



FINAL REPORT

SUPPORT STUDY FOR THE
DEPARTMENT FOR TRANSPORT'S
REVIEW OF UK GROUND HANDLING

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Executive Summary

The Ground Handling Review

On 30 June 2022, the Government published a 22 point-plan¹ setting out the actions it is taking to support the aviation industry and minimise passenger disruption. The plan comes in response to the significant disruption faced by many passengers across the UK and Europe during the spring and early summer of 2022. While the sector's performance slightly improved in August, it remained below 2019 levels at almost all UK airports.

The Review forms point 8 of this plan, the purpose of which is to:

- Improve the Department for Transport's (DfT's) understanding of the ground handling market to assess its effectiveness and efficiency and identify what currently works well.
- Identify what more industry, regulators and the Government can do to improve services for passengers, developing opportunities for action and change that will assist airports, ground handling agents and airlines to operate more effectively.
- Enhance DfT's level of engagement with the ground handling sector to build stronger, lasting relationships to help manage future issues.

In support of this Review, DfT has commissioned PA Consulting (PA) to complete a programme of work to analyse the challenges facing the ground handling market in detail.

Key Themes

Several key themes have emerged from this analysis:

- **Business Models:** The UK ground handling sector is characterised by a relatively open market when compared to many other European countries, most notably Germany, Austria, Spain and France. Three types of contracts cover the provision of ground handling services: Airport Conditions of Use (airport-airline), Airport Ground Handling Licence Agreements (airport-ground handling agent) and Ground Handling Agreements (airline-ground handling agents).
- **Competition:** Competition exists across the UK ground handling sector with no restrictions imposed on the number of ground handling agents qualifying for operations at UK airports. Swissport and Menzies Aviation are the UK's two largest third-party handling agents.
- **Financial Performance:** Before Covid-19, aggregated operating profit was approximately at breakeven. Operating profit amounted to a 29% loss in 2020, albeit this had largely recovered in 2021 (-1%).
- **Operational Performance:** Average delay and flight cancellations increased by more than 30% across the UK between January and August 2022 relative to the same period in 2019; some days saw significantly higher levels of disruption, such as on the first day of the Platinum Jubilee bank holiday where 4% of all UK flights were cancelled, up from a daily average of 1.7% for the year.
- **Operational Resourcing:** The UK ground handling sector faced one of the largest headcount reductions of any sector through the pandemic, with total headcount falling by 57% between 2019 and 2021, as per data analysed from the ONS. The evidence suggests that ground handling staff are not necessarily poorly paid, but work in physically demanding operating environments at unsocial hours, compounding problems with recruitment.
- **International Comparisons:** Performance at German airports also deteriorated significantly over the summer period in 2022; however, ground handling performed better in other countries, particularly Spain and the USA.

¹ Gov.uk (2022). UK government action to minimise disruption in the aviation sector and protect passengers. Available from: <https://www.gov.uk/guidance/uk-government-action-to-minimise-disruption-in-the-aviation-sector-and-protect-passengers>

Key Challenges

At this time, the sector is not calling for root and branch reform of the Airports (Ground Handling) Regulations or how ground handling works in the UK. However, industry stakeholders continue to face several key challenges:

- **Recruitment, retention and skills:** ground handling agents struggled to attract and retain staff in 2022; in general, working conditions are more challenging compared to competing sectors such as logistics and retail.
- **Long processing times for airport ID passes:** the industry recruited heavily over 2022 and the number of new airport ID passes required (a process managed by airports) became a major challenge to restaffing.
- **Poor operational and financial resilience:** common contractual arrangements and ways of working between airlines and ground handling agents do not, in general, incentivise high levels of operational resilience in the largest segment of the ground handling market (third-party ground handling).
- **Ineffective collaboration:** whilst forums for collaboration and communication at different levels of the sector exist, this is not always uniformly effective; sharing of best practice and operational data does not always take place between all stakeholder groups who have an interest in ground handling working well. For example, Airport Operator Committees (AOCs) are usually dominated by airlines' agendas. Likewise, Airport User Committees (AUCs) do not always include ground handling agent representatives.
- **Ineffective coordination:** there are some areas where objectives between airports, airlines and ground handling agents are not supported by close coordination, leading to differences in operational standards expected by the various parties. For example, minimum performance standards determined by an airport are usually very different to those contractually agreed contractually between an airline and a ground handling agent. This can result in asymmetric service quality outcomes across different stands even at the same terminal, complicating operational delivery.
- **Infrastructure and investment constraints:** almost all stakeholders have indicated that there is a need for greater investment in infrastructure to enable automation and facilitate the sector's transition to net zero; however, the Covid-19 pandemic has impacted their ability to do so.

Recruitment and retention is likely to remain a significant challenge for the ground handling sector in preparation for Summer 2023. This is not the case for all parts of the sector, however, with one medium-sized ground handling agent reporting staffing levels in excess of 2019 levels, despite a 35% reduction in output compared to 2019 levels. Data on 2022 staff levels is not yet widely available. Nevertheless, the number of ground handling vacancies at the national level has remained high throughout the year, suggesting that recruitment challenges facing the sector have persisted. Furthermore, staff retention is likely to be an ongoing challenge. For example, almost 50% of new joiners purportedly left the employment of one large UK ground handling agent within three months of starting at some points 2022.

Finally, challenges in other parts of the aviation ecosystem, including those outside of the UK, also played a significant role in making conditions more challenging for ground handling at UK airports. The interconnectedness of global aviation means that performance challenges at one ground handling agent, airport or airline often interact with other parts of the ecosystem, exacerbating or creating performance issues elsewhere, cascading underperformance across other flights and airports throughout the UK and Europe. For example, some airlines remain concerned that challenges with misconnected baggage at other European hub airports, as occurred in Summer 2022, could lead to disruption being 'exported' to the UK due to the work required to repatriate this.

Executive Summary	3
The Ground Handling Review	3
Key Themes	3
Key Challenges	4
Introduction	7
This Study	7
Ground Handling	7
Problem Statement	9
Business Models	11
Market Entry	13
Contractual Relationships	14
Competition	20
Regulatory Framework on Competition	20
Competition in the Market	23
Market Structure	26
Financial Performance	32
Profitability	32
Investment	33
Operating Costs	33
Liquidity and Net Debt	34
Operational Performance	36
Performance Trends	36
Performance Analysis	45
Operational Resourcing	52
Labour	52
Equipment	68
International Comparisons	70

Germany	72
Spain	75
Netherlands	77
United States of America	79

Conclusions 82

Recruitment, Retention and Skills	82
Long Processing Times for Airport ID Passes	82
Poor Operational and Financial Resilience	83
Ineffective Collaboration	83
Ineffective Coordination	84
Infrastructure and Investment Constraints	85

Annex A: Role Summaries 87

Airside Agents	87
Baggage Hall Agents	89
Operations and Dispatch Agents	91
Customer Service Agents	93

Annex B: Glossary 96

Introduction

This Study

Purpose

PA Consulting's Support Study undertook an extensive stakeholder engagement exercise involving a technical questionnaire and interviews to provide inputs to inform these deliverables. This Support Study aims to:

- Improve DfT's understanding of the ground handling market to assess whether it provides quality and efficiency for the sector and passengers
- Through the extensive engagement with stakeholders undertaken, facilitate stronger, lasting relationships between industry and DfT to manage future issues, across all stakeholder groups
- Assist DfT to identify and develop opportunities for action and change that will assist airports, ground handling agents and airlines to operate more effectively

Scope

The scope of the Study is limited to the ground handling market in England, Wales, Scotland and Northern Ireland (UK). Furthermore, although an analysis of ground handling services as a holistic system is being conducted, the Study focuses on the following ground handling service types: (i) passenger, (ii) baggage, (iii) ramp handling, and (iv) ground administration and supervision ("station management"). Furthermore, the Study focuses on investigating the operational, economic and financial resilience of UK ground handling. How these topics interact with others outside of scope, e.g. safety, are analysed where raised as particularly points of concern by stakeholders.

This report seeks to provide a rich picture of the key challenges facing the sector and their impacts. The analysis is broken down across the following chapters:

1. Business Models
2. Competition
3. Financial Performance
4. Operational Performance
5. Operational Resourcing
6. International Comparisons
7. Conclusions

Engagement With Stakeholders

As part of this Study, an extensive industry stakeholder engagement process was completed which consisted of technical questionnaires and technical interviews. These have spanned all relevant stakeholder groups including ground handling agents, airlines, airports, equipment lessors and original equipment manufacturers (OEMs), trade associations and trade unions. In total, 37 technical questionnaires were received (response rate of 54%) and 25 technical interviews were completed.

Ground Handling

Ground handling refers to the services provided to airport users – predominantly airlines – at airports. The global market for ground handling has an estimated value of between £60bn and £77bn per year in 2016.² In 2022, the UK ground handling market could be valued at between £1bn and £1.5b.³ Ground handling services are defined in Directive 96/67/EC on Access to the Groundhandling Market at Community Airports and are described in the table below. Ground handling is also separated into "above-wing" and "below-wing" services, referring to the physical location where services are provided relative to an aircraft.

² p.vi Steer (2016). Study on airport ownership and management and the ground handling market in selected non-EU countries. Available from: <https://transport.ec.europa.eu/system/files/2016-09/2016-06-airports-and-gh.pdf>

³ Based on the product of the total number of narrowbody and widebody departures from the UK in 2019 and the typical per-aircraft-turn-around costs for narrowbody and widebody aircraft (as reported privately by three UK ground handling agents in 2022).

Table 1: List of Ground Handling Services

Service	Type	Description
Ground Administration and Supervision	Above-wing	Liaison services with local authorities or any other entity including load control, messaging and telecommunications, handling, storage and administration of unit load devices before, during or after the flight
Passenger Handling	Above-wing	Any kind of assistance to arriving, departing, transfer or transit passengers, including checking tickets and travel documents, registering baggage and carrying it to the sorting area
Baggage Handling*	Below-wing	Handling baggage in the sorting area, sorting it, preparing it for departure, loading it on to and unloading it from the devices designed to move it from the aircraft to the sorting area and vice versa, as well as transporting baggage from the sorting area to the reclaim area
Freight and Mail Handling*	Below-wing	For freight: physical handling of export, transfer and import freight and associated documents, customs procedures and implementation of any security procedures required. For mail: physical handling of incoming and outgoing mail and associated documents, and implementation of any security procedures required
Ramp Handling*	Below-wing	Marshalling the aircraft on the ground at arrival and departure ensuring loading and unloading of the aircraft, transportation of crew, passengers and baggage between the aircraft and the terminal
Fuel and Oil Handling*	Below-wing	Organisation and execution of fuelling and defuelling operations, including the storage of fuel and the control of the quality and quantity of fuel deliveries
Aircraft Services	Above-wing	External and internal cleaning of the aircraft, onboard toilet and water services, cooling and heating of the cabin, removal of snow and ice and de-icing of the aircraft
Aircraft Maintenance	Below-wing	Routine services performed before flight and non-routine services requested by the airport user e.g. provision and administration of spare parts and suitable equipment, request for a suitable parking and/or hangar space
Flight Operations and Crew Administration	Above-wing	Preparation of the flight at the departure airport, provision of inflight assistance e.g. re-dispatching, if needed and post-flight activities e.g. crew administration.
Surface Transport	Above-wing	Organisation and execution of crew, passenger, baggage, freight and mail transport between different terminals of the same airport, but excluding the same transport between the aircraft and any other point within the perimeter of the same airport
Catering Services	Above-wing	Liaison with suppliers and administrative management; storage of food and beverages and of the equipment needed for their preparation and preparation and delivery of equipment as well as of bar and food supplies

Source: Council Directive 96/67/EC on Access to the Groundhandling Market at Community Airports. (*) Note: services in dark blue are subject to potential restrictions on market access.

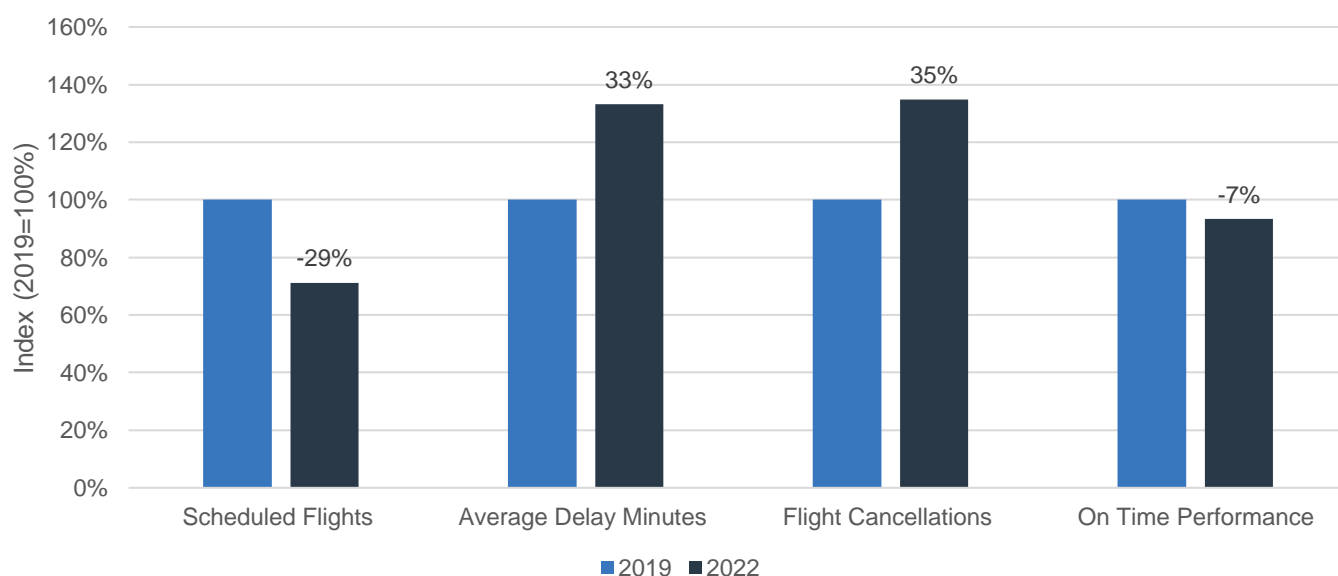
Note that the definitions provided under the Directive are not exhaustive. For example, airport security is not within the scope of the Directive. Services highlighted in dark blue (i. baggage, ii. freight and mail, iii.

ramp and iv. fuel and oil handling) are subject to potential restrictions on market access, described later in this report. Note that PRM assistance services – which are typically recognised as “passenger handling” – are regulated under a separate policy framework⁴ to the rest of ground handling, and so fall outside of the immediate scope of this Study. In summary, PRM assistance services are provided by the airport in-house or outsourced to a third-party provider, with costs recovered through user charges levied on airlines. Third-party providers of PRM assistance services are not typically the same as those providing the ground handling services in-scope of this Study at UK airports.

Problem Statement

The aviation industry experienced significant disruption over Summer 2022,⁵ seeing average delay and flight cancellations across the UK increase by more than 30% compared to the same period in 2019, despite 29% fewer flights. On-Time Performance also declined, as illustrated in Figure 1 below.

Figure 1: National Average of Performance Metrics, 2022 as a Percentage of 2019



Source: PA Analysis of SRS airlines schedules data, OAG airport on-time performance data and CAA punctuality statistics for January to August 2022. Data is unweighted by flights. Flight cancellations based on the number of flights cancelled less than 24 hours prior to scheduled departure time. On-Time Performance (OTP) measures the proportion of flights departing within 15 minutes of scheduled departure time; flights cancelled are included and treated as not on-time.

However, these averages mask the significant peaks of disruption seen particularly in June 2022. Performance events were concentrated over peak periods, including weekends and school holidays. For example, on the first day of the Platinum Jubilee bank holiday in June, 4% of all UK flights were cancelled (compared to 2022 annual average of 1.7%). This was the same across many European hubs, compounding challenges for UK passengers connecting elsewhere. For example, cancellations at Amsterdam Schiphol airport reached 11% on the same day.

Performance is analysed in further detail later in this report (see *Operational Performance* on p.36).

While acknowledging that several complex factors contributed to this disruption, poor ground handling performance was a key (if not the primary) driver of the sector’s poor performance in Summer 2022. This raises three important considerations:

⁴ Regulation (EC) No 1107/2006 of the European Parliament and of the Council of 5 July 2006 concerning the rights of disabled persons and persons with reduced mobility when travelling by air.

⁵ Summer 2022 refers specifically to the International Air Transport Association (IATA) Summer schedule (which is capitalised, by convention), which begins on the last Sunday of March and ends on the last Saturday of October.

1. Does ground handling operate well outside of the peak summer months?
2. Is the balance of ground handling operational resilience and the cost of services at a socially optimal level?
3. How can ground handling resilience be improved to help prevent similar disruption from reoccurring?

In general, the sector provides effective ground handling services outside of the peak summer months - as explored in Operational Performance.

The second question, however, involves a value judgement. In general, this is currently decided by airlines who contract bilaterally with ground handling agents to set service prices and minimum performance standards. This Study has not been commissioned to evaluate such decisions, and instead analyses the extent of and causes of disruption over Summer 2022. In summary, disruption at such a scale in the UK ground handling market has been without precedent; the UK aviation sector has never before experienced this scale of prolonged disruption driven predominantly by resource supply constraints.

The third question centres on the causes of disruption and potential solutions to prevent it from reoccurring. Probable causes of disruption are explored throughout this report and summarised, alongside examples of industry best practice, in Conclusions on p.82.

Business Models

This chapter analyses the three different business models across ground handling. The first section assesses the advantages and disadvantages of each model and provides an overview of the tendering and approvals process. This is followed by a summary of the commercial and contractual relationships that exist within ground handling, including typical pricing models.

Ground handling services at UK airports can be categorised as one or more of the following business models, defined by Airports Council International⁶ as:

- **Airline self-handling:** the aircraft operator (airline) provides handling operations in-house through its own ground staff and equipment, including potentially to other airlines.
- **Airport's handling services:** the airport operator provides ground handling services at the airport for aircraft operators operating there.
- **Third party handling:** an independent company not affiliated with an airline or airport provides ground handling services required by an aircraft operator (airline) at an airport or the airport itself (i.e. PRM)

The advantages and disadvantages of the three main ground handling business models are summarised in the table below. Insufficient evidence was identified to enable a robust quantitative assessment to be conducted.

Table 2: Advantages and Disadvantages of Different Ground Handling Business Models

Business Model	Advantages	Disadvantages
Airline self-handling	<ul style="list-style-type: none"> • Airlines retain direct control of the relationship with their customers providing them with the opportunity to offer a tailored customer experience. • Staff turnover is typically lower, in part due to better fringe benefits (e.g. industry travel benefits). • Direct control of the ground handling product, service and resource levels. • No exposure to external supplier forces including cost escalation. • Direct ownership of labour relationships with employees and ability to directly manage industrial agreements and workplace relations, often delivering better staff engagement. 	<ul style="list-style-type: none"> • Airlines absorb the full risk of service provision. • Typically, airlines incur increased handling costs per turn where schedule adjustments reduce flight volumes • Full exposure to cost escalation and industrial / labour relations. • Direct responsibility for employee-related end-of-employment benefits, including but not limited to redundancies etc.
Airport handling	<ul style="list-style-type: none"> • Synergies and efficiencies can be better realised since departments such as HR, accounting and vehicle maintenance are already in place to support operations. • Ability to cross-train employees to diversify duties and skills of the workforce. • Ability to handle aircraft in-house well can be used as a marketing tool by the 	<ul style="list-style-type: none"> • Airlines limited to single site pricing agreements. • Limited ability for airports to pass scale benefits to airlines, increasing pricing.

⁶ Airports Council International (2016). Ground Handling Policy Paper. Available from: https://store.aci.aero/wp-content/uploads/2020/03/ACI_Ground_Handling_-_Policy_Paper-3.pdf

Business Model	Advantages	Disadvantages
	<p>airport to attract new airline customers due to the promise of reduced staffing, training requirements and equipment costs placed on airlines⁷.</p> <ul style="list-style-type: none"> • Airport has the ability to directly control the quality of ground handling services. 	
Third-party handling	<ul style="list-style-type: none"> • Reduced operational complexity for airlines: in an environment of low profit margins, outsourcing ground handling services can improve operational efficiency. • Greater operational flexibility for airlines who can change their operational requirements without the administrative responsibility for assets or resources. • Ground handling agents are able to exploit economies of scale and so deliver services at lower cost by handling multiple airlines at a given airport. 	<ul style="list-style-type: none"> • The search for lower costs can create a challenge balancing price and service quality. • Under-performance by one or more ground handling agents can have a major impact on the overall operations at the airport and affect the entire aviation system, tying up resources, assets and infrastructure that is required for other operations. This poses a much greater risk at capacity-constrained airports. • Airlines lose control over resourcing decisions, especially during periods of disruption. • Subcontracting of (some) ground handling services may increase operational complexity, but this is not a widely cited challenge raised by the industry.

Source: PA analysis of stakeholder technical questionnaire, interviews, desk research and expert insights.

Third-party ground handling is the business model responsible for handling most flights in the UK. However, multiple business models may coexist at a single airport and a range of models are prevalent across UK airports.

For example, larger airports such as Manchester and London Gatwick are typically served by several ground handling agents. For passenger, ramp, baggage and ground administration services, an airline will typically contract with a single “primary” or “lead” ground handling agent. The remaining ground handling services – such as catering, cleaning and refuelling – are usually subcontracted to other providers by the primary agent.

Some self-handling airlines may also be present at larger airports, typically those with a very significant share of the airport’s total operation, such as British Airways at London Heathrow, easyJet at London Gatwick, Ryanair at London Stansted, etc. There are a limited number of exceptions to this, however, such as United Airlines at London Heathrow and Jet2 at several smaller UK airports.

Contrastingly, at small to medium sized airports, a single third-party ground handling agent may be present, typically Swissport, with no other business models present.

Airport handling in the UK predominantly takes place at small- to medium-sized airports, e.g. Bournemouth, Exeter, Norwich. This is likely due to a combination of factors including: i) there is no general freedom of market access for ground handling agents at airports below this size, ii) airports of this size may be too small to generate sustainable profits for third-party ground handling agents, and iii) the reduced operational complexity of delivering ground handling at smaller airports may make it more straightforward for the airport operator to provide services in-house. Furthermore, airport operators do not typically provide ground handling services where there is an established third-party ground handling

⁷ Aviation Pros (2006). [Ground Handling Opportunities for Airports | Aviation Pros](#)

agent operating at the airport. Over the course of Summer 2022, however, several airports directly intervened in the provision of ground handling services to mitigate resourcing challenges facing third-party ground handling agents. Whilst some airports were happy to do this, some have not been and feel ground handlers have 'outsourced' their resilience risk to airports in this regard.

Market Entry

This section summarises the process of entering the UK ground handling market in the UK. While the specifics of the process are likely to differ between the three different business models, in general, there are three topics which a ground handling agent must evaluate when considering whether to enter a new airport:

- Restrictions on the number and type of ground handling agents imposed by the Civil Aviation Authority
- Approval of the specific airport where they wish to commence operations
- Contract award, which does not necessarily require a public tender process

Each is discussed in further detail in the subsections below.

Restrictions

The Civil Aviation Authority (CAA) has powers under the Airports (Ground Handling) Regulations 1997 to restrict the number of ground handling agents at an airport at the request of the airport operator. These powers are explained in more detail in the chapter on *Competition*. Restrictions may be imposed, for example, on the grounds of safety, security, capacity, or available space constraints at the airport concerned. However, the CAA has not adopted a formal set of criteria, choosing instead to exercise its discretion.

There are currently no restrictions of this nature in force in the UK ground handling market.

