

Evidence Report on the Purpose and Principles for Post-School Education, Research and Skills

December 2023

Evidence Report on the Purpose and Principles for Post-School Education, Research and Skills

Contents

Introduction	2
Limitations.....	2
Principle 1: Transparent, Resilient and Trusted	3
Problem Statement	3
Long Term Outcome 1	3
Long Term Outcome 2	4
Long Term Outcome 3	10
Principle 1: Evidence Gaps	11
Principle 2: Supportive and Equitable.....	12
Problem Statement	12
Long Term Outcome 4	12
Long Term Outcome 5	14
Principle 2: Evidence Gaps	16
Principle 3: High Quality	17
Problem Statement	17
Long Term Outcome 6	17
Long Term Outcome 7	19
Long Term Outcome 8	21
Principle 3: Evidence Gaps	23
Principle 4: Globally Respected	24
Problem Statement	24
Long Term Outcome 9	24
Long Term Outcome 10	29
Long Term Outcome 11	30
Principle 4: Evidence Gaps	32
Principle 5: Agile and Responsive	33
Problem Statement	33
Long Term Outcome 12	33
Long Term Outcome 13	36
Long Term Outcome 14	36
Principle 5: Evidence Gaps	41

Introduction

This report provides a high-level summary of the evidence currently available against the long-term outcomes for each of the principles in the Scottish Government's Purpose and Principles for post-school education, research and skills ([Scottish Government, 2023a](#)). The document is an accompaniment to the Purpose and Principles logic model outcomes and follows the same structure to outline where evidence is available to underpin a theory of change for each of the five principles. Each of the sections also highlights gaps in current evidence in relation to each of the long-term outcomes.

The report considers a range of evidence sources, including official statistics, academic research, and recent independent reviews. The evidence gathered in the report will be used in the development of the strategic, outline and detailed business cases to support specific reforms, with a view to continuing to expand the breadth and depth of evidence that is available about the post-school education system.

This evidence report and the associated logic model outcomes will be used by Scottish Government (SG) and its partners to inform future policy development. It will also form the basis of a framework to monitor progress and evaluate the Purpose and Principles outcomes, to be developed by the Scottish Government in collaboration with other relevant analysts including in our delivery bodies (e.g. Skills Development Scotland (SDS), Scottish Funding Council (SFC) and Student Awards Agency Scotland (SAAS)).

Limitations

This report was produced by Scottish Government analysts but it is not intended to provide a methods-based comprehensive or systematic review of all relevant available literature or data. Both the evidence report and logic model outcomes will be periodically reviewed and updated by Scottish Government in collaboration with delivery partners and other stakeholders, to ensure that they remain relevant and fit for purpose.

Principle 1: Transparent, Resilient and Trusted

Transparent, Resilient and Trusted: The system is financially and environmentally resilient; trusted to deliver, and subject to effective governance.

Problem Statement

The current system lacks a coherent vision, shared values and a common purpose. It features complexity and confusion around overlapping roles, functions and funding models between and across government and agencies, alongside a lack of collaboration, trust and flexibility that would allow the system to deliver better outcomes. There is a lack of a comparable system-wide evidence base and regulatory framework which can describe the current successes and challenges, the desired outcomes and metrics and allow for accountability and assurance.

Long Term Outcome 1

Public funding models for education, skills and research are fair, transparent and maximise value.

Current funding arrangements for post-school learning institutions and pathways in Scotland are set out in detail in the Diversity of Provision report ([Scottish Government, 2023b](#)), published alongside the Purpose and Principles.

Evidence suggests that there is scope for improvement in the fairness and transparency of the current funding model.

- Evidence suggests that increased flexibility in the system is needed to drive improved transparency, fairness and value for money. The current complexity of funding for provision and support across a range of agencies is confusing for learners and has potential for duplication and inefficiencies.
- Fairness issues exist for part-time students in terms of lack of access to student loans, as the current model assumes that part-time students have time to work to support themselves. However, this can disadvantage learners who through health or caring reasons can only manage a part-time course and have no additional time or resource to undertake paid work.
- Fairness issues may also arise from the lower levels of institutional funding per HE student at College than that for students at University, where the qualification level is broadly comparable.
- Evidence from the SFC Review ([SFC, 2021a](#)) suggests a need to fund more short, sharp courses (and micro credentials) to support learning for existing employees (adult learners) through upskilling and reskilling throughout life, and that current model of programme and annual funding pots doesn't support delivery of this on the ground. However, a literature review on adult lifetime skills ([Scottish Government, 2023c](#)) found that the evidence on micro credentials is still emerging and at this stage is mixed.

- The Muscatelli report (2019) also highlights the need to make funding more flexible, performance based and use it to incentivise applied research/innovation towards strategic priorities.
- Stakeholders across the system report that complexity and confusion in the structure of the system are limiting the transparency and fairness of delivery:

“I consistently heard that the landscape is cluttered and complex. I would contend that it is not necessarily complexity that is the problem, it is confusion.”
Skills Delivery Landscape Review (Scottish Government, 2023d)

Funding models maximise value

Evidence from stakeholder feedback again suggests that the current fragmented system does not encourage maximizing value for investment, as funding is often short-term, disconnected and does not align with an overall objective:

“... we have pockets of spending for different provision, some of which are unhelpfully driven by input targets, some by learner behaviours, and all of which appear to run contrary to the calls for institutions to deliver and be responsive to local economic needs.”
Skills Delivery Landscape Review (Scottish Government, 2023d)

Long Term Outcome 2

All parts of the post-school system are trusted to deliver, environmentally and financially resilient, and held to account for their impacts on learners, practitioners, local communities, and the wellbeing economy.

Current governance and accountability structures

The Diversity of Provision report (Scottish Government, 2023b) provides an overview of the current governance and accountability structures present across the post-school education and skills system, including quality assurance and reporting processes for colleges and universities, oversight of apprenticeship frameworks and delivery of community learning and development.

Recognising that the quality assurance approach had evolved differently in colleges and universities and was now highly complex, the Scottish Government agreed to the recommendation by the SFC Review of Coherent Provision and Sustainability (SFC, 2021a) to explore the development of a single tertiary quality framework for Scotland’s colleges and universities. This work is underway by SFC based on three key principles; external institutional peer review; institution-led activity including a strengthened focus on annual monitoring and sector-level enhancement activity, underlined by partnership with students.

Recent reviews suggest that while governance and accountability structures exist, there is no consistent approach to performance measurement and reporting and little evidence that the system is “trusted to deliver”.

- Stakeholder reviews and briefing suggest that a lack of leadership from Scottish Government led to a fragmented and confusing system structure which is not well-governed, resulting in a lack of trust in partners’ ability to deliver.

“Many of the issues we face now have been apparent for some time. In the absence of structural reform, the remits of public bodies, groups and actors have also evolved - sometimes entirely independently of their own accord and sometimes stretching into the same areas of work. This has resulted in competing narratives and approaches and duplication of efforts and resources. Consequently, there is a lack of clarity about who does what and why, the parameters of success and who is ultimately accountable – all of which, in the context of skills planning, were identified recently by Audit Scotland and attributed, at least in part, to a lack of leadership and effective governance”.

Skills Delivery Landscape Review ([Scottish Government, 2023d](#))

- [Audit Scotland \(2022\)](#) recommends that SG should “clarify the governance and oversight arrangements for skills alignment activity” (p3).

While there is clear evidence on the education and skills-based contribution that Scotland’s colleges and universities make to achieving the Scottish Government’s ambitions for tackling climate change, there is little evidence on the environmental resilience of individual institutions.

Recent Scottish budget submissions from Colleges Scotland and Universities Scotland, the representative bodies for FE and HE provision in Scotland, estimate that significant investment in estates improvements is needed to bring both sectors towards delivering on Scottish Government Net Zero targets.

The [draft budget submission for 2024/25 from Colleges Scotland](#) suggests that college estates are in a *“dire state of repair, with previous investment being used to maintain sub-standard buildings”*. The report suggests that an estimated £775 million is required to bring buildings up to current building standards, with additional funding required to assist the Scottish Government in achieving its Net Zero target.

Similarly, the [Universities Scotland budget case for 2024/25](#) includes reference to the *“significant estates needs faced by the sector, including RAAC”* and asks that the SFC capital maintenance budget be restored to its cash level for 22/23, requiring an additional £13 million.

Current available evidence on the financial resilience and sustainability of the post-school system suggests that both the college and university sectors are

facing significant financial challenges in a wider context of reduced funding availability.

- Prior to the COVID-19 pandemic, it was clear that both the college and university sectors were already facing financial challenges arising from increasing staffing pressures and the single-year funding approach, which limited the ability of institutions to develop longer-term financial plans and improve sustainability (SFC, 2021a). More recently, wider economic impacts have exacerbated these existing challenges. Persistently high inflation has eroded the real terms value of college and university annual funding and increased the relative cost of provision, including ongoing staff pay settlements. Universities have also seen the impact of UK Government policy in reducing international student visas. As cited in the section above, the most recent budget submissions from Colleges Scotland and Universities Scotland both highlight increasing costs associated with deteriorating estates, including emerging costs associated with replacing RAAC in buildings (reinforced autoclaved aerated concrete).
- The latest complete data from HESA on Scottish HEI finances is from 2020/21 and doesn't provide a current national position for the sector. This is not the most recently published data. However, HESA have advised that an accounting adjustment included by several providers in the 2021/22 data, which is not typical of annual operating expenses, has resulted in the data not showing the pure underlying financial position of these institutions in 2021/22. Furthermore, at the time of writing, the 2021/22 finance record excludes Herriot-Watt meaning data aggregated at Scottish level is not complete.
- The most relevant complete financial data for the university sector (from 2020/21) data showed that:
 - There had been an increase in the overall income for the majority of Scottish HEIs in 2020/21. Considering this alongside reported operating expenditure and other gains and losses, 11 of Scotland's 18 HEIs improved their financial position (either increased a surplus or reduced a deficit) from 2019/20.
 - The increase in overall income in 2020/21 for the majority of Scottish HEIs was driven by increased SFC grant income, with all HEIs reporting an increase for this income stream from 2019/20.
 - The increase in overall expenditure in 2020/21 was primarily driven by increased staff costs for the majority of HEIs, with the University of Edinburgh, Glasgow and Strathclyde seeing the biggest increase in staff costs.
- The latest evidence on colleges financial sustainability covered by the Audit Scotland (2023) report on Scotland's Colleges suggests there remain significant risks to future provision from inflation related cost increases, including staffing pressures:

- Risks to the college sector’s financial sustainability have increased [since last Audit Scotland report in 2022]. Rising staffing costs are colleges’ biggest financial pressure.
- The Scottish Government’s funding for the sector has reduced by 8.5 per cent in real terms between 2021/22 and 2023/24, while the sector’s costs have increased. Effective, affordable workforce planning is now a greater than ever priority and challenge for colleges.
- Significant changes to how the college sector operates have been recommended by recent reviews. For example, Audit Scotland recommend that the Scottish Government and the Scottish Funding Council urgently need to help colleges plan for change now and make best use of available funding, so that they are sustainable for the future.

