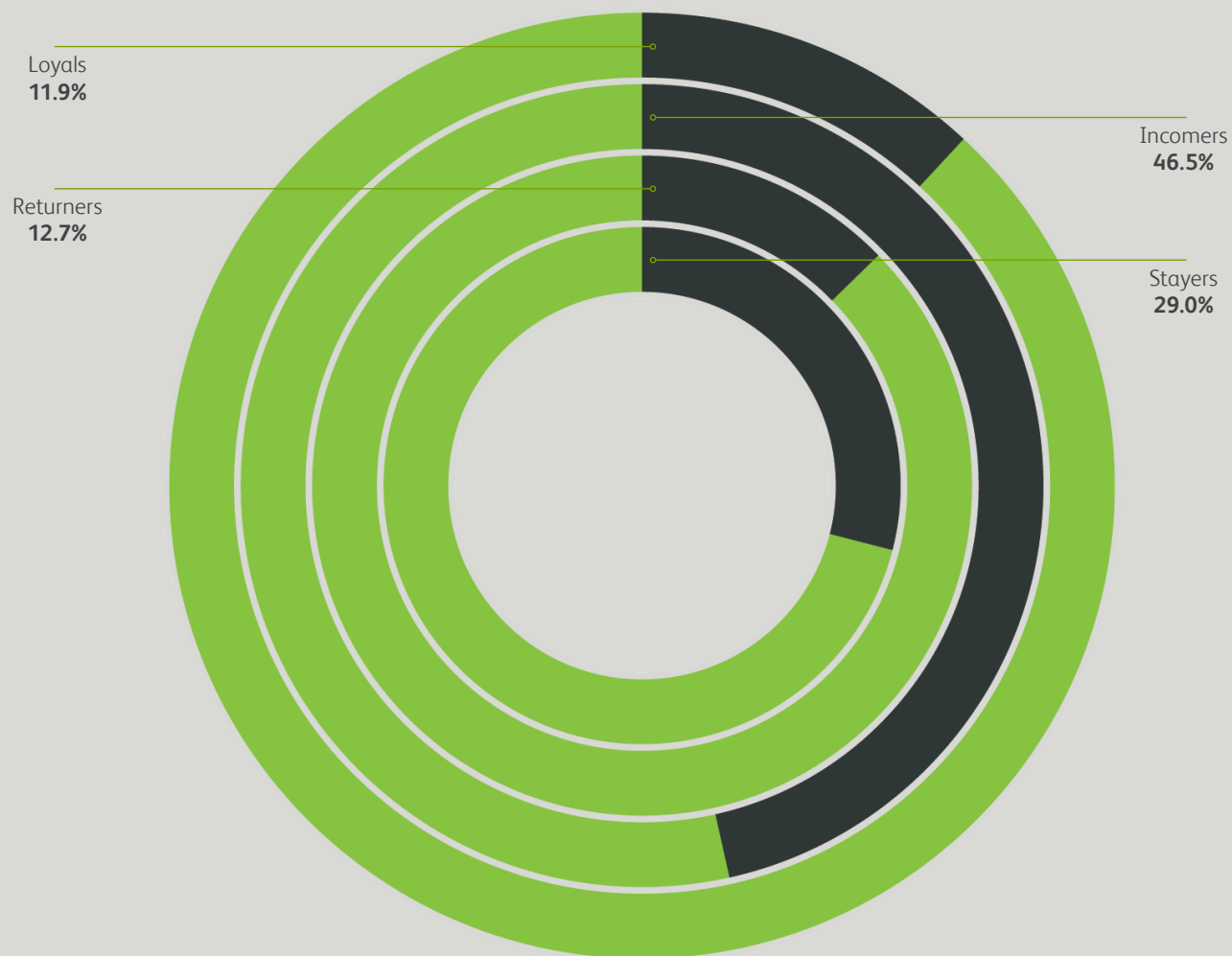
Although most graduates work for larger businesses in Edinburgh, SMEs do make up a larger proportion of graduate employment than almost all other Scottish regionals (Highlands and Islands is, as it often is, the exception), accounting for just under a quarter of new hires. Edinburgh's SME economy was hit by COVID and it is possible we may see that proportion increasing over the next few years as smaller Edinburgh businesses rebuild, but there is also the possibility that hybrid working may diminish SME employment over time. Engineering/architecture, IT, law and marketing are the key Edinburgh SME industries.

FIGURE 2.3.3: SIZE OF EMPLOYER OF GRADUATES FROM 2020/21 WORKING IN EDINBURGH 15 MONTHS AFTER GRADUATION



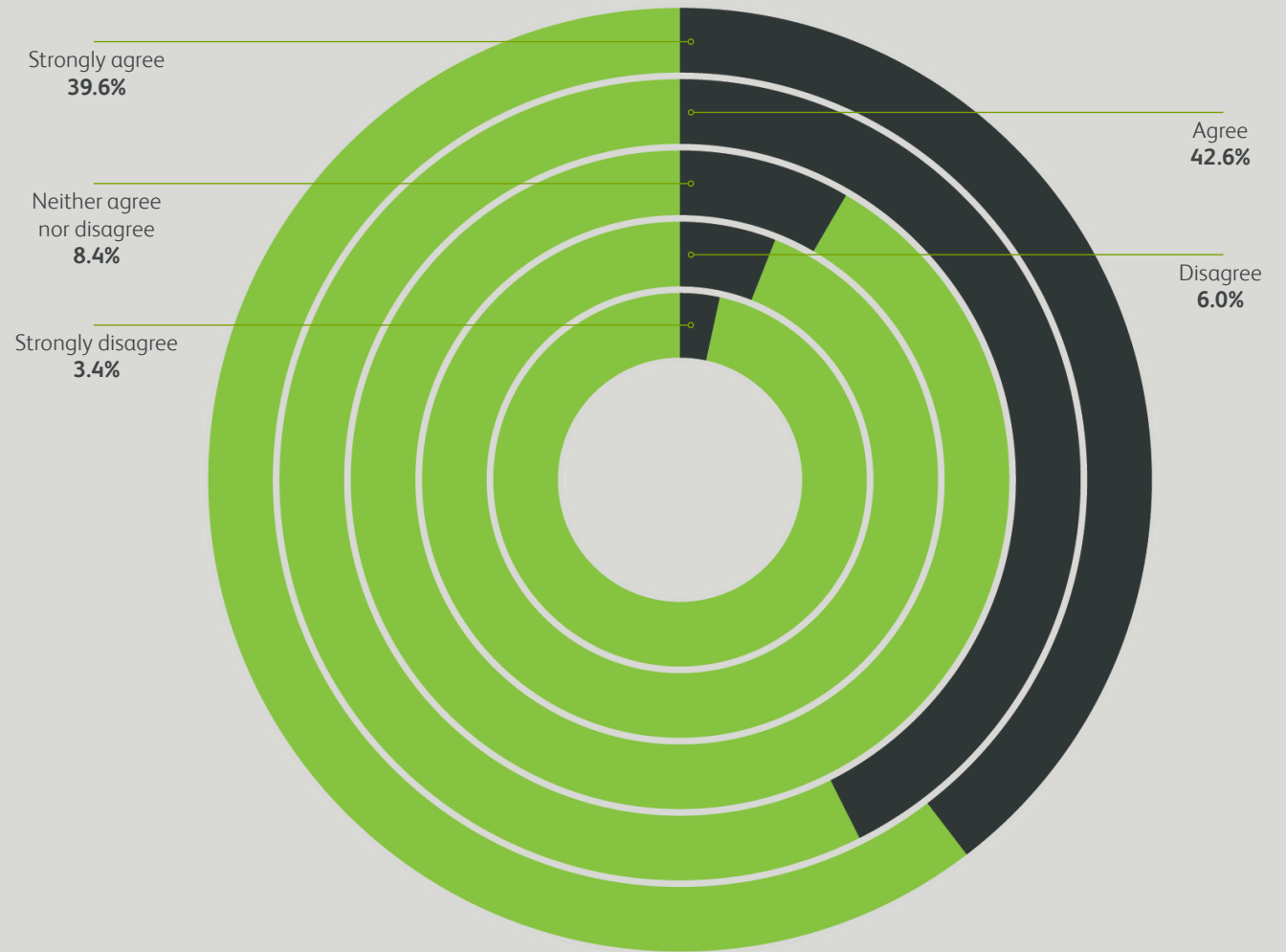
Edinburgh imports graduates from all over the country, and the largest group of graduates are Incomers, who aren't from Edinburgh, and nor did they study there. Indeed, around 75% of graduates working in Edinburgh hail from outside the city, and 58% studied outside Edinburgh, and Edinburgh has the largest proportion of Incomers in Scotland. The city's strong labour market is a powerful draw, and nearly a third of all graduates working in the city are Stayers, who came from outside the city to study, but stayed to work.

FIGURE 2.3.4: MIGRATION GROUPS OF GRADUATES FROM 2020/21 WORKING IN EDINBURGH 15 MONTHS AFTER GRADUATION



82.2% of new graduates working in Edinburgh felt that their job was meaningful - but this is the lowest proportion of any Scottish region. 41% of those saying that their job was not meaningful were in professional-level employment, but at the same time, 60% of graduates working in Edinburgh in jobs not considered professional level nevertheless believe their jobs to be meaningful. Unusually for this group, this includes a number of service industry workers in retail and hospitality, challenging some conceptions of how graduates should view the value of their careers after leaving university.

FIGURE 2.3.5: RESPONSE TO STATEMENT 'MY JOB IS MEANINGFUL' FOR GRADUATES FROM 2020/21 WORKING IN EDINBURGH 15 MONTHS AFTER GRADUATION



In graduate labour market terms, Fife and the Lothians, is a relatively small region north of Edinburgh - although Fife is one of the individual largest local authorities in Scotland. The region, which consists of the local authorities of Fife, East Lothian, West Lothian and Midlothian, lies between Glasgow and Edinburgh and so has a high concentration of tech industry but also a large commuter population.

There are two universities in the region, St Andrews, Scotland's oldest university (founded in 1413), and Queen Margaret Edinburgh, which, despite the Edinburgh branding is in Musselburgh in East Lothian. The majority of the workforce has degree or equivalent, and nearly half of all the jobs in the region are considered professional level.

- Proportion of regional population with NVQ4+ at the end of 2021: 49%
- Proportion of regional workforce with NVQ4+ at the end of 2021: 55.2%
- Proportion of regional workforce in professional level employment at the end of 2022: 48.5%
- Proportion of 2020/21 graduates reporting some form of self-employment or preparation for self-employment 15 months after graduation: 8.4%

Table 2.4.1: Occupational change in Fife and the Lothians workforce in 2022

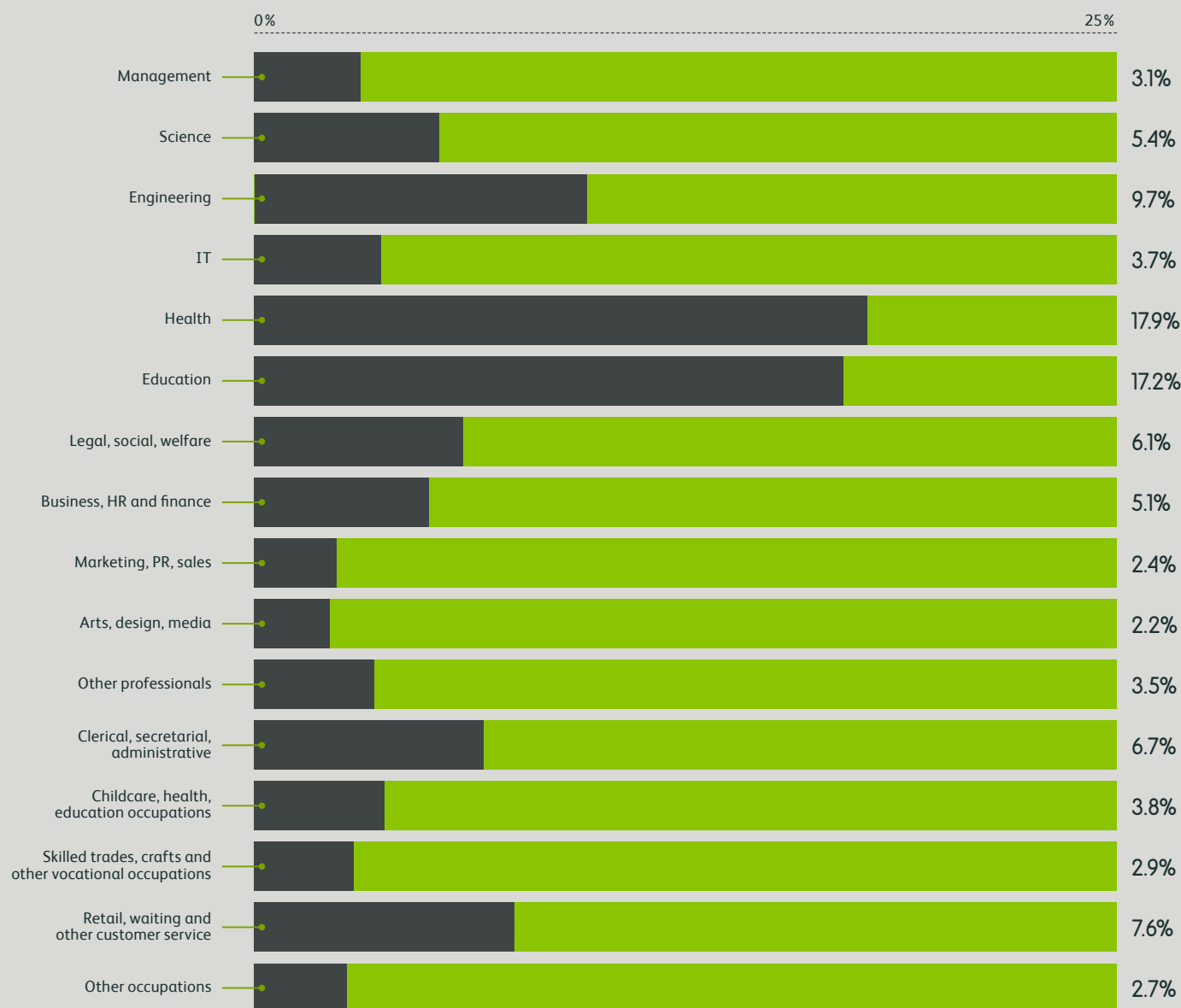
Standard Occupational Group (SOC 2020)	Number of employees in 2022	Percentage of workforce in 2022	Year-on-year change from 2021
11: corporate managers and directors	20,400	5.6	0
12: other managers and proprietors	14,800	4.1	4,200
21: science, research, engineering and technology profs	25,700	7.1	3,400
22: health professionals	22,900	6.3	2,300
23: teaching and educational professionals	19,000	5.2	1,000
24: business, media and public service professionals	24,900	6.8	-300
31: science, engineering and technology associate profs	6,200	1.7	-2,800
32: health & social care assoc. professionals	11,800	3.2	4,200
33: protective service occupations	4,000	1.1	-1,500
34: culture, media and sports occupations	6,400	1.8	-1,900
35: business & public service assoc. professionals	19,500	5.3	-2,000
41: administrative occupations	24,000	6.6	-500
42: secretarial and related occupations	6,900	1.9	900
51: skilled agricultural and related trades	4,900	1.4	1,000
52: skilled metal, electrical and electronic trades	11,800	3.2	-500
53: skilled construction and building trades	10,900	3.0	-1,700
54: textiles, printing and other skilled trades	6,300	1.7	-2,700
61: caring personal service occupations	23,200	6.4	1,200
62: leisure, travel and related personal service occupations	7,700	2.1	2,300
71: sales occupations	17,600	4.8	-1,900
72: customer service occupations	9,600	2.6	2,400
81: process, plant and machines operatives	10,200	2.8	2,700
82: transport & mobile machine drivers/operatives	10,600	2.9	-700
91: elementary trades and related occupations	6,600	1.8	4,300
92: elementary administration & service occupations	35,700	9.8	900

Fife and the Lothians saw the largest workforce growth in Scotland in 2022, with large rises in public sector roles in health and education, as well as tech growth.

Fife and the Lothians saw the largest workforce growth in Scotland in 2022, with large rises in public sector roles in health and education, as well as tech growth. At professional level, STEM professionals are the most important set of roles in the regions along with business services - and these roles grew in number in 2022. But the main lesson from the data is that the region has a diverse labour market with a wide range of jobs available, and the proximity of the strong labour markets of Glasgow and Edinburgh are an important factor in the range of jobs available.