Approvals Process

It is the airport's responsibility to complete checks against its own independently developed standards before granting a ground handling agent a licence to operate. These are usually defined in airports' Ground Handling Licensing Agreements, which ground handling agents must agree to. While a contract or Memorandum of Understanding between an airline and a ground handling agent is usually in place prior to applying to the airport for a licence, there are some exceptions (e.g. one large UK airport which preferred to remain unnamed). Typical evaluation criteria which airports assess before granting a licence to operate are summarised below:

- **Anti-Bribery and Corruption:** Non-acceptance of any gifts by the ground handling agent or presentation of such to the airport authority which could act as an inducement or reward in relation to the Licence
- **Licence Fee:** Paid annually in advance of the duration of the licence period in respect of facilities and services provided by the airport authority
- **Audit:** Airport authority may audit ground handling agent on its obligations pertaining to service standards, staff training, insurance and certification (see below)
- **Dispute Resolution:** Ground handling agents and airport management meet to resolve issues in a set number of working days; if no resolution is found, the matter is escalated
- **Performance Standards:** Ground handling agents may also be required to comply with specific operational performance targets. For example, London Heathrow defines specific requirements on 'last bag off' times for baggage handling services: small aircraft within 25 minutes; medium aircraft within 35 minutes; large aircraft within 45 minutes; and super-heavy (e.g. A380s) aircraft within 90 minutes.
- **Environment:** Full compliance with all relevant environmental legislative requirements and undertake work in accordance with appropriate industry or regulatory best practice
- **Personnel:** Ground handling services to be provided by a sufficient number of appropriately experienced, qualified, competent and trained personnel who have appropriate knowledge of the Services

- Resilience and Contingency
- Performance Bond: In exchange for a fee (“bond”), the airport authority provides financial or operational assistance to the ground handling agent to assist when breaches of the Licence Agreement occur. This fee is usually only charged should performance fall below minimum standards defined by the airport through its Ground Handling Licence Agreement. Several UK airports provide a resilience service, albeit with slightly different cost recovery models, including London Gatwick, London Luton and Edinburgh.

Incumbent ground handling agents are also regularly assessed against these criteria at most airports.

Finally, at the time of writing, ground handling agents do not need to gain a similar licence to operate from the CAA. This is unlike in some other European countries e.g. Belgium, which is provided for under Article 14 (“Approval”) of the Ground Handling Directive. Article 14 has not been transposed in the UK’s Airports (Ground Handling) Regulations. The CAA does, however, regulate and govern several areas within commercial aviation including aircraft, airlines, airports, security, and airspace; currently ground handling is not covered by these requirements.⁸

Contract Award

Contracts are awarded following commercial negotiations between a ground handling agent and an airline. Most commercial contracts are secured through a tender process, either when the airlines’ current commercial contract ends, or new or additional services are sought. Services are procured by airlines according to their own internal processes. However, a standard industry contract is used to specify and agree the specification of services: the IATA Standard Ground Handling Agreement (SGHA). This is described in more detail in the next section below.

As with airports in granting a licence to operate, airlines also complete their own due diligence and operational capability assessments before awarding a contract to a ground handling agent. No information was shared by airlines on the content, depth or breadth of these checks.

Ground handling contracts range between three to five years in length. Ground handling agents confirmed that, when contracts expire, airlines are often reluctant to change to an alternative handler if performance and price remain satisfactory. This is likely because changing providers introduces risks for the airline in terms of operational continuity and complexity through the process of changing provider (new systems, interfaces, procedures, audits, managers, etc.). An airline may seek to change ground handling agents should the incumbent perform poorly. While quantitative data on the turnover rate of ground handling agents for given airlines was not available, stakeholders suggested that this was rare and that changes in supplier are largely driven by poor service quality or high costs of services.

Contractual Relationships

Three key contractual relationships exist within the context of ground handling, as shown in the table below.

Table 3: Contractual Relationships in Ground Handling

Agreement	Ground Handling Agent	Airline	Airport
Ground Handling Agreement	X	X	
Airport Conditions of Use		X	X
Airport Ground Handling Licence Agreement	X		X

Source: PA analysis of ground handling business models.

⁸ CAA Commercial Industry: Ensuring the highest standards. Available From: <https://www.caa.co.uk/commercial-industry/>

Firstly, the ground handling agreement specifies the services to be provided by the ground handling agent (supplier) to the airline (customer). The IATA SGHA is widely considered as the only industry-recognised template ground handling agreement. IATA stated that a template for Service Level Agreements (SLAs) can also be used in addition to the SGHA. The SGHA is revised approximately every five years, and the most recent version is the SGHA 2018 with a new version to be released in 2023. The latest edition of the SGHA is available in the IATA Airport Handling Manual (AHM) and is available from IATA for a fee (\$620 USD).⁹

As part of this agreement, an airline may pay a turnaround and servicing fee to a third-party ground handling agent through either a fixed price (“price per turn”) or cost-plus (“open book”) basis. The report explores these terms further in the Pricing Models subsection below. The IATA SGHA does not define or recommend a specific pricing model.

Despite the IATA SGHA template forming a widely accepted industry recognised template, a key challenge within the contracting process is the level of customisation of ground handling contracts. Due to differing requirements, infrastructure, and management oversight, it is not uncommon even for airlines and airports contracting together at different airports within a region, to have differing contracts, requirements and SLAs between different airports.

Secondly, the Airport Conditions of Use exist between the airline and the airport and govern general behaviours and practices across the airport campus. These conditions will typically be used to inform the KPIs, and performance metrics outlined in the commercial relationship between ground handling agent and airline upon which bonus or malus regimes may be applied, depending on ground handling agent performance. Furthermore, airlines are required to pay landing, parking, emissions and other fees to the airport authority to operate there.

Lastly, the airport will typically have an oversight role and will outline the terms of operation on ground handling agents through the Airport Ground Handling Licence Agreement. This agreement typically outlines the conditions a ground handling agent must satisfy to operate at an airport. For example, an airport may require that ground handling agents’ Ground Support Equipment (vehicles, trolleys, etc.) is pre-authorised by the airport before being deployed. Ground handling agents can be penalised for non-compliance through financial or other penalties, including licence revocation. Licence revocation is rare, however, and no examples of this have been identified. A summary of airports’ requirements under these agreements is presented above on p.13. A best practice template has also been published by Airports Council International.¹⁰ Finally, while an airport’s Ground Handling Agreement (with ground handling agents) is separate to its Conditions of Use (with airlines), the latter may require the airline to ensure and enforce compliance with the conditions and service standards specific in the former.

Pricing Models

There are two main pricing models for ground handling services: fixed-price and cost-plus. The fixed-price model is based on actual output i.e. flights for which all ground handling services have been completed (“turns”). Contracts are “fixed” in the sense that prices are pre-agreed, but they usually still rise with some form of inflation adjustment. The Cost Plus model, in contrast to Fixed Price, is based on actual costs incurred by the ground handling agent, which it recovers from airlines plus a management fee. Furthermore, revenue under a Cost Plus model is not generally conditional on output being realised.

Pricing structures are devised exclusively between the airline and ground handling agent. Note that there may be variations on or additions to these models, e.g. minimum revenue guarantees.

Fixed Price, “Price per Turn”

In a fixed-price contract, services are charged for on a per aircraft turnaround basis. Additional services, such as aircraft interior cleaning, may be contracted or priced separately, but are typically treated within the context of the same “per turnaround” pricing basis. There may also be additional services required by the airline based on specific passenger needs, aircraft technical handling such as ground power provision, aircraft waste removal, provision of toilet and water services, and aircraft de-icing charged on an *ad hoc* basis.

⁹ Airport Handling Manual. Available From: <https://www.iata.org/en/publications/store/airport-handling-manual/>

¹⁰ ACI World (2022). New Ground Handling Agreement Template to Facilitate a Safe and Efficient Aviation Ecosystem. Available from: <https://aci.aero/2022/02/16/new-ground-handling-agreement-template-to-facilitate-a-safe-and-efficient-aviation-ecosystem/>

Moreover, in fixed-price models, ground handling agents are not usually compensated for flights cancelled more than 24 hours' prior to its scheduled departure time. This is despite the ground handling agent remaining liable for the costs associated with resourcing, staffing and facilities. Cancellation within 24 hours of operation may see a limited degree of cost-reimbursement, typically up to a maximum of 50% of the normal turn rate; this is unlikely to cover costs if ground handling agents cannot redeploy those resources.¹¹

Fixed price contracts dominate the UK ground handling industry; discussions with industry experts suggest that the fixed price model accounts for more than 80% of all UK ground handling contracts with third-party ground handling agents. It is unclear whether this has changed significantly over time.

Cost Plus, "Open Book"

Contrary to the fixed price model, in an Open Book model, a ground handling agent's costs are fully reimbursed by the airline customer on an ongoing basis, plus a small margin or 'management fee.' This model reduces financial risk for the ground handling agent and is likely to incur a lower margin. Instead, the risk is transferred to the airline – any changes in volume or unit costs are passed on to the airline.

The cost-plus model is similar in nature to that of airline self-handling: the model is much more collaborative than fixed price. However, by outsourcing, airlines benefit from reduced operational complexity. Furthermore, ground handling agents can still earn additional revenue through commission on additional ancillary sales e.g. excess baggage charges. Any additional requirements may be executed at cost with no margin applied. While, in theory, this may incentivise the airline to under-specify its requirements, this goes against a core objective of such models which is to make the ground handling agent more operationally and financially resilient, and is currently not assessed to be widespread. Operational cost savings are returned to the airline. While this could undermine innovation by the ground handling agent, airlines carefully manage this risk by taking a more pro-active interest in how the ground handling agent runs its business by, for example, co-creating budgets.

One of the UK's largest low-cost carriers stated that they prefer the cost-plus model, citing improvements in On-Time Performance, issue resolution and relationships with airport management. Another stakeholder suggested that airlines make decisions faster and are more proactive in resolving challenges. For example, through working more collaboratively with ground handling agents under a cost-plus model, airlines may be more likely to adapt their schedules based on the available resources of the ground handling agent. This contrasts with a fixed-price model where airlines reportedly rarely consider ground handling agents' resourcing constraints in schedule planning.

Cost plus contracts are used relatively little in the UK ground handling industry; and are typically used with large base operations.

Performance Monitoring and Management

Airlines and airports monitor and manage ground handling agents' performance through various approaches.

Airports monitor ground handling agents' performance against the performance standards specified in their Ground Handling Licensing Agreements, as described in the *Approvals* and *Tendering Process* sections above. Some airports publish summary performance reports for ground handling, including London Heathrow and London Gatwick, albeit at a very high level. The following performance metrics may be used to guide the airport in determining the desired Service Level standards required of a prospective ground handling agent and can be tailored to suit local operational requirements and particulars.

¹¹ Operating profit margins from ground handling agents average 0% between 2015 and 2019.

Table 4: Example Ground Handling Performance Metrics in Standard Airport Operator Agreements¹²

Baggage		Ramp	
Arrival	Departure	Arrival	Departure
<ul style="list-style-type: none"> • First bag to be delivered on the carousel within 5 minutes of the first passenger arriving at this point 	<ul style="list-style-type: none"> • Baggage reconciled as per Baggage Reconciliation System 	<ul style="list-style-type: none"> • Appropriate Ground Support Equipment ("GSE") to be available at the parking bay 5 minutes before expected time of arrival ("ETA") 	<ul style="list-style-type: none"> • Pushback Equipment to be available 10 minutes prior to scheduled departure time (SDT)
<ul style="list-style-type: none"> • Narrow bodied aircraft – Last bag to be delivered on the carousel within 30 minutes of the first passenger arriving at this point 	<ul style="list-style-type: none"> • Last baggage to be delivered to the aircraft 20 minutes (domestic) and 35 minutes (International) after flight closure 	<ul style="list-style-type: none"> • Ground handling agent to conduct a pre-arrival Foreign Object Debris ("FOD") inspection and clearance of parking bay 5 minutes before ETA 	<ul style="list-style-type: none"> • Buses to be available at departure gates 30 minutes (narrow bodied aircraft) and 45 minutes (wide bodied aircraft) prior to SDT
<ul style="list-style-type: none"> • Wide bodied aircraft – Last bag to be delivered on the carousel within 40 minutes of the first passenger arriving at this point 		<ul style="list-style-type: none"> • Steps or air bridge to be positioned within 2 minutes of Actual Time of Arrival ("ATA") 	<ul style="list-style-type: none"> • Passenger Assistance Unit for scheduled passengers, to be available 30 minutes (narrow bodied aircraft) and 45 minutes (wide bodied aircraft) and prior to SDT
<ul style="list-style-type: none"> • Sequence of baggage delivered: first -, business -, and economy class 		<ul style="list-style-type: none"> • Buses to be at parking bay within 2 minutes of ATA 	<ul style="list-style-type: none"> • Ground handling agent to conduct a full FOD inspection and clear parking bay within 5 minutes of Actual Time of Departure

Source: PA analysis of possible ground handling performance metrics.

Some airports also proactively manage ground handling agents' performance. A key challenge raised by airports is that ground handling performance data is not often shared by ground handling agents with the airport, despite requirements to do so defined in airports' Ground Handling Licensing Agreements (GHLA) with ground handling agents. This lack of visibility of ground handling agents' performance reduces the airport's ability to identify and manage poorly performing providers against the minimum performance standards specified in the airport's GHLA. Although airports can penalise ground handling agents for non-compliance, in general, many assess that they lack the power to do so effectively, in part due to concerns over alienating airlines and the disruption associated with replacing a ground handling agent. This is described later in this report on p.82.

¹² pp.43-44. Airports Council International (ACI) and Airport Services Association (ASA) (2021). Ground Handling Service Provider and Airport Operator Agreement Template. Available from: <https://store.aci.aero/form/aci-ground-handling-agreement-template/>

Airlines, however, typically have much better visibility of ground handling performance. For example, airlines will also monitor and manage ground handling agents' performance through KPIs and performance incentives defined in a Ground Handling Agreement. Airlines will employ similar metrics to those defined in the table above. Additionally, airlines will also likely consider punctuality metrics including On-Time Performance, doors closed time targets, and push back time targets; and customer experience metrics including queue times at check in, check-in desk availability, and metrics around gate opening times.

In terms of performance management, airlines typically use performance penalties (a "malus" regime) rather than performance bonuses in Ground Handling Agreements. Two ground handling agents assessed that fewer than 10% of airlines offer any performance bonus at all, whilst the remaining 90% contain only performance penalties. Such regimes often centre around penalty charges for non-compliance and missed SLAs; bonus regimes can be structured similarly, but may also include commission on sales, e.g. flight upgrades. No evidence was identified on the differences in performance outcomes between performance bonus versus malus regimes.

In general, before the pandemic, most airlines assessed that these performance management and monitoring frameworks worked well. Under typical operational conditions, this is likely to be true. For example, ground handling performance in 2019 was generally good, as shown later in this report in the chapter on Operational Performance.

However, contracts between ground handling agents and airlines do not typically support high levels of operational resilience. As the pandemic continued, there was significant uncertainty over the pace and timeline of recovery in passenger volumes which made effective resource planning difficult. This was compounded by the typical model of revenue recovery used in UK ground handling, whereby ground handling agents are remunerated based on output (the "fixed price" model¹³) e.g. the number of completed turn arounds, passengers boarded. Should flight schedules be scaled back, as was the case following a series of false starts by the industry, ground handling agents face the costs of resourcing the original schedule but none of the revenue. While there may be specific contractual conditions designed to partially alleviate this, such as minimum revenue guarantees, these usually do not enable sufficient cost recovery to incentivise high levels of operational resilience. The same can be said of performance penalties, particularly when many ground handling agents were in poor financial health as a result of the Covid-19 pandemic. Ground handling agents suggested that an alternative pricing model (i.e. cost-plus) would enable a greater degree of cost recovery and so greater levels of operational resilience.

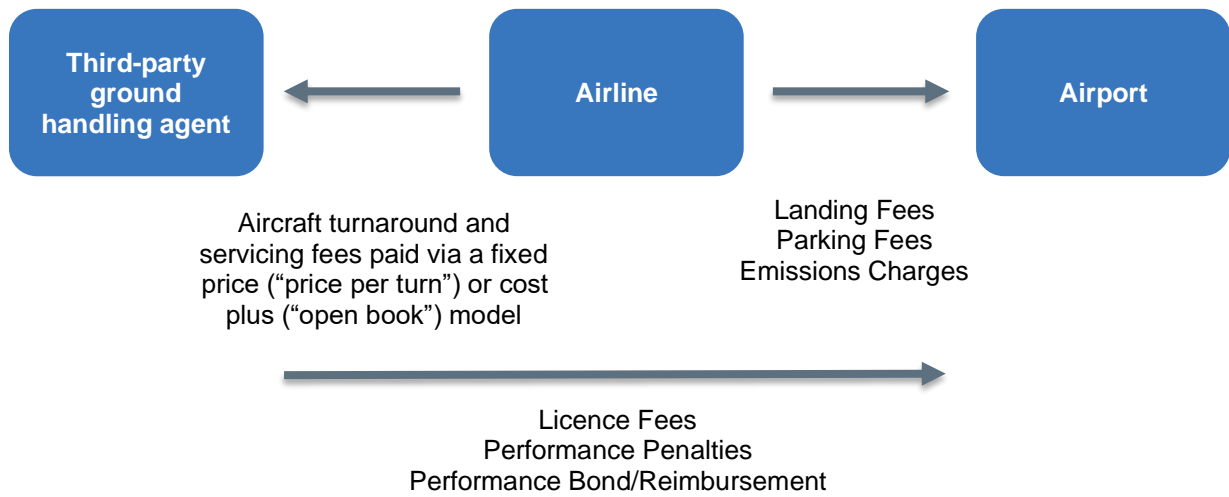
Therefore, in Summer 2022, it is likely that many ground handling agents were not sufficiently incentivised to effectively deliver the schedules which were eventually flown. This is particularly likely given the long lead times needed to prepare for such a significant recovery (e.g. recruit, vet, and train large volumes of additional staff) and the fact that uncertainty over the traffic recovery persisted until early 2022. Therefore, contractual models prevalent in the sector likely undermined the ability for UK aviation to effectively resource the rapid increase in flight volumes which was eventually realised: from 47% to 80% of 2019 flight volumes in the first six months of 2022.

Cash Flows

Taken together, these contracts, pricing models and performance managements frameworks drive several types of cash flow as summarised in the figure below.

¹³ See Pricing Models on p.14

Figure 2: Ground Handling Cash Flows



Source: PA analysis of ground handling agent business models.

Competition

This section describes the UK's regulatory framework on competition in ground handling, illustrates market shares nationally and at 21 airports, and presents analysis on the level of market concentration across UK airports.

No restrictions are imposed on the number of ground handling agents at UK airports. Swissport is the UK's largest GHA, handling 25% of flights, followed by British Airways due to its large self-handling operation at London Heathrow and London Gatwick. Larger airports (e.g., Manchester, Gatwick and Heathrow) typically have a larger number of ground handling agents present in the market while smaller markets (e.g., Jersey, London City, Cardiff) are typically dominated by a smaller ground handling agent. Notably, 11 airports have only one ground handling agent; here services are provided either by the airport or by the third-party ground handling agent, Swissport.

Regulatory Framework on Competition

This section provides a summary of the regulatory framework on competition in ground handling in the UK and considers the following:

- The Airports (Ground Handling) Regulations 1997
- Decisions on appeals under Airports (Ground Handling) Regulations 1997
- Other relevant pieces of legislation, e.g. Air Services Agreements (e.g., UK-US), Competition Act 1998

The Airports (Ground Handling) Regulations

In 1997, the UK ground handling market became regulated as a result of the Council Directive 96/67/EC which was transposed into UK law through the Airports (Ground Handling) Regulations 1997 ("the Regulations"). The Ground Handling Directive, as it is otherwise known, seeks to increase competition and choice in the supply of ground handling services to "reduce the operating costs of airlines and improve the quality of service provided to airport users."¹⁴ The Civil Aviation Authority provide extensive additional detail on the origins, scope and provisions of the UK Airport (Ground Handling) Regulations in their 2016 review.¹⁵

It should be recognised that the European Commission has done a significant volume of work reviewing the Ground Handling Directive over the last 25 years, including several studies¹⁶ and, more recently, a formal evaluation¹⁷ which concludes at the same time as this report . In 2011, the Commission also considered a proposal¹⁸ to further open the market at larger airports. However, this was withdrawn in 2015. Nevertheless, the Commission continues to assess the market, as demonstrated by its formal evaluation .

The Airports (Ground Handling) Regulations seeks to increase competition in the supply of ground handling services by establishing a general freedom of market access for suppliers of ground handling services for all but the following service types ("airside services"):

- Baggage Handling
- Ramp Handling
- Freight and Mail Handling
- Fuel and Oil Handling

Competition may be restricted to no fewer than two providers for the four ("airside") service types specified above. Notably, this does not require that at least two suppliers operate at the airport, as it is

¹⁴ Recital 5, Council Directive 96/67/EC on Access to the Ground handling Market at Community Airports

¹⁵ p.10. Civil Aviation Authority (2016). Access to the ground handling market at UK airports: a review of the CAA's approach. Request for information. CAP 1409.

¹⁶ 1) SH&E (2002). Study on the Quality and Efficiency of Groundhandling Services at EU Airports as a Result of Implementation of Council Directive 96/67/EC. Final Report. 2) Airport Research Centre (2009). Study on the Impact of Directive 96/67/EC on Ground Handling Services 1996-2007. Final Report. 3) Steer Davies Gleave (2010). Possible revision of Directive 96/67/EC on access to the groundhandling market at Community airports.

¹⁷ <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/2081-Ground-handling-services-at-EU-airports-evaluation-2010-18-en>

¹⁸ European Commission (2011). Proposal for a Regulation of the European Parliament and of the Council on Ground Handling Services at Union Airports and Repealing Council Directive 96/67/EC. 1 December 2011.

sometimes misinterpreted, but rather that competition cannot be permanently restricted to the extent of monopoly provision. This explains why there are several UK airports within scope of the Directive which only have one supplier, such as Newcastle, Belfast International and Teesside airports.

Furthermore, as shown, tighter restrictions on competition (to one ground handling agent) can apply only temporarily. When restrictions are in force, a tender process is also required to select the ground handling agents who will be entitled to operate at the airport. These tenders can be for a maximum period of seven years. Only then can third-party ground handling agents contract with airlines to be awarded contracts to provide the restricted service types. Notably, airport handling and airline self-handling is not subject to the tendering process. A summary of each component and the regulations governing each are summarised in Figure 3 below.

Figure 3: Types of Restrictions and the Restricted Market Entry Process

Stage	Description	Reg.*
Restrictions on Services	Restrictions on the number of ground handling agents at individual airports	9, 10
Temporary Restrictions	Tighter, temporary restrictions on the number of ground handling agents	11
Tender Process	Open competitive tender required (only if restrictions under Regs. 10 or 11 applied)	12
Contract Award	Service Level Agreement defined and agreed in compliance with Airport Conditions of Use.	-

Source: Adapted from ETF (2018) Market Access, Social Conditions, Training, Qualifications and Quality Standards in the Ground Handling Industry with PA Analysis. (*) Note: refers to regulations within the Airports (Ground Handling) Regulations.

The Regulation treats “restrictions” as a limit on the number of ground handling agents operating at the airport. Therefore, when restrictions are in place, airlines may only contract with ground handling agents which have been selected as part of the tender process defined in Regulation 12.

In terms of the scope, the Regulations only apply at larger airports, i.e., those with more than one million passengers or 25,000 tonnes of freight per annum. At smaller airports below either of these thresholds, the airport managing body controls access to the ground handling market. A distinction is made, however, between the market for services provided by third party providers (“third-party handling”) and the airlines themselves (“self-handling”), as explained Table 5 below.