There is evidence available on learner satisfaction across the different providers within the current system, along with some evidence of the impacts of learning and provision on learners and wider society – some examples are provided below. However, there is nothing readily available on impacts for practitioners or how, or whether, this evidence is structured, analysed or used to “hold the system to account”.

- **Learners (Universities):** Evidence from a range of student surveys and outcomes data sources suggests that University (HEI) graduates are generally satisfied with the quality of their learning experience (as undergraduates), are making use of their degree subjects after graduation and that the majority are in full-time work and earning more than non-graduate peers.
- However, in terms of the “student voice”, the latest data from the Office for Students National Students Survey (2023) shows that, while those leaving Scottish HEIs agree that they have opportunities to provide feedback on their courses (83%), and feel that staff value their views and opinions about the course (74%), they are less clear on how their feedback about courses has been acted upon (56%).
- **Learners (Colleges):** Evidence from SFC suggests that college students are similarly satisfied with their courses. Results from the Student Satisfaction and Engagement Survey (SFC, 2021-22) indicate:
 - In total nine out of 10 full-time students were satisfied with their college experience (90.2%) - 92.7% and 85.7% of full-time FE and HE students respectively.
 - Satisfaction rates were higher for part-time students at 93.9% for FE and 89.4% for HE.
- It is worth highlighting that there is little data available on the destinations of college learners' post-completion of their course, other than whether they are

in employment or further study. In addition, college withdrawal data published by SFC are not comprehensive in identifying where learners have moved to upon withdrawing from a course.

- **Learners (FE & HE):** The Careers Advice Review ([SDS, 2023](#)), and earlier Learner Journey Review ([Scottish Government, 2018](#)) both discuss the importance of person-centred advice and support to help young people choose the best path for them. The Skills Delivery Landscape Review ([Scottish Government, 2023d](#)) also argues that careers advice, information and guidance isn't good enough just now, as there are not strong enough links to employers/business needs. Key to this is the need for improved data and intelligence to help young people understand the options available to them and the choices they can make. This is highlighted by both reports mentioned above, as well as the SFC Review ([SFC, 2021a](#)), [Cumberland-Little Report \(2020\)](#) and [Augur Review \(2019\)](#).
- The [SFC Review \(2021\)](#) also expressly discusses the need for improved understanding of the economic and social outcomes achieved from different learning pathways. Analysis of Longitudinal Education Outcomes (LEO) data as part of the Education and Skills Impact Framework (ESIF) collaborations between SDS, SFC and SG attempted to fill the evidence gap on understanding the returns to investment in different types of education and training. Analysis of the social impacts was hampered by COVID-19 restrictions on primary research work, but the findings from the independent economic analysis are summarised in a series of context documents on [modern apprenticeship provision](#), [college provision](#) and [university provision](#). The findings are detailed and complex but show that while there are clear benefits to the individual and society from completing college, university and modern apprenticeship qualifications, there remain persistent equalities gaps in earnings, particularly for female learners.
- **Apprenticeships:** [SDS \(2019\) survey findings](#) show that the majority of Modern Apprentices who responded were very satisfied with their apprenticeship – (79%) scored it 8 or more out of 10. And 96% would recommend an apprenticeship to others.
- Further benefits of MAs were explored in the [SDS \(2019\) Apprenticeship Wellbeing Survey](#), showing that MAs who completed their training reported higher levels of overall wellbeing, improved personal and career development and accrued pay and promotion benefits over time after completing.
- **Practitioner (staff) views:** colleges and universities employ 62,000 people directly, but there appears to be no further data or information on their experiences or perceptions of how current governance and funding structures across the system impact on them, or of where their voice is used in driving improvements.

- **Community impacts:** The role of place is mentioned in many reports but what that means in practice is less clear. The role of colleges as anchor institutes is noted and there is discussion around the positive regional approach of colleges. Universities appear to target a more global market but clearly have considerable local impact, not least in considering the availability and affordability of student accommodation on the communities surrounding Universities in particular. Apprenticeships and business engagement also have local/regional dimension.
- The report on purpose-built student accommodation (Scottish Government, 2022a) mentions evidence of both positive and negative impacts of 'studentification' of neighborhoods and interactions between universities and towns and cities. These are complex relationships, with student housing often being central to any neighborhood tensions arising, as well as any perceived local economic benefits.
- **Wellbeing economic impacts:** Drawing on economic theory, the Higher Education Policy Institute (2021) published a document outlining the wide range of benefits for both the individual and society that can be generated from public investment in post-school education.
- There is also recent evidence on the economic and social returns from specific education routes. The social value assessment undertaken by Glasgow City College (GCC 2023), in collaboration with IPPR, develops a preliminary Social Value tool to measure social impact of colleges against a series of outcomes which aligns with the UN Sustainable Development Goals (SDGs) and National Performance Framework (NPF).
- Furthermore, a recent report by the Fraser of Allander Institute (2023) on the economic contribution of colleges in Scotland estimates both the economic impact of college graduates and college spending on the Scottish economy, alongside considering, more generally, how the college sector helps to support the six pillars of Scotland's National Strategy for Economic Transformation (NSET).
- Finally, there is also the evidence of economic returns to different education routes covered by the three ESIF context reports mentioned earlier.
- With regards to the structure of the system impeding positive impacts and accountability, there is evidence that system complexity, poor strategic leadership from Scottish Government and competing priorities across delivery partners have led to the failure of the current skills planning approach to maximise its impact on the wellbeing economy – as set out in more detail in the Audit Scotland (2022) Planning for Skills Report, and the Skills Delivery Landscape Review (Scottish Government, 2023d).

- The Diversity of Provision Report ([Scottish Government, 2023b](#)) provides a useful summary and highlights key areas of weakness including: poor communication and collaboration between delivery partners; lack of SG strategic intent; uncertainty arising from climate change and tech development and failure to understand and accommodate needs at local, regional and national levels.

Long Term Outcome 3

Collaboration across the post-school system is pursued proactively with shared values and a common purpose.

There is some current evidence of useful collaboration and knowledge exchange across the system.

- There is little data available on the scale and impacts of collaborations, but other examples of positive connectivity across the system were found through engagement with the sector and are set out in more detail in the Diversity of Provision report ([Scottish Government, 2023b](#)). These include: staff collaboration on teaching pathways; national and international practice development; national and international research collaborations; Industry-Academia partnerships and international student exchange programmes and campus initiatives.
- Further examples from the report examine the differences in approach to national and international connections that arise from the remits and reach of individual institutions (section 6.2 on Spatial Connections). This section also references the [Shared Outcomes Framework](#), which is delivering collaborative local skills alignment projects between SFC and SDS.
- There are also [examples of connections between academic staff and public sector](#), showing evidence of positive knowledge exchange and collaboration.

There is also evidence of unhelpful system structures limiting scope for collaboration.

- The Skills Delivery Landscape Review ([Scottish Government, 2023d](#)) highlights stakeholders' concerns that the fragmented development of the education and skills system over time has resulted in confusion over roles and remits and tensions between partners.

“Very few people I spoke to thought that the status quo was optimal and most were calling for a fundamental refocusing and repurposing of the system. I attribute this to significant tensions that exist, with agencies battling to secure their roles and advocate for their distinct parts of the system rather than working in collaboration, with a focus on the user, to deliver effective, efficient and joined-up public services. There are tensions between the remits and philosophies of national agencies,

between national and local level delivery, between different pathways and programmes, and between the needs and demands of different system 'users'.

Institutions and sectors, public agencies and providers are often jostling for responsibility, funding and recognition when they should be working collectively towards shared goals for the benefit of the existing and future workforce of Scotland.”

Skills Delivery Landscape Review ([Scottish Government, 2023d](#))

- Similarly, the [Audit Scotland \(2022\) Planning for Skills report](#) identified key issues impacting on effective collaboration, including:
- Poor leadership and governance from Scottish Government in setting expectations, roles and responsibilities for partner organisations (SFC and SDS).
- Leading to tensions and differences in perspective on approach, definitions and accountability for key actions to deliver skills alignment
- Lack of detailed timely data became a barrier to progress, including no clear measurement framework or approach for skills delivery (through the Future Skills Action Plan, and now the National Strategy for Economic Transformation).

Principle 1: Evidence Gaps

- Impacts of current system limitations on delivery of environmental sustainability and resilience across organisations and at national level with regards to just transitions and delivery of net zero commitments.
- An apparent lack of evidence on or consideration of what would work to improve the environmental resilience of institutions and partners across the whole system.
- Little to no evidence that evaluates the detail of what works in Widening Access policy and delivery across HEIs – which would show evidence of learning and community impacts and fairness/transparency of funding and investment across the system.
- Little evidence on the community-level impacts of learning provision across the system, particularly in relation to how the presence of institutions within a community setting impacts on other areas of local public service delivery (transport, housing, leisure and entertainment, noise and nuisance behaviours etc.). Therefore, it is difficult to assess the scope and focus for improvement.
- While there is a vast array of data and reporting mechanisms for specific elements of delivery, there is little in the way of consistent data collection on performance and outcomes across different providers or journeys (particularly for Colleges and Universities), making it difficult to make equitable comparisons and examine system-wide performance and value for money.
- Lack of evidence / poor comparability of evidence on community-level impacts of different partners and types of institutions across the system.
- No evidence of how the governance, funding and structure of the current system impacts on learning provider staff.