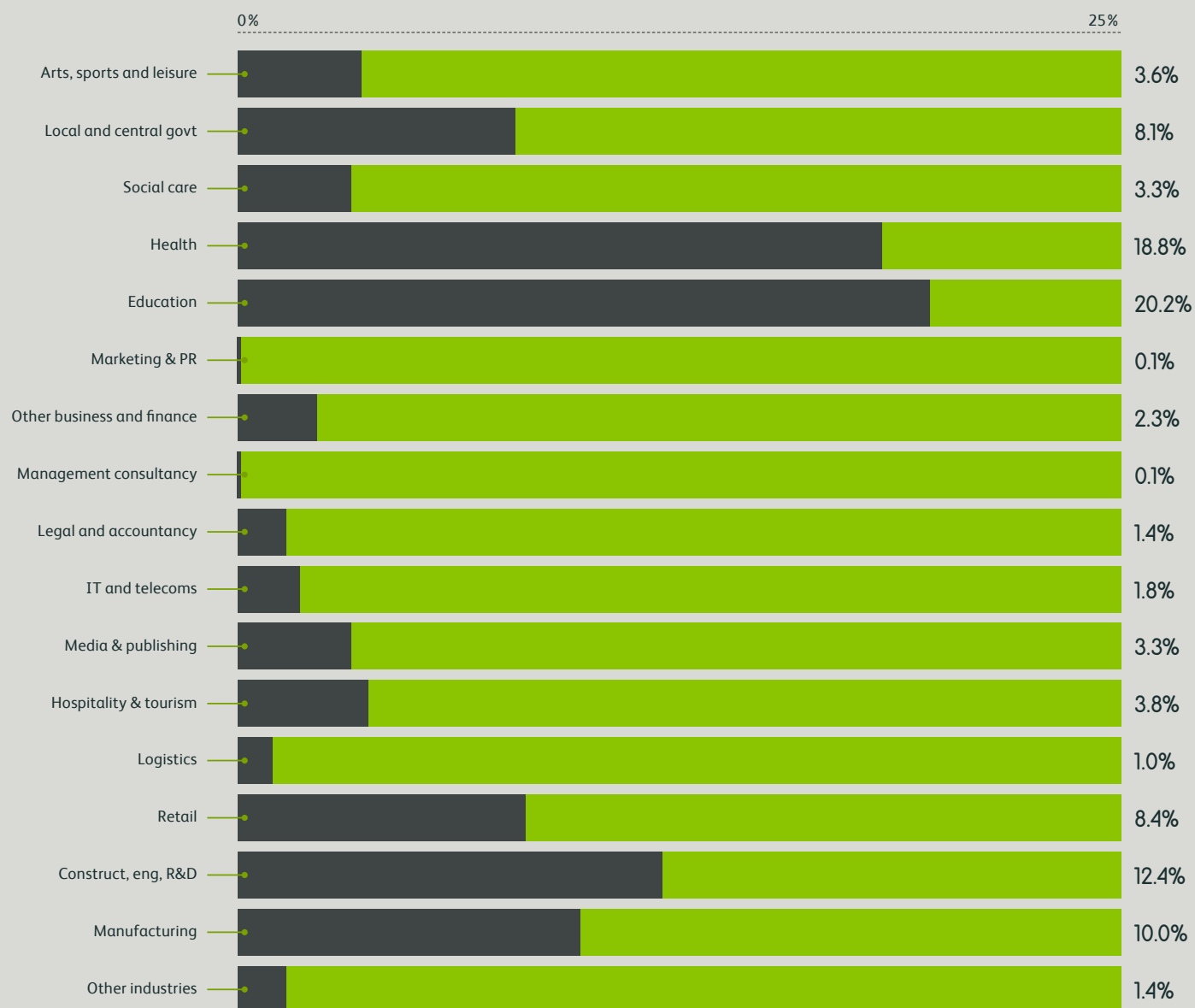
Like most regions of the UK outside the largest cities, health and education roles predominate, but the region's tech strength is shown in that just under 1 in 10 new graduates locally were working in engineering. There is also a strong local science sector at first-degree level (ordinarily it is postgraduate-level qualifications that are more important here) and biochemical and biological scientists and lab technicians were some of the most common jobs for new graduates locally. The top five graduate-level jobs for new graduates were nursing, primary teaching, secondary teaching, computer programming and biotech.

FIGURE 2.4.1: TYPES OF WORK OF GRADUATES FROM 2020/21 WORKING IN FIFE AND LoTHIAN 15 MONTHS AFTER GRADUATION



As is usual, health and education are the most important industries locally, but the region has a strong tech sector, with nearly one in four graduates starting their career in manufacturing or construction, engineering and R&D - in particular, the region saw the largest number of new entrants to the pharmaceutical industry for this cohort, and electronics manufacturing and vehicle manufacturing were also particularly important for the region.

FIGURE 2.4.2: INDUSTRY OF EMPLOYMENT OF GRADUATES FROM 2020/21 WORKING IN FIFE AND LOTHIAN 15 MONTHS AFTER GRADUATION



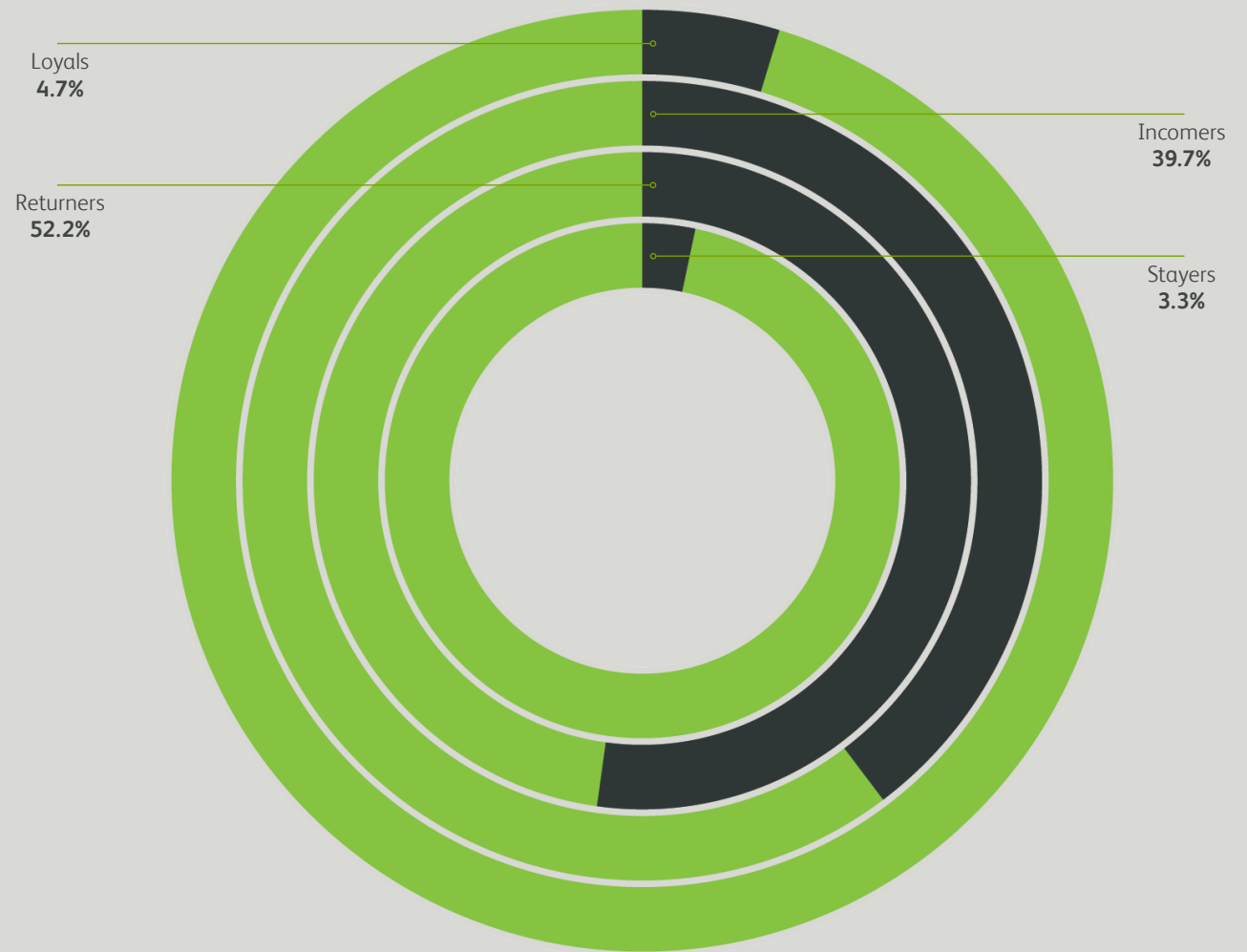
Around 19% of the workforce began their careers at SMEs in the region as large employers predominate. But again the region's biotech industry is significant as this is the most likely sector for SME workers in the region to be working in, and biochemists a crucial occupation for the SME sector. Engineering - particularly construction-related roles - are also important.

FIGURE 2.4.3: SIZE OF EMPLOYER OF GRADUATES FROM 2020/21 WORKING IN FIFE AND LOTHIAN 15 MONTHS AFTER GRADUATION



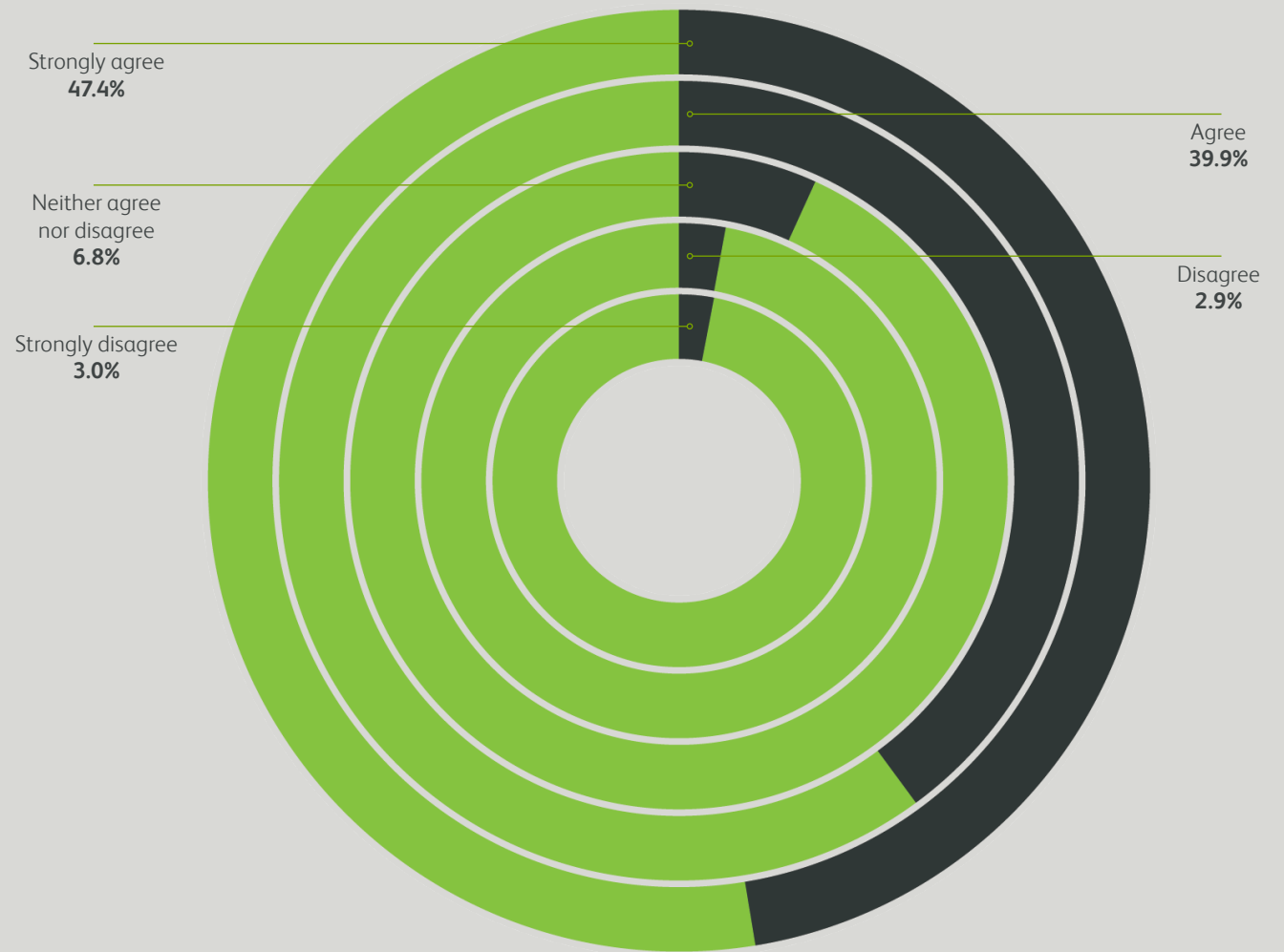
Most graduates working in the region were originally from Fife and the Lothians, but the balance is close to 50/50. St Andrews is an unusual institution with a national reach and outlook and Queen Margaret is not very large, so few graduates who worked locally had studied locally, and in actual fact the University of Dundee and Edinburgh Napier are actually the largest institutional suppliers to the local labour market. But the majority of local employees were graduates originally from the region who had studied in another region (often, but not always, neighbouring Fife and the Lothians) and who returned home to work.

FIGURE 2.4.4: MIGRATION GROUPS OF GRADUATES FROM 2020/21 WORKING IN FIFE AND LOTHIAN 15 MONTHS AFTER GRADUATION



Many graduates return from elsewhere, mainly by choice, to work locally, and this translates to very positive figures in considering work to be meaningful. Scotland's scores on this measure are generally high, but 87.4% of the workforce in the region stated that they felt that their job was meaningful - high, even for Scotland. Two third of graduates in non-graduate occupations felt that their job was meaningful, and all graduates in administrative, care work and teaching assistant jobs stated that they thought that their job, not considered graduate level, was meaningful work.

FIGURE 2.4.5: RESPONSE TO STATEMENT 'MY JOB IS MEANINGFUL' FOR GRADUATES FROM 2020/21 WORKING IN FIFE AND LOTHIAN 15 MONTHS AFTER GRADUATION



This important Central Belt region between Edinburgh and Glasgow consists of the local authorities of Clackmannanshire, Falkirk and Stirling. This region includes very rural areas along with the dense urban setting of Falkirk and has both affluent areas, particularly in the rural areas and in Stirling, and much more deprived areas in and around north Stirling, Falkirk, Grangemouth and Alloa in Clackmannanshire. There is one university in the region, the University of Stirling. Most workers in the region have degree or equivalent, and nearly half of local jobs are at professional level.

- Proportion of regional population with NVQ4+ at the end of 2021: 46.8%
- Proportion of regional workforce with NVQ4+ at the end of 2021: 52.9%
- Proportion of regional workforce in professional level employment at the end of 2022: 46.4%
- Proportion of 2020/21 graduates reporting some form of self-employment or preparation for self-employment 15 months after graduation: 11.1%

The region had a diverse jobs pool in 2020/21, but it was not deep, so graduates entered many different job roles, though not many in large numbers.