Table 5: Thresholds on Airport Size

Airport size (per annum)	Airline Self-Handling	Third-Party Handling
Less than 1m passengers or 25,000 tonnes of freight	No general freedom of access for any ground handling service type	
Between 1m and 2m passengers or 25,000 and 50,000 tonnes of freight	General freedom of access; possibility to restrict airside services to no fewer than two providers (or one temporarily)	No general freedom of access for any ground handling service type
Greater than 2m passengers or 50,000 tonnes of freight	General freedom of access; possibility to restrict airside services to no fewer than two providers (or one temporarily)	

Source: PA analysis of the Airports (Ground handling) Regulations 1997.

At larger airports above one million passengers (or 25,000 tonnes of freight), the airport managing body must not restrict the number of self-handling airlines without the approval of the CAA. In 2019, there were 22 airports which met either of these thresholds and so fell in scope. The same is true for restrictions on the number of third-party handling agents, but only when the airport handles more than two million passengers (or 50,000 tonnes of freight) per annum. In 2019, there were 18 airports which exceeded this threshold. At all other airports, i.e. those with between one- and two-million passengers (or 25- and 50-thousand tonnes of freight), the airport managing body only controls access to the third-party ground handling market. In 2019, this was the situation at four UK airports: Southampton, Cardiff, Doncaster and Exeter airports.

Furthermore, the Regulations do not provide the designated regulator – the Civil Aviation Authority (CAA) – with clear evaluation criteria for considering an application to restrict the number of ground handling agents. The CAA has not adopted a formal set of criteria, choosing instead to exercise its discretion: “limitations may be granted, for example, on the grounds of safety, security, capacity or available space constraints at the airport concerned.”¹⁹ However, in the case of tighter, temporary restrictions under Regulation 11, there must be “specific constraints of available space or capacity” which make it “impossible to open up the market.”²⁰

At the time of writing, no restrictions on the number of suppliers were in effect at any applicable airport in the UK. There has only been one successful application to restrict the number of ground handling agents in the UK: at Gatwick airport whereby the maximum number of baggage, ramp, and freight and mail handling suppliers was restricted to four. These restrictions were introduced in 1999 and repealed in 2007.

Since the introduction of the Regulations, there has been one other application to restrict competition relating to the number of ground handling agents able to operate: at Heathrow airport in 1998. This application was turned down by the CAA which was not persuaded that there were “specific constraints of space and capacity... or of the extent to which its application addressed concerns about safety and efficiency,”²¹ which would justify restricting the number of baggage and ramp ground handling agents.

In addition and separately to the restrictions previously discussed (under regulation 9, 10 and 11), airports also have the ability to ban incumbent ground handling agents including airlines from self-handling. This is provided for under Regulation 15 on the Prohibition of Suppliers and Airport Users. Airports can do so should the CAA determine that the handling agent or self-handling airline has “failed to comply with a rule imposed upon him to ensure the proper functioning of the airport.” Such rules typically include minimum performance standards and requirements on data sharing. The CAA highlighted that these conditions must be fair, transparent and non-discriminatory. The Competition and Markets Authority added that these conditions cannot be in breach of the Competition Act 1998 and Enterprise Act 2002. Such rules on performance management and measurement are in force at a small number of UK airports through Ground Handling Licence Agreements between the airport and ground handling agents, including at Bristol, Edinburgh, Heathrow, Gatwick, Luton and Manchester. No examples of this were provided, and airports reported challenges in exercising their powers. This is described in further detail on p.823.

Furthermore, where restrictions on the number of ground handling service providers are introduced, the CAA is required under the Regulation 12 on the Selection of Suppliers to ensure that at least one of the authorised suppliers is independent of the airport managing body or any large airlines carrying more than 25% of the passengers or freight at that airport.

Finally, the Regulations contain provisions on reciprocity, which may prohibit ground handling agents based in some countries from entering the market in the UK. Ground handling agents from countries which do not allow reciprocal access to their ground handling markets for UK suppliers may be barred from entering the UK market under Regulation 19 on Reciprocity. Ground handling services are also

¹⁹ CAA (2022). <https://www.caa.co.uk/Commercial-industry/Airports/Economic-regulation/Competition-policy/Airports-Groundhandling-Regulations-1997/>

²⁰ Regulation 11(1). The Airports (Groundhandling) Regulations 1997. 1997 No. 2389.

²¹ pp.14-15 Civil Aviation Authority (1998). Decision of the Authority under Regulation 10(1) of the Airports (Groundhandling) Regulations 1997 on an application by Heathrow Airport Ltd for a determination to limit the number of suppliers authorised to provide airside services to third parties.

subject to the non-discrimination provisions defined under the Trade and Cooperation Agreement between the UK and the EU.²²

Air Services Agreements

Some Air Services Agreements also interact with the UK's regulatory framework on competition in ground handling. For example, Article 8(3) of the UK-US Air Transport Agreement²³ provides the right of UK-based and US-based airlines to self-handle in either country. Furthermore, should self-handling at an airport be precluded by considerations of safety, ground handling shall be available on an equal basis to all airlines with charges based on the costs of services provided.

Competition in the Market

This section begins by highlighting the ground handling market behaviour, which describes how the market functions and where competition exists in the market. It then provides an overview of the barriers to entry which exist for ground handling agents attempting to enter the market. Finally, it provides detail to the effects which both market behaviour and the barriers to entry have had on competition in the ground handling sector.

Market Behaviour

Ground handling agents compete for contracts in a relatively open market, whereby competition likely occurs at the international, national and airport levels. Competition principally occurs between third-party ground handling agents because i) self-handling airlines do not usually provide services to their competitors, while ii) airports which provide services in-house ("airport handlers") are not generally in competition with third-party ground handling agents in the UK. This is explained in more detail below.

As previously outlined in Business Models, contracts for ground handling services ("ground handling agreements") are awarded following commercial negotiations between a ground handling agent and an airline. Therefore, competition between ground handling agents happens through the bidding process for contracts prior to contract award. Airlines consider factors such as pricing, quality, safety, reliability and other outcomes when evaluating bids.

Ground handling agents do not require any form of national operating licence to provide ground handling services in the UK.²⁴ Nor do they require a "licence to operate" from the airport before engaging in commercial negotiations with airline customers. This means that airlines can, in theory, invite bids for contracts from a variety of ground handling agents, not just those already operating at an airport. In practice, however, the expense, complexity and risks of bringing in an external ground handling agent who is not already incumbent at a given airport may mean that only the largest airlines at an airport – i.e. those with the most to gain from switching to a new supplier – are incentivised to do so. For example, between 2017 and 2018, easyJet brought in DHL to provide ground handling services at its three largest UK airports (London Gatwick, Manchester and Bristol) yet has continued to rely on other incumbent suppliers at those airports where its operations are smaller.

Furthermore, as larger airlines can invite bids for contracts from a variety of ground handling agents and several ground handling agents operate across multiple UK airports, it is not uncommon for contracts at several airports to be negotiated simultaneously, increasing an airline's purchasing power. Furthermore, while the examples cited by stakeholders were of multi-airport contracts within the UK alone, contracts may also be negotiated internationally, leading to international competition in ground handling. For example, Swissport, Menzies, Dnata, and other international ground handling agents – many of which operate in the UK – are likely to have contracts with airlines at different airports across Europe and the rest of the world. It would be feasible for airlines to seek to maximise their purchasing power by negotiating these contracts simultaneously. Airlines would, however, consider this against the risks of doing so such as relying on a single supplier.

²² HM Government (December 2020). Trade And Cooperation Agreement Between The United Kingdom Of Great Britain And Northern Ireland, Of The One Part, And The European Union And The European Atomic Energy Community, Of The Other Part. Brussels and London, 30 December 2020.

²³ Air Transport Agreement Between The Government Of The United Kingdom Of Great Britain And Northern Ireland And The Government Of The United States Of America. Washington, 10 November 2020 and London, 17 November 2020.

²⁴ This is not the case in some European countries, however.

Therefore, we would expect levels of competition in the ground handling market to look different between airlines at a given airport. While smaller airlines may only be able to select from the incumbent ground handling agents at a given airport, larger airlines are able to invite bids with a much wider range of suppliers by supporting their entry into the airport.

While the discussion above focuses on third-party ground handling, in most cases, self-handling should not be treated as part of the contestable market for ground handling. This is because airlines often only provide services to their own flights or those operated by their sister companies, e.g. British Airways, Aer Lingus, Iberia and Vueling are all subsidiaries of International Airlines Group. This is likely because other airlines may be reluctant to use the services of its competitors at a given airport, and the self-handling airline may also be unwilling to share any competitive advantage in ground handling with its competitors. Stakeholders did not raise any concerns on the impact of self-handling on competition.

Finally, where airports provide ground handling services in-house (“airport handlers”) in the UK, many seek to outsource such services to third-party ground handling agents when possible, usually when the airport becomes large enough to enable profitability. This is likely because margins for ground handling agents are substantially lower than airport operators²⁵ and airports may wish to reduce operational complexity to focus on their core business. This is markedly different from the situation in Germany, for example, where airport handling agents are the largest handling agent at many of the country’s largest airports.

The two subsections below (*Barriers to Entry*, and *Effects on Competition*) analyse the extent to which ground handling agents and self-handling airlines face barriers to entry in the market and the effects of competition on market outcomes.

Barriers to Entry

This section analyses the extent to which ground handling agents face barriers to entering new airports or securing new customers. Other challenges facing the industry are analysed in further detail in Conclusions on p.82. In general, incumbent ground handling agents did not assess that they faced significant barriers to entry at UK airports where they did not operate.

A barrier to entry is defined as any cost or other impediment for a new competitor to enter a market. In the specific context of ground handling, barriers to entry could include:

- Capital costs, e.g. the acquisition of Ground Support Equipment
- Physical constraints at an airport which restricts the number of incumbent suppliers, e.g. lack of space on the apron
- Challenges satisfying tender requirements
- Challenge securing a licence to operate from an airport
- Challenges securing customers
- Securing a licence to operate from a national authority (*not currently applicable in the UK*)
- Licence fees levied by airports through Ground Handling Licensing Agreements
- Specialist knowledge, e.g. of safety regulations
- Incumbent behaviour, e.g. abuse of market dominance, predatory pricing
- Restrictions on the number of ground handling agents at airports (*not currently applicable in the UK*)
- Compliance costs, e.g. of safety regulations

One of the most significant barriers to entry is securing airline customers. Ground handling contracts range between three to five years in length. Ground handling agents confirmed that, when contracts expire, airlines are often reluctant to change to an alternative handler if performance and price remain satisfactory. This is likely because changing providers introduces risks for the airline in terms of operational continuity and complexity through the process of changing provider (new systems, interfaces, procedures, audits, managers, etc.). An airline may seek to change ground handling agents

²⁵ The 2019 operating profit margin at London Gatwick airport was 24% and 34% at Manchester Airport Group, based on analysis of their 2019 financial statements.

should the incumbent perform poorly. While quantitative data on the turnover rate of ground handling agents for given airlines was not available, stakeholders suggested that this was rare and that changes in supplier are largely driven by poor service quality or high costs of services.

Secondly, ground handling agents may face large upfront equipment acquisition costs – GSE is expensive, highly specialised and often bespoke equipment. Ground handling agents would be required to make this investment if they wish to own their equipment outright. Alternatives to this would include equipment leasing from suppliers such as TCR or a GSE pooling, “pay-as-you-go” arrangement as happens at Luton Airport.

Ground handling agents also face barriers to entry through the airport approvals process (described in detail on p.13). Ground handling agents usually pay a licence fee to the airport and are required to comply with requirements on performance and operational auditing, environmental policy, anti-bribery and corruption, personnel training requirements, and resilience and contingency requirements. Some airports also require payment of a performance bond, which can be as high as £250,000 at some airports. Taken together, this can place significant financial and compliance costs on new entrants. Furthermore, a ground handling agent ought to possess a contract with a fee-paying airline prior to taking on any risk with an application for a licence to operate at the airport as it is from the airline customer where revenue will be generated. Therefore, typically, a ground handling agent will apply for a licence to operate at an airport only when a contract is in place with an airline. This is not the case at all airports, however. For example, at Manchester airport, a ground handling agent is not required to have a signed contract in place with an airline before the airport issues a licence.

Overall, stakeholders assessed that barriers to entry for third-party ground handling agents are not significantly impeding market functioning. When challenged, ground handling agents did not assess that they faced significant barriers to entry at UK airports where they did not operate. This is corroborated by the fact that average industry profitability has hovered around break-even between 2015 and 2019, ranging from between -3% and 2%; analysed further in the following chapter on Financial Performance. In general, whilst this does not necessarily imply that the industry is competitive at all airports, this suggests that incumbents lack the market power to generate substantial profits overall. Furthermore, there are at least 13 third-party handling agents in the UK (see Figure 6).

London City airport was the only airport identified where – according to the airport operator – barriers to entry precluded competition in some ground handling services (ramp and baggage handling). The airport assesses that this is justified on the basis of a lack of physical space on the apron. The airport is the sole provider of baggage and ramp handling services; and multiple ramp handling companies would likely increase the amount of GSE required, for which the airport judges that sufficient physical space is unavailable. We note that the airport’s assessment has not been tested by the Civil Aviation Authority; however, no stakeholders assessed that this situation is problematic.

Effects of Competition

The UK ground handling market remained liberalised following the transposition of the Ground Handling Directive in 1997. For example, in 1996, there were at least two third-party ground handling agents present at Birmingham, London Heathrow and Manchester airports; as is the situation in 2022, third-party ground handling agents also made up a large proportion of the UK market. As there was no significant change in the market, it is not possible to contrast outcomes before and after the introduction of the Airports (Ground Handling) Regulations to infer the impacts of competition on ground handling performance outcomes. Similar studies²⁶ for the European Commission aim to assess the impacts of the Ground Handling Directive across Europe.

²⁶ 1) SH&E (2002). Study on the Quality and Efficiency of Groundhandling Services at EU Airports as a Result of Implementation of Council Directive 96/67/EC. Final Report. 2) Airport Research Centre (2009). Study on the Impact of Directive 96/67/EC on Ground Handling Services 1996-2007. Final Report. 3) Steer Davies Gleave (2010). Possible revision of Directive 96/67/EC on access to the groundhandling market at Community airports.

All three studies found that:

- The Directive has increased competition by increasing the number of third party handling agents
- In general, prices for ground handling services have fallen since introduction of the Directive
- None of the three reports identified a relationship between competition and service quality

Although the Directive's transposition into UK law probably made little difference to levels of competition in the UK, the relationship between higher levels of competition and lower prices for ground handling services drawn in the above reports was reiterated by stakeholders as part of the research for this Final Report.

For example, most stakeholders agreed that price is a significant driver of competitive advantage, if not the most important. Some claimed that the greater levels of market competition and incumbents' desire to secure airline customers has led to significant reductions in prices and profit margins in the UK. In some instances, stakeholders suggested that ground handling agents have likely bid very near or below cost, either deliberately to gain market share or inadvertently due to uncertainty of costs, e.g. disruption. In an attempt to restore the profitability of the contract, the winning ground handling agent may then under-resource in a way which provides little operational resilience. This is likely to undermine ground handling agents' operational and financial resilience, which may potentially impact service quality and safety should airline and airport safeguards be insufficient. For example, a leading European airline claimed that high levels of competition has created recruitment and retention issues leading to experience and expertise gaps. This has also, it claimed, led to reduced investment in equipment. A large ground handling agent claimed that reducing competition through higher barriers to entry could bring greater operational and financial stability and greater investment.

As with previous reports, however, it is very challenging to analyse changes in performance across airports with different levels of competition given the limitations of the data. Specifically, safety data was not shared by the Civil Aviation Authority, nor was sufficiently detailed service quality data shared by stakeholders, to facilitate detailed quantitative analysis. Furthermore, while this report later analyses data on high-level performance metrics in *Operational Performance*, this analysis is inconclusive on the impacts of different levels of competition across airports. Summarising briefly, the analysis on p.43 suggests that monopoly providers of ground handling services deliver punctuality which is at least as good as in airports with multiple competitors. However, competition correlates with airport size (as shown in Figure 8). Therefore, this may reflect better performance at smaller airports than larger airports (as shown on p.45) which are also more likely to have monopoly ground handling agents.

Furthermore, as previously described, the level of effective competition is likely to be higher than what is simply observed because airlines are also able to contract new ground handling agents to enter an airport if so desired.

Previous research instead finds that ground handling performance is generally influenced by three key factors:

- "The individual ground handling provider
- "The Service Level Agreements between the ground handling provider and the airline
- "The infrastructure at airports (e.g. construction works could reduce quality levels while the initiation of new facilities could lift the level of provided ground handling services)"²⁷

This report adds that the pricing model is also likely to have a substantial impact on performance, as previously analysed on p.15. For example, one of the UK's largest low cost carriers cited improvements in On-Time Performance, issue resolution and relationships with airport management when moving to a cost-plus pricing model.

Market Structure

This section provides an overview of the UK ground handling market, the main suppliers of passenger, ramp and baggage handling services, and the level of competition across UK airports.

In general, since the introduction of the Airports (Ground Handling) Regulations, the UK third-party ground handling market has undergone consolidation rather than fragmentation: we have seen fewer

²⁷ pp.165-166. Airport Research Centre (2009). Study on the Impact of Directive 96/67/EC on Ground Handling Services 1996-2007. Final Report.

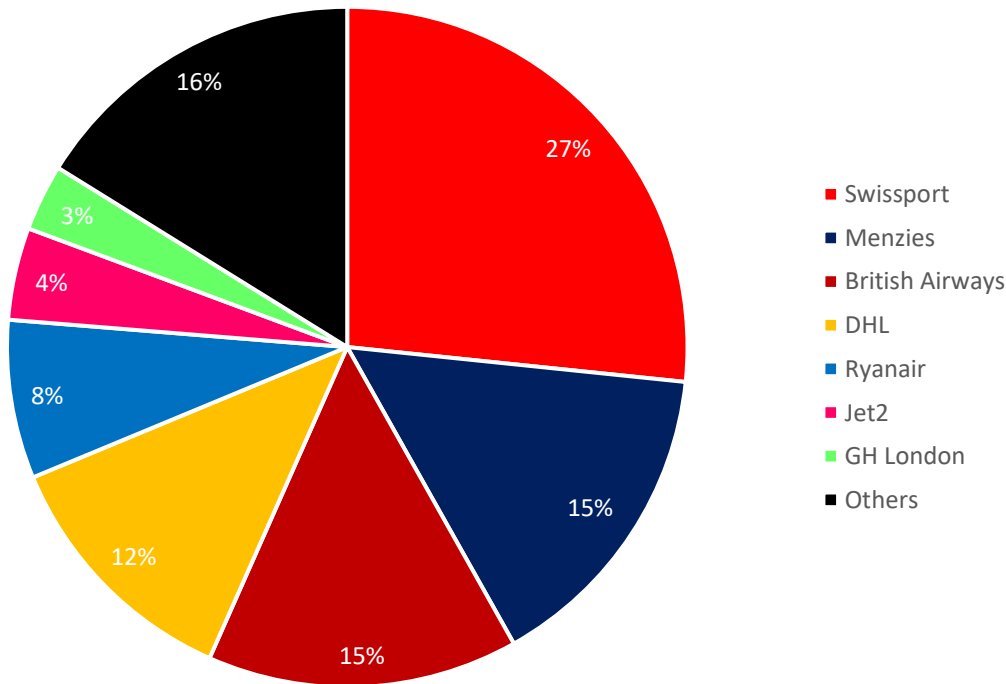
incumbent ground handling agents over time. Furthermore, the UK’s self-handling market has seen two new entrants since 2017. This likely explains why most stakeholders assess that the UK ground handling market remains competitive. These trends are explained in further detail below.

The third-party ground handling market is characterised by a large number of long-tenured incumbents. For example, Swissport was founded in 1996 and Menzies became a specialist ground handling company in the early 2000s; Dnata was founded in 1959, etc. These companies have grown in part through several acquisitions of smaller competitors, e.g. Swissport’s purchase of Servisair in 2013. In general, as one large UK ground handling agent described, it is quite rare for new third-party ground handling agents to enter the market unless in exceptional circumstances e.g. breaking a monopoly situation, or particularly poor service from the incumbents.

Some parts of the self-handling market are more dynamic. In general, self-handling in the UK is split between carriers with experienced ground handling teams (e.g. British Airways Ground Operations, Jet2) and low cost carriers with exclusivity agreements in place with external providers. The latter approach has emerged in the last five years, with DHL (a logistics company) entering the market in 2017 through an exclusivity agreement with EasyJet at London Gatwick, and ABM (a manpower agency) entering the market in 2019 through an exclusivity agreement with Ryanair at London Stansted. ABM operates under the Ryanair’s “Blue Handling” brand, blurring the line between self-handling and third-party handling.

We provide an overview of the UK ground handling market in Figure 4 below which illustrates the proportion of UK flights handled by the largest ground handling agents (GHAs) in 2022. In line with the scope of this Study, the analysis is representative of the market for passenger, baggage and ramp handling services only, and excludes other services including cargo, catering, cleaning, etc.

Figure 4: Share of the Market by Ground Handling Agent in 2022 by Flights Handled



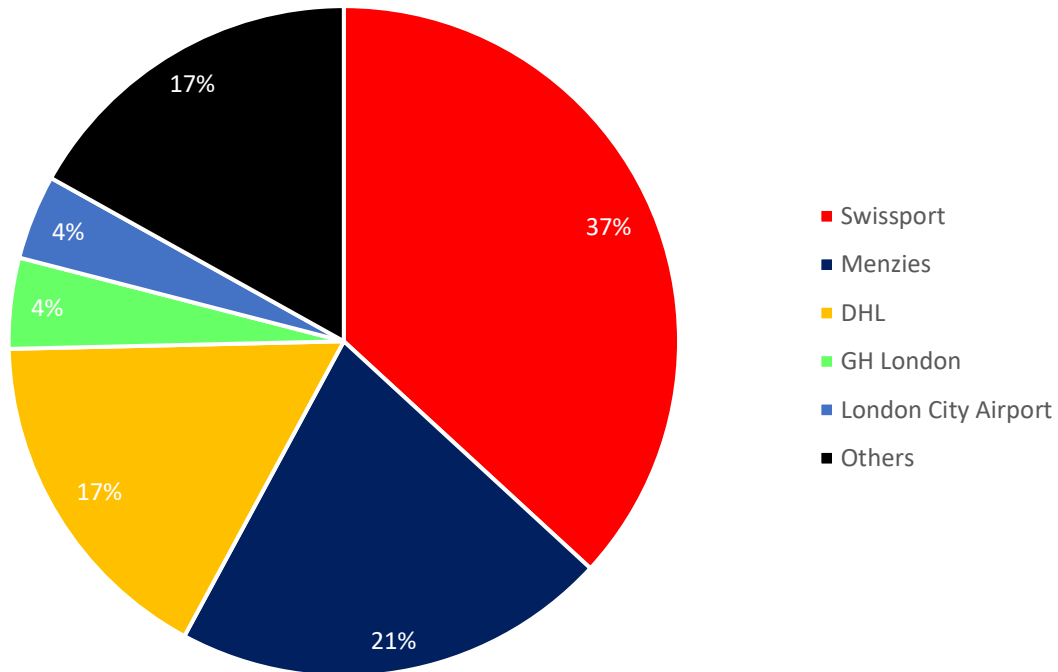
Source: PA analysis of SRS schedules data, contract award notices, airports’ and ground handling agents’ websites and engagement with stakeholders. Based on market data from the following airports: ABZ, BFS, BHD, BHX, BOH, BRS, CWL, EDI, EMA, EXT, GLA, LBA, LCY, LGW, LHR, LTN, MAN, MME, NCL, NQY, NWI, SOU, and STN. Representative of the market for passenger, ramp and baggage handling at each airport as of November 2022 (London Heathrow data is from December 2020). DSA airport removed due to closure in November 2022.