Principle 2: Supportive and Equitable

Supportive and Equitable: People are supported throughout their learning journey, particularly those who need it most.

Problem Statement

The principle is about how, when, to whom and by whom support is provided. The key ambition with this principle is that the system maximises value for money and supports many different learners through different pathways with additional support for priority learners. This includes both financial and pastoral support.

One of the key barriers in applying this, is how easy it is for learners to identify and access support as well as determining whether support is actively targeting those who need it most given lower participation, retention and attainment from certain groups. This is particularly true for learners from the most disadvantaged circumstances such as those residing in SIMD deprived areas, with specific protected characteristics, being carers, care experienced or estranged learners. Current support relates to specific pathways which may or may not be the best option for learners.

Long Term Outcome 4

The public funding system for support is perceived as being fair, transparent and accessible by learners, providers and employers.

There is robust evidence to show inequalities in Scottish universities, with those from more deprived backgrounds less likely to go to university. Continuous monitoring of widening access targets may help with developing a system for support that is perceived as being fair, transparent and accessible for learners, providers and employers.

- The final report of the Commission on Widening Access ([COWA, 2016](#)) was published and highlighted 32 recommendations to drive the delivery of equal access in Scotland.
- The Report on Widening Access ([SFC, 2023](#)) shows that 16.5% of all Scottish-domiciled entrants to full-time first-degree courses were from the 20% most deprived areas. This is down from the previous year (16.7% in 2020/21), but an increase in the number of Scottish-domiciled entrants to full-time first-degree courses.
- The RoWA also provides breakdowns on equalities data such as disability, ethnicity, care experience, gender and age.

There is robust evidence to show students have broadly positive experiences of accessing student support throughout their learner journey. However, the evidence around financial support does show areas of concern around the cost-of-living crisis. Many learners report experiencing financial pressures,

while not always being aware of the support that may be available at different stages of their learning journey. The evidence on learners' experiences when accessing mental health support is scarce.

- The National Student Survey ([NSS, 2023](#)) gives evidence on the perceptions of students on their academic experience and how satisfied they are with their learning and the support they receive. The latest report shows that 86% of respondents who were full-time students taught at Scottish HEIs felt they had the learning resources needed for their learning, and 83% felt they had sufficient academic support.
- The Student Academic Experience Survey ([SAES, 2023](#)) provides insights into the experiences of full-time undergraduate students. The survey shows that some respondents' expectations of courses were not met due to receiving low wellbeing support and financial difficulties, with 29% of the Scottish respondents attributing poor value for money of education due to student support services.
- A National Union of Students ([NUS, 2023](#)) Scotland paper on the cost-of-living crisis and impact of government and providers' action provides evidence on students' financial experiences. It shows that 37% of students worry about finances all of the time, with this figure being particularly high for estranged students (55%), students with caring responsibilities (51%), and those on low income (50%).
- The [Office for Students \(2023\)](#) evaluation report of the cost-of-living research provides evidence on students' experiences on both mental wellbeing and financial support. It shows over a third are aware of hardship funding, bursaries (38%), and financial advice/guidance available (36%). However, almost one fifth (19%) of students say they are not aware of any support. Just two out of five (44%) students agree that their university or college has done enough to support them with cost-of-living crisis over the last six months.
- A review of Summer Support for Students ([Scottish Government, 2023e](#)) offers evidence on students' experiences and perceptions of availability of funding during the summer months. It shows that 57% of respondents struggled with financial support/income over the summer more than they did during term time.
- The Thriving Learners study ([Mental Health Foundation, 2022](#)) is one of the largest student mental health studies taking place in the UK and explores experiences of wellbeing and mental health of students in colleges and universities. The latest publication shows that awareness of university and college Mental Health and Wellbeing support services was high, but usage was relatively low. However, this study only represents 6% of student population at Scottish HEIs and was a self-selecting sample during the COVID-19 pandemic.

Long Term Outcome 5

Learners have access to holistic, person-centred support, empowering them to access, sustain and complete their learning.

There is robust evidence to show that most learners are supported throughout their learner journey and satisfied with their learning experience, however there is less detailed evidence on support given by employers for workplace learning, or how learning in Scotland's communities provides access to pathways.

- Evidence suggests that for many learner groups, a majority (50%+) of learners who have accessed learning have sustained this to completion. Relevant evidence previously considered under Long Term Outcome 2 (Principle 1) included the Office for Students National Students Survey (2023), the Student Satisfaction and Engagement Survey (SFC, 2021-22), the Careers Advice Review (SDS, 2023), and purpose-built student accommodation (Scottish Government, 2022a).
- The College Performance Indicators (CPI) looks at success rates across Scottish colleges for full-time FE and HE students. The latest report (CPI, 2021/22) shows that 59.0% of all full-time further education students enrolled on recognised qualifications successfully completed their course, with this figure rising to 62.5% for full-time higher education students. 65.2% of all enrolments over 160 hours successfully complete their course, with this figure dropping to 60.8% for those from the 20% most deprived areas, and 52.5% for care experienced students.
- SDS publishes data on completion and achievement rates for Modern Apprenticeships (MAs), and in 2019 also published data on wellbeing among modern apprentices. The Apprenticeship Wellbeing Survey (SDS, 2019) shows that, modern apprenticeships experience high levels of satisfaction (8.2 mean point score out of 10), life worthwhileness (8.3 mean point score out of 10), and happiness (7.9 mean point score out of 10). There were low levels of anxiety reported (3.0 mean point score out of 10). Additionally, the latest published MA statistics (Skills Development Scotland, 2023a) from Q2 2023/24 show that the overall achievement rate of all modern apprenticeships was 76.8%.
- The Employer Skills Survey publishes data on skills challenges faced employers in Scotland. The ESS 2022 shows that 64% of employers provided training to staff in the year prior to the survey – 54% provided on the job training and 40% off the job. The 2022 survey also found that 43% of Scottish employers would like to undertake more training (UK Employer Skills Survey 2022, secondary analysis).
- Research by CIPD (2023) found that the main workplace learning priorities for employers include addressing skills gaps, linking learning with organisational development and more use of short, focused delivery methods. The main

barriers to delivering workplace learning were lack of time, lack of engagement, and budget.

There is information which outlines the funding provided to students, but not much evidence to show experiences of funding and whether the funding is effective at providing a holistic and person-centred support system for learners. Targeted funding allocations could be used to assess and monitor the system to ensure that the support provided to learners is holistic and person-centred.

- The College Final Funding Allocations AY 2023/24 (SFC, 2023) shows that funding Student support funding for AY 2023-24 remained constant at £135.0m (with a £2.0m contingency) in line with the AY 2022-23 funding. This funding included an uplift to the maximum FE Care-Experience bursary allowance up to £9,000 (an 11.1% increase).
- The Higher Education Student Support in Scotland 2021-22 national statistics publication by the Student Awards Agency Scotland (SAAS, 2022) provides a summary of financial support provided to students in Higher Education (HE) at university or college. It shows that 179,665 students received direct support from SAAS in 2021-22, a decrease of 7,375 students (4.1%) from 2020-21. The total SAAS funding was £1,048.0m, with £820.2m supporting undergraduates, £142.6m supporting Paramedic, Nursing and Midwifery students, £65.7m supporting postgraduates, £35.9m supporting Discretionary, Childcare and COVID-19 funds, and £19.5m supporting part-time students. This funding is a vital resource for students to access, progress through and complete their higher education.
- The Education Maintenance Allowance (EMA) provides financial support for young people aged 16 to 19 years (inclusive) from low-income households to overcome financial barriers to participate in school or college courses, or in a learning agreement (an agreed expectation of attendance and coursework). The latest published figures (Scottish Government, 2023f) show that 23,905 students received EMA payments in 2021-22, a decrease of 1,125 students (4.5%) from 2020-21. The total spend on EMA in 2021-22 was £18.6m, which is a reduction of approximately 19% from 2020-21 (£22.1m). This targeted funding assists in enabling learners to sustain and complete their education.
- The Capital Funding to support digital poverty (SFC, 2023) provides support in the form of ICT equipment for learners who are most in need of this support. It shows the availability of £2.9m, in the 2023-24 financial year, to support FE and HE learners in college, and £1.6m for HE learners in universities. Institutions manage this funding at their discretion, however recommendations refer the need to prioritise Scottish-domiciled students, particularly those in categories such as, but not limited to, care-experienced students, students who are estranged or otherwise without parental support, students with caring responsibilities, and students from the most deprived backgrounds and lower income families.

- The Student Mental Health and Wellbeing Transition Fund for the academic year 2023-24 was announced by Student Funding Council ([SFC, 2023](#)) on the allocation of funding for mental health and wellbeing support in colleges and universities. This document outlines the £3.21 million for AY 2023-24 being made available as a one-off funding allocation, which will include fund services such as counselling provision, online mental health services or resources, peer to peer student support, and student wellbeing officers.
- The Learning at work report ([CIPD, 2023](#)) shows that budget for learning and development opportunities increased in the past year. However, this report does not discuss the impact of the provision or increase of the funding allocated in these organisations, nor is it representative of the Scottish context.

Principle 2: Evidence Gaps

- Transparency of how admissions are contextualised for each institution – and how students are then being supported on their learner journey based on this.
- Ease of access to mental health support, financial support, and other support – and how it can be improved.
- No evidence of a holistic student support system by institution, likely that support differs and quality varies institution by institution.
- Further detailed data collection on satisfaction of learner journey students at institutions.
- No data on support provided to learners to facilitate access to further education or work through community learning.
- Further understanding of the skills needed by support staff .
- Further data collection on housing and accommodation support and implications of changes in PBSA.
- Consistent and continued data collection and publications of wellbeing and mental health of students and staff to provide a more holistic context of the academic experience.
- Further understanding of funding available for different types of work-based learning – and the implications and outcomes of the funding.

Principle 3: High Quality

High Quality: High quality opportunities are available for people to enhance their knowledge and skills at the time and place that is right for them.