Table 2.5.1: Occupational change in the Forth Valley workforce in 2022

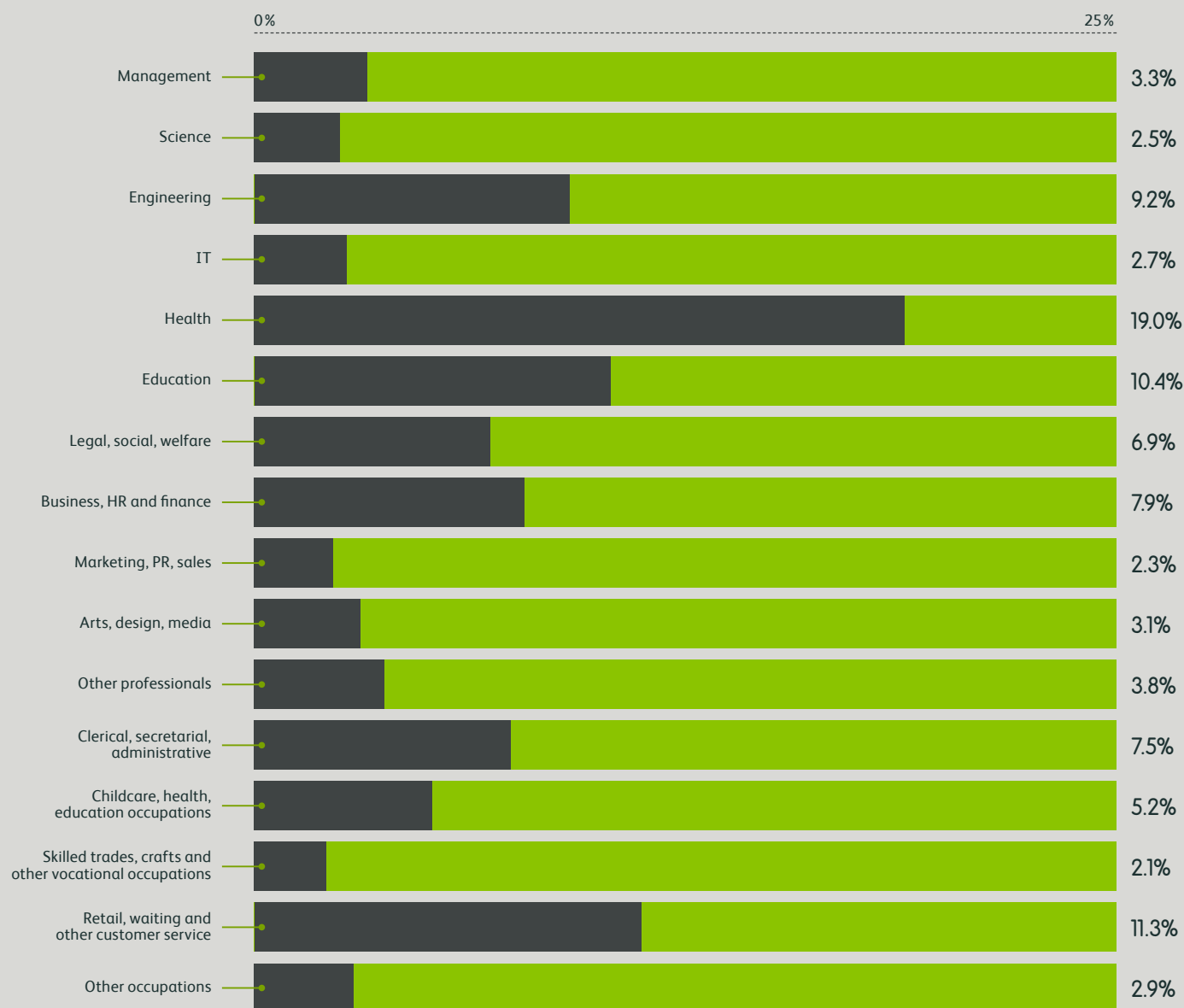
Standard Occupational Group (SOC 2020)	Number of employees in 2022	Percentage of workforce in 2022	Year-on-year change from 2021
11: corporate managers and directors	10,800	7.4	3,300
12: other managers and proprietors	5,200	3.5	1,300
21: science, research, engineering and technology profs	9,300	6.3	-100
22: health professionals	7,500	5.1	-2,900
23: teaching and educational professionals	5,600	3.8	-700
24: business, media and public service professionals	12,200	8.3	1,400
31: science, engineering and technology associate profs	4,100	2.8	1,300
32: health & social care assoc. professionals	2,900	2.0	-500
33: protective service occupations	1,800	1.2	-200
34: culture, media and sports occupations	3,100	2.1	100
35: business & public service assoc. professionals	10,000	6.8	1,000
41: administrative occupations	11,700	8.0	-2,700
42: secretarial and related occupations	800	0.5	-1,200
51: skilled agricultural and related trades	1,400	0.9	500
52: skilled metal, electrical and electronic trades	3,900	2.7	-700
53: skilled construction and building trades	4,000	2.7	600
54: textiles, printing and other skilled trades	2,000	1.4	-2,100
61: caring personal service occupations	7,600	5.2	200
62: leisure, travel and related personal service occupations	3,000	2.0	-1,400
71: sales occupations	8,400	5.7	1,700
72: customer service occupations	2,900	2.0	-600
81: process, plant and machines operatives	5,200	3.5	-200
82: transport & mobile machine drivers/operatives	6,400	4.4	300
91: elementary trades and related occupations	2,200	1.5	-400
92: elementary administration & service occupations	14,300	9.7	2,300

The Forth Valley is an important commuter region, and the breakdown of employment reflects that, with a large administrative workforce just below professional level (but often leading to professional level work in time). Business services jobs in business, media and public service professionals and associate professionals, and STEM professionals and associate professionals make up around a quarter of the local workforce, but the education and health workforce make up a relatively low proportion of employment.

A reasonable rise of 4,000 in the number of graduate roles in 2022 is offset by a fall of 3,700 in jobs below professional level, meaning that employment in the region changed very little on the whole through the year.

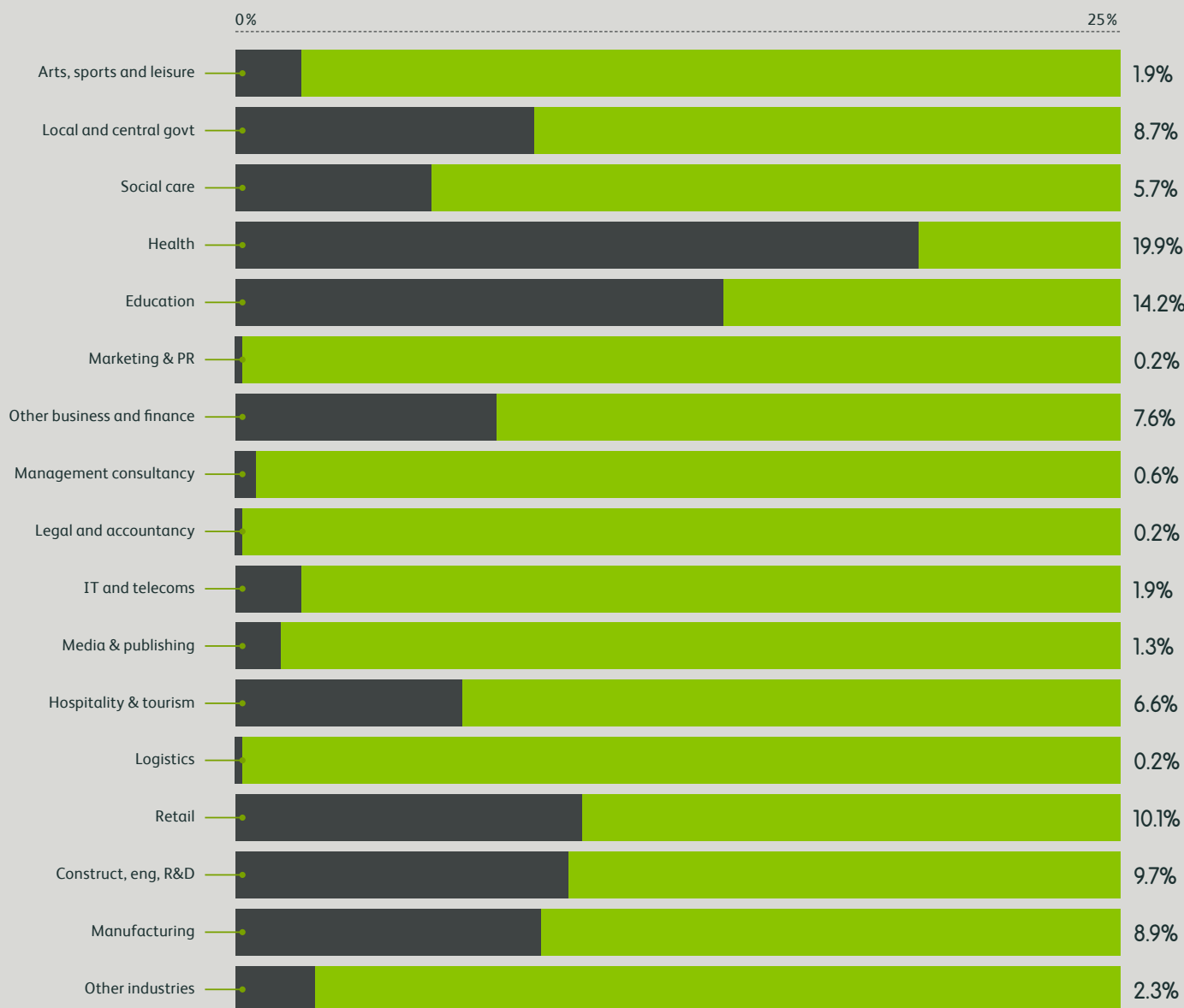
The region had a diverse jobs pool in 2020/21, but it was not deep, so graduates entered many different job roles, though not many in large numbers. Similar to many other regions without one of the larger Scottish cities, the top jobs for new graduates are nursing, primary and secondary teaching. Housing and welfare officers, and paramedics round out the top five new jobs for graduates locally. Engineering was also prominent, although this was a range of different engineering specialisms, rather than, as in other regions, one or two roles that suit prominent local industries.

FIGURE 2.5.1: TYPES OF WORK OF GRADUATES FROM 2020/21 WORKING IN FORTH VALLEY 15 MONTHS AFTER GRADUATION



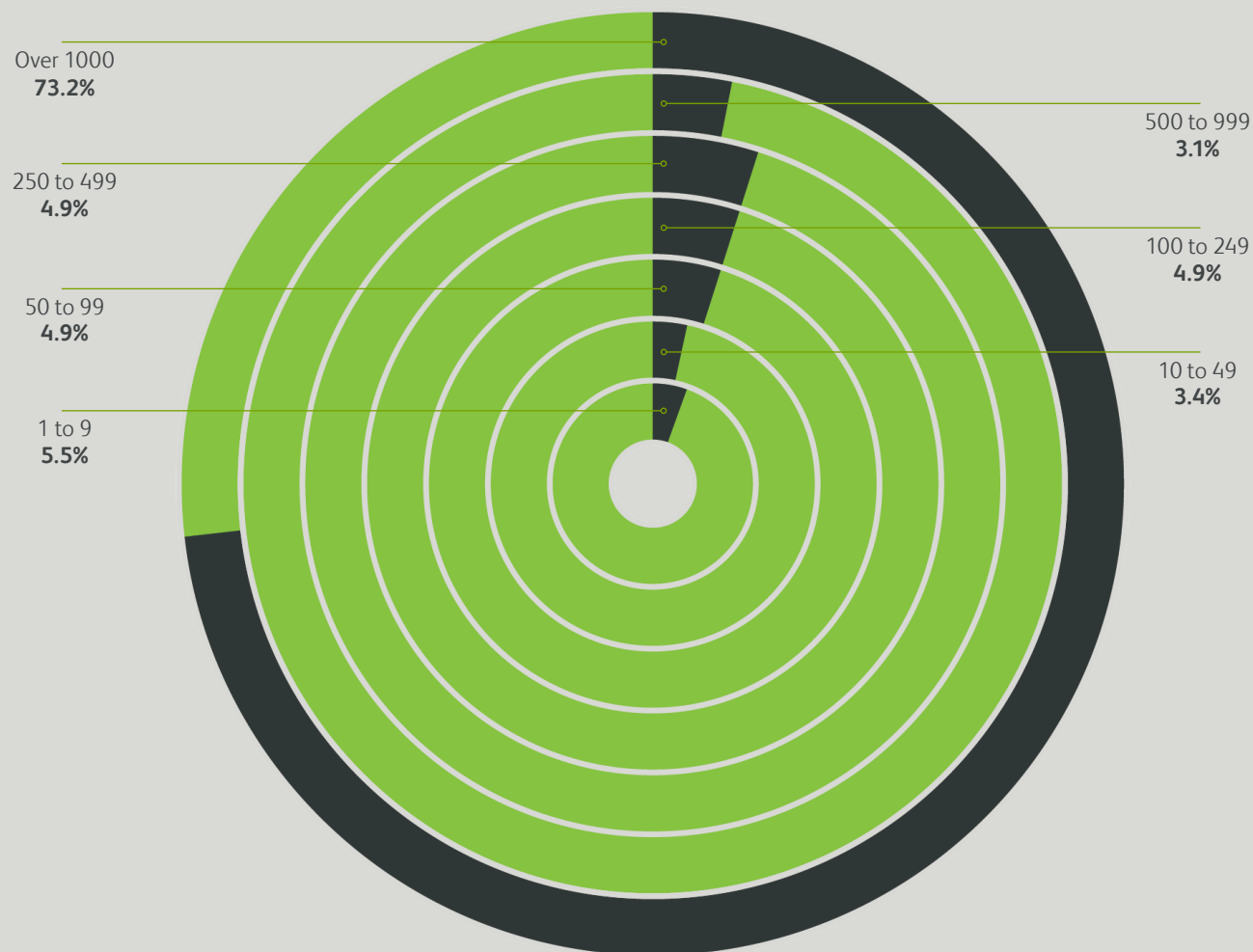
Like many other Scottish regions, health and education are the most significant graduate employers. Retail is also important, but it's largely (though not entirely) comprised of roles not considered professional level. Construction, manufacturing and local government (mainly social care roles) are also important. Conversely, consultancy, IT, law, media and accountancy - all significant strengths of neighbouring Glasgow and Edinburgh - were notably very minor.

FIGURE 2.5.2: INDUSTRY OF EMPLOYMENT OF GRADUATES FROM 2020/21 WORKING IN FORTH VALLEY 15 MONTHS AFTER GRADUATION



18.7% of graduates from this cohort started work with SMEs, but again, the numbers are spread between many industries with none predominating. SMEs are more common by proportion in Stirling than in Falkirk or Clackmannanshire.

FIGURE 2.5.3: SIZE OF EMPLOYER OF GRADUATES FROM 2020/21 WORKING IN FORTH VALLEY 15 MONTHS AFTER GRADUATION



There is only one institution in the region, the University of Stirling, so a large minority of employees in the region, 44.4%, were neither from the Forth Valley nor had studied there, and this is only a little behind Edinburgh as the largest proportion of Incomers in Scotland. That said, the University of Stirling was the most important institution for local students.

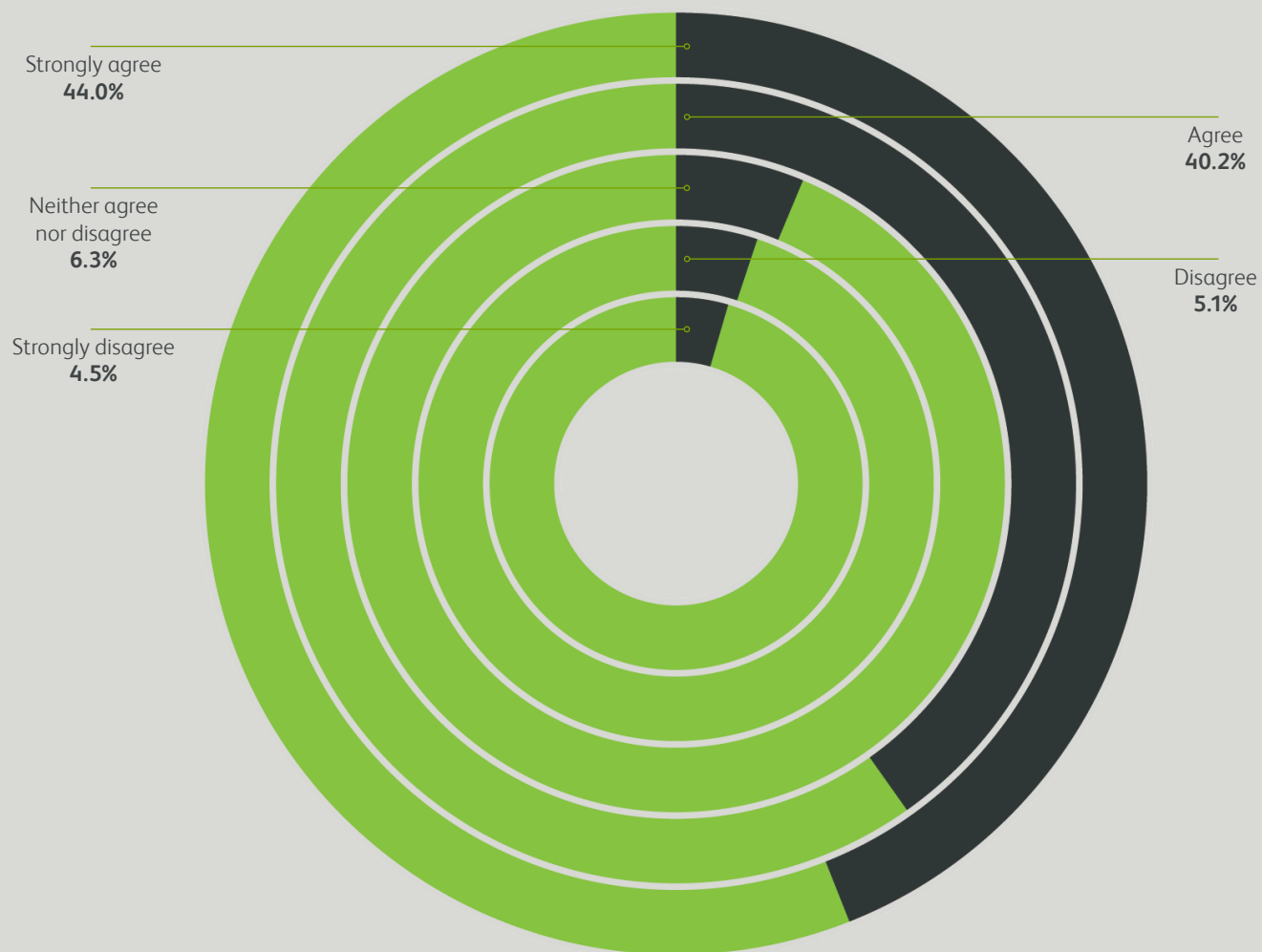
Graduates originally from the Forth Valley were most likely to come to work in the region as a whole, although at local authority level, Edinburgh, Falkirk, Stirling and Glasgow are all very similar in terms of the number of labour market entrants. Similarly, although University of Stirling graduates are more likely to work in this region than any other (just), at an individual local authority level, Stirling comes a distant third to Edinburgh and Glasgow, with Falkirk further behind in fourth place.

FIGURE 2.5.4: MIGRATION GROUPS OF GRADUATES FROM 2020/21 WORKING IN FORTH VALLEY 15 MONTHS AFTER GRADUATION



The Forth Valley has a relatively typical level of satisfaction with the meaning of work meaning for Scotland - in other words, it is high. 84.2% of the new graduate workforce stated that their work was meaningful, and 70% of graduates who are not considered graduate level felt that their job was meaningful. Administration, care work, health assistants and veterinary assistants all see their jobs as meaningful - and very few graduates working in professional-level jobs disagree that their jobs have meaning.