Swissport is the UK’s largest third-party GHA, handling 27% of flights in the UK. Menzies is the UK’s second largest third party GHA, handling 15% of flights. British Airways is the third largest ground handling agent in the UK with 15%, by virtue of its self-handling operations at London Heathrow and Gatwick; this is closely followed by Ryanair’s as the next largest self-handler with 8%. DHL – which only handles easyJet flights and London Gatwick, Manchester and Bristol – is the UK’s fourth-largest ground handling agent. ‘Other’ ground handling agents represents smaller GHAs which individually have less than 5% of total UK market share. This includes companies like Dnata, Worldwide Flight Services,

Dalcross Handling and others. This also includes airport handling companies, i.e., subsidiaries of an airport company, which exist at smaller airports.

However, as discussed above, self-handling airlines do not usually provide ground handling services to other airlines, so should not be interpreted as part of the competitive market for ground handling. Therefore, to show a more representative picture of the state of competition in the contestable market, self-handling airlines' have been removed in the figure below.

Figure 5: Shares of the Contestable Market by Ground Handling Agent in 2022 by Flights Handled

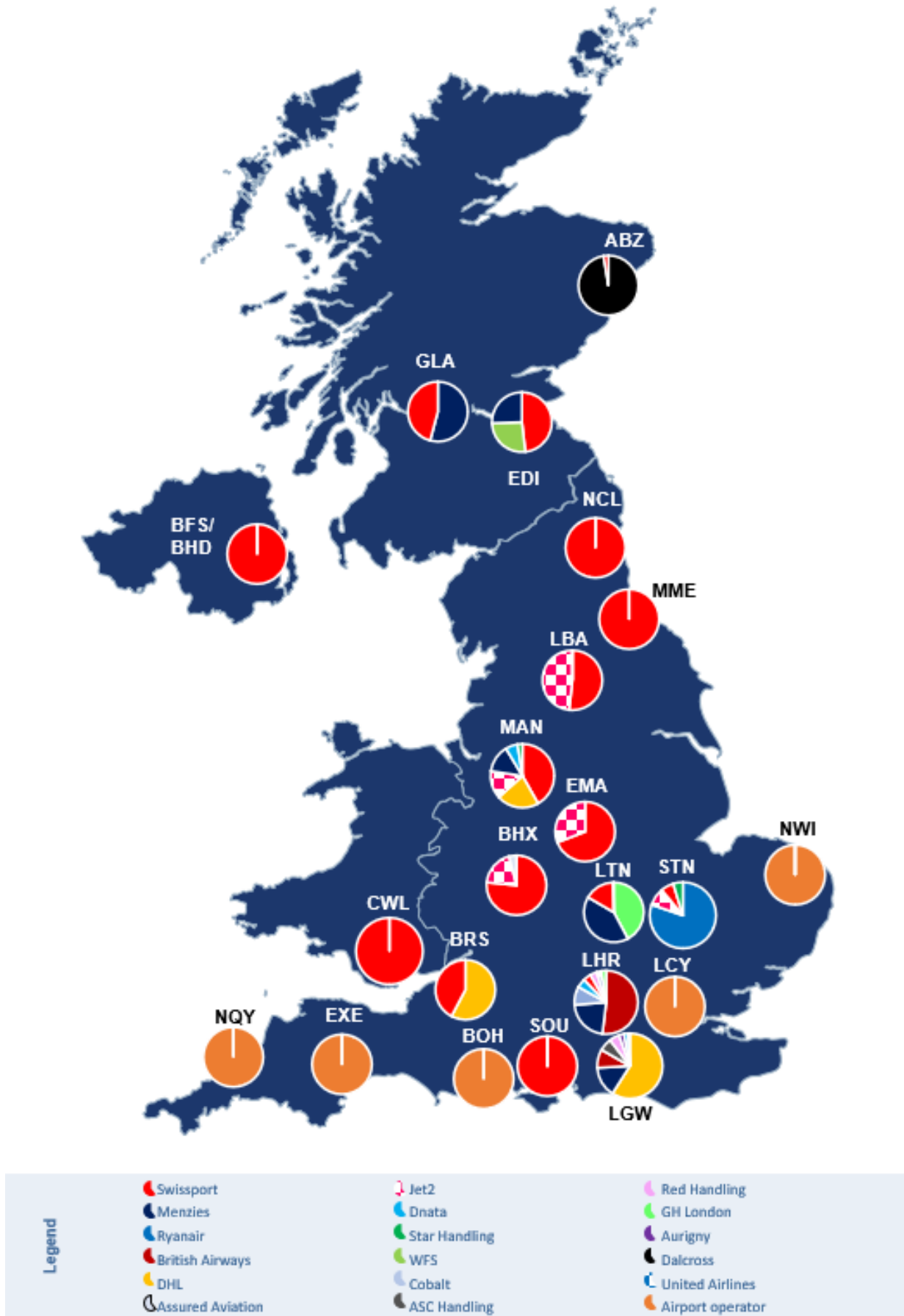


Source: PA analysis of SRS schedules data, contract award notices, airports' and ground handling agents' websites and engagement with stakeholders. Excludes market share of self-handling airlines. Based on market data from the following airports: ABZ, BFS, BHD, BHX, BOH, BRS, CWL, EDI, EMA, EXT, GLA, LBA, LCY, LGW, LHR, LTN, MAN, MME, NCL, NQY, NWI, SOU, and STN. Representative of the market for passenger, ramp and baggage handling at each airport as of November 2022 (London Heathrow data is from December 2020). DSA airport removed due to closure in November 2022.

Between them, Swissport and Menzies hold almost 60% of the contestable market share. DHL has grown rapidly to hold 17% of the market through its exclusivity agreement with easyJet. London City Airport provides all baggage and ramp handling services at London City airport, making up 4% of the contestable market.

Figure 6 overleaf illustrates the composition of the UK ground handling market by airport, breaking down the number of flights handled by ground handling agent. Where airlines receive ground handling services from more than one handling agent at a given airport, we show the provider of baggage handling services only. This is relatively uncommon, however, with airlines generally preferring to handle with a single ground handling agent for ramp, baggage and passenger handling services at a given airport.

Figure 6: Composition of the UK Ground Handling Market, 2022



Source: PA analysis of SRS schedules data, contract award notices, airports' and ground handling agents' websites, and stakeholder questionnaire responses. Representative of the market for passenger, ramp and

baggage handling at each airport as of November 2022 (London Heathrow data is from December 2020). DSA airport removed due to closure in November 2022.

As the two pie charts above show, over 40% of the UK ground handling market is served by the world’s largest multinational ground handling agents: Swissport and Menzies. Swissport is the sole third-party provider of ground handling services for at least four UK airports (Belfast, Newcastle, Teesside, and Southampton). It is the only third-party ground handling agent in the UK to hold a monopoly at any UK airport. At several of the UK’s smallest commercial airports – such as at Newquay, Exeter and Norwich – the airport operator also exclusively provides ground handling services. Other companies are not prevented from entering the market at these airports. In general, while there is likely to be a small amount of incumbent advantage (there are some barriers to entry, described further below), stakeholders did not suggest that this was being exploited to drive negative outcomes.

Both Swissport and Menzies have operated in the UK since the late 1990s and both provide most types of ground handling services, particularly passenger, baggage, ramp, cargo and fuel handling services. Both companies saw combined global revenues exceeding £3.9bn in 2019 (Swissport accounted for £2.6bn of this), and have grown through a combination of acquisitions and organic growth. For example, Swissport acquired Servisair in 2013 and Menzies acquired Airlines Services in 2019.

Larger airports such as London Heathrow, London Gatwick and Manchester are particularly competitive markets, with a large number of third-party ground handling agents. Swissport has a presence at both London Heathrow and Manchester where it holds the largest market share.

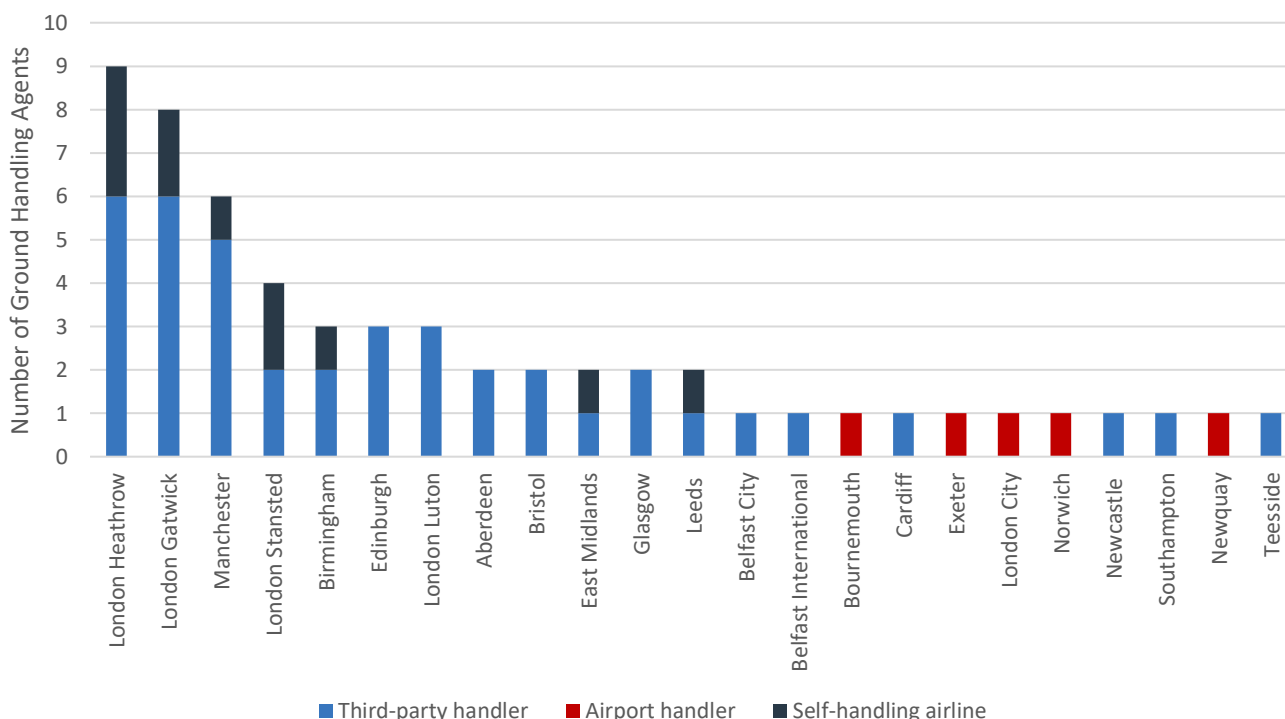
Notably, British Airways and Ryanair have a substantial self-handling operation at London Heathrow and London Stansted, significantly reducing the size of the contestable market for other ground handling agents at these airports. For example, in 2022, British Airways self-handled more than half of London Heathrow’s total flights.

Finally, a very small number of ground handling agents exclusively service a single airline at a given airport. For example, DHL only serves easyJet flights at London Gatwick, Bristol and Manchester; DHL services over half (56%) of flights at London Gatwick due to the size of easyJet’s operation.

Market Concentration

The figure below provides an overview of the number of ground handling agents across airports in 2022 and groups the data by business model, i.e., third party ground handling agents, airport handlers and self-handlers.

Figure 7: Types of Ground Handling Agents by Airport, 2022



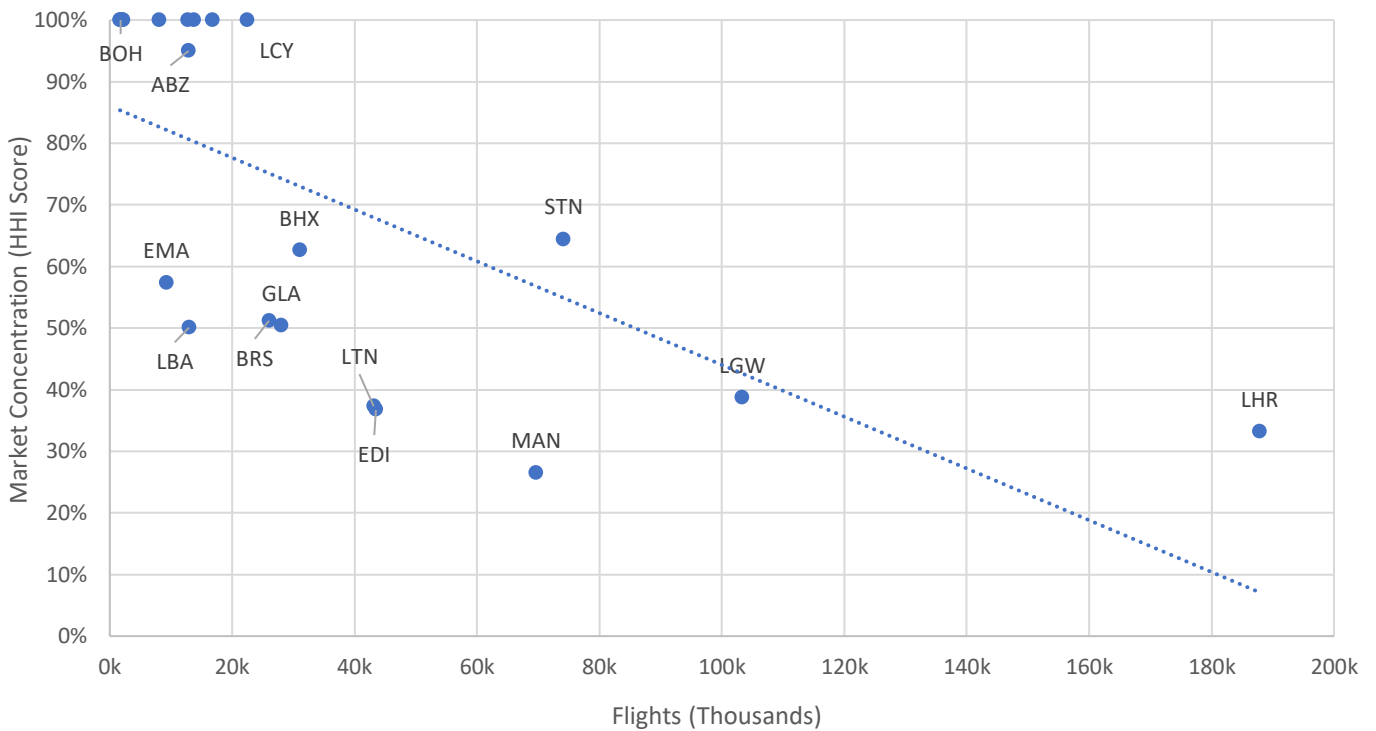
Source: PA analysis of contract award notices, airports' and ground handling agents' websites, and stakeholder questionnaire responses. Notes: based on the providers of baggage, ramp and passenger handling services only; London City airport for baggage and ramp handling services only.

As shown above, larger airports (e.g., Manchester, Gatwick and Heathrow) typically have a larger number of ground handling agents present in the market while smaller markets (e.g. Jersey, London City, Cardiff) are typically dominated by a smaller ground handling agent. Notably, 11 airports only have one ground handling agent; here services are provided either by the airport or by the third-party ground handling agent, Swissport. Aberdeen is the only exception to this.

The Herfindahl–Hirschman Index (HHI) is used to benchmark market concentration across UK airports. HHI scores are derived through the sum-of-squares of each supplier's market share at a given airport. This is expressed as a percentage, whereby 100% represents monopolistic provision by a single provider. Increasing the number of competitors or flattening the distribution of market shares will reduce HHI score to 0%. At the national level, the UK ground handling market as a whole has an HHI score of 13%, whilst the contestable market (Figure 5) is slightly more concentrated with a score of 22%.

The figure below compares this measure of market concentration against flight volumes for each UK airport.

Figure 8: Market Concentration by Airport Size, 2022



Source: PA analysis of SRS schedules data, contract award notices, airports' and ground handling agents' websites, and stakeholder questionnaire responses. Representative of the market for passenger, ramp and baggage handling only. Uses 2019 annual passenger numbers. Note: some airports excluded due to incomplete data, e.g. LGW. Data for LCY reflects baggage handling services only.

As shown above, larger airports tend to have less concentrated markets due to the presence of multiple competing ground handling agents. Smaller airports, however, such as Bournemouth and Aberdeen, are typically only serviced by one ground handling agent. Furthermore, London City airport (LCY) is the largest airport with a single provider of baggage and ramp handling services (the airport operator). This airport, however, faces exceptional physical constraints which are not applicable to the same degree at other airports.

Financial Performance

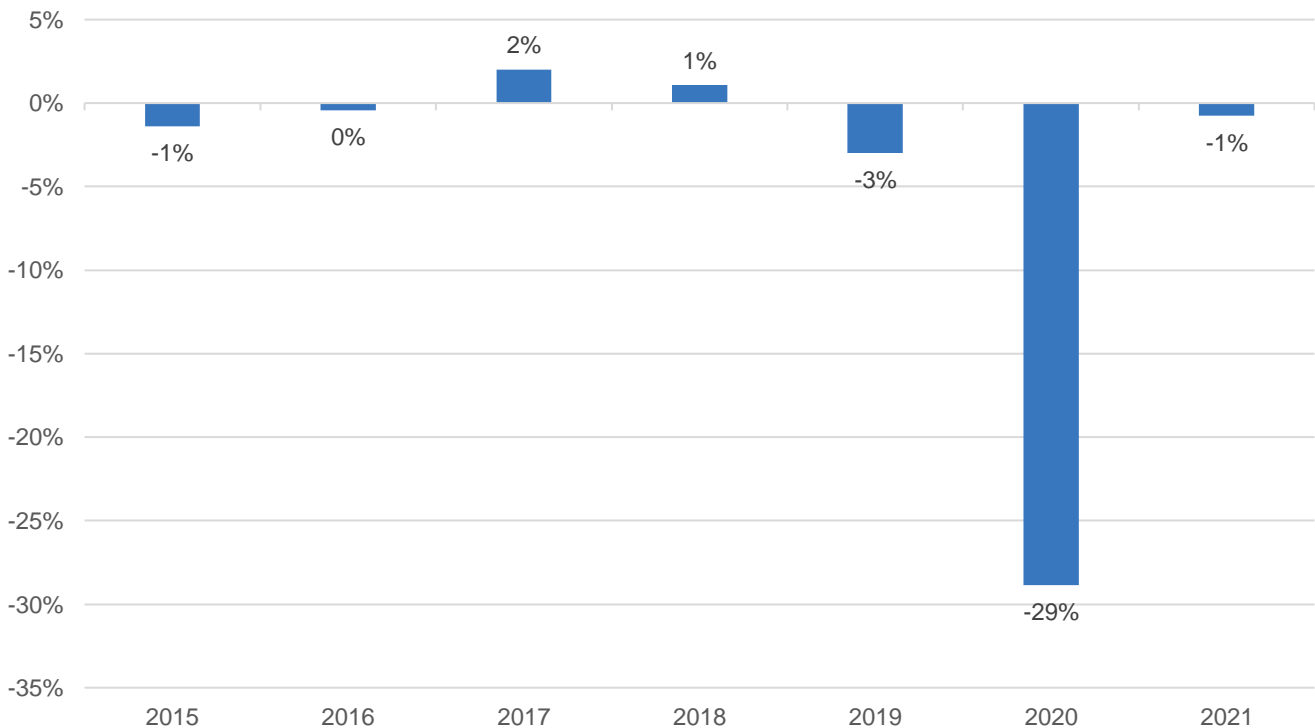
This section explores the financial performance of the UK’s third-party ground handling agents through analysis of the financial statements of their UK based entities: Cobalt Ground Solutions Limited, Dnata Limited, GH London Limited, Menzies Aviation UK Limited, Sky Handling Partner, Star Handling Limited and Swissport GB Limited. Data in this section is, therefore, for these entities’ UK operations only. This analysis does not consider the financial performance of self-handling airlines or airport handlers, which are not usually published separately to the parent airline or airport.

The sector has had very low levels of profitability over the long-term, and was often loss-making prior to the pandemic. The sector suffered significant losses in 2020, almost ten-times the losses over the prior year. To maintain liquidity throughout the Covid-19 pandemic, the sector drew down substantial borrowings. Net debt has more than doubled between 2019 and 2021. Rising interest rates may generate new challenges for the sector if a higher cost of borrowing dampens investment and insolvencies rise, particularly if profitability remains low.

Profitability

Figure 9 below outlines the average operating profit margin of several UK ground handling agents from 2015-2021. Before the Covid-19 pandemic, average operating profit margins fluctuated around the breakeven (0%) point, as shown in Figure 9 below. Average sector operating profit was highest in 2017, when the sector recognised an operating profit margin of just 2%. At the height of the Covid-19 pandemic in 2020 sector recognised a substantial 29% operating loss. However, margins had almost entirely recovered by 2021 (-1%).

Figure 9: Average UK Ground Handling Operating Profit Margin, 2015-2021



Source: PA analysis of the financial statements of Cobalt Ground Solutions Limited, Dnata Limited, GH London Limited, Menzies Aviation UK Limited, Sky Handling Partner, Star Handling Limited and Swissport GB Limited. Presented as revenue-weighted average operating profit margin.

Other stakeholder groups across aviation typically report much higher profit margins. For example, in 2019, some of the UK's largest airlines reported profit margins between 7% and 10% and airports of between 24% and 34%.²⁸

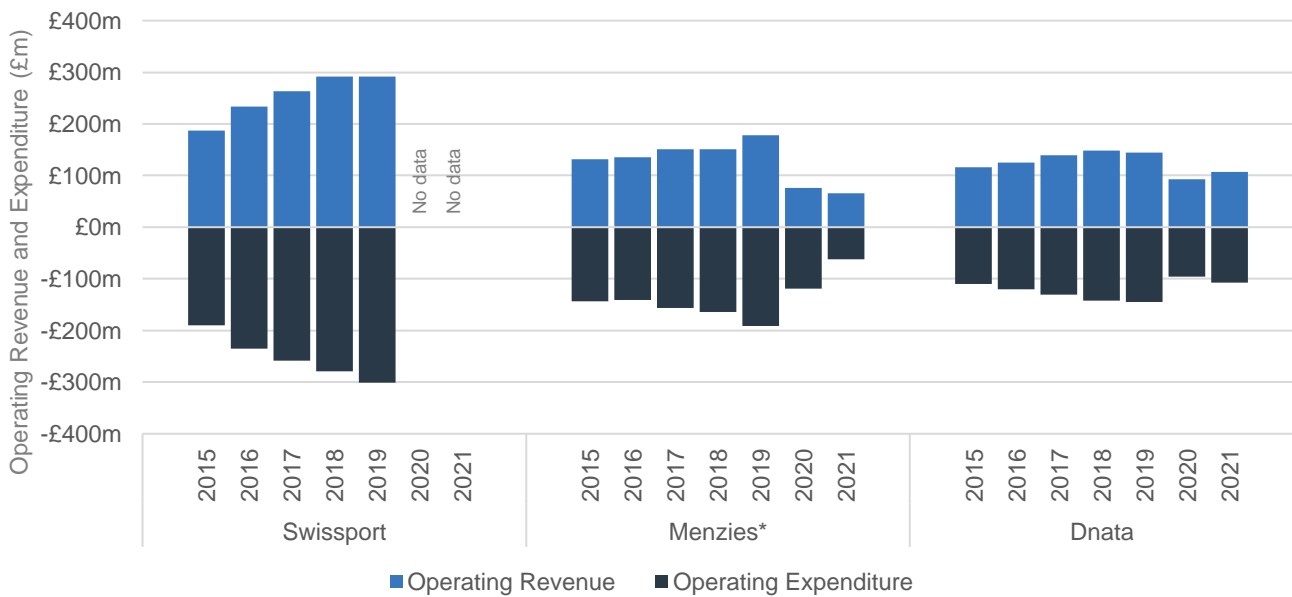
Investment

Low levels of sector profitability are likely to be undermining levels of investment. Capital expenditure across the industry was very low between 2018 and 2021 and was lowest at ground handling agents which were consistently loss-making. Rising interest rates will also make investment more expensive as debt becomes dearer and equity investors demand higher returns.