Problem Statement

The skills and learning system in Scotland generates a wide range of opportunities supported by a Quality Enhancement Framework (QEF). However we know from a range of sources, including the Skills Delivery Landscape Review (Scottish Government, 2023d), that these opportunities may be confusing for many learners and employers. Many are unsure of the pathways to their chosen careers and/or learning opportunities, are unclear about how their prior learning and experiences will be treated, and are unable to work out how to transition to other learning or employment. Opportunities can be perceived to be too slow and take too long, as well as being inflexible to adapt to new demand. They are often not balancing different modes of learning such as digital, blended, in-person, part-time, full-time, longer courses and micro-credentials.

Long Term Outcome 6

A motivated and valued workforce of practitioners are empowered to deliver consistent high quality learning opportunities.

Evidence on whether the workforce is motivated or valued, and whether opportunities delivered are high quality, is not readily available. There is some limited evidence on investment in training, learning and development support for practitioners, with scope for expanded provision in some cases. Promoting fair work practices and Continuous Professional Development (CPD) may help to empower practitioners to deliver a range of high quality learning opportunities.

Motivation, feeling valued, and empowerment among the workforce

This evidence summary found no published evidence on whether the education practitioner workforce feels motivated or valued, or is empowered to deliver. However, there is evidence to suggest that many practitioners are equipped with a level of education that has the potential to enable them to deliver high quality opportunities. For instance, Scottish Funding Council (SFC, 2021) College Staffing Data indicates that 86% of teaching staff in Scottish colleges have a recognised teaching qualification.

HESA staffing data shows that in the same year (2021-22) where the highest qualification is known, 58% of HE academic staff have a Doctorate. While this does not directly indicate the ability of the workforce to deliver high quality learning

opportunities, it does provide some evidence of the level of skill and qualifications amongst the workforce.

Training is an example of one way that a workforce might be empowered to deliver learning opportunities. The evidence is not clear on the extent to which the education workforce is supported with adequate training.

- More generally, recent findings from the UK Employer Skills Survey (ESS, 2022) indicate that in Scotland, 64% of employers had provided training to employees - the highest proportion among all nations.
- On the other hand, a College Development Network (CDN, 2022) report found that 22% of Scottish college sector staff reported that they did not get all the training they needed across the academic session.

Qualitative evidence also highlights risk factors that may inhibit practitioners from being empowered to deliver learning opportunities. CDN (2023) research suggests that for practitioners in colleges, time and workload were key constraints.

Qualitative evidence from people responding to a consultation on Fair Work (Scottish Government, 2022b) illustrated that while there is wide-ranging support for fair work practices, such as empowering the workforce to engage in Continuous Professional Development (CPD), these ambitions are not always realised.

Consistency of high quality learning opportunities

- Information on the quality of the learning provision offered in Scotland is available through the UK Quality Code (UKQC) for Higher Education 2023 and the Quality Enhancement Framework (QEF). The Quality Assurance Agency Scotland (QAAS) publishes a range of quality reports for Scottish HE providers. For example, Enhancement-led Institutional Reviews (ELIRs) include Review Reports on individual HE institutions, but without making evaluations on whether learning opportunities are consistently high quality.
- Annual inspection and evaluation reports for Scottish colleges similarly cover topics that provide information on quality (e.g. learners' attainment and progression), without making evaluations on whether any given learning opportunities are consistently high quality.
- The Student Academic Experience Survey (SAES, 2023) by the Higher Education Policy Institute (HEPI) found that 19% of students reported that their learning experience exceeded expectations.
- Data from SFC College Performance Indicators (SFC, 2021b) has noted a wide range of risk factors that might prevent some college learners from accessing high quality learning opportunities. For example, cost of living pressures was one of the reasons cited for student withdrawal from Scottish college courses.

- Reported experiences of learners' satisfaction with their courses or studies may help to inform our understanding of high quality learning opportunities. Relevant evidence previously considered under Long Term Outcome 2 (Principle 1) included the Office for Students National Students Survey (2023) and the Student Satisfaction and Engagement Survey (SFC, 2021-22).

Long Term Outcome 7

Learners have the skills and knowledge they need to secure or progress in sustained employment that is well-aligned to local, national and international economic and social need.

Evidence suggests that for many learners in Scotland, support is available to gain skills and knowledge leading to sustained employment. The extent to which this is aligned to local, national and international social and economic need is unclear. If learning opportunities are more closely aligned with economic and social need, this may promote a better understanding of how learning opportunities can help learners to progress.

Skills and knowledge needed for employment

- Some learners do not secure or progress in sustained employment – however it is often not known whether this is related to the learners' skills and knowledge, or other factors such as the opportunities available to them or the wider context that the learner is in. Labour Market Trends data from 2023 gives the estimated unemployment rate (16 and over) in Scotland at 4.0%.
- In April 2022 to March 2023, the estimated unemployment rate for 16 to 24 year olds in Scotland was 9.6% - an estimated 33,100 people (Scottish Government, 2023h).
- A report on economic inactivity of young people aged 16-24 (Scottish Government, 2023i) found that key barriers for this group include physical and mental illness, disability, and lack of support – especially for young women with children.
- The evidence also tells us that there are a range of barriers that inhibit learners from securing sustained employment. For example, an evidence review (Scottish Government, 2021a) found that groups who are employed on short-term or fixed-term contracts face additional challenges (e.g. a need for flexibility in working hours) to securing permanent employment.
- The SFC Report on Widening Access (SFC, 2023) indicates that in 2021-22, 10.3% of Scottish-domiciled entrants to full-time first-degree courses at university were of black and minority ethnicity. Census figures from October 2023 suggest that 4% of the Scottish population are of black and minority ethnicity.
- According to the Graduate Outcomes (GO, 2020/21) Survey:

- Black graduates domiciled in the UK were more likely to be in part-time employment than any other ethnic group.
 - Graduates of Black, Asian, Mixed or Other ethnic backgrounds were more likely to be unemployed than White graduates.
- An SG 2022 report identified that women aged over 50 can face additional challenges to progression within their careers, such as structural constraints or lack of interest in available training.
- We also know that not all learners feel their skills and knowledge are appropriately matched to their employment. A report by CIPD (2022) has highlighted that there are not enough high-quality opportunities for the growing population of graduates in Scotland, with 30% of Scottish employees overqualified for their jobs. Although not looking at graduates specifically, the 2022 UK Employer Skills Survey (ESS) found that the proportion of establishments with at least one employee with skills and qualifications more advanced than required for their current job role was 37% (Scotland figures, UK Employer Skills Survey 2022, secondary analysis).
- The 2022 UK Employer Skills Survey finds that the majority of employers in Scotland find education leavers to be ‘well’ or ‘very well’ prepared for work. This varied by level of completed education for the learner: 65% of employers for school leavers; 82% of employers for college leavers and 83% of employers for university leavers. The UK ESS 2022 also found that 32% of employers in Scotland had recruited an employee to their first job directly from education, with 19% of employers recruiting school leavers, 11% recruiting college leavers, and 13% university leavers (UK Employer Skills Survey 2022, secondary analysis).
- Learners have reported variable experiences as to whether they are using what they have learnt during their studies in their current activity. For example, the Graduate Outcomes Survey (GO, 2020/21) indicates that among Scottish graduates, in response to the statement, “I am utilising what I learnt during my studies in my current activity”:
 - 71% agreed or strongly agreed with this statement.
 - 18% disagreed or strongly disagreed with this statement.
- This evidence review has found limited qualitative evidence on whether learners feel they can secure or progress in sustained employment.

Alignment to local, national and international economic and social need

- Local
 - Employers have reported skills-shortage vacancies: these are hard-to-fill vacancies due to a reported lack of skills, knowledge or experience among applicants. The Employer Skills Survey (ESS, 2022) has found that skill-shortage vacancies, as a proportion of all vacancies, was lower in Scotland than other UK nations.

- National
 - An [Audit Scotland \(2022\) report](#) highlighted that current arrangements are unlikely to achieve national ambitions for skills alignment due to barriers to effective joint working in the sector.
 - The [evidence analysis report](#) accompanying the 2023 Skills Delivery Landscape Review ([Scottish Government, 2023a](#)) summarises the qualitative consultation responses received by those taking part in the consultation, and noted a need for reform of the skills delivery landscape to recognise the wider social, economic and environmental challenges that will inform future workforce needs e.g. net zero.

- International
 - The National Strategy for Economic Transformation (NSET) evidence paper ([Scottish Government, 2022c](#)) has indicated that the skills shortage in Scotland has been exacerbated by the COVID-19 pandemic and the impact of Brexit on migration.
 - According to [HESA data](#), the number of international postgraduate students studying in Scotland has more than doubled from 24,950 in 2017/18 to 50,785 in 2021/22.

Long Term Outcome 8

The system better supports a culture of lifelong learning with a ‘no wrong door’ approach, where learners have equity of access and opportunity to fulfil their interests and potential.

There is evidence to suggest that there are cases where the post-school education and skills system is promoting a culture of lifelong learning and a ‘no wrong door’ approach. However, it is not clear if this is the experience for all learners. For example, many learners face challenges through the articulation process between college and university. It is also apparent that some groups of learners face additional challenges to accessing and engaging with learning. There is also limited evidence on the extent to which learners feel able to fulfil their personal interests and achieve their potential.

Supporting a culture of lifelong learning

- Consultation analysis from the Skills Delivery Landscape Review ([Scottish Government, 2023d](#)) suggests that those responding to the consultation felt that better support is needed for lifelong learning. This included the use of micro-credentials to avoid learners being limited to pathways that are perceived to be longer or more restrictive than necessary. Some stakeholders take the view that a rebalance of provision for lifelong skills is needed, for example through more support for adult apprenticeships.
- A literature review ([Scottish Government, 2023c](#)) on adult lifetime skills has highlighted that lifelong learning can contribute to economic benefits such as

positive labour market outcomes, and wellbeing and social benefits for the individual learner such as increased self-confidence. Little evidence was found on equalities or child poverty.