FIGURE 2.5.5: RESPONSE TO STATEMENT 'MY JOB IS MEANINGFUL' FOR GRADUATES FROM 2020/21 WORKING IN THE FORTH VALLEY 15 MONTHS AFTER GRADUATION



Glasgow is the largest city and graduate labour market (the city region accounts for nearly a third of Scottish GVA) in Scotland, and one of the most important graduate labour markets in the UK. The city is a centre for manufacturing, tech, services and design and has no fewer than five higher education institutions: Glasgow Caledonian, Glasgow School of Arts, Royal Glasgow Conservatoire, Glasgow University, University of Strathclyde. However alongside this economic power, Glasgow also has areas of significant deprivation and is a very diverse community and economy. Two thirds of the Glasgow workforce has a degree or equivalent, and most jobs in Glasgow are at professional level.

- Proportion of regional population with NVQ4+ at the end of 2021: 53.7%
- Proportion of regional workforce with NVQ4+ at the end of 2021: 65.9%
- Proportion of regional workforce in professional level employment at the end of 2022: 54.2%
- Proportion of 2020/21 graduates reporting some form of self-employment or preparation for self-employment 15 months after graduation: 11.2%

Glasgow's art and design strength is shown by a relatively high proportion of graduates entering arts, design and media.

Table 2.6.1: Occupational change in the Glasgow workforce in 2022

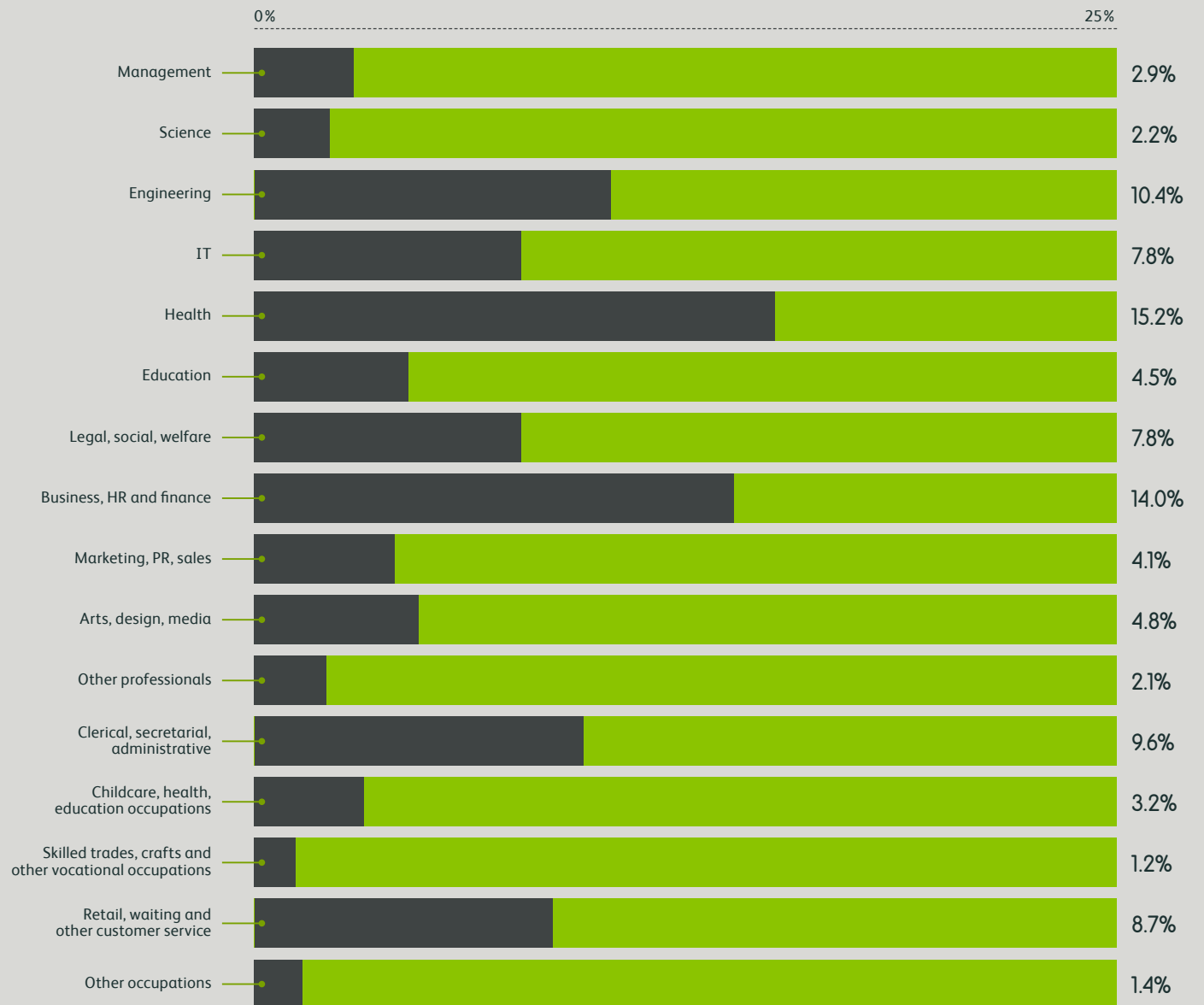
Standard Occupational Group (SOC 2020)	Number of employees in 2022	Percentage of workforce in 2022	Year-on-year change from 2021
11: corporate managers and directors	15,200	4.8	-3,200
12: other managers and proprietors	6,800	2.1	300
21: science, research, engineering and technology profs	32,000	10.1	4,800
22: health professionals	21,300	6.7	4,300
23: teaching and educational professionals	13,700	4.3	-1,400
24: business, media and public service professionals	24,800	7.8	400
31: science, engineering and technology associate profs	7,200	2.3	-1,200
32: health & social care assoc. professionals	10,500	3.3	4,000
33: protective service occupations	4,000	1.3	1,300
34: culture, media and sports occupations	8,500	2.7	-5,600
35: business & public service assoc. professionals	27,800	8.8	5,100
41: administrative occupations	21,700	6.8	-8,000
42: secretarial and related occupations	3,400	1.1	-1,900
51: skilled agricultural and related trades	n/a	n/a	n/a
52: skilled metal, electrical and electronic trades	9,900	3.1	3,000
53: skilled construction and building trades	5,800	1.8	1,600
54: textiles, printing and other skilled trades	8,800	2.8	1,500
61: caring personal service occupations	13,900	4.4	-2,300
62: leisure, travel and related personal service occupations	2,500	0.8	-4,800
71: sales occupations	13,500	4.3	-2,900
72: customer service occupations	5,700	1.8	-4,300
81: process, plant and machines operatives	3,500	1.1	-4,300
82: transport & mobile machine drivers/operatives	12,600	4.0	8,800
91: elementary trades and related occupations	2,200	0.7	2,200
92: elementary administration & service occupations	39,200	12.4	6,300

(n/a means that there are not enough workers to measure in one of the years in question.)

Glasgow’s large and diverse workforce is typical of Scotland (and the rest of the UK) in one respect, and that is that the largest group of occupations are elementary and service roles. Aside from that, the key labour market groups are all professional level (and private sector) - STEM professionals, and business service professionals and associate professionals. Glasgow also had the largest increase in professional level employment in Scotland in 2022, with the professional labour market adding 8,800 new jobs throughout the year, a substantial increase.

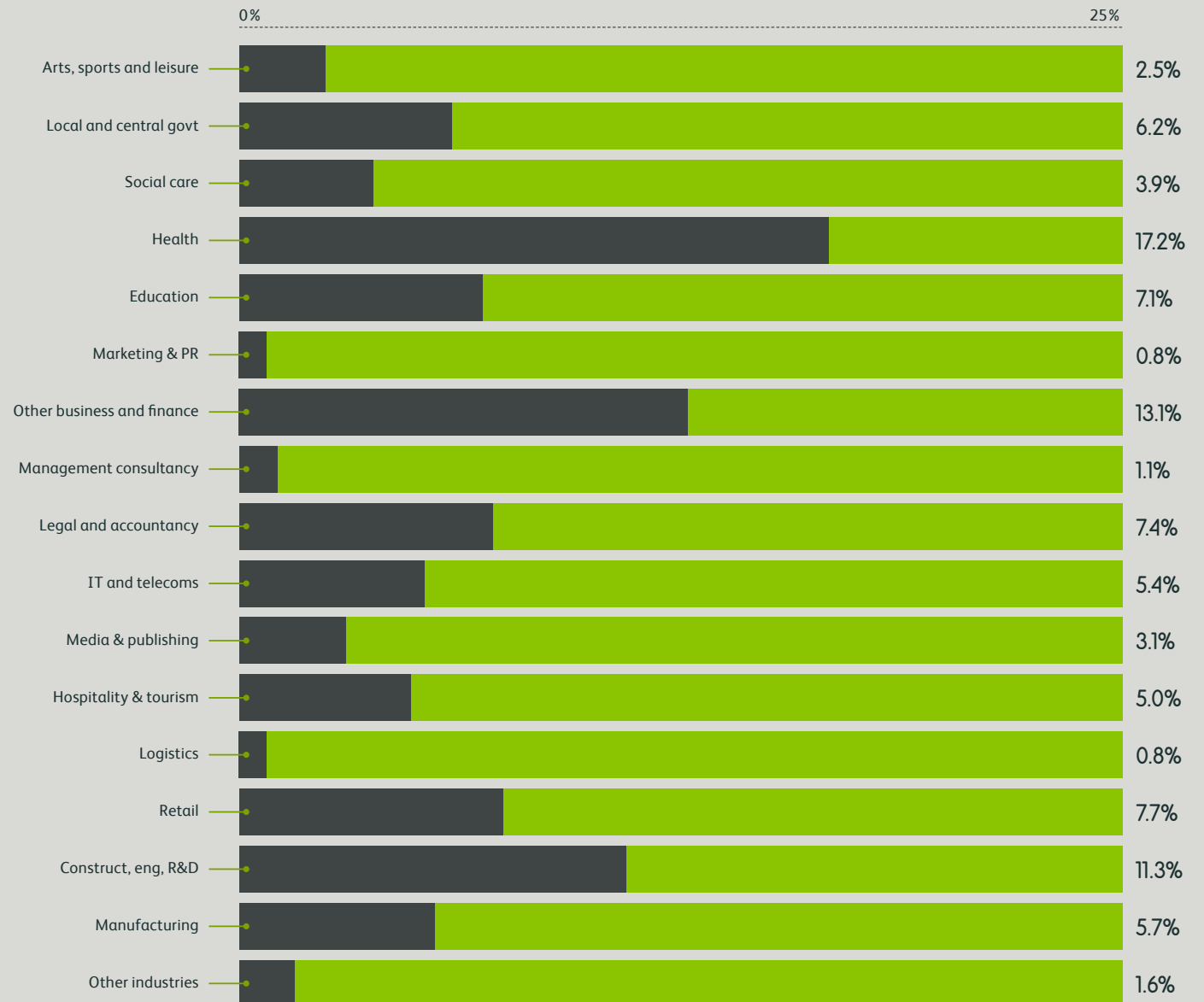
Health is the most important set of roles for the 2020/21 graduating cohort who found jobs in Glasgow 15 months after graduation, business HR and finance and engineering were close behind. Although not large in proportions in general, Glasgow’s art and design strength is shown by a relatively high proportion of graduates entering arts, design and media. Nursing, IT, medicine, accountancy, and financial services were the most common roles for graduates. The majority of new electrical engineers, and over 40% of all new financial advisors and arts officers in Scotland started their careers in Glasgow.

FIGURE 2.6.1: TYPES OF WORK OF GRADUATES FROM 2020/21 WORKING IN GLASGOW 15 MONTHS AFTER GRADUATION



Like many other regions, health was the largest employer of new graduates in Glasgow, but unlike many other regions, education was less significant. Instead, it is the finance, construction, engineering and R&D sector, retail and law that are more important to new recruitment in Glasgow. Health, law/accountancy, financial services, education and government are the top sectors for new graduate recruits in Glasgow.

FIGURE 2.6.2: INDUSTRY OF EMPLOYMENT OF GRADUATES FROM 2020/21 WORKING IN GLASGOW 15 MONTHS AFTER GRADUATION



Glasgow has many Scottish head offices and so most graduates work for large businesses - indeed it is notable that the proportion of graduates starting in SMEs in Glasgow is rather lower than the same figure for Edinburgh (21.4% against 24.8%). This is also odd as many of Glasgow's traditional employment strengths - art, design, IT, financial advice - are also important SME employers. It could be a legacy of COVID, but it might also be that more specialist, smaller businesses tend to be in Edinburgh whilst Glasgow is strong for larger employers.

FIGURE 2.6.3: SIZE OF EMPLOYER OF GRADUATES FROM 2020/21 WORKING IN GLASGOW 15 MONTHS AFTER GRADUATION



Glasgow has a tremendous appetite for graduates and imports graduates from all over Scotland. The city has a large university sector and so most graduates who went to work in Glasgow had studied there (around 56%) but only a quarter were originally from the city - the largest group of Glasgow employees are Stayers who have come from outside the city, studied there and stayed for work. This means the universities themselves play a particularly important role in keeping the supply of skills to the local economy up.

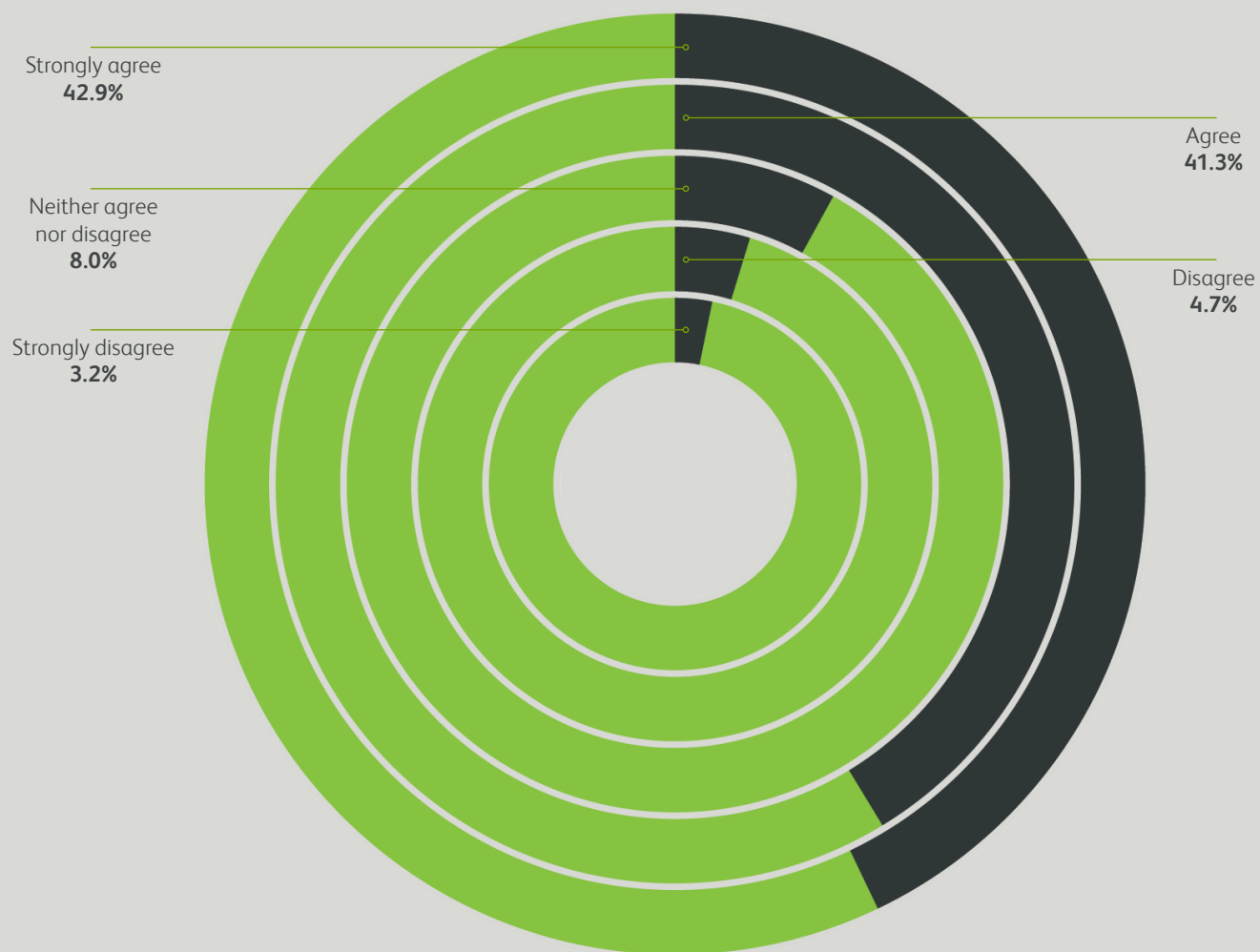
34.9% were Incomers, who had come to Glasgow to work having neither come from Glasgow in the first place, now studied there. 15.4% were Loyals, who were Glaswegians who studied in Glasgow and remained in the city to work and only 9% were Returners, who left Glasgow to study and returned to work. Bear in mind though, that at least in this cohort, the majority of students originally from Glasgow who went into work, went to work in Glasgow - the city is a very popular place to live and work.