Operating Costs

The figure below shows trends in the operating performance (operating revenue and expenditure) of three of the largest third party ground handling agents in the UK based on flights handled: Swissport, Menzies and Dnata. The data represents operating performance of the UK operating company, and not that of the global parent company.

Figure 10: Operating Performance at Selected Ground Handling Agents, 2015-2021

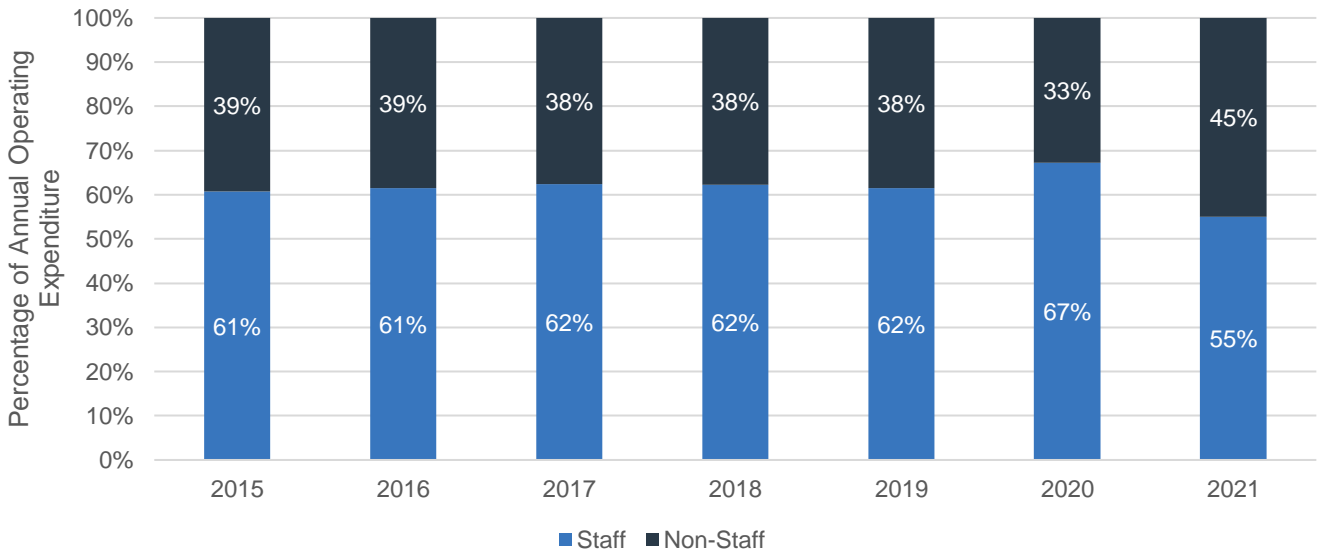


Source: PA analysis of the financial statements of Dnata Limited, Menzies Aviation UK Limited and Swissport GB Limited. (*)

This suggests that operating costs are relatively elastic, i.e. as demand increases, costs increase. This remains true even for large changes in demand. For example, as explained later in this report, at the start of the Covid-19 pandemic, ground handling agents were able to reduce costs through large (-57%) reductions in headcount between 2019 and 2021. This had a significant impact on ground handling agents' total operating cost base as just under two-thirds of ground handling agents' cost base is composed of staff costs, as shown in Figure 11 below.

²⁸ Based on the operating profit margins of easyJet, British Airways, London Gatwick airport and Manchester Airport Group.

Figure 11: Split of Average UK Ground Handling Operating Costs, 2015-2021



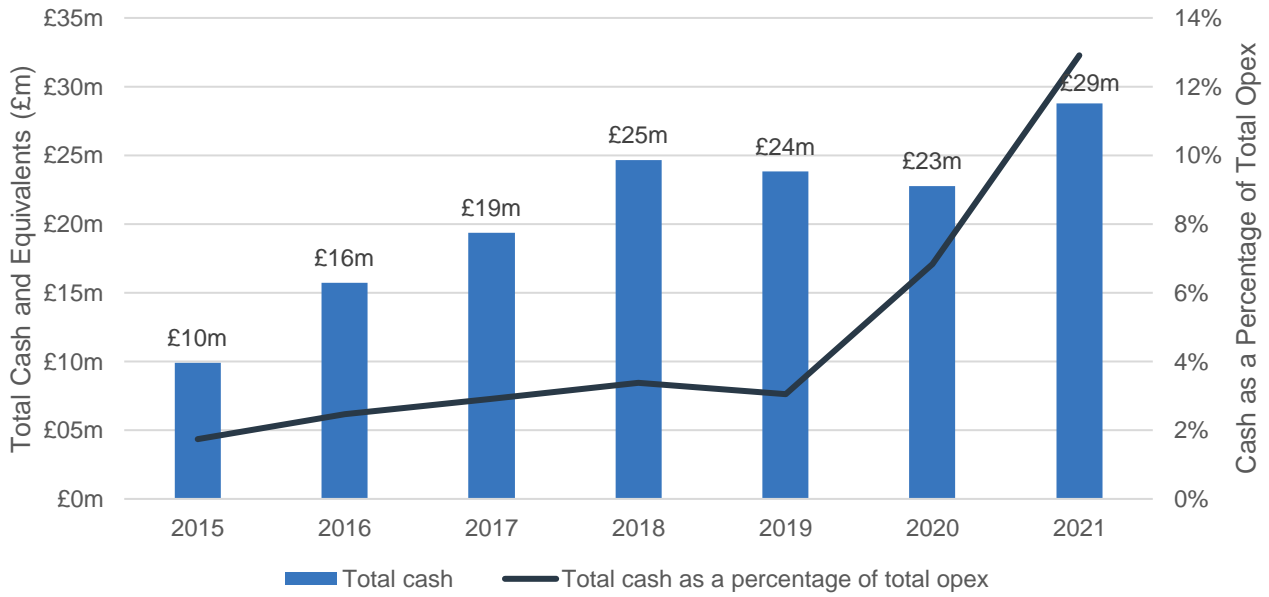
Source: PA analysis of the financial statements of Cobalt Ground Solutions Limited, Dnata Limited, GH London Limited, Menzies Aviation UK Limited, Sky Handling Partner, Star Handling Limited and Swissport GB Limited.

Staff costs are likely to be more elastic than non-staff costs in the ground handling sector. This is likely due to the nature of non-staff costs, which are typically composed of long-term equipment and building leases which are usually based on long-term fixed contracts, and depreciation costs which are not straightforward to change in the short term. Note that, in 2020, while non-staff costs fell faster than staff costs (as a proportion of total costs), this was heavily influenced by the government’s Coronavirus Job Retention (“furlough”) Scheme. The furlough scheme incentivised companies to retain staff, funds from which were recognised as revenue on companies’ financial statements rather than a reduction in staff costs. This likely explains why non-staff costs fell faster than staff costs in 2020 yet, by the end of 2021 following the termination of the furlough scheme, the opposite was true.

Liquidity and Net Debt

The figure below shows liquidity levels for UK ground handling agents from 2015 to 2021, including as a percentage of total operating expenditure (‘opex’). There is an upward trend in the volume of liquidity from 2015 to 2019. In 2020, cash reserves remained relatively constant as ground handling agents drew down substantial amounts of debt to remain liquid. Ground handling agents continued to draw down debt in 2021 which, as operating losses moderated, led to a further increase in liquidity.

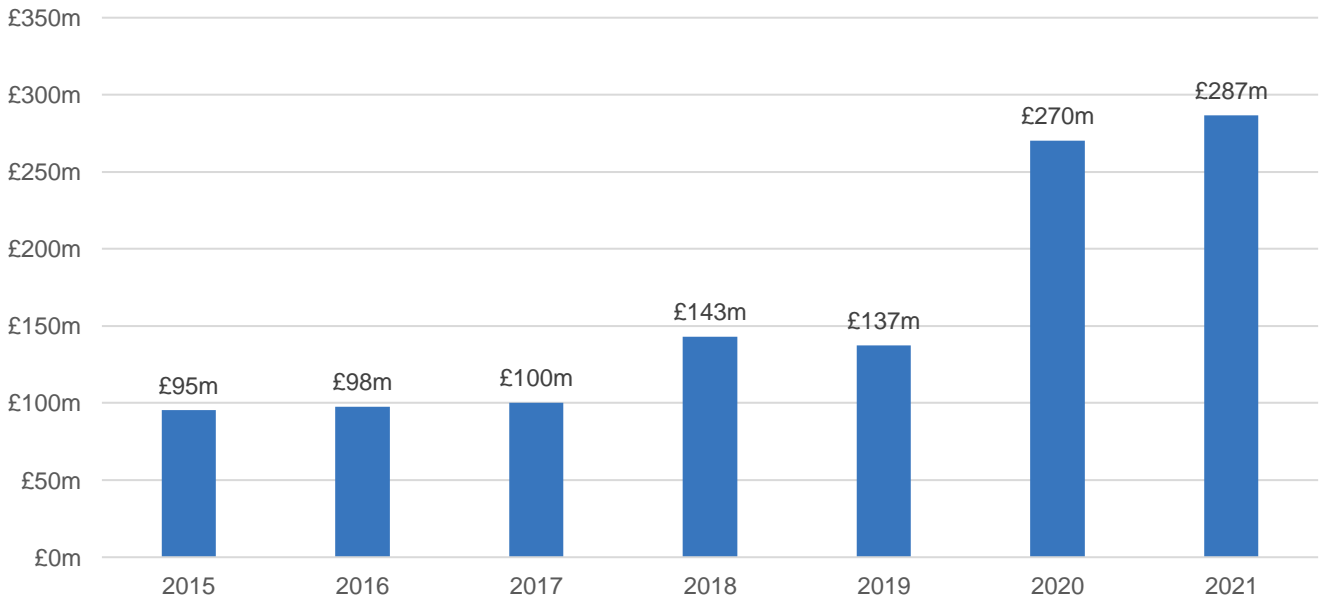
Figure 12: Total Cash and Equivalents Held by UK Ground handling agents, 2015-2021



Source: PA analysis of the financial statements of Cobalt Ground Solutions Limited, Dnata Limited, GH London Limited, Menzies Aviation UK Limited, Sky Handling Partner, Star Handling Limited and Swissport GB Limited.

The figure below shows this trend in the level of net debt for a representative sample of UK ground handling agents between 2015 and 2021. In 2021, net debt was more than double 2019 levels.

Figure 13: Net Debt at Selected UK Ground handling agents, 2015-2021



Source: PA analysis of the financial statements of Cobalt Ground Solutions Limited, Dnata Limited, GH London Limited, Menzies Aviation UK Limited and Sky Handling Partner Limited.

Rising interest rates may generate new challenges for the sector when it is so heavily indebted, putting further downward pressure on industry profit margins and raising insolvency risks. This could further exacerbate trends in industry consolidation.

Operational Performance

This section reviews the operational performance of airports over January to August 2022 and assesses differences in performance outcomes by business model, region, market structure, etc. in terms of On-Time Performance (OTP), average delay minutes (“delay”) and flight cancellations.

On-time performance (OTP) is a widely used measure of punctuality for different modes of public transport. It provides a standardised means of comparing operational performance against schedule. For the purposes of this report, OTP is defined as the percentage of flights departing within 15 minutes of schedule; cancellations are included and treated as not on-time. Secondly, average delay minutes are calculated based on the average delay for both scheduled and chartered flights at a given airport. Thirdly, flight cancellations measures the number of flights cancelled within 24 hours of its scheduled departure time.

A key limitation of using these measures is that they capture a wide variety of drivers of performance external to ground handling, including weather, air traffic delay, aircraft technical faults, etc. They are, however, ubiquitous and objective measures of flight punctuality. This cannot be said for some other measures of performance, such as those which attribute delay to specific causes through common delay codes. These delay codes can be attributed incorrectly, in part due to the complexity of the aviation environment, making such data less accurate.

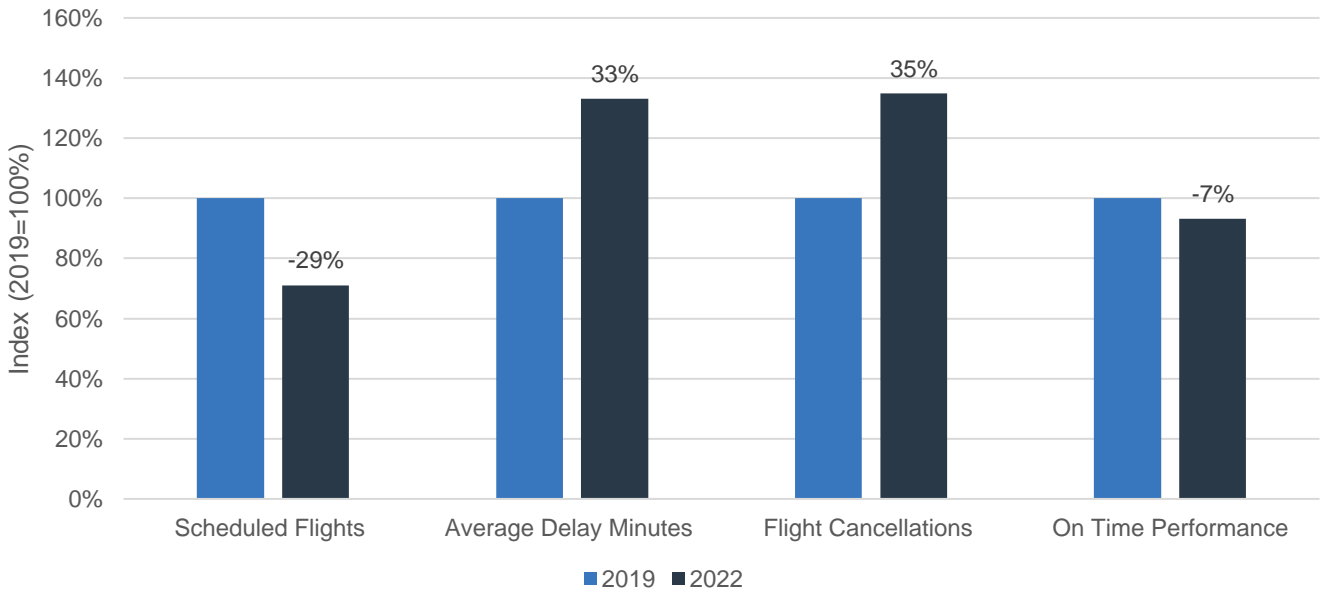
Alternative measures of performance (baggage, check-in) are also presented. However, this was only possible for a small selection of airports.

Performance Trends

This section analyses the extent of operational disruption across the UK in Summer 2022. In summary, performance across all measures fell significantly in 2022 at the majority of UK airports, reaching annual lows in June and July relative to 2019 levels.

The figure below shows changes in operational performance across UK airports in 2019 and 2022 between January and August. As shown, 2022 performance was worse than in 2019 across all performance metrics. This is largely due to poor performance between April to August. Flight cancellations and delay increased significantly compared to 2019 levels. On-Time Performance declined, but by a lesser degree. This is because, although delay minutes and cancellations increased by more than one-third compared to 2019, on average, they still remained relatively low. For example, on average between January and August 2022, only 1.7% of flights were cancelled and flights experienced only four additional minutes of delay on average. The number of scheduled flights remained 29% below 2019 levels, which would usually improve performance in a given year, particularly at congested airports. Notably, however, some airports operated traffic peaks as high as 2019 levels.

Figure 14: UK Aviation Performance, 2022 and 2019



Source: PA Analysis of SRS airlines schedules data, OAG airport on-time performance data and CAA punctuality statistics for January to August 2022. Data is unweighted by flights. Flight cancellations based on the number of flights cancelled less than 24 hours prior to scheduled departure time. On-Time Performance (OTP) measures the proportion of flights departing within 15 minutes of scheduled departure time; flights cancelled are included and treated as not on-time.

Evidence from OAG²⁹ suggests that performance events have become more concentrated over peak periods, including weekends and school holidays, exacerbating the impact of disruption as airports were more congested, flights more fully loaded, etc. For example, on the first day of the Platinum Jubilee bank holiday in June, 4% of UK flights were cancelled, up from an annual average of 1.7%. This was the same across many European hubs, compounding challenges for UK passengers connecting outside of the UK. For example, cancellations at Amsterdam Schiphol airport reached 11% on the same day.

Note that the slot amnesty³⁰ provided by government in June 2022 was deliberately designed to avoid these last minute flight cancellations (i.e. within 24 hours of scheduled departure time) as measured in the data above.

Causes

Numerous issues contributed to the disruption witnessed over Summer 2022, summarised in the table below.

Table 6: Key Challenges Facing Aviation in Summer 2022

Ground Handling Agents	Airports	Airlines	Other
<ul style="list-style-type: none"> Challenges recruiting ground handling staff 	<ul style="list-style-type: none"> Challenges recruiting airport staff 	<ul style="list-style-type: none"> Challenges recruiting airline staff 	<ul style="list-style-type: none"> Staff shortages across the aviation industry

²⁹ <https://www.oag.com/blog/european-flight-cancellations-on-the-rise>

³⁰ <https://www.gov.uk/government/news/government-helps-prevent-last-minute-summer-flight-cancellations-with-amnesty-on-airport-slots-rule>

<ul style="list-style-type: none"> Poor staff productivity due to inexperienced staff and low levels of training 	<ul style="list-style-type: none"> Poor performance at other European hub airports³¹ 	<ul style="list-style-type: none"> Ambitious schedule planning to retain slots at coordinated airports³² 	<ul style="list-style-type: none"> Uncertainty over the pace and extent of traffic recovery
<ul style="list-style-type: none"> Poor operational and financial resilience in ground handling 	<ul style="list-style-type: none"> Long processing times for airport ID passes 	<ul style="list-style-type: none"> Lack of coordination with ground handling agents on recovery 	<ul style="list-style-type: none"> Air traffic delays including in France, Germany and Italy
<ul style="list-style-type: none"> Lack of coordination with airlines on traffic recovery 	<ul style="list-style-type: none"> Baggage Handling System failures, e.g. LHR Terminal 2 	<ul style="list-style-type: none"> Technology faults, e.g. British Airway's IT technical failures 	<ul style="list-style-type: none"> Ongoing threat of industrial action

Source: PA analysis of disruption at UK airports throughout Summer 2022 (1st April to 31st October 2022).

The above shows that ground handling agents, airports and airlines faced a diverse range of challenges over Summer 2022, many of which interacted to exacerbate or create other performance issues, cascading delay across other flights and airports. Challenges facing ground handling agents specifically are described in detail below.

A key issue in Summer 2022 was that ground handling agents faced significant challenges in recruiting additional staff, following a significant tightening of the labour market. This issue was compounded by fixed price (“price per turn”) contracts between airlines and ground handling agents which did not allow ground handling agents to pass through significant increases in staff costs needed to attract new staff. We note, however, that several airlines have been pragmatic, accepting *ad hoc* requests from ground handling agents to pass through additional costs. Furthermore, others remunerate ground handling agents differently through cost-plus models, which helps to negate this issue.

Secondly, ground handling agents struggled to effectively resource because they had also made substantial cuts to staff numbers over the course of the Covid-19 pandemic and are not always incentivised to adequately resource the planned schedule. This was driven in part by uncertainty over the pace and timeline of recovery in passenger volumes, and compounded by the typical model of revenue recovery used in UK ground handling, whereby ground handling agents are remunerated based on actual output (flights serviced) rather than what is planned. Therefore, should flight schedules be scaled back, as was the case following a series of false starts by the industry, ground handling agents face the costs of resourcing the original schedule but none of the revenue. While there may be specific contractual conditions designed to partially alleviate this, such as minimum revenue guarantees, some ground handling agents were not sufficiently incentivised by airlines to effectively deliver the schedules which were eventually realised. This was made worse by poor levels of operational and financial resilience: UK ground handling agents made substantial cuts to their labour force through 2020 and 2021, and were not incentivised or able to afford to retain large numbers of staff, particularly following the withdrawal of the Coronavirus Job Retention Scheme in September 2021.

Additionally, long wait times for airport ID passes also played a role, increasing the time taken to onboard new employees and causing many to take up alternative offers of employment elsewhere. These passes are issued by the airport operator, but subject to minimum legal requirements. Furthermore, as airport passes are non-transferable across different airports, this acts as a barrier to redeploying existing ground handling staff to under resourced airports. This challenge is analysed in more detail in *Operational Resourcing*.

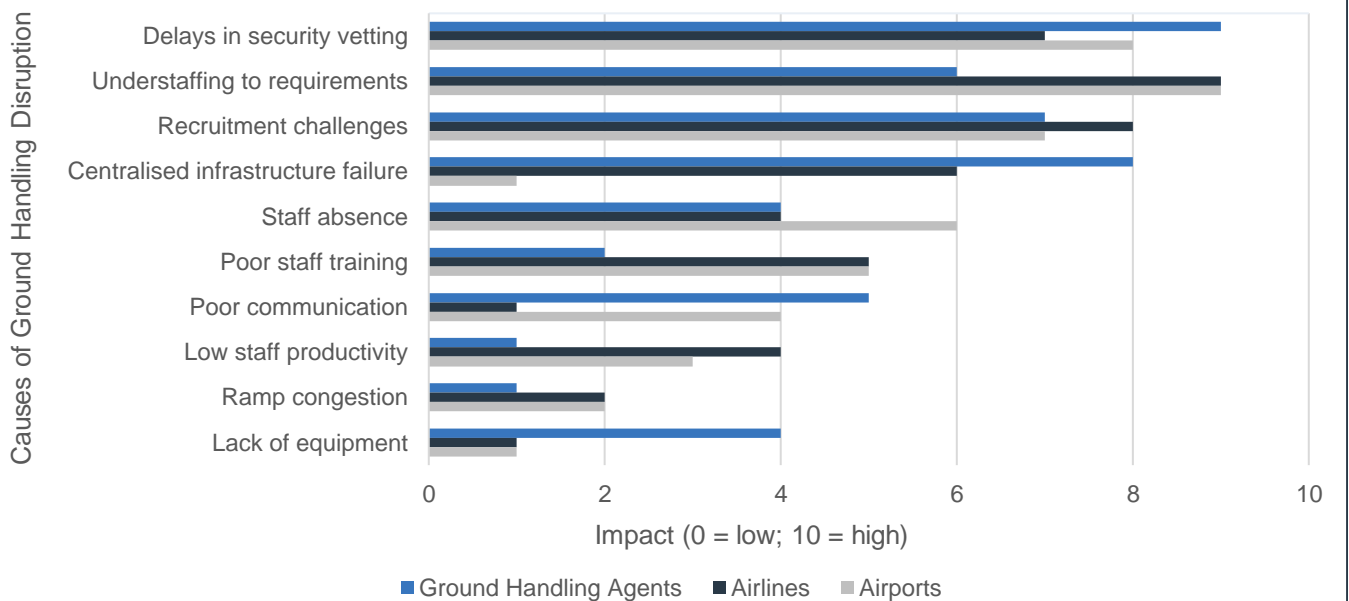
Figure 15 below assesses the level of impact given on the causes of ground handling disruption according to ground handling agents, airlines and airports. The top three causes are delays in security vetting, understaffing to requirements and recruitment challenges. These issues are highlighted in the

³¹ See *International Comparisons* for detailed analysis of performance trends seen in Germany, Spain, the Netherlands and the USA.

³² An airport slot allows an aircraft operator to schedule a landing or departure at that airport during a specific time period; these only apply at Coordinated (Level 3) airports.

Operational Resourcing section. Whilst centralised infrastructure failure was highlighted by GHA's and Airlines as a significant cause, airports felt it was one of the least impactful. Furthermore, issues in staffing do not relate to their levels of productivity, as all stakeholders felt staff productivity did not have a significant impact.