A 'no wrong door' approach

- There are a range of pathways that learners can take in a 'no wrong door' approach to learning. For example, published evidence on Non-Recognised Qualifications (NRQs) and articulation can provide some insights on the range of routes available to learners.
- College Statistics (SFC, 2021-22) show there were 126,736 enrolments at Scottish colleges in NRQs or courses under 10 hours in academic year 2021-22.
- Articulation from college to university is a key route for many learners, especially groups who may be facing additional challenges. A report by the Commissioner for Fair Access (Scottish Government, 2022d) indicates that for those learners who are from the 20% most deprived backgrounds in Scotland (as defined by the Scottish Index of Multiple Deprivation SIMD), approximately 40% of entrants to full-time first-degree courses enter university via articulation from college.
- Data from the Report on Widening Access (SFC, 2023) indicates that articulating learners tend to be slightly older on average e.g. 65% of learners articulating from FE to HE in 2021-22 were aged 21+ years old.
- According to a National Articulation Forum report by Universities Scotland and Colleges Scotland (2022), many learners face barriers when navigating the articulation process e.g. childcare responsibilities, work commitments and geographical distance in rural areas.

Equity of access

- The Widening Access report (SFC, 2023) notes that for all full-time and part-time undergraduate HE students at Scotland's universities and colleges, 19% of entrants were from the 20% most deprived areas.
- Equity of access can be affected by financial pressures. A National Union of Students Scotland (NUSS, 2023) report indicates that many learners are struggling financially, and this may be having a negative influence on their studies and chosen pathways.
- A literature review on disabled young people's experiences of the transition to adulthood (Scottish Government, 2023l) found evidence that disabled learners often may not experience equity of access to learning opportunities. Disabled young people's educational, professional and personal outcomes appear to lag behind those of their non-disabled counterparts.

Opportunity to fulfil their interests and potential

- Some school leavers experience barriers to accessing opportunities to fulfil their interests and potential. For example, a report on looked after children ([Scottish Government, 2023m](#)) found that 70% of looked after school leavers were in a positive follow-up destination, compared with 94% for all school leavers.
- Some groups of learners may be particularly disadvantaged. For example, a [literature review](#) ([Scottish Government, 2022e](#)) and associated [qualitative research](#) ([Scottish Government, 2022f](#)) found that being estranged often impacts negatively on students' experiences and opportunities to fulfil their interests and potential. Essential living costs and concerns about finance and accommodation were prominent barriers to inclusion and participation.
- A report ([Scottish Government, 2023i](#)) on economic inactivity of young people aged 16-24 found that challenges such as affordable childcare, caring responsibilities and lack of support could be potential barriers for participation in work, study or training for young people.

Principle 3: Evidence Gaps

- Lack of meaningful comparable data on learner experiences of accessing and engaging with learning opportunities, as well as comparable evidence on the outcomes achieved by learners from apprenticeships, college and university courses, due to different systems of administration.
- Limited evidence on staff wellbeing, motivation and empowerment across, for example, apprenticeships, universities and colleges, CLD providers and employers, including on practitioners' experiences and satisfaction with the learning and CPD opportunities available to them.
- Limited evidence or recent data on all aspects of English for Speakers of Other Languages ([ESOL](#)), including opportunities accessed, outcomes for learners, breakdown of the ESOL population, or qualitative evidence from students.
- There are evidence gaps on what "green skills" might be lacking currently, or needed in the future, to achieve Scottish Government [climate change](#) ambitions to work towards [net zero](#).
- Consistent with a literature review ([Scottish Government, 2023c](#)) on adult lifetime skills, this evidence review found very little data or research on micro-credentials and the lifetime skills offer in Scotland, as well as on the lifetime skills offer for equalities groups and child poverty.
- Limited published data on non-mainstream learning opportunities such as Community Learning and Development ([CLD](#)).
- Limited evidence on quality and consistency of high-quality learning opportunities and how these are understood, defined and evaluated.
- Evidence on the strengths and weaknesses of the Scottish skills system is scarce.

Principle 4: Globally Respected

Globally Respected: Research, teaching, innovation and knowledge exchange, must make a difference; enhance and contribute to global wellbeing, addressing 21st Century challenges and attracting inward investment and talent to study, live and work in Scotland.

Problem Statement

Scotland's excellent research base, knowledge exchange activity and international connections play a key role in driving this principle. The strength of this offering allows Scotland to compete internationally in attracting investment, world-leading researchers and international students. However, Scotland faces significant and growing competition internationally – with a number of countries increasing their investment in tertiary education and research provision. Uncertainty caused over the UK's future access to European programmes such as Horizon 2020, and migration policy, has also impacted international collaboration and talent attraction.

Long Term Outcome 9

Scotland's post-school system is internationally recognised for research, teaching, and innovation, leveraging substantial funding from international and domestic sources.

The strength of Scotland's research and knowledge exchange is evidenced in numerous ways that include through the Research Excellence Framework (REF), HE-BCI and SFC's metrics collection. Evidence of teaching excellence is evidenced through the HESA graduate outcome survey. There is less evidence available on innovation – however, the EU Regional Innovation Scoreboard provides some evidence of the strength of Scotland's broader innovation system internationally.

International students and reputation

The HESA Student data offers a time series showing how student figures have changed and can indicate international recognition of Scotland's post-school teaching through domestic and international student enrolments.

- The number of EU-domiciled enrolments at Scottish Higher Education Institutions (HEIs) has declined for the fourth year in a row, across academic years 2017/18 to 2021/22. Full-time first degree EU-domiciled entrants decreased by 64% from AY 2020/21. This is likely to be a consequence of Brexit and funding implications with new students ineligible for tuition fee funding from 2021-22.
- The number of non-EU-domiciled entrants and enrolments (full-time first degree) at Scottish HEIs reached a record high in AY 2021/22.

The HESA Graduate Outcome (GO, 2020/21) Survey provides information on the destinations and reflections of university graduates 15 months after graduation for the 2020/21 academic year. This publication provides evidence on whether learners want to and can work or contribute to further research post-graduation. It also provides an indication of whether post-graduate learners believe they have developed the skills needed for work and by extension gives an indication of the teaching merits of Scottish universities among domestic and international students. However, the location of graduate activities is not restricted to Scotland, therefore, these findings might overestimate Scotland's position in attracting post-graduate employment and research. It does however provide some evidence for the long-term outcome that Scotland's post-school system is internationally recognised for research, teaching, and innovation.

Graduate activities (HESA)

- Around 90% of all Scottish-domiciled graduates from Scottish providers were in work and/or further study 15 months after graduation (75% were in work, 10% in employment & further study and 5% in further study only).
- Around 90% of all EU-domiciled graduates from Scottish providers were in work and/or further study 15 months after graduation (64% were in work, 11% in employment & further study and 15% in further study only).
- Around 87% of all non-EU-domiciled graduates from Scottish providers were in work and/or study 15 months after graduations (70% were in work, 5% in employment & further study and 12% in further study only).

Graduate reflections (HESA)

- As referenced through the evidence papers, 70% of all Scottish university graduates (with known outcomes) either strongly agreed or agreed with the statement 'I am utilising what I learnt during my studies in my current activity'. Agreement with this statement increases when considering only Scottish domiciled students (71%) and declines when considering only EU-domiciled (69%) and non-EU domiciled students (69%).

The National Student Survey (NSS) is published annually and gathers opinions of students from universities on the quality of their courses. This is not the most recent published data however, the 2023 release mis-categorised Glasgow Caledonian University meaning data aggregated at Scottish level is not complete. At present, it is only possible to separate these by mode of study and provider. It is not known if this is possible by domicile. Therefore, it is unknown how strongly the findings reflect international student opinions.

- In 2022, around 79% of students studying in Scotland were overall satisfied with the quality of their course (relevant to Scotland's post-school system being internationally recognised for teaching).

- 83% of full-time students studying in Scotland agreed their course was intellectually stimulating (this could also be used as a proxy for teaching).
- 86% of full-time students studying in Scotland agreed their course has provided them with opportunities to explore ideas or concepts in depth (relevant to Scotland's post-school system being internationally recognised for innovation).

Again as previously referenced, the Education and Skills Impact Framework ([SDS and Scottish Government, 2022](#)) is designed to provide an estimate of the impact of education and skills in Scotland. It uses Scottish Longitudinal Education Outcomes (LEO) data to estimate the labour market outcomes associated with higher education (HE) qualifications, further education (FE) qualifications, and Modern Apprenticeships. The university report concludes that the return on investment for all university qualifications are high for both the qualifier and the Scottish exchequer. In general, returns are higher for men than for women. The college report concludes that there is distinct pattern by sex, with returns to qualifications for women higher at SCQF levels 7+. Men generally have higher returns at lower SCQF levels. The Modern Apprenticeships report concludes that earnings and employment returns to individuals are high, although often higher for male MAs than for female MAs.

International recognition of research

The TIMES Higher Education ([THE, 2024](#)) World University Rankings are published annually. These rankings are often used to give an indication of the international reputation and success of Scotland's HEIs. However, it is important to remember they come with a degree of subjectivity and controversy.

- Overall, Scotland has three universities in the Top 200 of the 2024 THE World University Rankings.
- These are the University of Edinburgh (ranked 30th), the University of Glasgow (ranked 87th), and the University of St Andrews (ranked 193rd).

The Research Excellence Framework ([REF, 2021](#)) is the system for assessing the quality of research in higher education institutions in the UK. This assessment is undertaken jointly by the four UK funding bodies and by research-active staff.

Results from the REF 2021 exercise highlight that Scotland's research base has a global reputation for excellence (as assessed by as process of UK peer review), and each of Scotland's universities conduct world leading research.

- There is evidence of world leading (4*) research in every Scottish HEI, and Scotland delivers world-leading research in each of the 34 disciplines (Units of Assessment) assessed in REF2021.
- All Scottish institutions have more than 49% of research judged to be world leading (4*) or internationally excellent (3*).

In terms of international recognition for knowledge exchange activity, results from REF 2021 highlighted that more than 87% of Scottish university Impact Case Study submissions exhibited considerable (3*) or outstanding (4*) impact regarding their reach and significance.