FIGURE 2.6.4: MIGRATION GROUPS OF GRADUATES FROM 2020/21 WORKING IN GLASGOW 15 MONTHS AFTER GRADUATION



The large majority of graduates working in Glasgow felt that their job was meaningful (84.1%). This is, nevertheless, the second lowest level in Scotland (Edinburgh is the lowest) and it is probably significant that the two largest, strongest jobs markets in Scotland have the highest level of job dissatisfaction amongst graduates. But 63% of graduates in jobs not considered professional level expressed the opinion that they were in meaningful work - care work and administrative roles had high levels of agreement with this statement. However retail worker generally thought that they were not in meaningful work.

FIGURE 2.6.5: RESPONSE TO STATEMENT 'MY JOB IS MEANINGFUL' FOR GRADUATES FROM 2020/21 WORKING IN GLASGOW 15 MONTHS AFTER GRADUATION



This is a unique labour market, not just in Scotland but in the UK as a whole. It is unusual in many respects; it is very large (a geographic area larger than Belgium), it is very sparsely populated, it has many scattered, isolated and remote settlements and, of course, it is characterised by many significant island communities. Gaelic is spoken, particularly in the Western Isles, or Na h-Eileanan Siar.

There is one city, Inverness, an ancient but relatively small city of around 47,000 people in 2013, and one university, the University of Highlands and Islands, which is headquartered in Inverness but which has branch campuses throughout the region. The local authorities in this region are Argyll and Bute, Highland, Moray, Na h-Eileanan Siar, Orkney, and Shetland. As of 2021, almost exactly half the workforce had a degree or equivalent although the proportion of jobs at professional level was a little lower at 44.3%.

- Proportion of regional population with NVQ4+ at the end of 2021: 46.4%
- Proportion of regional workforce with NVQ4+ at the end of 2021: 50.1%
- Proportion of regional workforce in professional level employment at the end of 2022: 44.3%
- Proportion of 2020/21 graduates reporting some form of self-employment or preparation for self-employment 15 months after graduation: 9.6%

Graduates in this region were the most likely in Scotland to start their career with a small business.

Table 2.71: Occupational change in the Highlands and Islands workforce in 2022

Standard Occupational Group (SOC 2020)	Number of employees in 2022	Percentage of workforce in 2022	Year-on-year change from 2021
11: corporate managers and directors	16,700	7.2	3,800
12: other managers and proprietors	8,000	3.4	-1,900
21: science, research, engineering and technology profs	11,800	5.0	-700
22: health professionals	7,700	3.3	-4,000
23: teaching and educational professionals	10,900	4.7	-1,300
24: business, media and public service professionals	13,500	5.8	-100
31: science, engineering and technology associate profs	4,700	2.0	300
32: health & social care assoc. professionals	6,700	2.9	800
33: protective service occupations	4,600	2.0	1,000
34: culture, media and sports occupations	5,300	2.3	2,100
35: business & public service assoc. professionals	11,300	4.8	-600
41: administrative occupations	16,400	7.1	4,200
42: secretarial and related occupations	2,900	1.3	-1,100
51: skilled agricultural and related trades	5,200	2.2	100
52: skilled metal, electrical and electronic trades	6,100	2.6	-1,600
53: skilled construction and building trades	11,200	4.8	1,900
54: textiles, printing and other skilled trades	7,400	3.2	1,900
61: caring personal service occupations	17,900	7.7	400
62: leisure, travel and related personal service occupations	6,900	3.0	1,600
71: sales occupations	14,400	6.2	-2,200
72: customer service occupations	3,500	1.5	-1,500
81: process, plant and machines operatives	6,400	2.8	-500
82: transport & mobile machine drivers/operatives	7,200	3.1	-1,700
91: elementary trades and related occupations	5,000	2.1	800
92: elementary administration & service occupations	19,900	8.5	1,700

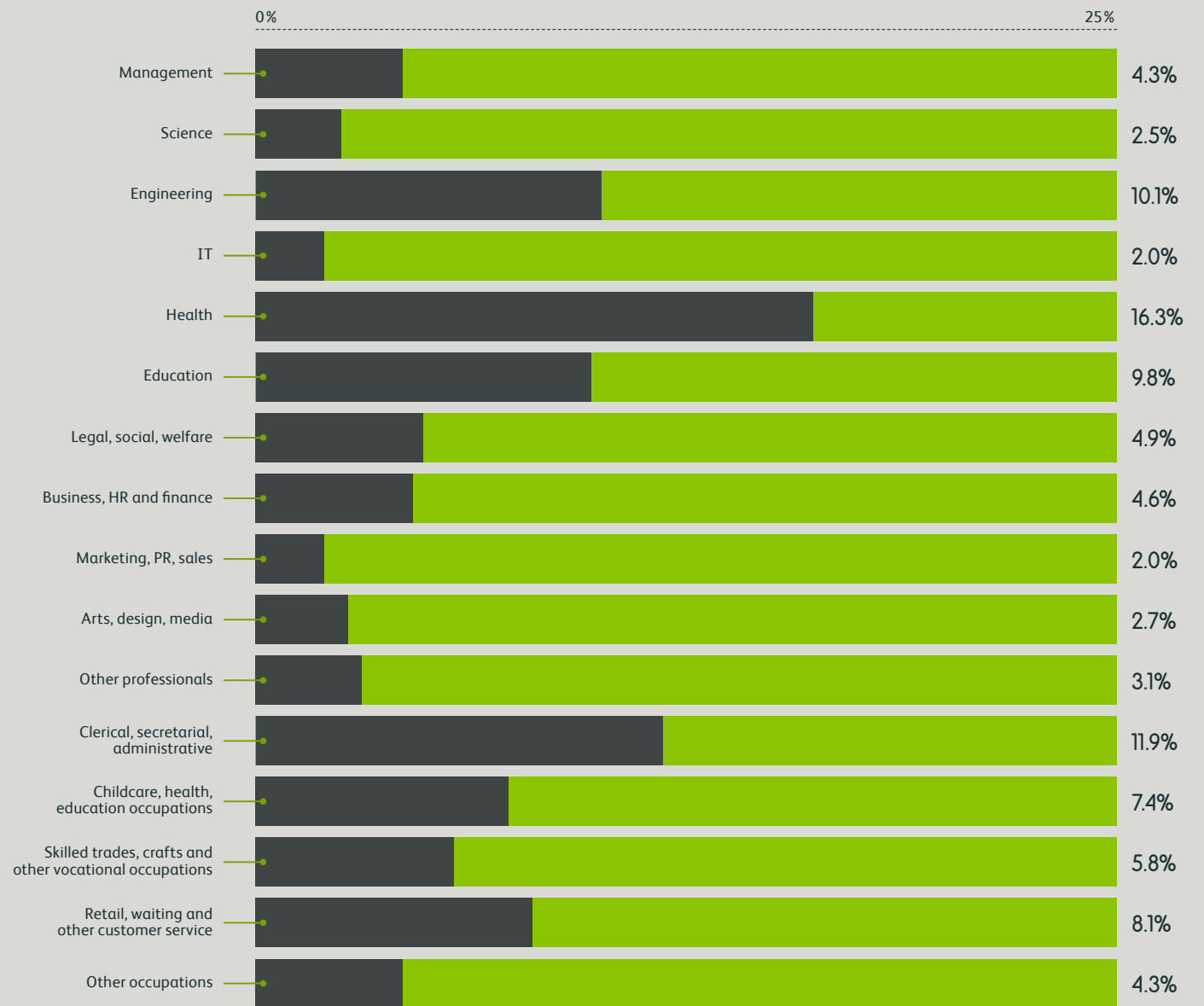
Although elementary services were the largest group of employees, they weren't quite as important as in other regions. Care work was the next largest employment group. Management and business service jobs were the most important professional level employment categories.

In 2022, the professional workforce in the region fell marginally, although there was a particularly substantial (and concerning) loss of healthcare workers, a scarce group that can be difficult to replace. The workforce below professional level grew a little, particularly in administrative occupations and in skilled trades.

Although we saw a loss of health workers in general, recruitment into new positions in the region was healthy and around one in six new graduates were in healthcare jobs from the 2020/21 cohort. But the rest of the employment pattern is highly atypical. Administrative jobs were the next most important employment options for new graduates, with engineering just behind, particularly on the mainland in the Highlands.

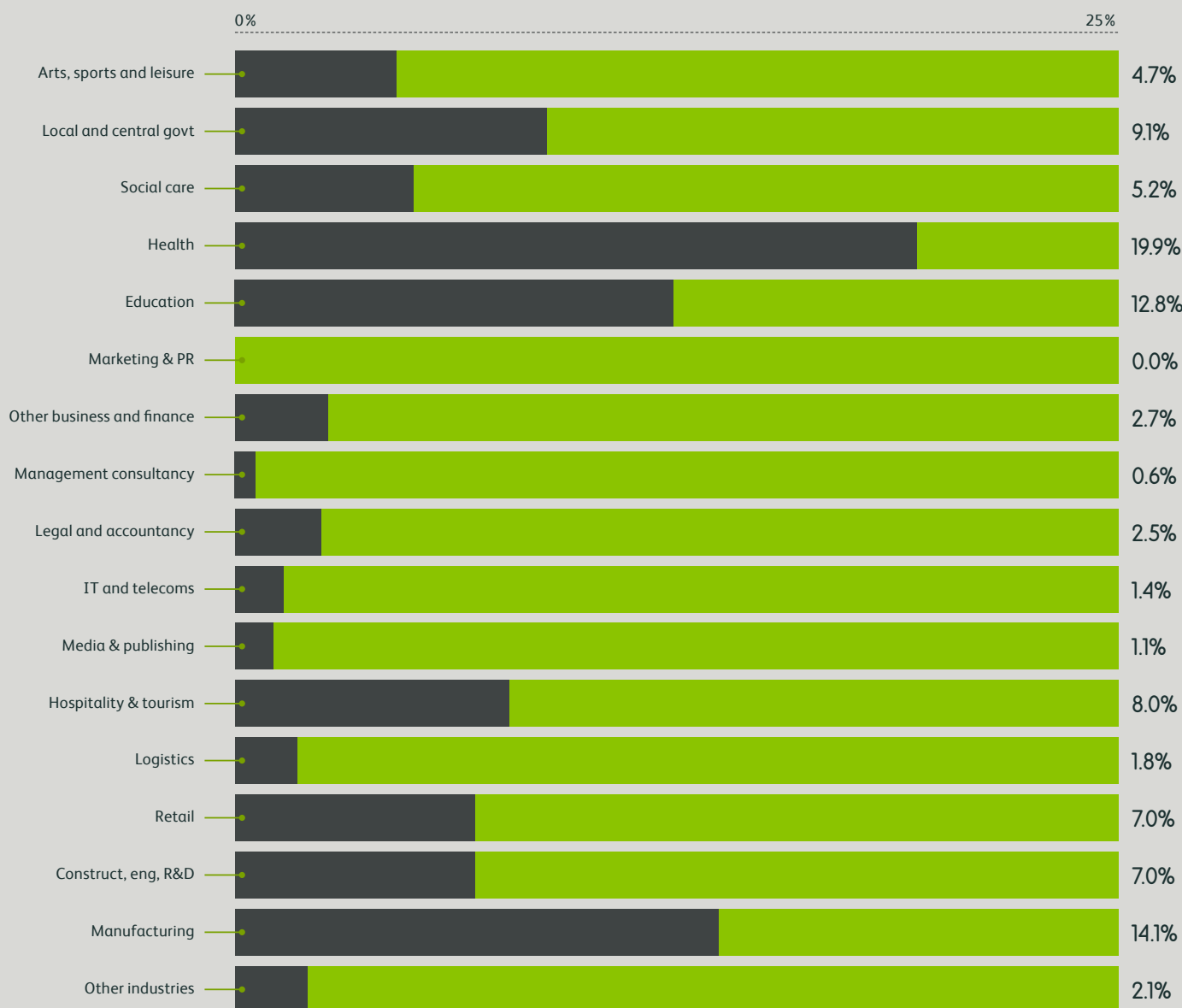
Because of the nature of regional employment, graduates working in the Highlands and Islands are the most likely to be in jobs below professional level after 15 months - 37.6% of the workforce were in roles below professional level, but many graduates in the region are less motivated by pure earnings and are concerned by the chance to get fulfilling work in the regions that they grew up in, as the data elsewhere in this section shows.

FIGURE 2.7.1: TYPES OF WORK OF GRADUATES FROM 2020/21 WORKING IN HIGHLANDS AND ISLANDS 15 MONTHS AFTER GRADUATION



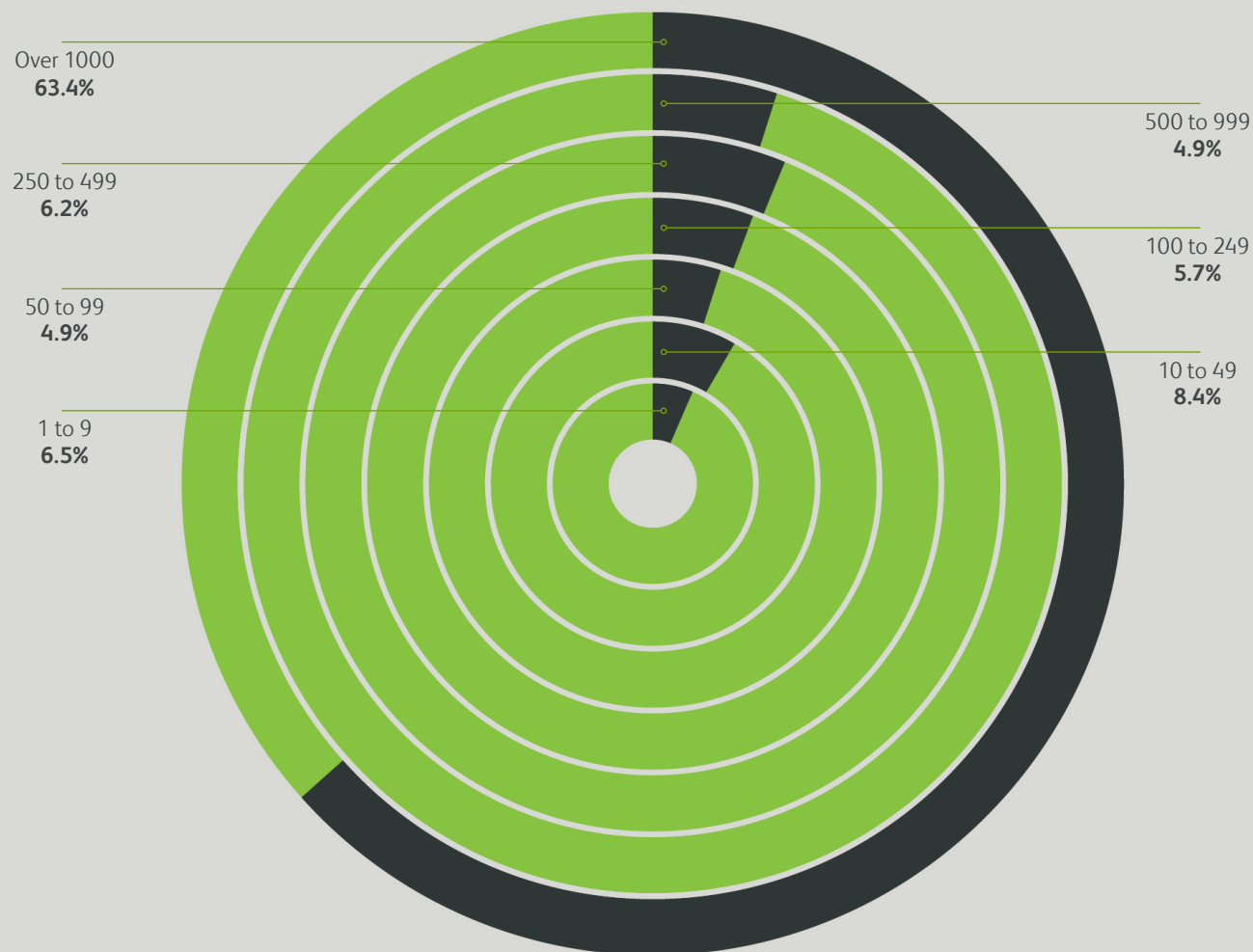
Health is the most important employment sector, around one in five new graduates in the region working in health jobs. Manufacturing and primary industry is also an important employment sector for graduates, but it is not a conventional set of destinations for graduates as the main employer in this sector in the region is fishery and aquaculture (to all intents and purposes, all new graduates employed in the industry in Scotland are in this region), and another crucial local employer are distillers. The most common industries for new graduates do illustrate the region's strengths – health, education, Government, retail and accommodation and tourism.

FIGURE 2.7.2: INDUSTRY OF EMPLOYMENT OF GRADUATES FROM 2020/21 WORKING IN HIGHLANDS AND ISLANDS 15 MONTHS AFTER GRADUATION



Graduates in this region were the most likely in Scotland to start their career with a small business. 25.5% of graduates began work at an SME - with a wide range of roles available at SMEs. Public sector employees are a key cohort for employment at larger enterprises.