Figure 15: Sentiment Analysis on the Causes of Ground Handling Disruption



Source: PA analysis of stakeholder questionnaire responses. Notes: subjective level of impact score where 0 represents no impact and 10 represents the most impact. Data represents average scores of all respondents for each of the following stakeholder groups: ground handling agents (6 responses), airlines (13 responses) and airports (8 responses).

Challenges in other parts of the aviation ecosystem also played a significant role in making conditions more challenging for ground handling agents, including air traffic delay, cabin crew and pilot availability, etc. One of these issues – ambitious schedule planning by airlines – became so pronounced that, in June 2022, airlines were granted a last-minute “amnesty” on airport slots rules as to incentivise them to plan more deliverable schedules. One week earlier, government wrote a letter to the industry encouraging airlines to replan schedules “based on the resources you and your contractors expect to have available.”³³ Issues from outside of the UK also played a significant role. For example, misconnected baggage at other European hub airports led to significant disruption for UK airports and baggage handlers due to the work required to repatriate missing bags.

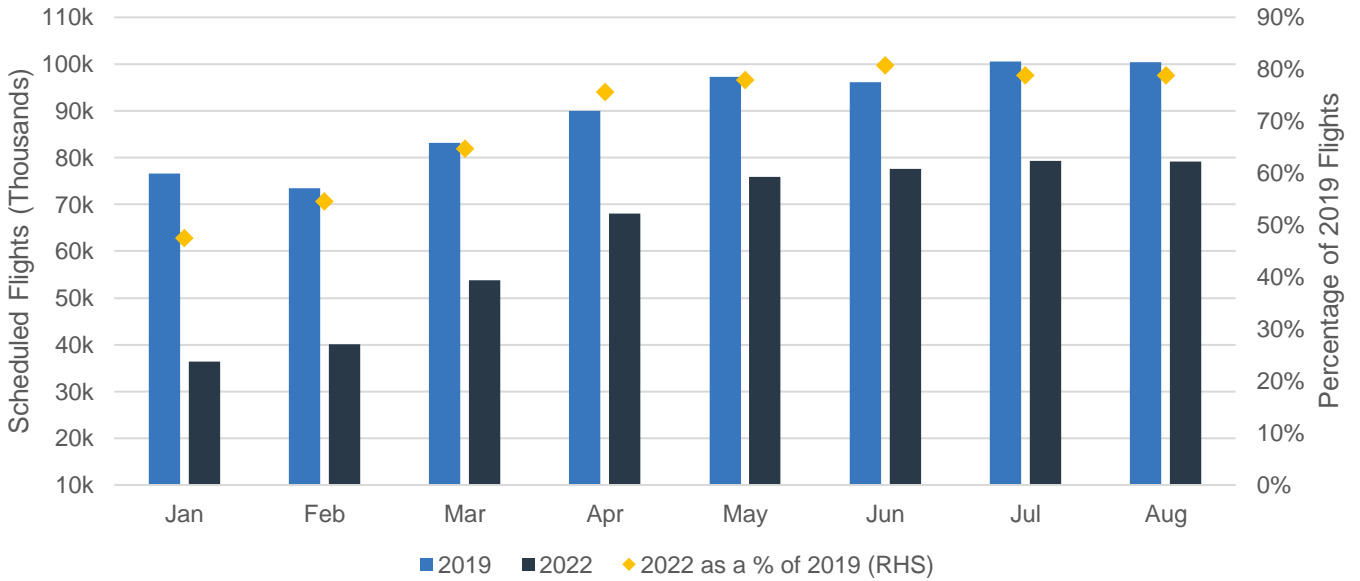
³³ Letter from Richard Moriarty (CAA) and Rannia Leontaridi (DfT) to Industry on Aviation Disruption (14 June 2022). Available from: <https://www.caa.co.uk/media/tugfmyj4/joint-letter-disruption.pdf>

Performance by Month

The analysis below compares trends in traffic and performance by month. In summary, UK flight volumes rapidly increased between January and June, from below 50% to 80% of 2019 levels respectively. Performance deteriorated in a similar way, with reaching a low point in June before recovering slowly towards August.

Figure 16 figure below shows total UK scheduled flights by month in 2022 and 2019. Scheduled flight numbers in 2022 have consistently been lower than in 2019, however saw a gradual rise over the summer period. July was the busiest month in 2022 for scheduled flights, yet this was still only at 80% of 2019 levels.

Figure 16: Total UK Scheduled Flights, 2022 and 2019

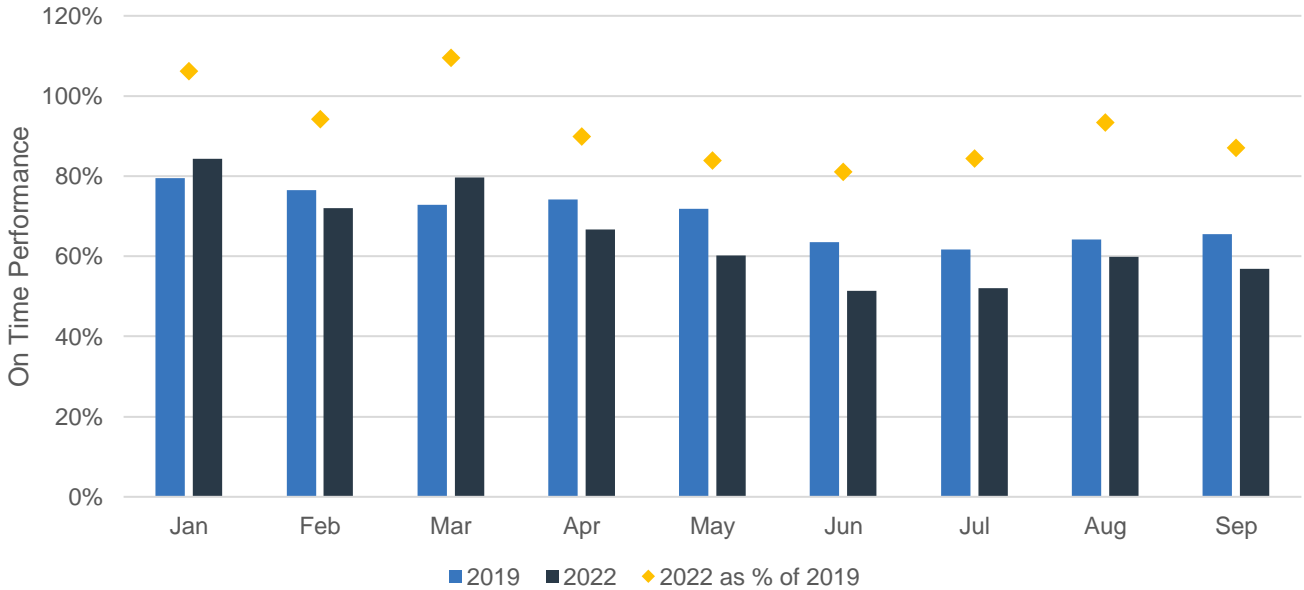


Source: PA analysis of SRS airline schedules data. Data includes analysis for 75 airports.

The figure below shows OTP by month for January to September for both 2019 and 2022. While UK average OTP reduced by 7% between 2022 and 2019, there are significant differences by month. Between January and March, monthly OTP in 2022 was similar to 2019 levels. From April onwards,

however, relative performance began to deteriorate. In June, OTP was at its worst: only half of UK departing flights were on time, representing a 20% reduction on 2019 levels.

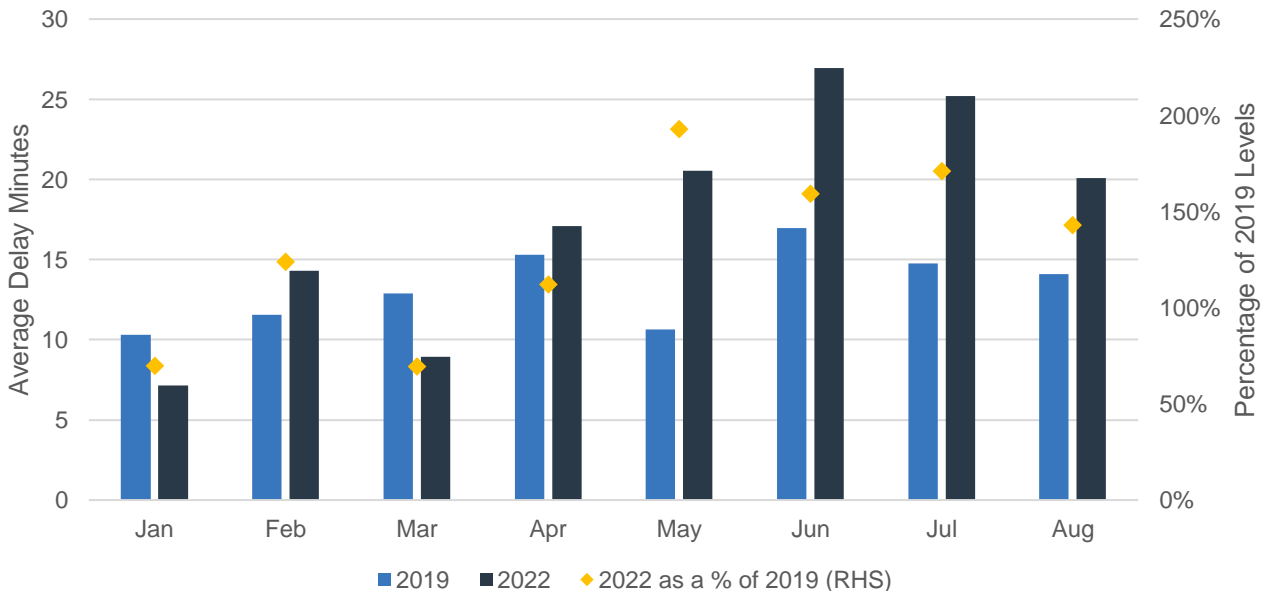
Figure 17: Average UK On-Time Performance by Month, 2022 and 2019



Source: PA analysis of OAG airport on-time-performance data and CAA airport usage statistics. Data for January to September.

Figure 18 shows average UK delay minutes by month for both 2019 and 2022 and shows similar trends to OTP. ADM was consistently worse in 2022 than in 2019 and reached its worst levels in June. In June, flights were delayed for twice as long as the same month in 2019. Performance began to recover slightly in August, although delay remained well above (+50%) 2019 levels.

Figure 18: Average UK Delay Minutes, 2019 and 2022



Source: PA analysis of Civil Aviation Authority statistics. Notes: data for September 2022 unavailable at the time of writing. Data shows the mean (unweighted) average calculated across 26 UK airports.

Flight cancellations show a similar trend, albeit there were also high levels of flight cancellations in February.

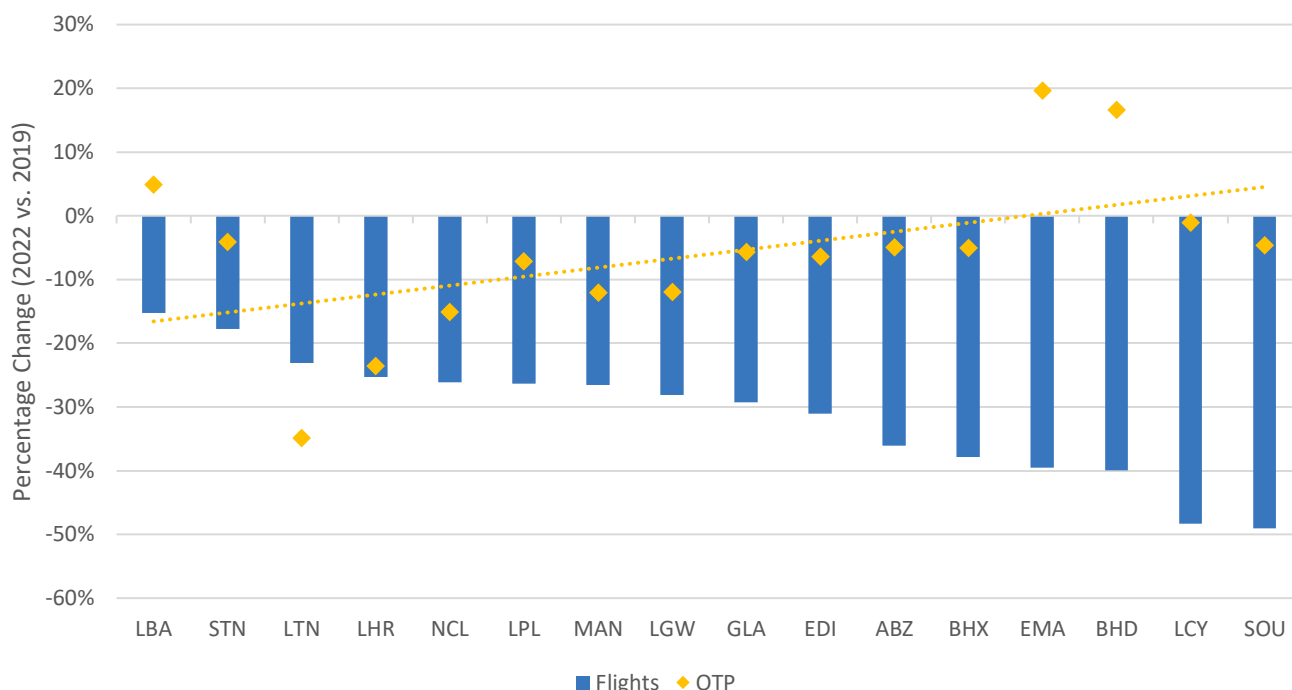
As shown in the graphs above, there is a strong correlation between increasing levels of traffic and lower levels of performance. In general, as schedules increased, performance worsened, and there was some recovery in August relative to 2019 levels in line with actions taken by industry to address poor performance, e.g. airlines replanning their schedules, flight caps at some airports.

Performance by Airport

The analysis below shows differences in performance across UK airports where data was available. Whilst there is significant variance in the data, when taken together, performance was generally worse at airports which operated a larger proportion of their pre-pandemic (2019) schedule. While the findings are not conclusive, this relationship would indicate that performance challenges are being driven in part by issues at airports.

The figure below compares the percentage change in 2019 and 2022 for On-Time Performance and scheduled flights by airport. There is a correlation between relative change in scheduled flights and OTP, where performance has been better at airports that have had lower traffic volumes relative to 2019.

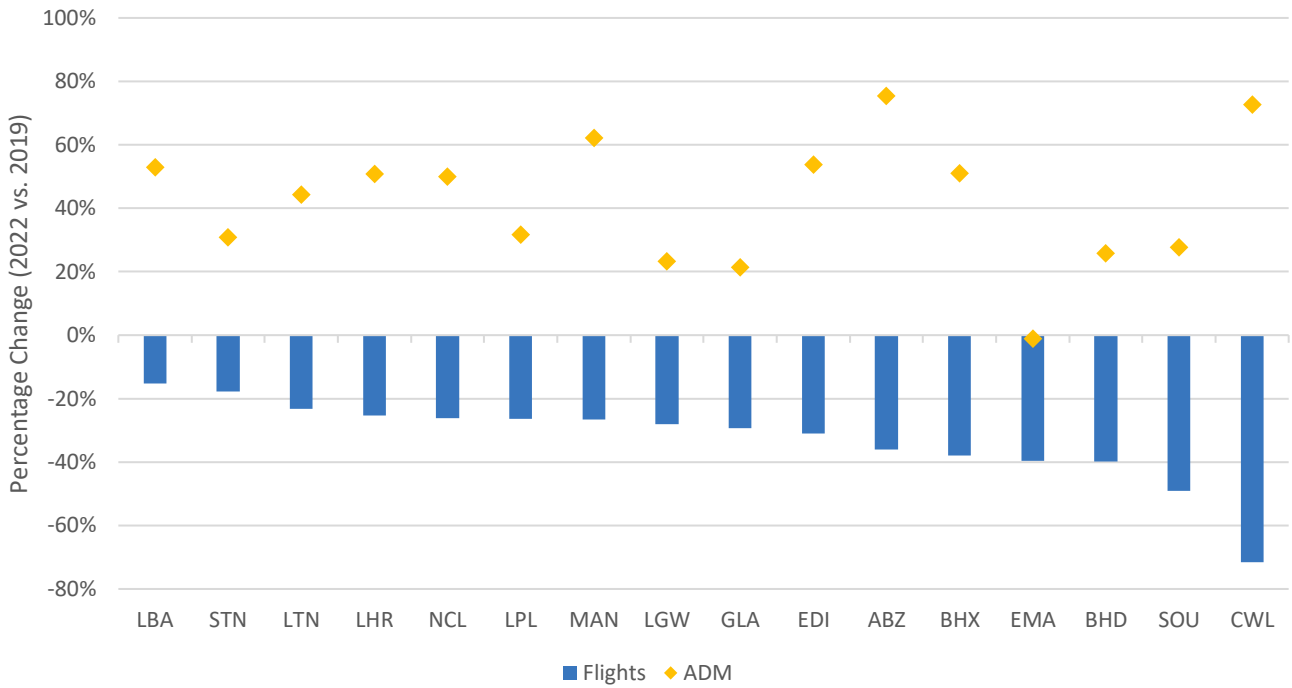
Figure 19: Change in On-Time Performance by Airport, 2022 vs. 2019



Source: PA Analysis of SRS airlines schedules data, OAG airport on-time performance data for January to August and CAA punctuality statistics for January to July. Note: airports handling fewer than 200,000 passengers in 2019 have been removed.

The figure below highlights the changes in average delay minutes (“ADM”) and scheduled flights by airport in 2022 and 2019. There is no clear correlation between traffic and delay.

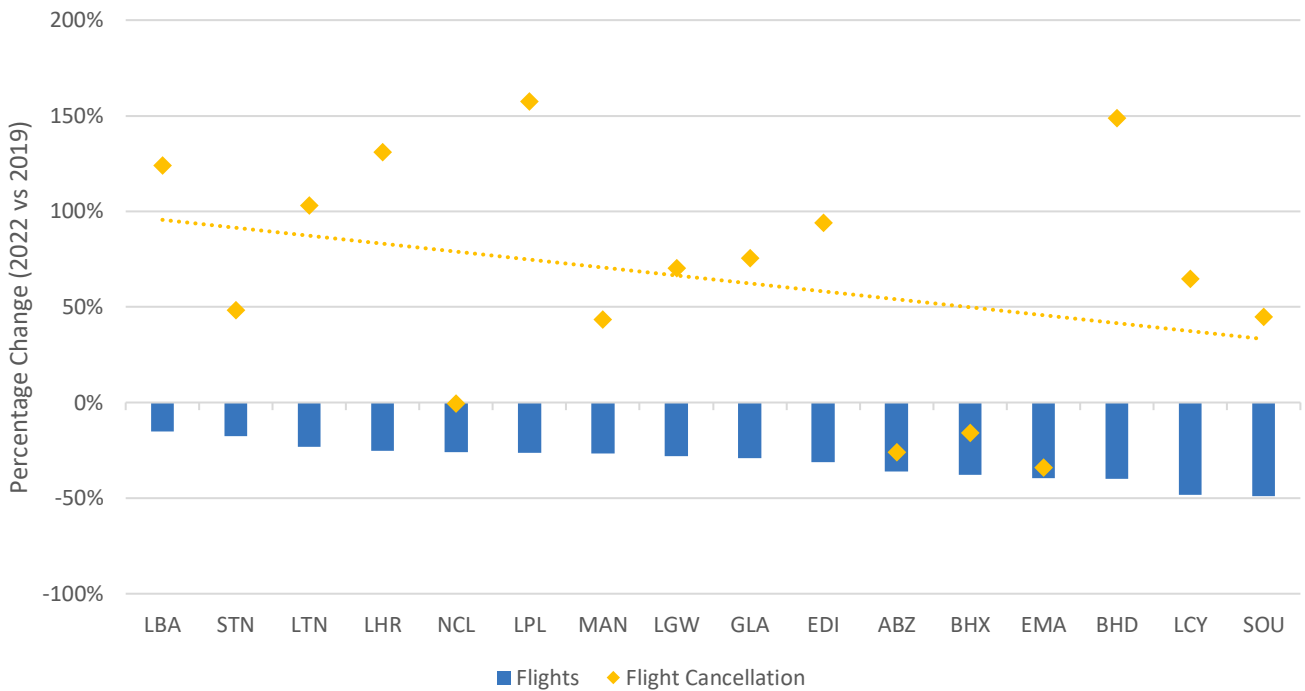
Figure 20: Changes in Average Delay Minutes by Airport, 2022 vs. 2019



Source: PA Analysis of SRS airlines schedules data, OAG airport on-time performance data for January to August and CAA punctuality statistics for January to July. Notes: LCY removed due to incomplete data; airports handling fewer than 200,000 passengers in 2019 have been removed.

The figure below shows the changes in flight cancellation percentage and scheduled flights at airports in 2022 and 2019. As seen with On-Time Performance, there is a correlation between performance and scheduled flights, where performance improved at airports with lower traffic volume relative to 2019.

Figure 21: Changes in The Rate of Flight Cancellations by Airport, 2022 vs. 2019



Source: PA Analysis of SRS airlines schedules data, OAG airport on-time performance data for January to August and CAA punctuality statistics for January to July. Note: CWL removed due to incomplete data; airports handling fewer than 200,000 passengers in 2019 have been removed.

The above suggests that, while there is high level of variation in the data, performance in 2022 was generally worse at airports which flew a larger proportion of their pre-pandemic (2019) schedule. This relationship appears to be driven by levels of cancellations and less so by average delay, both of which effect On-Time Performance. Even with this variance in the data, flight cancellations were significantly higher than 2019 levels at airports which had recovered faster. For example, cancellations almost tripled at London Luton and London Heathrow airports, and tripled at Liverpool, all of which flew more than 70% of their 2019 schedule. This suggests that airports which bounced-back the fastest from the pandemic experienced the most significant challenges in rapidly scaling up their operations.

Performance at Selected Airports

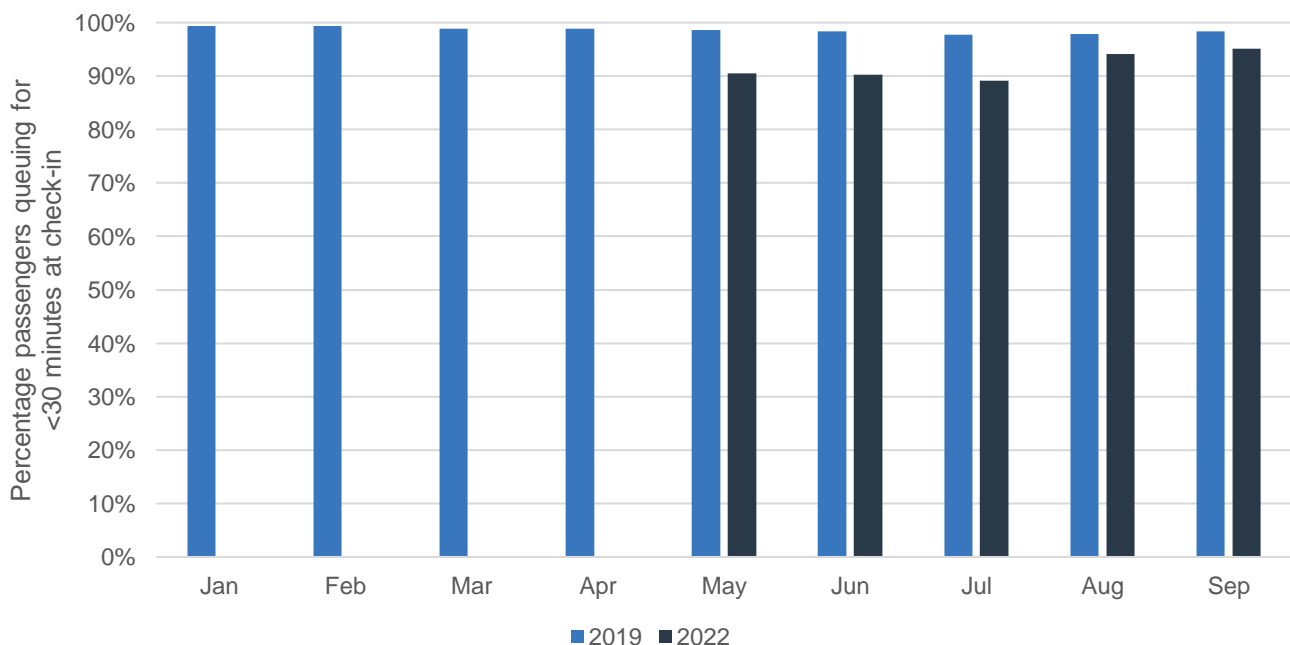
The analysis below presents additional ground handling performance metrics where this data is available.