Previous reports conducted by the Scottish Science Advisory Council ([SSAC, 2019](#)) and the Scottish Funding Council ([SFC, 2021](#)) on Scotland's contribution towards international goals also demonstrates a global recognition. Both reports highlight the citation impact of Scottish research, which translate into tangible achievements towards society and the economy outside of academia. For example:

- Between 2007 to 2017, Scotland produced 12% of the UK research outputs despite only accounting for 8% of the population, and had the highest citation impact in the UK.
- Scotland's research sector is highly regarded in the international community with publications being cited two times the global average and receiving 80% more citations in peer reviewed research than the global average between 2010 and 2020.

International recognition of innovation

The EU Regional Innovation Scoreboard provides a comparative analysis of innovation performance across EU countries in HE and more broadly. The scoreboard is a good international marker of where Scotland sits across a wider number of innovation indicators. Relative to the EU average, Scotland has notable strengths in tertiary education, lifelong learning, digital skills, scientific publications and innovative SMEs collaborating ([Scottish Government, 2023n](#)).

With regards to Scotland's college system being internationally recognised for innovation, a literature review ([Scottish Government, 2023c](#)) found some evidence that there are strengths with the regional college framework established in Scotland and Regional Outcome Agreements (ROAs), which are used to shape college provision and direct funding. However, [Gallacher and Reeve \(2019\)](#) cite that there is little clear evidence of any substantial progress towards ROA's focus on opportunities for work placements or work-based learning.

Data on international investment

The HESA [finance record](#) (AY 2020/21) is an annual publication and is the main source of historical financial information on the activities of all UK HEIs. This is not the most recent published data as at the time of writing the 2021/22 finance record excludes Herriot-Watt meaning data aggregated at Scottish level is not complete. The record provides data on income and expenditure, total recognised gains and losses, balance sheets and cash flow. This is relevant to the LTO as it provides information on funding for Scotland's post-school system.

- Generally, Scottish universities receive most of their international income through tuition fees & education contracts and research grant & contacts.

- Scottish universities received £305.6 million in tuition fee income from Scottish domiciled students and £949.4 million from internationally domiciled students in AY 2020/21. This was split as £82 million from EU domiciled students and £867.4 million from non-EU domiciled students.
- Scottish universities received a total of £684.8 million in research grants & contract income from UK sources and £162.2 million from international sources in AY 2020/21. This was split as £97.5 million from EU sources and £64.7 million from non-EU sources. Note, due to the ongoing negotiations for Horizon Europe association at the time, HESA data does not show participation under the programme as a third country under EU Public Funding between 2021 to 2023 and it comes under the UK Guarantee Funding. Therefore, this is an indication of international research funding.

A recent [London Economics \(2023\) report](#) combines the total costs and benefits of international students in Scotland to estimate their net contribution to the UK economy. Benefits include tuition fee income, non-tuition fee income, and visitor income, while costs include teaching grants, student support, and other public costs. The report estimates the net contribution of international students in Scotland at approximately £4.21 billion in 2021-22. Those that choose to stay can contribute valuable skills to Scotland's workforce and support the sustainable growth of our economy.

The Higher Education Business and Community Interaction survey ([HE-BCI](#)) is an annual survey collecting information on Knowledge Exchange (KE) between HEIs in the UK, businesses, and the wider community.

- Scottish HEIs' income from KE activities was £673 million in AY 2021/22. This is a decrease of 3% from 2020/21 but 48% higher than in 2016/17. KE activities include collaborative research involving public funding; consultancy contracts; contract research; Continued Professional Development (CPD) and continuing education courses; facilities and equipment related services; intellectual property (sale of share in spin-offs); and regeneration and development programmes.
- In AY 2021/22, there were 297 new spin-off businesses from Scottish HEIs. This was an increase of 5% from 2020/21 and an increase of 39% since 2016/17.

Designated public events held by Scottish universities and data on Continued Professional Development (CPD) and Continuing Education (CE) courses might provide an indication of how KE activities are being increasingly embedded throughout a learner's journey:

- In AY 2021/22, Scottish universities dedicated 8,463 academic staff days to providing free public events. This is a 56% increase from 5,427 days in 2016/17 ([HESA](#)).
- Scottish universities received £64.7 million from CPD and CE courses for business and the community in AY 2021/22 ([HESA](#)). This is a decrease of 24% from 2020/21. Despite this, the total learner days of CPD/CE courses

delivered remained relatively unchanged at 270,752 which reflects a 108% increase over the last 5 years.

The Scottish Gross Expenditure on Research and Development (GERD) figures produced by the ONS provide estimates of research and development (R&D) performed in, and funded by, four sectors of the economy - Business Enterprise R&D (BERD), Higher Education R&D (HERD), Government, which includes Research Councils, R&D (GovERD) and Private Non-Profit R&D (PNPRD). The Higher Education R&D (HERD) component of GERD can give an indication of how well Scotland leverages international and domestic funding to support Scotland's research system and the greater importance Scotland places on this compared to other nations.

- In Scotland, HERD spend was estimated at £1,650 million in 2021 representing 11.1% of the total UK HERD expenditure.
- These figures are also commonly used for international comparisons of R&D activity by considering expenditure as a percentage of GDP.

Investment in Higher Education research and development has consistently ranked highly internationally over the last 20 years – Scotland was first among the OECD countries for its HERD (public and private) spend as a percentage of GDP in 2021 (0.98%), above 0.42% in the OECD, 0.64% in the UK, and 0.47% for the EU27. This investment pattern reflects the importance of university research in Scotland's economy and the higher number of research-active institutions and researchers relative to population in Scotland comparative to rUK.

Long Term Outcome 10

Providers attract and retain a highly trained teaching, innovation and research workforce with global reach and impact.

There is mixed evidence to suggest Scotland attracts and retains a highly trained teaching, innovation and research workforce. Attractive opportunities for international learning and research practices are available and international academic staff levels at Scottish HEIs have been increasing.

Data on international staff

Attracting talent is essential to increasing innovation, supporting inward investment, meeting skills gaps in our labour market, and addressing population challenges. The HESA Staff data provides a time series to show how staff figures have changed and could be a proxy of whether providers continue to attract domestic and international academic staff. It is unclear if this can be further broken down by academic employment function (e.g. Research or Teaching only). This also does not include a measure of how 'talented' international academic staff employed in Scottish universities are. However, it seems reasonable to assume that international

academic staff are highly skilled given most academic staff in each Scottish HEI held at least a postgraduate degree or above in AY 21/22 ([HESA](#)).

- Scotland's universities and colleges welcome staff and researchers from across the globe to work and live in Scotland. Almost two out of every five (38%) academic staff at Scottish universities come from outside of the UK - this is higher than the UK (around 32%).
- The number of international academic staff (non-atypical) employed at Scottish universities in AY 2021/22 has increased by 47% since 2016/17. This is predominantly driven by a 72% increase in non-EU staff ([HESA](#)).

Global reach

The [Scottish Science Advisory Council Report \(2019\)](#) found that around half (49%) of Scottish research is undertaken with an international collaboration.

A [Universities Scotland \(2020\) publication](#) states that universities are enhancing opportunities for international learning and research practices for both their academic and professional staff – through, for example, short-staff exchange opportunities.

The report details stories of how staff members at three Scottish universities benefitted from training, cultural exchange activities and outward mobility.

Evidence of this can also be found across organisations, including universities and research organisations, and public materials detailing the relational and technical benefits of mobility, including the development of global research teams, relationship building, and opening opportunities for exchange and mentorship for research students and early career researchers.

Research culture

Evidence on institutional activity to create a positive research culture is provided through the Research Excellence Framework which assesses the environment for supporting research and enabling impact, and through the Scottish Funding Council outcome agreement process. Currently plans for the Research Excellence Framework 2028 include a proposed increased focus on research culture

A [Wellcome survey \(2020\)](#) of more than 4,000 researchers in the UK and globally, found that 78% of researchers reported that high levels of competition created unkind and aggressive conditions. It also showed that it can lead to career instability and precarity and limit opportunities for progression, particularly for early career researchers and those re-entering the workforce.

Long Term Outcome 11

Scotland's internationally competitive economy is underpinned by world-leading research, teaching, innovation and knowledge exchange, driving inward investment and productivity.

There is mixed evidence to suggest Scotland's economy is underpinned by world-leading research, teaching, innovation and knowledge exchange.

The economic contribution of Scotland's post-school system

Providing clear evidence to suggest Scotland's economy is underpinned by world-leading research, teaching, innovation, and knowledge exchange is difficult. This is due to these areas touching upon different economic elements, including but not limited to employment/ skills, spin out organisations, tourism, and bi-lateral and multi-lateral projects.

Newly published analysis from the Fraser of Allander Institute ([FAI, 2023](#)) on the quantifiable economic impact of university research funding in Scotland found that in 2019:

- Scottish Government investment via the SFC in research funding supported over 8,500 full-time equivalent jobs and £400m in GVA;
- All R&D spending in Scotland supported nearly 60,000 FTE jobs, and £3,225m in GVA; and
- Output, GVA, and employment multipliers for university research funding are typically higher than the average sector in Scotland.
- Recent literature on potential spillovers from university research indicates that an additional 20% impact could be generated from the productivity improvements which result from research spillovers. FAI also find that Scotland's productivity spillover effect may be greater than the UK average, given the type and nature of research carried out here.

It also highlights several further areas for future research to enhance the evidence base, including whether Scotland's productivity spillover effect from R&D activity is greater than the UK average given the type and nature of research carried out here.

It is also important to highlight the wider social benefits derived from university research, which are often less tangible and harder to measure. A new SFC commissioned report from RAND ([RAND, 2023](#)) based on Scottish REF 2021 case studies found that:

- The benefits from Scottish University research extend across diverse areas covering areas including healthcare, environment, education, arts and culture, and aligned with the outcomes in the Scottish Government's National Performance Framework and UN Sustainability Development goals.
- Scottish universities have diverse and significant impacts across their local areas - almost a third of the case studies had 'hyperlocal' impacts i.e. within 15 miles of the university, in a broad range of sectors and policy areas.
- Scottish university research has contributed to impacts across the globe and has significant international reach - over 170 countries and territories in the world are referenced in the impact cases studies.
- Scottish universities have contributed towards environmental impact including advancing the net-zero goals at a local and international scale.