FIGURE 2.7.3: SIZE OF EMPLOYER OF GRADUATES FROM 2020/21 WORKING IN HIGHLANDS AND ISLANDS 15 MONTHS AFTER GRADUATION

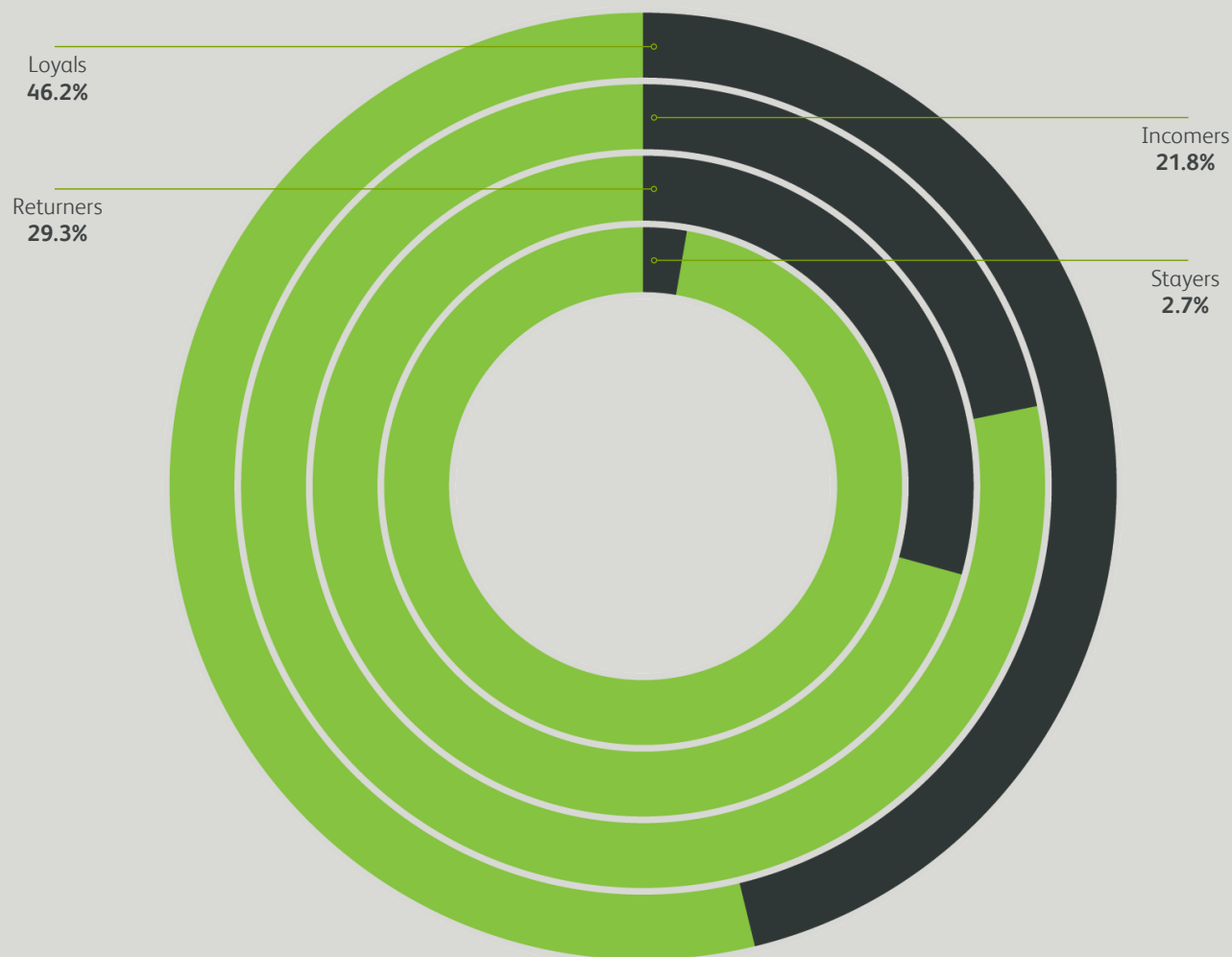


Some popular narratives about UK higher education characterise the sector as an engine that moves young people away from their home areas and into cities. The Highlands and Islands are an effective counter to this view. Although the region, with the exception of Shetland, has lower earnings on average than the Scottish average and much of it is remote, it also has the highest proportion of graduate employees who were originally from the region.

In UK local authority terms, only graduates from another island community, Anglesey in Wales, are as likely as graduates from Orkney, Shetland and Na h-Eileanan Siar in the whole UK to state that location was the main factor in their employment choice (and Argyll and Bute is close behind, along with some of the rural parts of Wales, such as Ceredigion).

Local identity is extremely important to Highlanders and Islanders. Only North East Scotland, has a comparable level of Loyals, graduates from the region who also studied there, and who make up just under half of the local workforce. Returners, who were locally raised and moved away to study, before returning for work, make up nearly 30% of the cohort, while Incomers who are not from the region and didn't study at UHI, are about 22% of new graduate employees from 2020/21. This group are often in health jobs. Finally, Stayers, who weren't originally from the region but who studied there, are a small group at 2.7% of local employees.

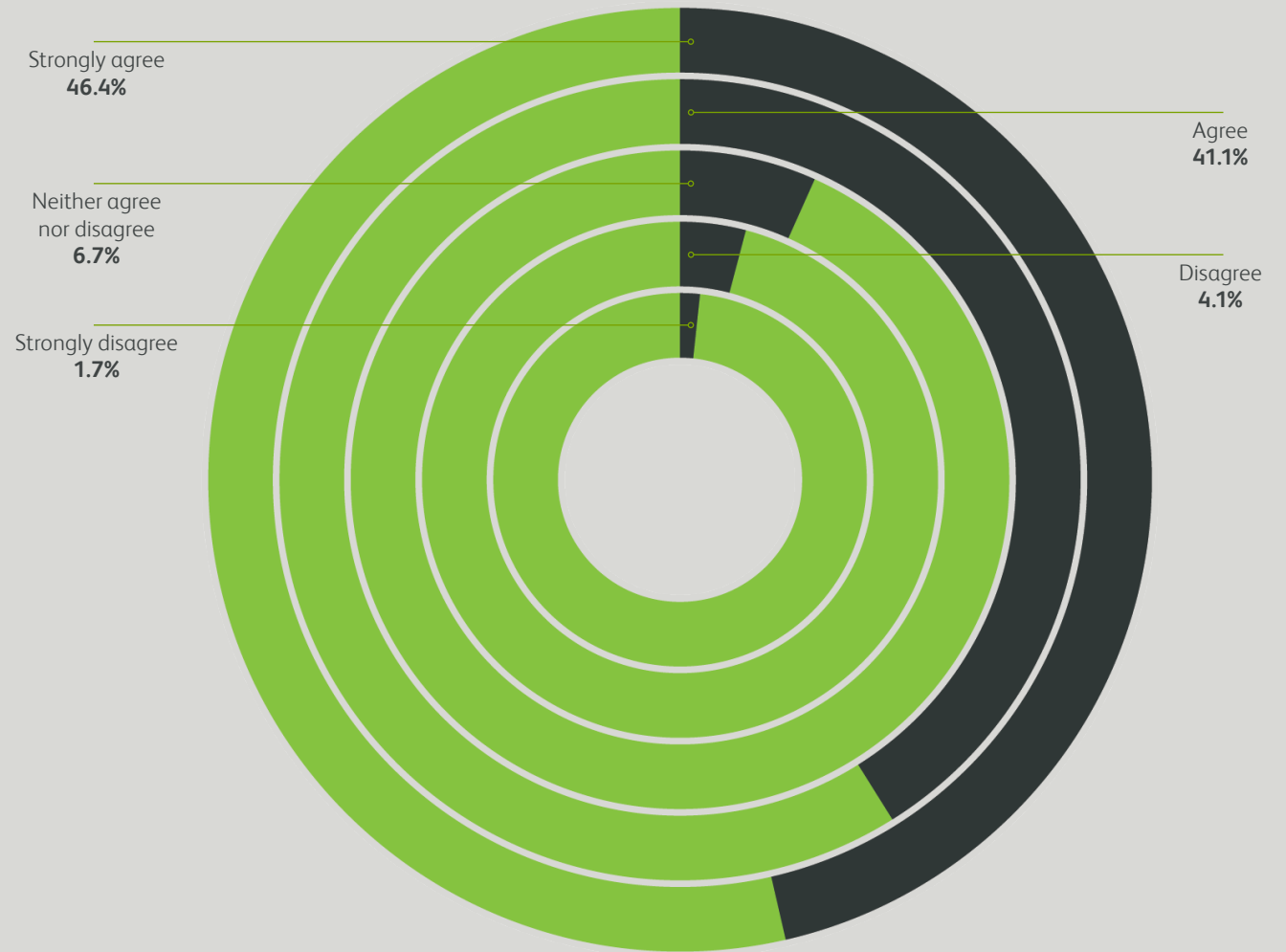
FIGURE 2.7.4: MIGRATION GROUPS OF GRADUATES FROM 2020/21 WORKING IN HIGHLANDS AND ISLANDS 15 MONTHS AFTER GRADUATION



Although this group are, quite comfortably, the most likely to be in jobs not considered professional level after 15 months, they are the second most likely group (after graduates in the South of Scotland, another largely rural region) to report that they feel that their job is meaningful. Perhaps more so than any other part of the UK, traditional, salary-linked notions of the value of higher education hold less sway in the Highlands and Islands.

Those graduates who feel their job is not meaningful tend to be graduates with Firsts and 2:1s in low-paid service jobs, and most have parents with HE experience (and they tend to be from the Highlands) - the data strongly suggests that as yet their career has not met their expectations.

FIGURE 2.7.5: RESPONSE TO STATEMENT 'MY JOB IS MEANINGFUL' FOR GRADUATES FROM 2020/21 WORKING IN HIGHLANDS AND ISLANDS 15 MONTHS AFTER GRADUATION



This is another big, sparsely-populated rural area with numerous relatively small settlements consisting of Dumfries and Galloway (largest settlement Dumfries, around 40,000 inhabitants) and Scottish Borders (largest settlement Hawick with around 14,000 inhabitants).

In labour market terms, it is the smallest of the regions in Scotland, and higher education provision is provided by branch campuses of the University of West of Scotland, Scotland's Rural College (SRUC), Heriot-Watt and the University of Glasgow. It does not have a particularly strong graduate labour market. Most workers do not have HE equivalent qualifications, and 40.8% of local jobs were at professional level. The region is relatively affluent although there are pockets of deprivation in Stranraer, Dumfries, Hawick and Galashiels.

- Proportion of regional population with NVQ4+ at the end of 2021: 44.1%
- Proportion of regional workforce with NVQ4+ at the end of 2021: 48.7%
- Proportion of regional workforce in professional level employment at the end of 2022: 40.8%
- Proportion of 2020/21 graduates reporting some form of self-employment or preparation for self-employment 15 months after graduation: 8.1%

The region has an aging population and so care work is the most important employment group in the region.

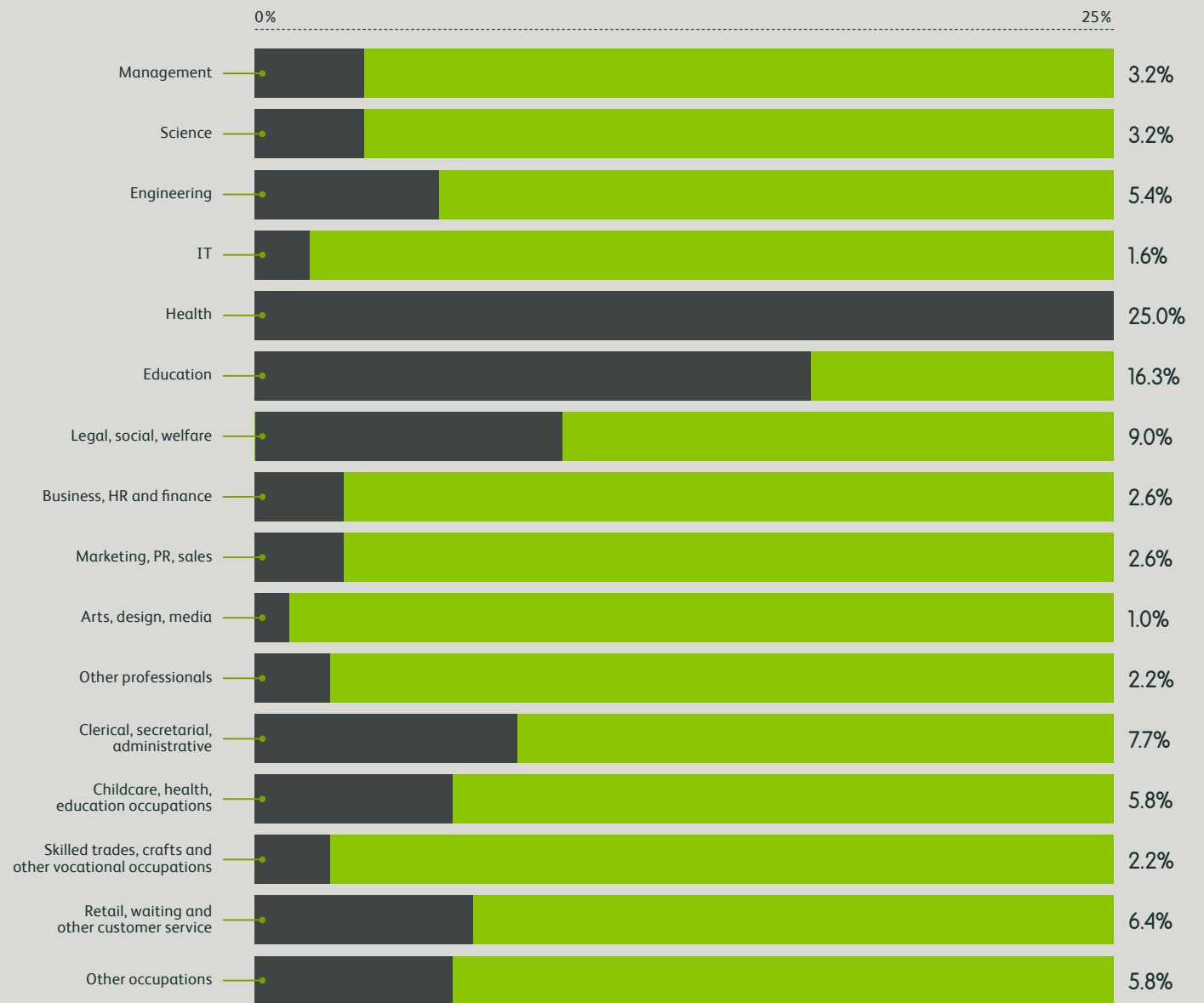
Table 2.8.1: Occupational change in the South of Scotland workforce in 2022

Standard Occupational Group (SOC 2020)	Number of employees in 2022	Percentage of workforce in 2022	Year-on-year change from 2021
11: corporate managers and directors	5,100	4.4	-1,100
12: other managers and proprietors	6,600	5.7	1,600
21: science, research, engineering and technology profs	5,400	4.7	1,300
22: health professionals	7,400	6.4	2,000
23: teaching and educational professionals	5,600	4.9	0
24: business, media and public service professionals	7,100	6.2	900
31: science, engineering and technology associate profs	800	0.7	-1,400
32: health & social care assoc. professionals	2,400	2.1	-900
33: protective service occupations	1,900	1.6	600
34: culture, media and sports occupations	1,100	1.0	-600
35: business & public service assoc. professionals	3,700	3.2	0
41: administrative occupations	7,700	6.7	-400
42: secretarial and related occupations	1,900	1.6	500
51: skilled agricultural and related trades	5,500	4.8	-300
52: skilled metal, electrical and electronic trades	3,700	3.2	-1,700
53: skilled construction and building trades	3,100	2.7	600
54: textiles, printing and other skilled trades	4,400	3.8	1,500
61: caring personal service occupations	10,700	9.3	2,200
62: leisure, travel and related personal service occupations	3,100	2.7	0
71: sales occupations	4,700	4.1	400
72: customer service occupations	1,700	1.5	100
81: process, plant and machines operatives	4,000	3.5	-1,600
82: transport & mobile machine drivers/operatives	6,100	5.3	1,400
91: elementary trades and related occupations	3,300	2.9	200
92: elementary administration & service occupations	7,900	6.8	200

The region has an aging population and so care work is the most important employment group in the region. Elementary occupations, administrative occupations, health and business services are other key employment group. Despite the small size and scattered nature of the local jobs market, it actually grew in 2022 - the health and care workforce were the main areas of expansion.