London Gatwick publishes detailed monthly performance reports covering a wide range of airport services, including passenger and baggage handling, and assistance services for Passengers with Reduced Mobility (PRMs). These are analysed in further detail in the sections below. Furthermore, prior to 2021, London Heathrow airport also published ground handling performance reports which score the performance of ground handling agents operating at the airport every month. However, these reports are no longer published, with the latest version dated December 2020. Therefore, these have not been presented in this report.

The analysis below suggests that the performance of baggage handling and PRM assistance services were particularly impacted by the summer operational disruption at London Gatwick. Baggage handling performance was performing more than 20% worse in July 2022 than the same month in 2019; while PRM assistance was 38% below 2019 levels for June.

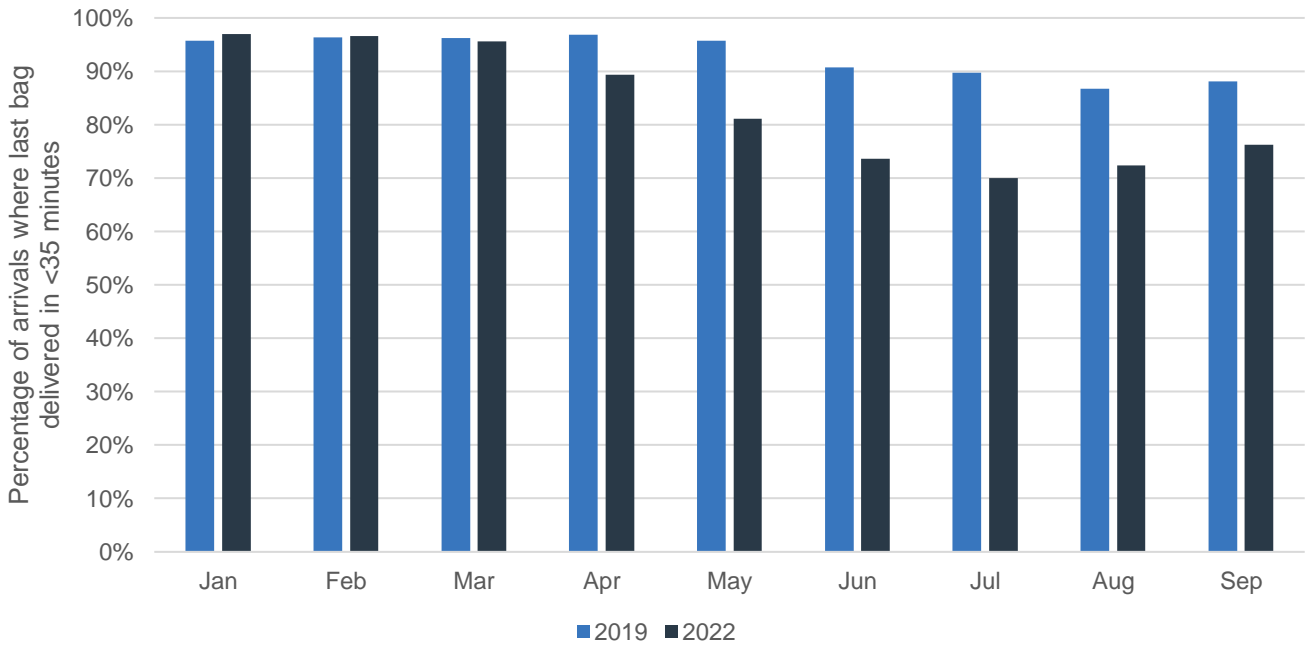
Figure 22 shows passenger handling performance at London Gatwick in 2019 and 2022, presenting the percentage of passengers queuing for less than 30 minutes at check-in. Passenger handling performance at the airport fell below 2019 levels for all months where data is available (May to September 2022). Passenger handling performance was 9% below 2019 levels in its worst month (July), which improved in August.

Figure 22: Passenger Handling Performance at London Gatwick, 2019 and 2022



Source: PA analysis of Gatwick Airport monthly performance reports. Notes: check-in queue performance is measured for the time in which an airline’s individual check-in is open or the agreed defined time of an airline’s check-in operation; data unavailable for January 2022 to April 2022.

Figure 23: Baggage Handling Performance at London Gatwick, 2019 and 2022



Source: PA analysis of Gatwick Airport monthly performance reports. Note: time from the ‘on-chocks’ time supplied by the airlines’ handling agents to delivery to the baggage carousel.

Performance Analysis

This section benchmarks airport performance across airports of different sizes, with different ground handling markets (market structure, business model) and in different regions. Flight cancellations data has been excluded from the analysis below as the factors which drive flight cancellations are less likely to be determined by changes in ground handling service quality than other measures, such as Average Delay Minutes and On-Time Performance.

Performance by Airport Size

The analysis below compares performance by airport size, across the following groups:

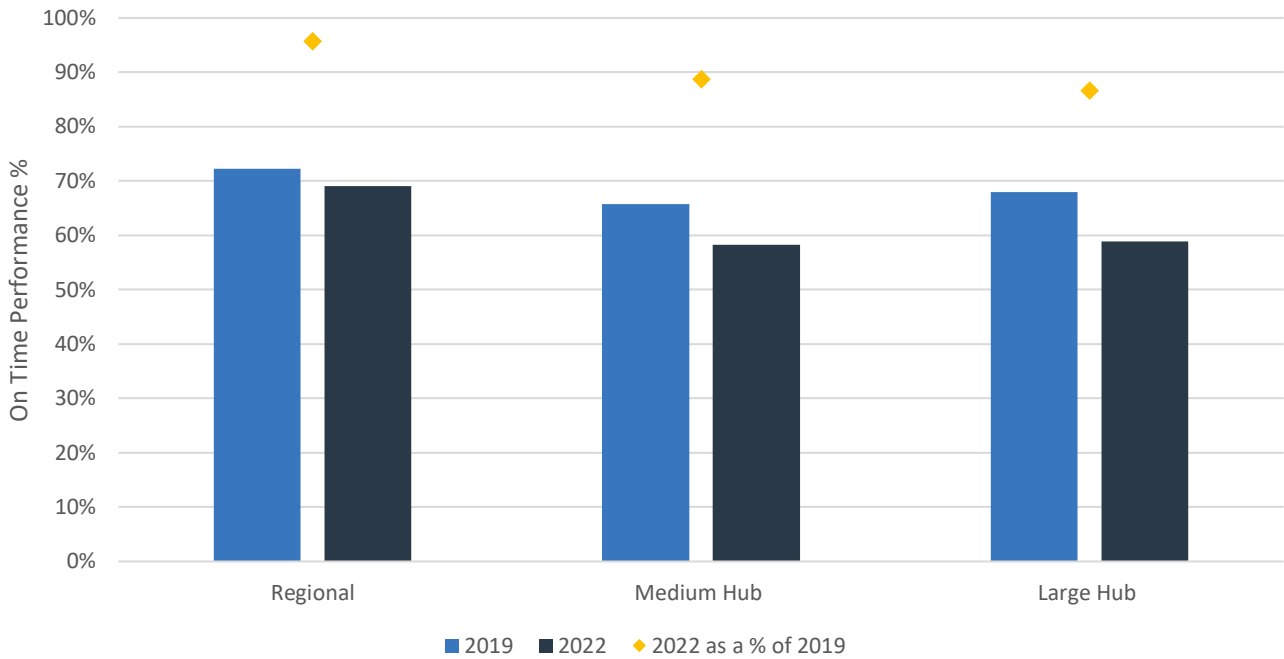
- Regional airports (fewer than 25,000 flights per annum)
- Medium airports (between 25,000 and 49,999 flights per annum)
- Large airports (greater than or equal to 50,000 flights per annum)

In summary, regional airports significantly outperformed larger airports and saw a smaller decline in performance relative to larger airports in 2022. This perhaps reflects greater operational complexity and capacity constraints due to the increased volume of aircraft movements at larger airports, which may reduce performance.

Whilst this suggests there is a positive relationship between airport size and operational performance, there are also other covariates which may be influencing this trend. For example, airport size also correlates with the number of incumbents operating at a given airport. As previously seen, airports with a larger number of incumbent ground handling agents also performed worse in 2022 compared to those with a monopoly ground handling market. Therefore, it may be either airport size or the number of incumbents, or both, driving worse operational performance at larger airports.

The figure below illustrates the differences in OTP by airport size (regional, medium and large airports) between 2019 and 2022. Airports are sized based on the volume thresholds described above.

Figure 24: Change in On-Time Performance by Airport Size, 2019 and 2022



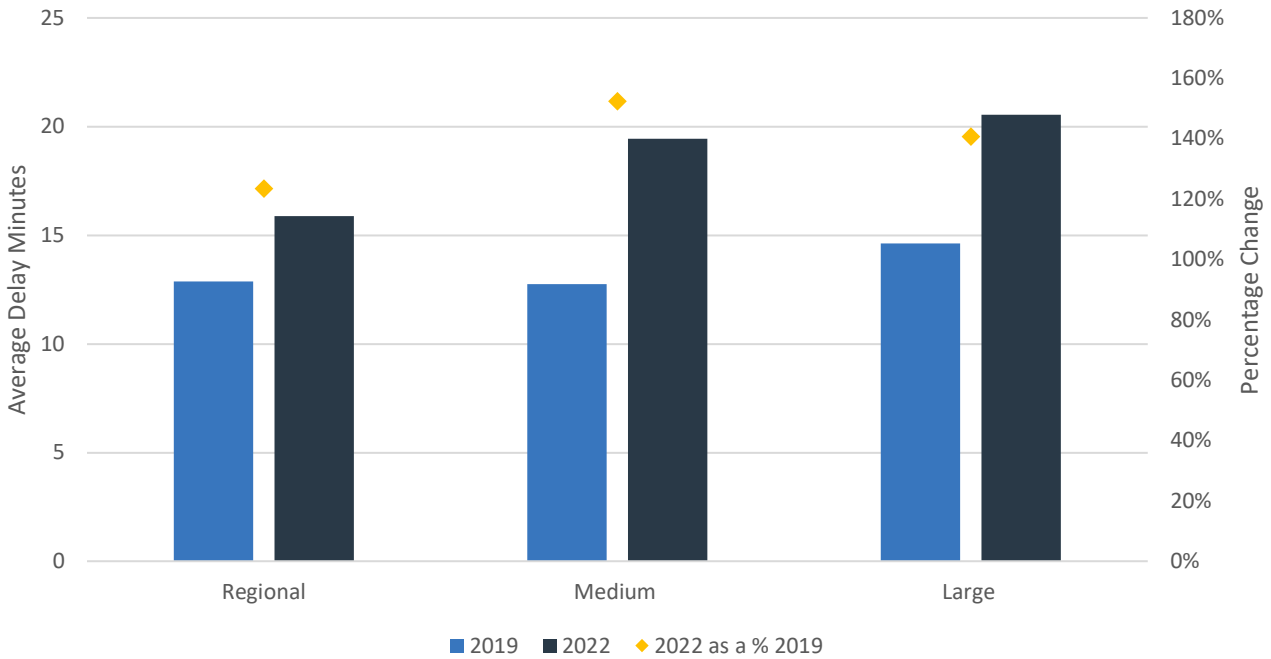
Source: PA analysis of OAG on-time performance data. Data for January to September. Regional (<24,999 flights per annum); medium (25,000-49,999 flights per annum), large (greater than 50,000 flights per annum). Sample Size : Regional- 14 airports, Medium – 6 airports, Large – 4 airports

As previously summarised, the figure above shows that regional airports have – on average – outperformed larger airports, with average OTP being 12% higher at smaller airports. Furthermore, regional airports experienced a significantly smaller reduction in OTP (-4%) between 2019 and 2022 than larger airports. OTP fell the most at large airports, down 13% on 2019 levels.

This could be explained by the smaller number of ground handling agents present, generating less operational complexity. This would mean that it is easier to plan for, respond to and resource changes in numbers of flights and passengers. Furthermore, regional airports have fewer flights than their larger airport counterparts, requiring fewer workers from the local labour pool. This may allow resource gaps to be plugged more effectively without a substantial impact on the local labour market. For example, at some of the larger airports like London Heathrow, airports may play a significant role in the local labour market. Due to this and in addition to conditions in the local economy, hiring and replacing staff may be more challenging than at the regional airports, hindering adequate operational resourcing. Stakeholders did not provide comment on any regional disparities in resourcing shortages

A similar trend is seen in Figure 25, where regional airports were the best performing in terms of delay in 2022. Although there was little difference in delay across different sized airports in 2019, larger airports experienced a significant increase in delay in 2022 which was not seen to the same extent at regional airports.

Figure 25: Change in Average Delay Minutes by Airport Size, 2019 and 2022



Source: PA analysis of Civil Aviation Authority airport performance data. Data for January to August 2022. Regional (<24,999 flights per annum); medium (25,000-49,999 flights per annum), large (greater than 50,000 flights per annum). Sample Size: Regional- 14 airports, Medium – 6 airports, Large – 4 airports

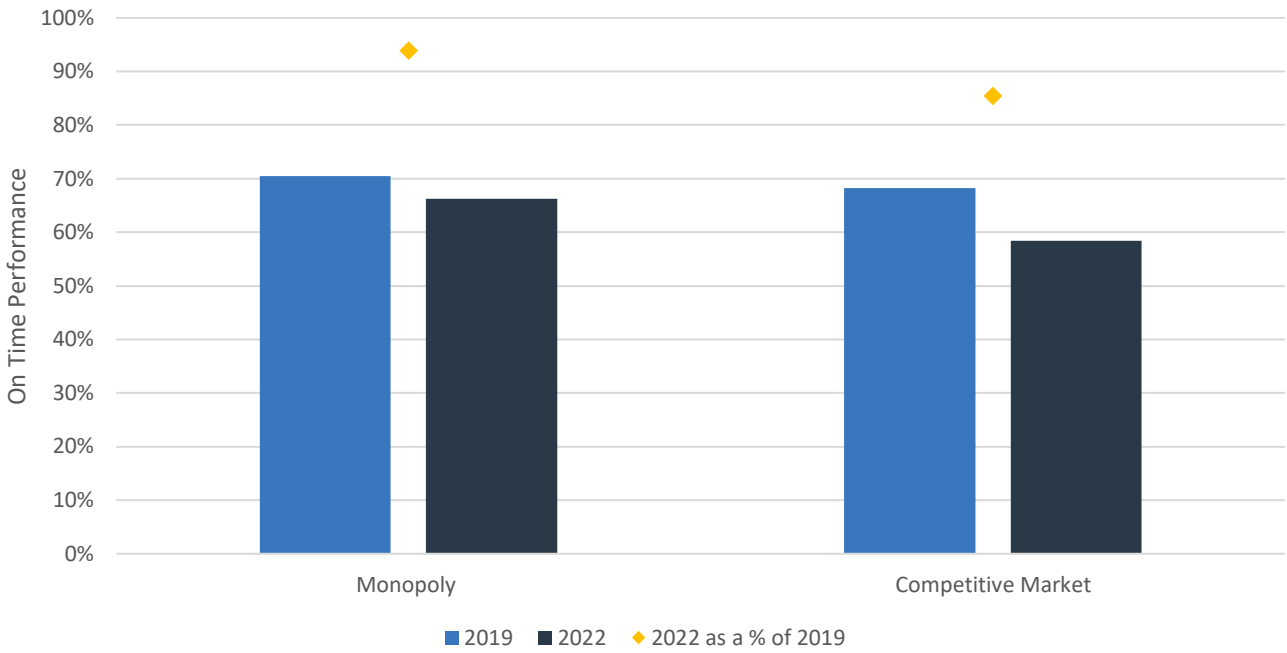
Performance by Market Structure

The analysis below suggests that airports where ground handling services are provided by a monopoly handling agent deliver performance which is at least as good as in airports with multiple competitors. Furthermore, these monopoly airports also saw their performance deteriorate marginally less between 2022 and 2019 than the performance of airports with multiple competitors. However, as mentioned in Performance by Airport Size, airports with more suppliers of ground handling correlates with airport size (as shown on p.31). Therefore, this may simply reflect better performance at smaller airports, which are more likely to have monopoly ground handling agents, than larger airports.

The figure below compares differences in OTP by airports with two different market structures. Airports which are monopolised by a single third-party ground handling agent³⁴ ('Monopoly') have performed marginally better than those with multiple ground handling agents ('Competitive Market'). Notably, however, of the seven airports with third-party monopolies, five of these are operating by Swissport. Performance deteriorated marginally faster at airports with multiple incumbents between 2022 and 2019.

³⁴ Note that airports with airport-handling have been left out of the analysis due to an insufficient sample size.

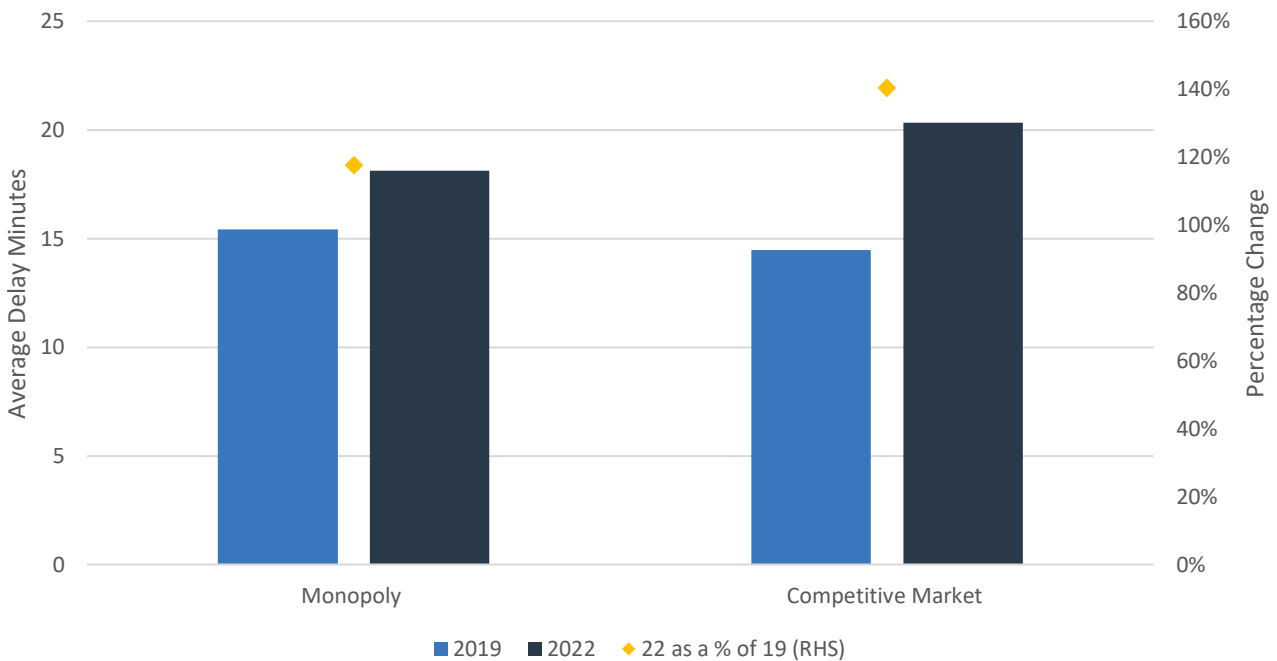
Figure 26: Differences in On-Time Performance by Level of Market Structure, 2019-2022



Source: PA analysis of OAG on-time performance data, SRS schedules data, contract award notices, airport and ground handling agent websites, and stakeholder questionnaire responses. Note: data for January to September.

Similar trends are observed in Figure 27, showing average delay minutes at airports across the two market structures. In 2019, both performed approximately as well as each other. In 2022, however, delay increased significantly more at airports with multiple incumbents compared to 2019 levels than those with a single provider.

Figure 27: Difference in Average Delay Minutes by Market Structure, 2019-2022



Source: PA analysis CAA punctuality data, SRS schedules data, contract award notices, airport and ground handling agent websites, and stakeholder questionnaire responses. Note: data for January to August.

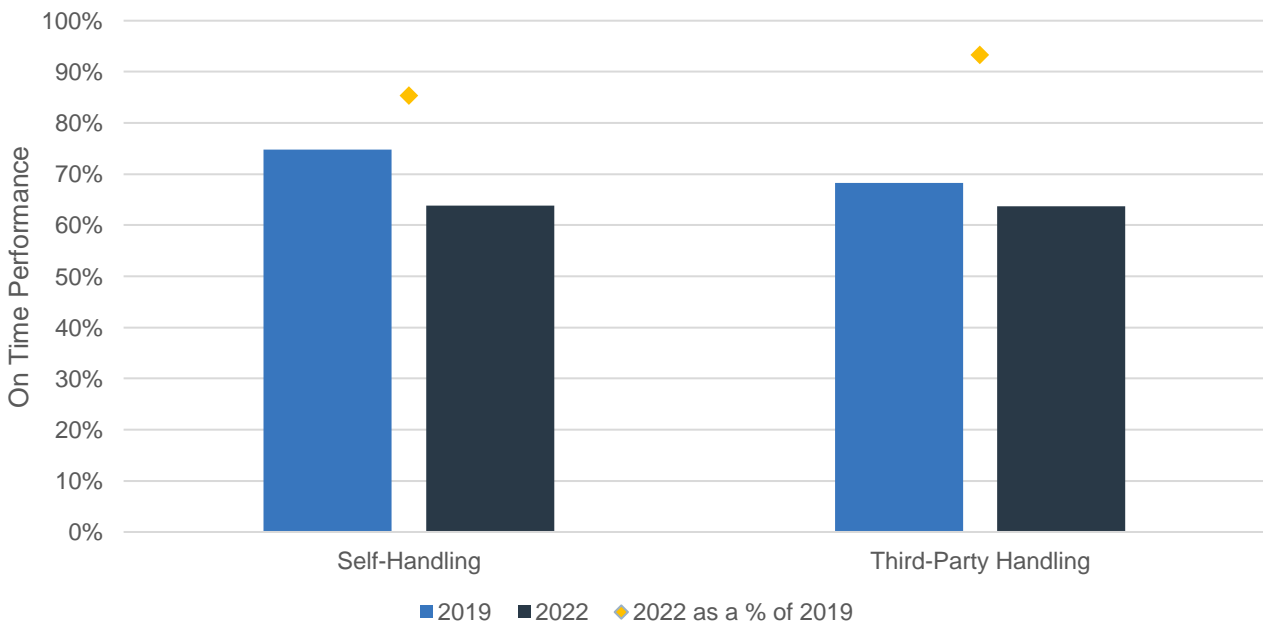
Performance by Business Model

Airports are categorised into one of the three business models, as previously described on p.11: airport handling, self-handling airlines and third-party ground handling agents. Each airport is categorised based on which of the three business models held the largest market share in 2022.