The HESA GO Survey gives an indication of the activities graduates from Scotland's world-leading Universities undertake post-studies. However, the location of internationally domiciled graduates is not published meaning their contribution to Scotland's economy is unclear.

The SFC (2021) review sets out the significant strengths of Scotland's colleges and universities, the challenges it faces and key recommendations for system change. The report notes that colleges and universities are major national assets, with significant social, economic and cultural impact. It states that "their global reach is unparalleled, bringing reputation, investment, collaboration, talent and cultural diversity to Scotland". Recommendations include to: protect excellent discovery research and develop mission-orientated research/ knowledge exchange activities; and to recognise more fully the importance of international education connections.

A literature review (Scottish Government, 2023c) on adult lifetime skills reviews evidence which shows that Scotland faces a productivity challenge. However, the review does not assess whether this is related to its research, teaching, innovation and knowledge exchange activities.

Principle 4: Evidence Gaps

- How Scotland's post-school contribution contributes to global wellbeing.
- The global impact of Scotland's research, teaching, innovation and knowledge exchange.
- If there is increased global demand for innovative and high-quality goods and services from Scotland.
- The graduate outcomes of those remaining specifically in Scotland - The current use of GO overinflates how many university graduates remain in Scotland for research and work.
- The graduate outcomes for domestic and international students at college and completing MAs.
- The number of international students enrolled and entering college and MAs.
- What proportion of international students are included within the NSS (National Student Survey), and therefore, how reflective it is of the international student opinion.
- To what extent colleges and MA providers leverage international funding e.g. how much tuition fee funding do they receive from international students?
- The number of international academic staff working at Scottish colleges and MA providers?
- Economic and societal contribution of Scotland's postgraduate research community.
- Whether Scotland's productivity spill-over effect from R&D activity is greater than the UK average given the type and nature of research carried out in Scotland.

Principle 5: Agile and Responsive

Agile and Responsive: Everybody in the system collaborates to deliver in the best interests of Scotland's wellbeing economy.

Problem Statement

Recent reports have identified the need for closer relationships between employers, government, agencies and learning providers in order to respond to skills, research, and innovation needs ([Audit Scotland 2022](#); [Scottish Government, 2023d](#)). Upskilling and reskilling is needed to meet the skills needs of the future, but at the same time employer investment in training is declining. Learners from more deprived backgrounds face more barriers to accessing skills development opportunities than their more affluent peers. These inequalities persist into employment.

Long Term Outcome 12

Learners, no matter their background or prior attainment, can develop skills to enter and progress in good quality employment and/or realise their potential.

There is robust evidence to show that learners from deprived backgrounds face greater barriers to skills development than learners from more affluent backgrounds. Research suggests learners will require the right information, support and experience to gain the skills they need for work and life.

- The skill levels of young people in Scotland are measured through participation in the Programme for International Student Assessment (PISA), which focuses on skills in reading, maths and science. Most recent PISA data shows that, although many students from more deprived backgrounds achieved high marks, there is still a positive relationship between affluence and performance in PISA overall ([Scottish Government, 2019a](#)).
- Qualification level is used as a proxy measure for skill level across Scottish policy making as there is not currently a national measure of adult skill levels. The National Performance Framework currently refers to the number of adults with low and no qualifications at SCQF level 4 or below to measure the skill level of the population. The proportion of adults with low and no qualifications is highest in the most deprived areas of Scotland, and decreases as level of deprivation decreases ([Scottish Government, 2022g](#)).
- The Annual Participation Measure reports on the education and employment activity of 16-19 year olds in Scotland. 16-19 year olds from the least deprived areas are more likely to be in education than those from more deprived areas. 82.1% from the least deprived areas (quintile 5) were reported as participating in education compared to 64.3% for those from the most deprived areas (quintile 1), a difference of 17.8 percentage points ([Skills Development Scotland, 2023b](#)).

- Qualitative evidence shows that people from deprived areas face a range of barriers to accessing education and skills development. Attainment is both a cause and a consequence of poverty. The poverty-related attainment gap starts in the early years and widens over time ([Poverty Alliance, 2021](#)).
- Children living in poverty are more likely to experience Adverse Childhood Experiences (ACEs), will have lower family income, and may be less able to participate in extra-curricular activities and home learning. Their families may not be able to provide support with educational activities when they are preoccupied with worry and stress about affording food and other essentials. These are all factors which can affect educational attainment ([Barnardos, 2018](#); [Poverty Alliance, 2021](#)).
- Barriers to skills development persist over time. Evidence cited in the previous section shows that those with degree-level qualifications are three times as likely to get training at work than those with no qualifications ([Learning and Work Institute, 2022](#)).

There is robust evidence to show inequalities in education persist into employment, with those from more deprived backgrounds more likely to be unemployed. Learners may require different kinds of support to move into fair, well-paid and relevant employment, voluntary work, and/or improve their life skills and personal wellbeing.

- The Annual Participation Measure shows that 16 to 19 year olds who were unemployed seeking or unemployed not seeking were concentrated in the most deprived areas – around two fifths of both unemployed seeking (45.4%) and unemployed not seeking (39.8%) lived in areas ranked within the 20% most deprived areas in Scotland ([Skills Development Scotland, 2023b](#))
- A recently published review of barriers to activity among 16-24 year olds highlights evidence that living in a deprived area or coming from a disadvantaged background can be barriers to economic activity ([Scottish Government, 2023b](#)).
- Longitudinal Educational Outcomes (LEO) data on the median earnings of graduates shows that graduates from the 20% most deprived areas earned £3,300 less than graduates from the 20% least deprived areas ([Scottish Government, 2022h](#)).
- Longitudinal research on the education and labour market trajectories of people with degrees and of different social classes has shown that graduates originating from 'lower' social classes have more varied and less stable trajectories, are less likely to enter top-level jobs in their twenties and more likely to enter and remain in lower social classes than their more socially advantaged graduates ([Duta et al., 2020](#)).
- Research based on school leaver data, labour force surveys and higher education statistics has explored whether particular fields of study serve to entrench or magnify social stratification. The authors note that within newer Scottish universities, there is evidence that people from less advantaged

backgrounds are overrepresented in more lucrative fields of study- such as technology, engineering and business ([Iannelli et al., 2018](#)).

There is ample evidence to show that living with protected characteristics also impacts on skills development and future employment opportunities. The impacts are varied depending upon the characteristic and context.

- The proportion of men with low or no qualifications (10.8%) is higher than that for women (8.6%) ([Scottish Government, 2022g](#)).
- Young women aged 16-19 (95%) were more likely to participate in education, training or work than young men (93.7%). This difference was primarily driven by a higher rate of female participation in education (76.6% versus 66.4%). However, more young men participated in employment than women (25.4% versus 17.2%) ([Skills Development Scotland, 2023b](#)).
- Women are less likely to participate in Modern Apprenticeships than men, with latest figures showing that women make up 33.1% of new starts in the last quarter (Quarter 2 2023/24) ([Skills Development Scotland, 2023a](#)). Occupational gender segregation is a recognised issue within Modern Apprenticeships ([Skills Development Scotland, 2021](#)).
- [Iannelli et al. \(2018\)](#) note that while fields of study do not entrench or magnify social inequality, they do compound gender inequality, with men overrepresented in fields with greater labour market returns.
- LEO data shows that the median earnings of female graduates are £2,500 less than male graduates ([Scottish Government, 2022h](#)).
- The proportion of disabled people (using the Equality Act definition) aged 16-64 with low or no qualifications (19.1%) is over twice as high as those who are not disabled (7.2%) ([Scottish Government, 2022g](#)).
- The participation rate amongst disabled young people aged 16-19 (89.9%) was lower than for those not identified as disabled (94.5%). This was because disabled young people were more likely to fall into the 'unemployed not seeking' status (5.2% versus 1.9%) ([Skills Development Scotland, 2023b](#)).
- LEO data shows that disabled graduates earned £2,900 less than graduates with no known disability ([Scottish Government, 2022h](#)).
- The proportion of adults with low or no qualifications is higher amongst the white population aged 16-64 (9.7%) compared with the minority ethnic population aged 16-64 (9%). Over the past year the decrease in the proportion of the minority ethnic population aged 16-64 with low or no qualifications (down by 6.3%) is greater than for the white population aged 16-64 (down by 1.7%) ([Scottish Government, 2022g](#)).
- The participation rate amongst Minority Ethnic groups (96.8%) remained higher than for those from a White ethnic group (94.2%). This difference was mainly driven by a higher rate of participation in education (88.2% versus 70.1%) ([Skills Development Scotland, 2023b](#)).
- Graduates from non-white backgrounds earned £1,100 less than graduates from white backgrounds according to LEO data on median earnings ([Scottish Government, 2022h](#)).

There is limited evidence on access to good quality work and ‘realisation of potential’.

- The Fair Work Convention (FWC) (2016) has identified five dimensions of fair work: effective voice, opportunity, security, respect and fulfilment.
- The Convention’s most recent Fair Work in Scotland Report (FWC, 2020) found that that disabled workers, ethnic minorities, women and young workers often experienced poorer work outcomes and were often more heavily concentrated in precarious and low paid work.
- The report also highlighted that indicators of fulfilment had not performed well over the past 5 years. Measures of workplace learning, average time spent in training and skills underutilisation (where skills and qualifications of workers are more advanced than their job role requires) had all deteriorated.
- Employment will not be an option for everyone in Scotland, for a variety of reasons and the Purpose and Principles recognises that employment is not the only worthwhile outcome of learning. However, the realisation of potential is more complex to measure than outcomes like employment or participation in further learning.
- Community Learning and Development (CLD) plays a key role in providing learning opportunities for people who face barriers to learning and skills development. While there is no national data source on CLD delivery and impact, localised evidence provides some indication of the way in which CLD can enable learners to realise their potential. In the most recent publicly available evaluation of Adult Achievement Awards, Newbattle Abbey College (2019) report 550 learners including adults with disabilities, adults with a history of offending, and adults learning English. An evaluation found that 95% of learner participants said that doing the Award was a positive experience for them. Learners described feeling increased confidence and self-esteem, community involvement and essential skills.