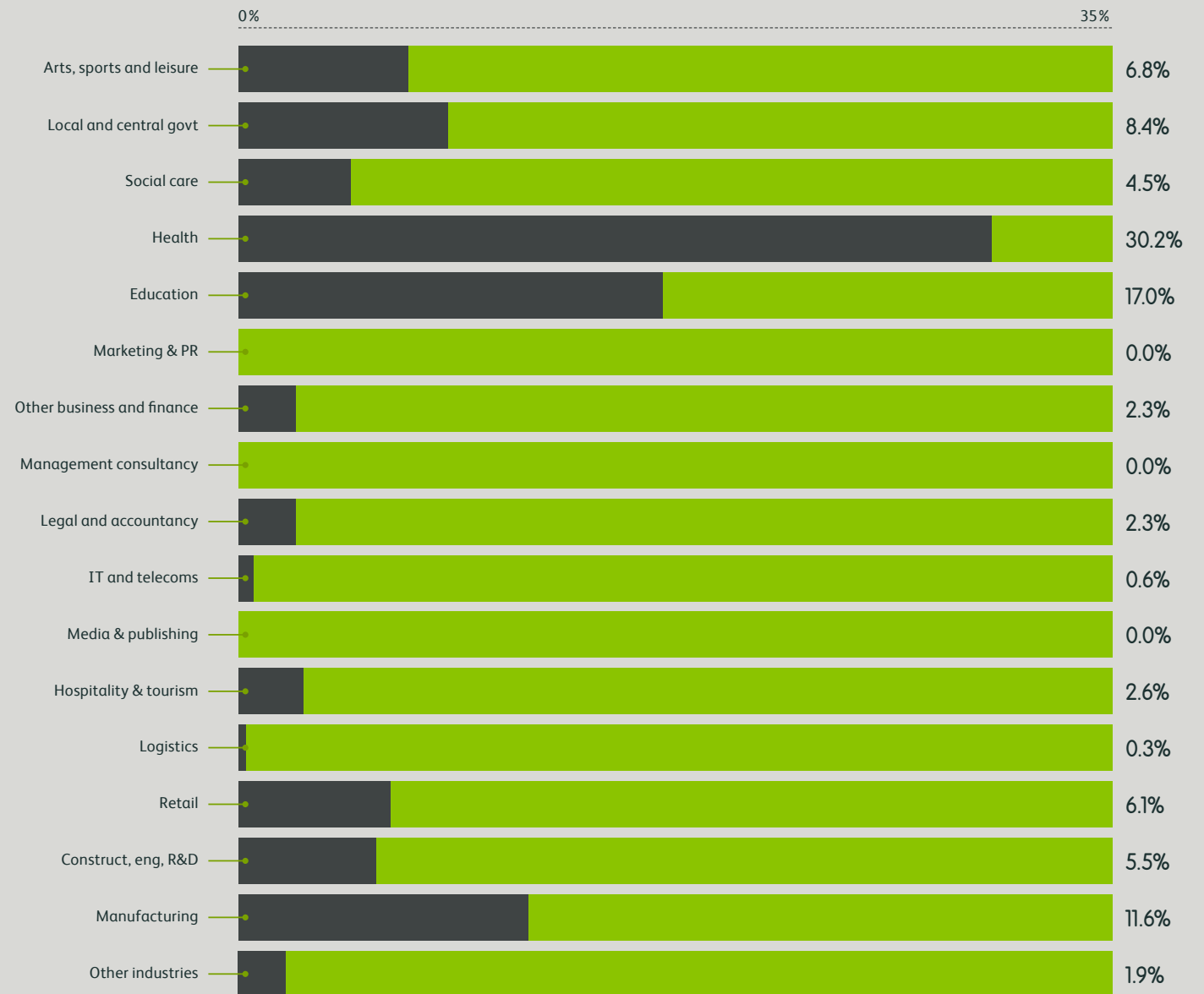
A quarter of graduates starting their career in the region were working in health jobs 15 months after graduation, and education and social work are other important employment groups locally. The only graduate occupations recruited in significant numbers in the region in this time period were nurses, primary and secondary teachers, doctors and social workers.

FIGURE 2.8.1: TYPES OF WORK OF GRADUATES FROM 2020/21 WORKING IN SOUTH OF SCOTLAND 15 MONTHS AFTER GRADUATION



Over half of new graduates in the region were in public sector jobs in government, social care, health and education. Outside these sectors, the other important industries for new graduate employment were sports and fitness, farming, libraries and museums, and veterinary provision.

FIGURE 2.8.2: INDUSTRY OF EMPLOYMENT OF GRADUATES FROM 2020/21 WORKING IN IN SOUTH OF SCOTLAND 15 MONTHS AFTER GRADUATION



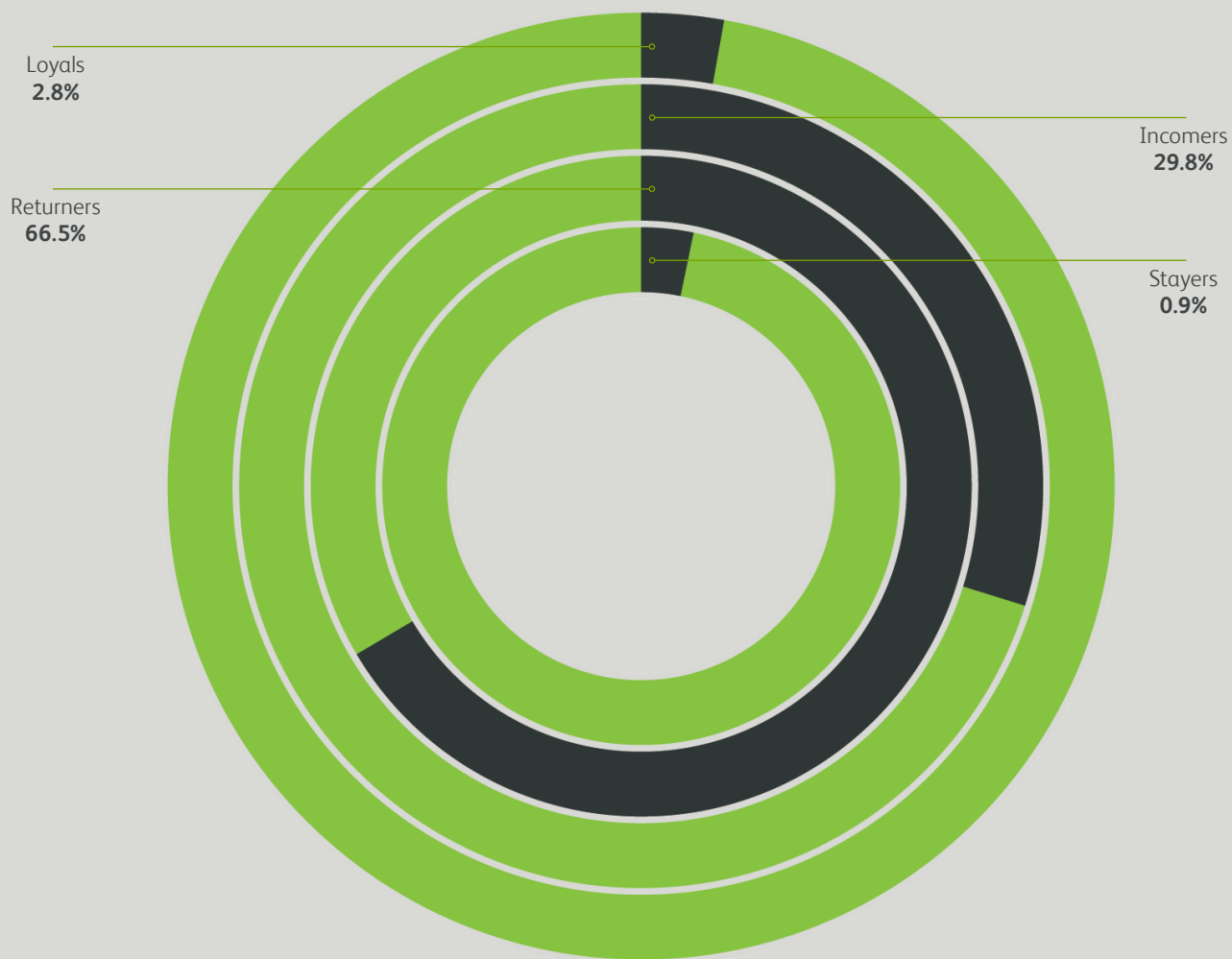
Large public sector employers, particularly the NHS, are crucial to graduate work in the region and so only 18.4% of new 2020/21 graduates in the region were working in an SME 15 months after graduation.

FIGURE 2.8.3: SIZE OF EMPLOYER OF GRADUATES FROM 2020/21 WORKING IN SOUTH OF SCOTLAND 15 MONTHS AFTER GRADUATION



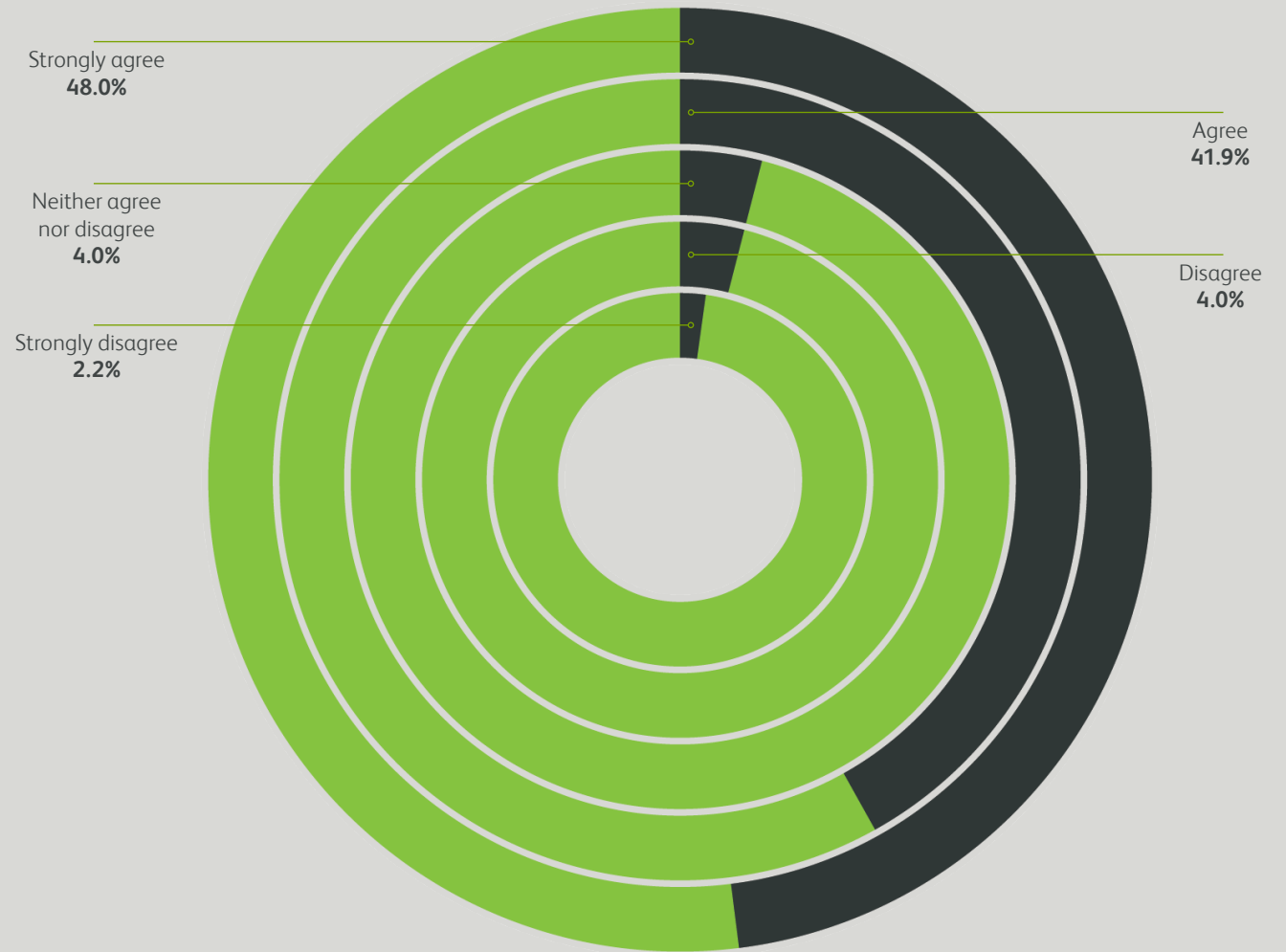
There isn't much HE provision in the region so only a small proportion of graduates employed locally had studied in the South of Scotland. However, it was very common for graduates from the region to study away and to return home to work, and over two thirds of graduate employees in the region were originally from the South of Scotland. Although not as likely as graduates from the Highlands and Islands, graduates from this region are more likely than the Scottish and UK average to choose work mainly on the basis of location.

FIGURE 2.8.4: MIGRATION GROUPS OF GRADUATES FROM 2020/21 WORKING IN SOUTH OF SCOTLAND 15 MONTHS AFTER GRADUATION



Although this is a small labour market, graduates working in the South of Scotland were the most likely in Scotland to feel that their job was meaningful, and the most likely to strongly agree. Just under 90% felt that they were in meaningful work, and this means that the majority of graduates even in non-graduate jobs feel that their work has meaning to them.

FIGURE 2.8.5: RESPONSE TO STATEMENT 'MY JOB IS MEANINGFUL' FOR GRADUATES FROM 2020/21 WORKING IN SOUTH OF SCOTLAND 15 MONTHS AFTER GRADUATION



Tayside is a mixed region with rural areas, towns such as Arbroath, Forfar, Montrose and Kinross, the small city of Perth and the larger and more significant graduate labour market of Dundee, which is the dominant graduate market in the region. The local authorities on Tayside are Angus, Perth and Kinross and Dundee, and higher education is represented by the two Dundee institutions - University of Abertay and University of Dundee, by a campus of the University of the Highlands and Islands in Perth, and by provision at Perth College.

The region has an important and growing tech sector, and has an educated workforce - 56.7% of the local workforce had degree or equivalent at the end of 2021. But under half of jobs locally (46.4%) were at professional level by the end of 2022.

- Proportion of regional population with NVQ4+ at the end of 2021: 50.5%
- Proportion of regional workforce with NVQ4+ at the end of 2021: 56.7%
- Proportion of regional workforce in professional level employment at the end of 2022: 46.4%
- Proportion of 2020/21 graduates reporting some form of self-employment or preparation for self-employment 15 months after graduation: 10.1%

The majority of new graduates from 2020/21 working in Tayside after 15 months were working in Dundee

Table 2.91: Occupational change in the Tayside workforce in 2022

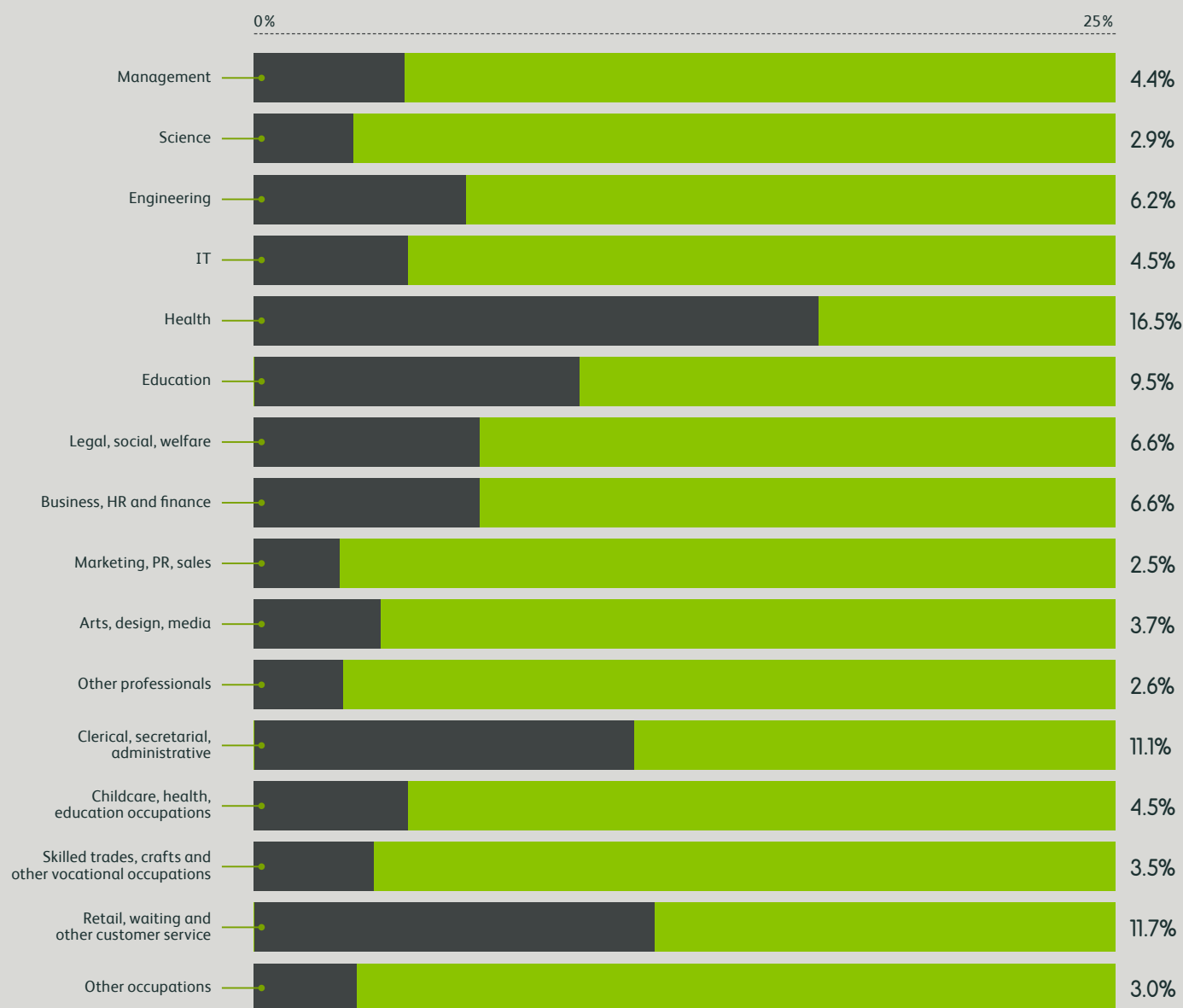
Standard Occupational Group (SOC 2020)	Number of employees in 2022	Percentage of workforce in 2022	Year-on-year change from 2021
11: corporate managers and directors	11,400	5.8	-1,800
12: other managers and proprietors	9,500	4.8	-3,200
21: science, research, engineering and technology profs	12,800	6.5	2,100
22: health professionals	11,600	5.9	500
23: teaching and educational professionals	8,800	4.5	2,600
24: business, media and public service professionals	11,200	5.6	700
31: science, engineering and technology associate profs	4,700	2.4	-1,400
32: health & social care assoc. professionals	5,400	2.7	300
33: protective service occupations	2,700	1.3	400
34: culture, media and sports occupations	4,500	2.3	-1,400
35: business & public service assoc. professionals	9,100	4.6	2,500
41: administrative occupations	17,100	8.7	-1,600
42: secretarial and related occupations	4,200	2.1	-2,000
51: skilled agricultural and related trades	4,100	2.1	-100
52: skilled metal, electrical and electronic trades	4,600	2.3	-900
53: skilled construction and building trades	5,000	2.5	1,800
54: textiles, printing and other skilled trades	4,400	2.2	-100
61: caring personal service occupations	10,300	5.2	4,400
62: leisure, travel and related personal service occupations	4,300	2.2	100
71: sales occupations	11,200	5.7	-1,800
72: customer service occupations	5,300	2.7	-1,400
81: process, plant and machines operatives	6,700	3.4	-2,100
82: transport & mobile machine drivers/operatives	7,000	3.5	-500
91: elementary trades and related occupations	2,800	1.4	-500
92: elementary administration & service occupations	18,200	9.2	-3,300