Long Term Outcome 13

Collaboration between Policymakers, Employers and Providers produces a supply of talent and innovation capable of attracting inward investment to help drive Scotland’s wellbeing economy.

Long Term Outcome 14

Scotland has an aligned and responsive regional skills delivery system fuelling a suitably skilled and motivated workforce, increasing productivity and business success at local, regional and national level.

LTOs 13 and 14 are linked by their focus on collaboration across the system to develop an aligned and responsive skills system, driving economic success. The evidence relating to both is considered below.

There is evidence to suggest Scotland’s skill system could be more collaborative, aligned and responsive to regional variations. This will need collaboration and partnership working between learning providers, employers and policy-makers to understand and articulate skills needs, plan curricula accordingly, and invest in skills development.

- The recently published Skills Delivery Landscape Review ([Scottish Government, 2023d](#)) highlighted fragmentation and confusion within the skills system. While highlighting good practice at the local and national level, report author James Withers highlighted a lack of cohesion and shared strategic direction across the skills system.
- The Skills Delivery Landscape Review also identified the complex funding landscape, an incoherence in the post-school qualifications and pathways, and inconsistency in careers advice as issues affecting the Scottish skills system.
- Similar issues have been previously highlighted by [Audit Scotland \(2022\)](#), noting a lack of leadership and effective governance of the skills system from the Scottish Government.
- Audit Scotland and the Skills Delivery Landscape Review raised concerns regarding skills alignment (the process by which the population acquires the skills needed for the economy), noting an absence of national prioritisation and regional flexibility.
- A recently published evaluation of the Developing the Young Workforce strategy ([Scottish Government, 2023o](#)) highlighted the need for a simplified support landscape for employers looking to engage young people post-school, as well as a more strategic approach to skills planning. Employers noted that better collaboration between DYW, employers, teachers and parents would enable better engagement between employers and young people leaving school.
- While praising the flexibility and wide ranging nature of Scotland’s apprenticeship programme, the [OECD \(2022\)](#) have highlighted that the programme could be strengthened by aligning more closely with employer needs. This will play a key role in addressing skills gaps.

There is robust evidence to suggest that, while Scotland’s population is highly educated, the skills people hold may not always be matched to their job role. There is scope for people to up-skill, but there has been a decline in workplace training. There is limited evidence on motivation among the workforce.

Skills in the workforce

- In 2020/21, 9.7% of the population had low or no skills (below SCQF level 4) (Scottish Government, 2022g). The Annual Population Survey (APS) has found that 48.9% of workers aged 16-64 years in Scotland had further or higher education (HE/FE) qualifications (SCQF level 7+) (Scottish Government, 2019b).
- In January-December 2020, high and medium-high skilled occupations accounted for an estimated 56.6% of all jobs (Scottish Government, 2021b). 43.4% were medium or low-skilled.

The 2022 UK Employer Skills Survey found that the majority of employers in Scotland find education leavers to be 'well' or 'very well' prepared: 65% of employers for school leavers; 82% of employers for college leavers and 83% of employers for university leavers. (UK Employer Skills Survey 2022, secondary analysis).

- However, a recent survey by CIPD reported that over half of employers who recruited directly from school felt that young people were poorly prepared for work (CIPD, 2023).
- 15% of employers in Scotland had a skills gap within their workforce, and 5% of all employees had gap(s) in their skills (UK Employer Skills Survey 2022).
- CIPD report that 41% of Scottish employers report some hard-to-fill vacancies (CIPD, 2023)

Reskilling and upskilling

- 66% of employers in Scotland anticipated a need to upskill their staff in the coming year (UK Employer Skills Survey 2022, secondary analysis).
- However, there is ample evidence to indicate employee training is decreasing. Research by the Learning and Work Institute (2022) found that training spend per employee has fallen 28% in real terms since 2005, from £2,139 to £1,530 per year, which is less than half the EU average. This is supported by research from CIPD (2019), who report that there has been a 20% decline in work-related on-the-job learning between 1998 and 2018.
- The Learning and Work Institute (2022) note that the proportion of people getting training at work has fallen 14% in the same time. People with degree-level qualifications are three times as likely to get training at work than those with no qualifications.
- The World Economic Forum (2020) reports that 44% of the skills that employees need to perform their roles will have changed by 2025. An evidence paper by the Industrial Strategy Council (McKinsey, 2019) reports that nine out of 10 workers will need to undergo some form of reskilling by 2030.
- Evidence shows that the benefits of lifelong learning extend beyond the immediate economic benefits. There are social benefits, as well as wellbeing benefits for the individual (Scottish Government, 2023c).

Skills utilisation

- The 2022 UK Employer Skills Survey (ESS) found that the proportion of establishments with at least one employee with skills and qualifications more advanced than required for their current job role was 37% (Scotland figures, [UK Employer Skills Survey 2022](#), secondary analysis).
- [CIPD \(2022\)](#) research on employer views of skill policy in Scotland found that graduate numbers have outstripped the creation of high-skilled jobs in Scotland over the last 30 years.
- [CIPD \(2022\)](#) report that a third (34%) of graduates feel overqualified for their jobs and are more likely to be underemployed, underpaid or working part-time, than graduates whose jobs match their qualifications.
- Underqualified graduates experience considerably poorer job quality than graduates who feel their qualifications match their roles, with just 53% reporting being either 'very satisfied' or 'satisfied' with their current jobs, compared to nearly three-quarters (74%) of well-matched graduates. The authors report that this has an impact on performance, individual wellbeing and staff retention, which, in turn, is linked to organisational productivity [CIPD \(2022\)](#).
- Research by the [National Institute for Economic Research \(2023\)](#) found that approximately 30% of graduates in the UK were employed in non-graduate jobs, while 33% work in fields unrelated to their degree subjects.
- In an evidence paper on upskilling and reskilling, [ReWAGE \(2022\)](#) note that many workers report their skills are under-utilised and that the levels of discretion that workers can exercise has fallen significantly. This may affect worker motivation and satisfaction - there is evidence to indicate that autonomy at work has a positive impact on job satisfaction ([Wheatley et al. 2017](#)).

There is robust evidence to show that Scotland is less productive than similar regions and countries, and that a responsive skills system plays an important role in boosting productivity. Recent reports and strategy documents highlight the of skills within a wellbeing economy and in driving business success.

Relationship between skilled workforce and Wellbeing Economy

- The Scottish Government defines the wellbeing economy as 'an economic system that places the wellbeing of current and future generations at its core' ([Scottish Government, 2022i](#)). The Wellbeing Economy Monitor (WEM) measures indicators of success beyond GDP, to include areas such as health, equality, fair work and environmental sustainability.
- The recently published [Skills Delivery Landscape Review \(Scottish Government, 2023d\)](#) sets out the relationship between a responsive and aligned skills system and the wellbeing economy. The report notes that for Scotland to thrive across the economic, social and environmental dimensions, every individual needs to have equitable access to the learning opportunities required to reach a positive destination in their working life.

- An aligned skills system is of particular importance to environmental sustainability, ensuring people have the ‘green skills’ needed to support a sustainable economy.
- Scotland’s Climate Emergency Skills Action Plan (CESAP) cites evidence to suggest around one in five jobs in Scotland may be affected by a transition to net zero emissions, with one in ten jobs necessitating re-skilling (SDS and Scottish Government, 2020).
- An aligned skilling and upskilling system is also relevant to the health and social dimensions of the wellbeing economy. Scotland’s health and social care national workforce strategy sets out the need to support a ‘pipeline’ of workers to the health and social care profession, ensuring people have the skills needed to care for Scotland’s aging population (Scottish Government, 2022i).

Productivity

- Despite Scotland’s highly educated workforce and low unemployment rate, productivity has stalled over the past 15 years, and has underperformed when compared with similar benchmark regions and other European countries (David Hume Institute, 2018; Scottish Government, 2022k)
- The (David Hume Institute, 2018) notes that the working age population of Scotland is in decline, meaning that growth in productivity will be essential to sustain the economy.
- Among other factors, such as investment in equipment and infrastructure, the David Hume Institute suggests sustaining a skilled workforce through ‘first-rate’ education will be essential to boosting productivity. This will include ensuring people have the digital skills they need to work effectively.
- Analysis by the Scottish Policy Foundation (2018) highlights the relationship between skills and productivity. A highly skilled workforce can more quickly produce high quality products or outputs. Further, a skilled workforce is needed to complement other drivers of productivity, such as making sure people have the right skills to operate new equipment or utilise new technologies.

Business success

- The most recent wave of the Business Insights and Conditions Survey found that 41.6% of applicable businesses reported difficulties in recruiting employees in July (2023). The highest rates of recruitment difficulties were reported by businesses in the Construction (46.6%) and Accommodation & Food Services (46.3%) industry sectors (Scottish Government, 2023p).
- There is evidence to show that skills shortages impact on Scotland’s small and medium size enterprises (SMEs). In recent research commissioned by the Open University, 67% of SMEs reported that skills shortages were impacting on business growth and profitability (Censuswide, 2023)

- A consultation analysis carried out to inform the Independent Review of the Skills Delivery Landscape (IRSDL) (2023) included responses from 50 businesses, employers, and groups representing businesses and employers. Respondents emphasised that there was a need for better collaboration between industry and skills providers, to make sure that the skills system reflected the needs of businesses. Responses suggested that skills provision needed to be more accessible to industry, especially micro, small and medium-sized enterprises (MSMEs).
- There was also a concern from respondents that the management of the apprenticeship system could deter employers from engaging with apprenticeships, and that this could be a particular issue for MSMEs.

Principle 5: Evidence Gaps

- Employee perspectives on use of skills at work and perceived skills gaps.
- Detailed data on skill levels (qualification level currently used as proxy measure)
- Evidence on motivation among the Scottish workforce and factors affecting this
- Qualitative evidence on decreasing investment in in-work training
- Data in relation to what skills are needed for Scotland's wellbeing economy and more detail on green skills requirements
- Evidence on the provision of CLD and the outcomes it achieves, particularly from the perspective of the workforce and learners
- Evidence on 'realising potential' and what this looks like for learners