In common with most Scottish regions, the largest occupational group in the whole Tayside workforce was elementary administrative and service jobs, generally the lowest paid occupational group. More qualified (but still below professional level) administrative roles were the next most important in 2022. STEM professionals were the next most important - reinforcing the image of the region as a tech hub. Tayside did, though, see the largest fall in employment of the Scottish regions in 2022, although this was driven by service sector jobs below professional level and overall professional employment actually grew marginally.

The majority of new graduates from 2020/21 working in Tayside after 15 months were working in Dundee, and the proportion of graduates working at professional level in the region ranges from 59.% in Perth and Kinross to 70.5% in Dundee. Health professionals were the most important jobs locally, but while nurses were spread around the region, almost all new doctors were working in Dundee. Although IT as a whole is less important than some other occupational groups, computer programmers (again, nearly all in Dundee) are a particularly important occupation for new graduates locally, while teachers are also spread across the region.

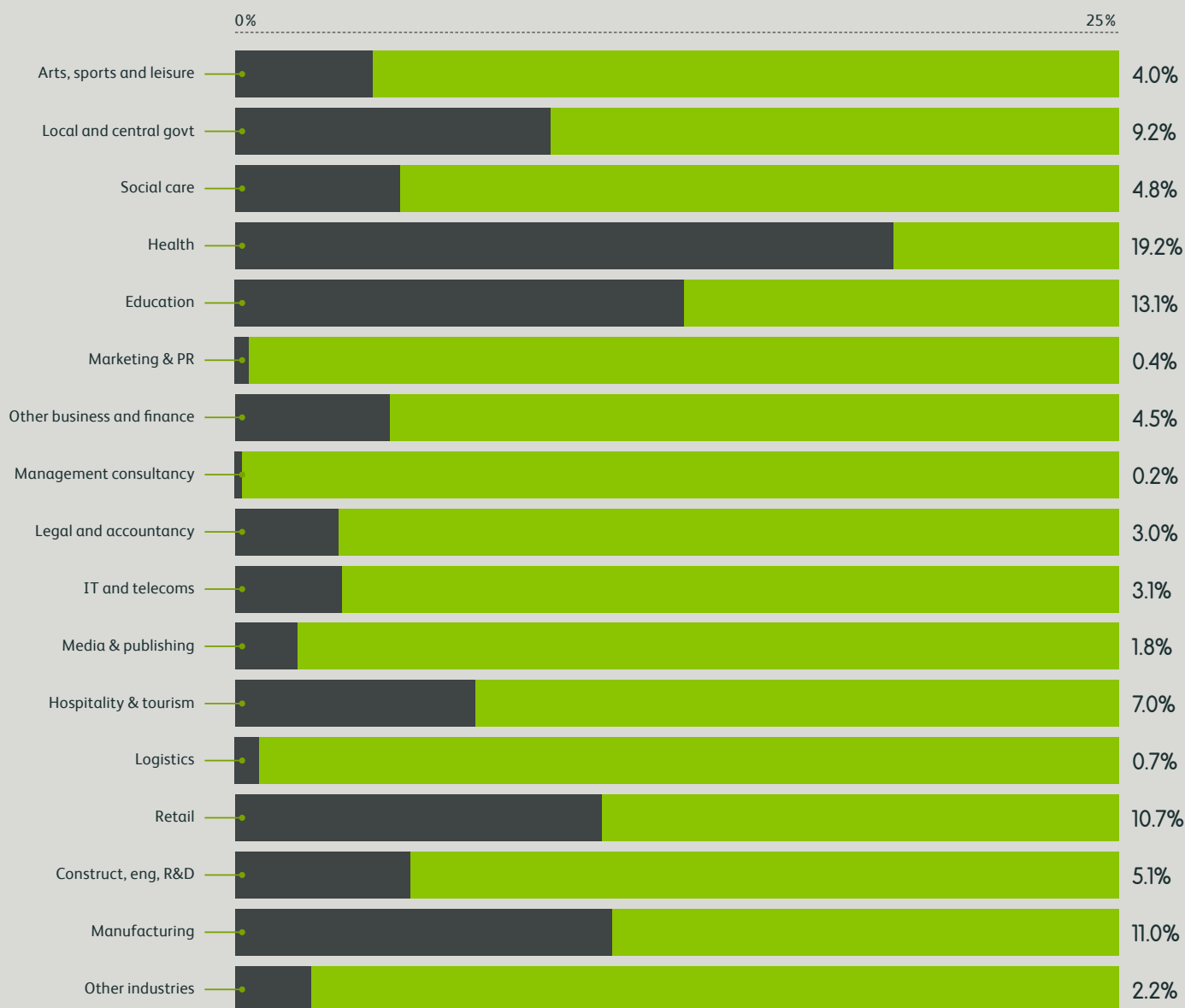
However, youth and community workers and sports players were more likely to work in Perth and Kinross than in Dundee. Other important graduate level jobs in the region, which are mainly concentrated in Dundee but with some opportunities elsewhere, include law, graphic design, accountancy, housing officers and early years practitioners.

FIGURE 2.9.1: TYPES OF WORK OF GRADUATES FROM 2020/21 WORKING IN TAYSIDE 15 MONTHS AFTER GRADUATION



In industry terms, just under half of graduates from 2020/21 working in Tayside 15 months after graduation were in public sector jobs in government, social care, health and education. Other key sectors include retail (mostly in retail service jobs, but with a few management roles at professional level), hospitality, law, utilities, accommodation and computer programming and consultancy.

FIGURE 2.9.2: INDUSTRY OF EMPLOYMENT OF GRADUATES FROM 2020/21 WORKING IN TAYSIDE 15 MONTHS AFTER GRADUATION



The majority of graduates from 2020/21 working in the region 15 months after graduation were in large businesses, and IT and business service occupations in accountancy, law and surveying were particularly important SME jobs in this region.

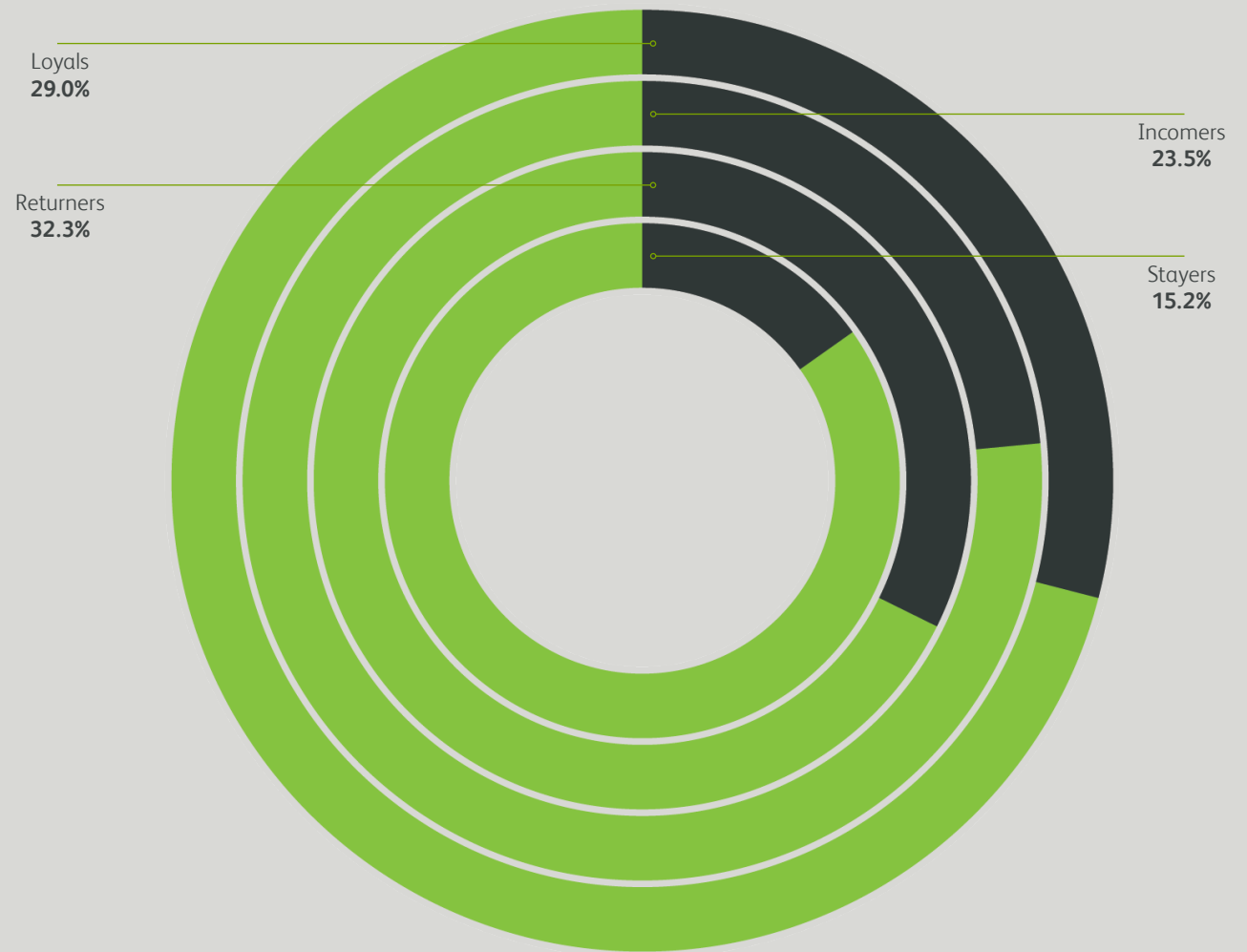
FIGURE 2.9.3: SIZE OF EMPLOYER OF GRADUATES FROM 2020/21 WORKING IN TAYSIDE 15 MONTHS AFTER GRADUATION



29% of graduates from 2020/21 working on Tayside 15 months after graduation were Loyals, who were from Tayside originally and who had studied at a local institution before remaining local to work. 44% of those working locally had attended a local institution, with 15.2% of graduates falling into the Stayer category who were not from Tayside but who had studied at a local institution. Returners are the largest group of employees, being graduates from Tayside who had gone to another institution (Robert Gordon and Edinburgh Napier being the most common) but who had returned to Tayside to work.

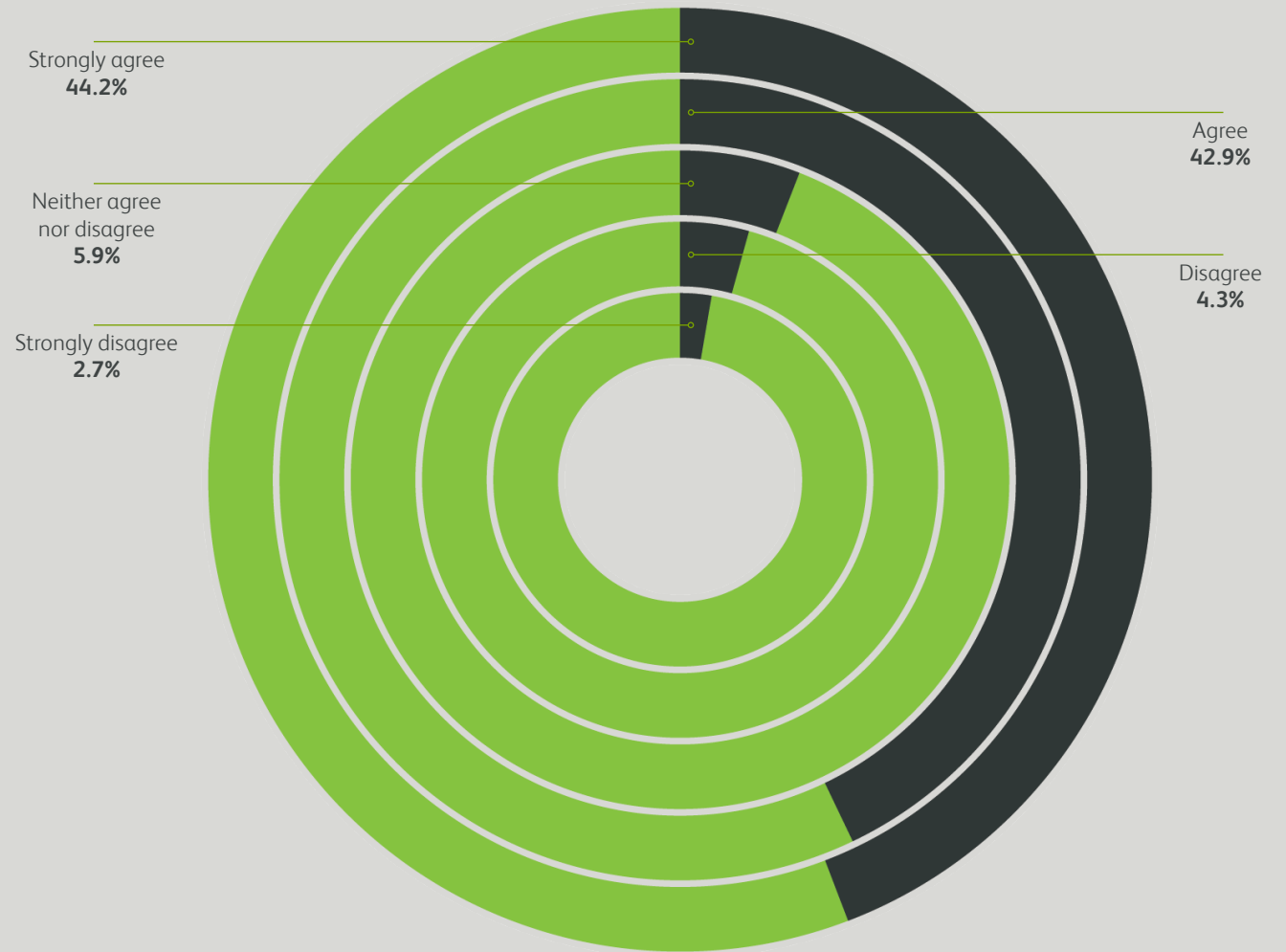
And 23.5% were Incomers, who were neither from Tayside nor had studied there - the large majority of Incomers were working from Dundee and key occupations were medicine, teaching, nursing and IT. In all, 62% of graduates working locally were originally from Tayside.

FIGURE 2.9.4: MIGRATION GROUPS OF GRADUATES FROM 2020/21 WORKING IN TAYSIDE 15 MONTHS AFTER GRADUATION



87.1% of graduates from 2020/21 working in the region 15 months after graduation agreed that their job was meaningful, and 72% of those in employment not considered professional level stated that they felt their role was meaningful, with the majority of administrative and care workers feeling that their job had meaning.

FIGURE 2.9.5: RESPONSE TO STATEMENT 'MY JOB IS MEANINGFUL' FOR GRADUATES FROM 2020/21 WORKING IN TAYSIDE 15 MONTHS AFTER GRADUATION





WHAT DO GRADUATES DO? SCOTLAND 2023/24

4 Portwall Lane, Bristol, BS1 6NB

Telephone: 0161 277 5200

Email: editor@luminare.prospects.ac.uk

Website: luminare.prospects.ac.uk



Part of **Jisc**