The analysis below suggests that airports which consisted predominantly of self-handling airlines performed marginally better than those with third-party handling agents in 2019. While stakeholders did not have strong views on whether either model generated better performance than another, some airlines highlighted that self-handling allows for an airlines’ scheduling plans to reflect ground handling operational constraints, which may explain the marginal difference in performance observed in 2019. There was no significant difference in performance between either model in 2022. The majority of UK airports are handled by third-party ground handling agents, while several airlines (British Airways, Jet2, Ryanair, etc.) self-handle. Performance data was not available for more than two predominantly ‘airport handling’ airports and so has been removed from the analysis.

Figure 29 below considers On-Time Performance by main ground handling business model for both 2019 and 2022.

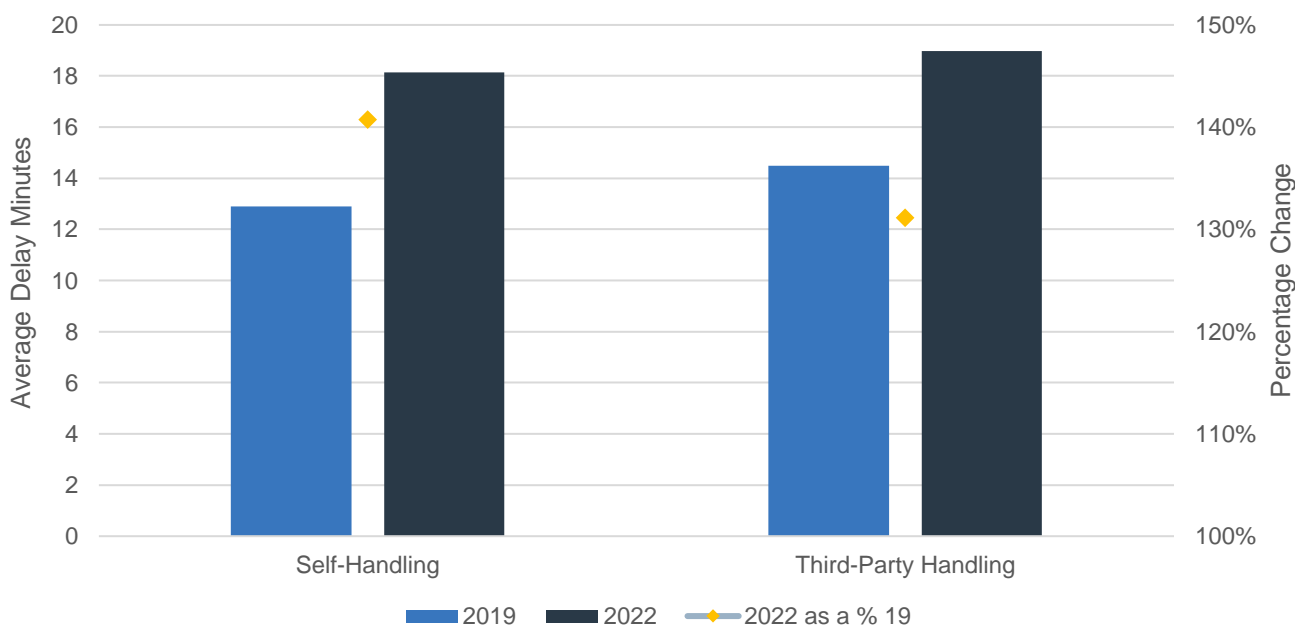
Figure 28: Differences in On-Time Performance by Primary Business Model, 2019-2022



Source: PA analysis of OAG on-time performance data, SRS schedules data, contract award notices, airport and ground handling agent websites, and stakeholder questionnaire responses. Data for January to September.

A similar trend is found in the figure 30 below, showing average delay minutes by business model. As above, self-handlers have outperformed third party handlers in 2019, and reached similar levels of performance in 2022.

Figure 29: Average Delay Minutes by Primary Business Model , 2019-2022



Source: PA analysis of Civil Aviation Authority airport performance data. Data for January to August.

Performance by Region

The analysis below assesses operational performance by region. Overall, Northern Ireland has been the best performing region across both OTP and delay data. Scotland and England have performed equally. London has performed marginally worse than other regions and saw the largest decline in performance relative to 2019.

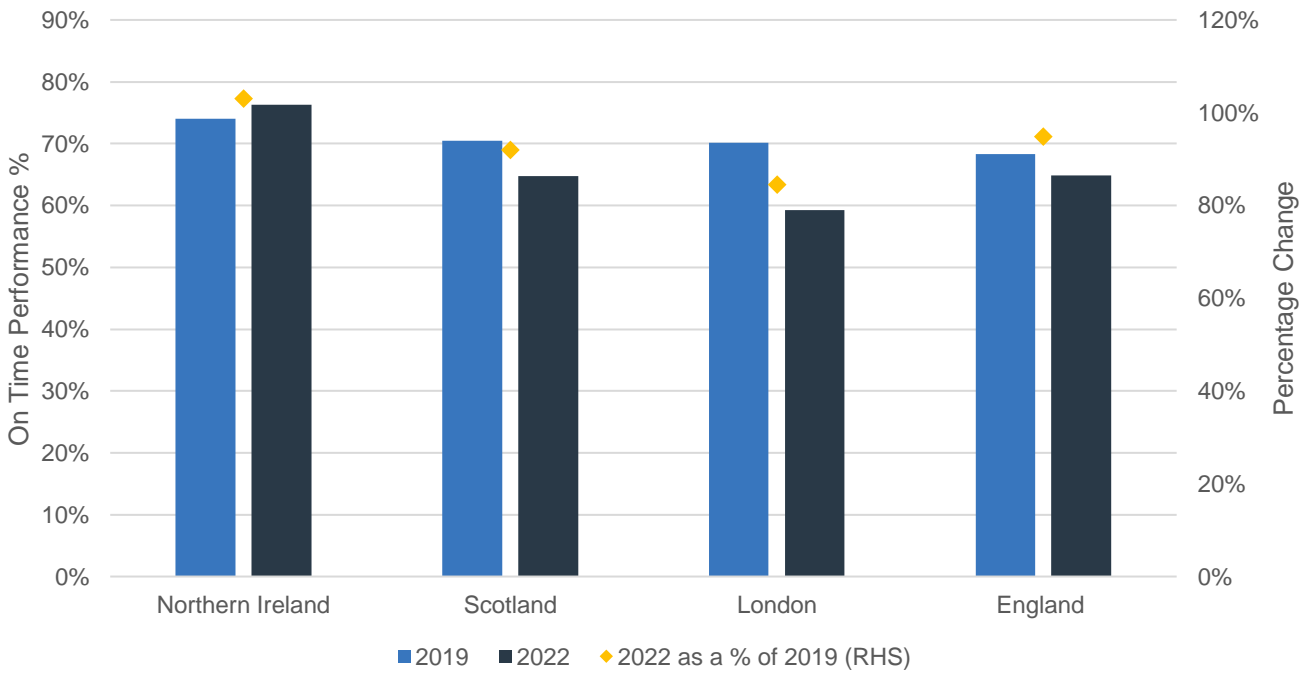
However, this may be due to a combination of factors addressed in previous sections. For example, airports in Northern Ireland are smaller in size relative to other regions, and their ground handling agents tend to be more concentrated. Both of these factors may have contributed to better operational performance in 2022.

On the other hand, airports in London are larger in size and their ground handling markets tend to be more competitive, contributing to worse operational performance in line with the previous analysis. Furthermore, London airspace and airports are some of the most congested in Europe which will also have driven performance downwards relative to other regions.

Airports in Scotland and England, which have similar levels of performance, share a combination of these factors. Therefore, whilst the analysis below shows differences in performance between different region, physical geography *per se* is unlikely to make a significant difference to an airport’s performance.

The figure below shows the trends discussed above for OTP between 2019 and 2022. London airports had both the largest decrease in performance between the two years, and worst performance in 2022. Both Scotland and England performed similarly and all saw small decreases in performance. Northern Ireland not only was the best performing region, but also was the only region to see an increase in performance relative to 2019.

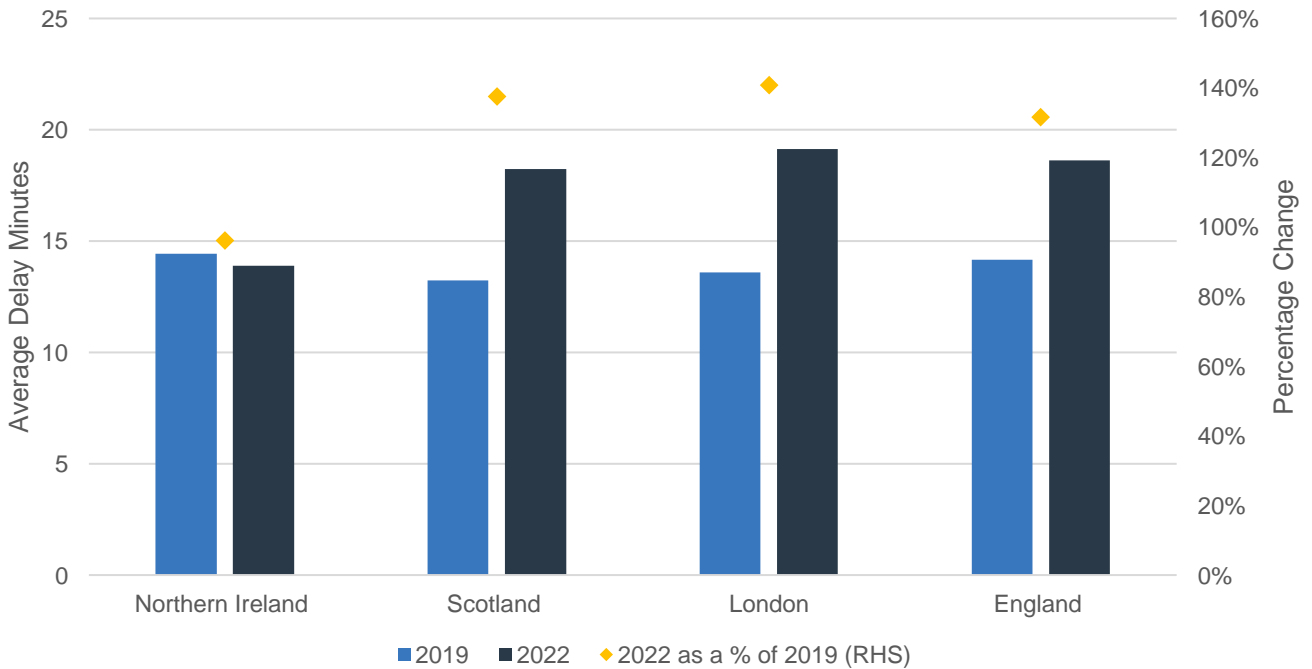
Figure 30: Differences in On-Time Performance by Region, 2019-2022



Source: PA analysis of OAG on-time performance data. Note: no data available for Wales. Data for January to September. Sample for England does not include London airports.

A similar trend is found in the figure below, where London was the worst performing region in 2022 in terms of delay. Whilst all regions performed at similar levels in 2019, Scotland, England and London saw performance deteriorate in 2022. Northern Ireland was also the best performing region in 2022.

Figure 31: Differences in Average Delay Minutes by Region, 2019-2022



Source: PA analysis of CAA punctuality statistics. Note: no data available for Wales. Data for January to August. Sample for England does not include London airports.

Operational Resourcing

This chapter analyses trends and challenges facing labour resourcing and equipment resourcing in ground handling. The first section on labour assesses the number of staff employed in UK ground handling, key roles and skills, workforce demographics, remuneration, working conditions, the wider labour market and staff turnover. This is followed by a section on equipment which assesses investment in ground support equipment (GSE) and the provision of centralised infrastructure at airports.

The UK ground handling sector faced one of the largest headcount reductions of any sector through the pandemic, with headcount falling by 51% between 2019 and 2021. This excludes staff who were placed on furlough. Following these reductions and the return of flights in Summer 2022, the number of ground handling vacancies jumped by more than 2.5 times in March 2022 compared with the same month in 2019. The number of vacancies has remained high throughout the year, suggesting that recruitment challenges facing the sector have persisted.

While there are some exceptions, the picture of labour resourcing at the end of 2022 likely remains challenging for ground handling agents. For example, while data on 2022 staff levels is not yet widely available, one large UK airport cited estimated that, as of November 2022, there was a resource gap of between 10% and 15% for Summer 2023. This is not the case for all ground handling agents, however, with one medium-sized ground handling agent reporting staffing levels in excess of 2019 levels, despite 35% less output (fewer aircraft turns completed) compared to 2019. Staff retention is an ongoing challenge for the sector, with almost 50% of new joiners leaving one large UK ground handling agent within three months of starting in 2022.

The available evidence suggests that ground handling staff are not necessarily poorly paid relative to other comparable roles. However, relatively poor working conditions make ground handling less attractive relative to comparable roles. For example, airport staff often work irregular, unsociable hours; baggage handling staff often carry irregular, heavy loads; and front-of-house staff have reportedly faced more challenging passenger sentiment.

Labour

Key Roles

There are several key ground handling roles, summarised in the table below. Due to changes in requirements by season, some roles (e.g., de-icing) may close for summer and those staff transfer to other roles on the ramp. Detailed role descriptions are provided in Appendix A.

Table 7: Description of Key Ground Handling Roles

Role	Description
Aircraft De-icer	Responsible for ensuring that aircraft and vehicles are de-iced and in condition to operate as normal through winter
Aircraft Cleaners	Responsible for cleaning and dressing the aircraft
Airside Drivers	Airside Drivers are responsible for manual handling and delivering and collecting Unit Load Devices (containers) and pallets
	GSE Operatives are responsible for pushing back aircraft using pushback tugs
	AmbuLift Drivers are responsible for transporting passengers with reduced mobility to and from boarding gates directly to the aircraft; this role requires a Heavy Goods Vehicle licence
	Bowser Drivers are responsible for transporting fuel across the airfield and refuelling.

Role	Description
	HiLift Drivers are responsible for un/loading aircraft supplies, e.g., catering
Check-In Agents	Responsible for greeting and checking in passengers and baggage, checking documentations and flight details, and conducting boarding and passenger announcements
Baggage and Ramp Agents	Responsible for assisting with preparation of aircraft, baggage processing and aircraft loading and unloading

Source: PA analysis of live postings on Indeed, Total Jobs, Glassdoor, Reed and HR Go Recruitment.

Ground handling occupations are typically broken down into airside and front of house roles. Airside roles include below-wing ramp and baggage handling roles; front of house roles centre on the provision

Figure 32: Career Progression in Ground Handling



of passenger services. Career progression and promotion through each of these two streams is summarised in the figure below.

Source: PA analysis of ground handling role descriptions shared by a major ground handling organisation.

Salaries do not appear to increase significantly with progression. One trade union suggested that the difference between the bottom of the grade (junior agents) and top (managers) could be between £4,000 and £7,000 per annum, a representing a premium of between 20% and 34% for a typical baggage or ramp agent in the UK.³⁵

There are several key skills and attributes needed to perform ground handling roles, as summarised in the table below. For example, ramp and baggage handlers must be comfortable with manual handling, while front of house roles require technical and people management skills. A higher level of education (A Levels) is required for managerial roles.

³⁵ Estimate derived based on national average baggage agent net wages (£11.07 per hour, 2022), assuming 40 working hours per week for a typical full-time worker working 46 weeks per year. Excludes overtime or adjustments.

Table 87: Key Skills Needed to Perform Selected Roles in Ground Handling

Seniority	Knowledge, Skills and Experience
Agent	<p>All roles</p> <ul style="list-style-type: none"> • Educated to at least ‘GCSE’ level standard or equivalent • At least 2 years’ experience of working in an operational/manual service environment • Basic IT skills and cultural awareness <p>Airside (Baggage and Ramp)</p> <ul style="list-style-type: none"> • Knowledge of ramp services processes and customer airline operational procedures preferred • Manual Handling training and experience essential, ability to lift heavy weights with appropriate training <p>Front of House (Passenger Services)</p> <ul style="list-style-type: none"> • Excellent customer service attitude and skills and highly developed communication skills
Senior Agent	<p>All roles</p> <p><i>In addition to Agent knowledge, skills and experience:</i></p> <ul style="list-style-type: none"> • Proven communication skills • Comprehensive knowledge of airline operational procedures • Between 1 to 2 years of experience of ground handling operations <p>Airside (Baggage and Ramp)</p> <p><i>In addition to Agent knowledge, skills and experience:</i></p> <ul style="list-style-type: none"> • In depth knowledge of ramp operation procedures • Manual Handling training and experience essential, ability to lift heavy weights with appropriate training <p>Front of House (Passenger Services)</p> <p><i>In addition to Agent knowledge, skills and experience:</i></p> <ul style="list-style-type: none"> • Excellent customer service attitude and skills and highly developed communication skills • Comprehensive knowledge of passenger services processes and customer airline operational procedures
Supervisor	<p>All roles</p> <p><i>In addition to Senior Agent knowledge, skills and experience:</i></p> <ul style="list-style-type: none"> • Educated to at least ‘A’ level standard or equivalent, preferably to graduate level • Proven communication and leadership skills gained within a supervisory position <p>Airside (Baggage and Ramp)</p> <p><i>In addition to Senior Agent knowledge, skills and experience:</i></p> <ul style="list-style-type: none"> • At least 2 years’ experience of managing large groups of staff • Experience of working within a unionised working environment is a prerequisite <p>Front of House (Passenger Services)</p> <p><i>In addition to Senior Agent knowledge, skills and experience:</i></p> <ul style="list-style-type: none"> • At least 2 years’ experience of working in the passenger services • Proven technical and people management or supervisory skills

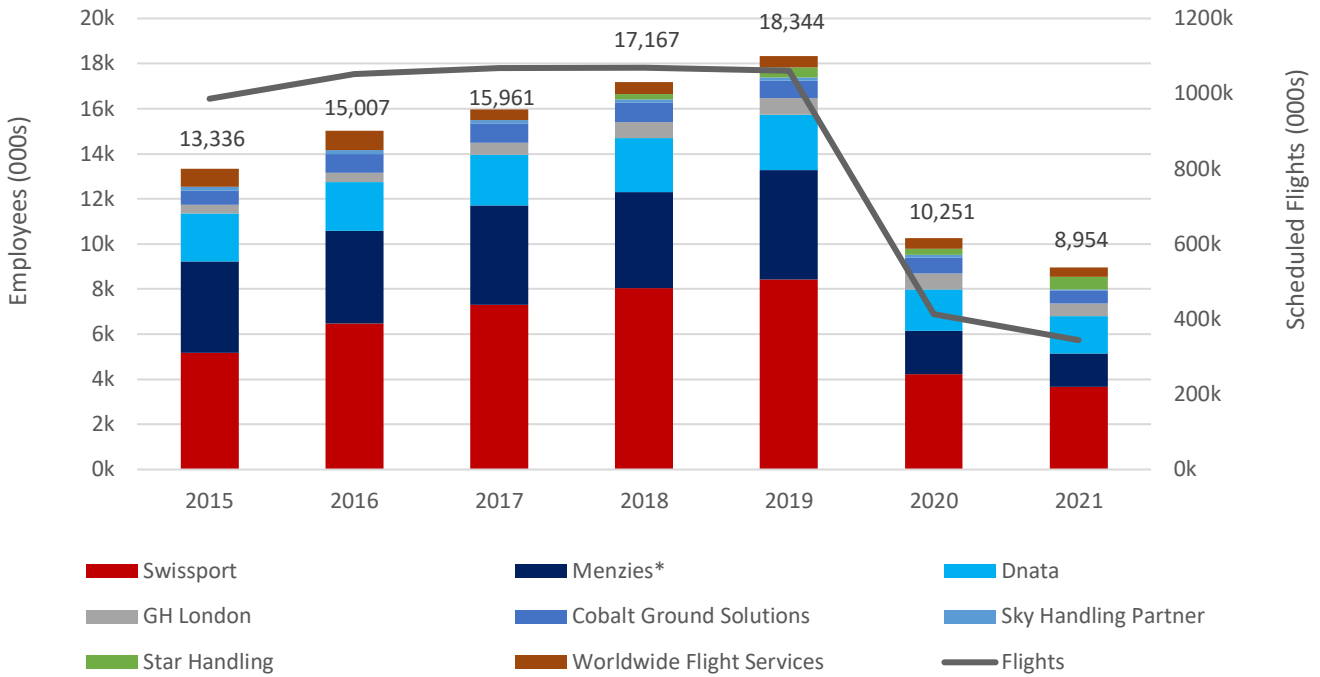
Source: PA analysis of ground handling role descriptions shared by a major ground handling organisation.

Some commonality exists between airside and front of house roles as seen with the need to possess an ability to manage large groups of staff and have people management skills. This therefore introduces the possibility of cross-utilising complementary roles.

Employment Levels

Before the Covid-19 pandemic, the total number of full-time equivalent (FTE) ground handling staff in the UK increased steadily by 8% year on year between 2015 to 2019, as illustrated in the figure below.

Figure 33: Total Ground Handling Staff FTE in the UK, 2015-2021



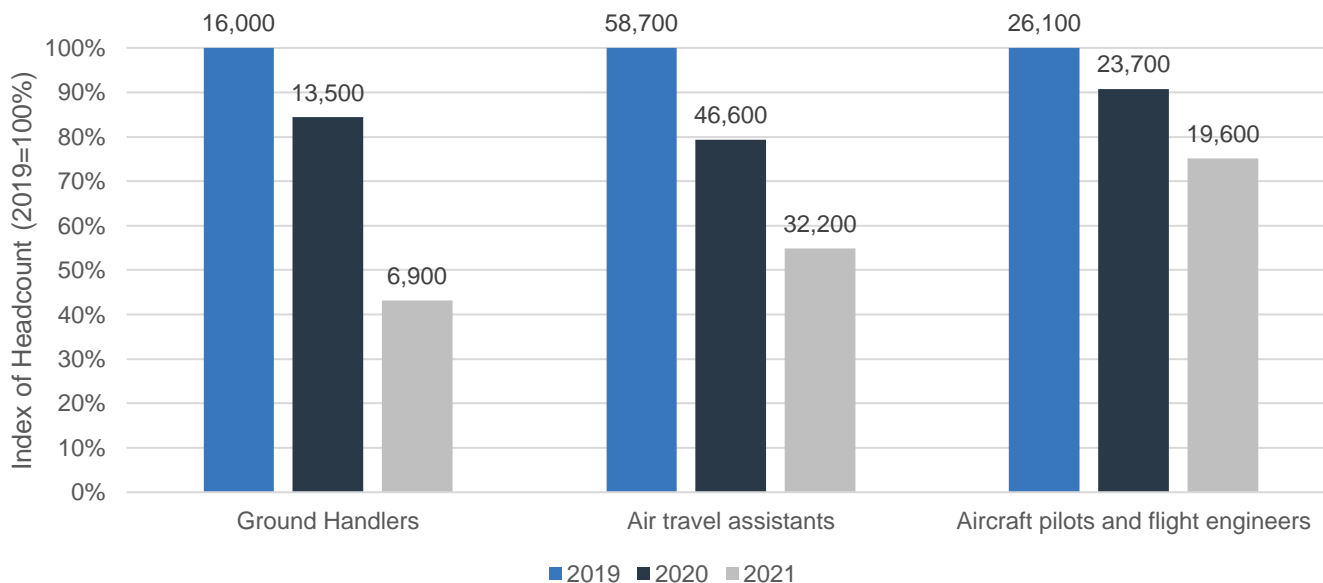
Source: PA analysis of the financial statements of Cobalt Ground Solutions Limited, Dnata Limited, GH London Limited, Menzies Aviation UK Limited, Sky Handling Partner, Star Handling Limited and Swissport GB Limited. (*) Note: Menzies data for 2021 confidential and to be redacted before publication. Swissport and Worldwide Flight Services data for 2021 estimated using sample average reduction. Swissport 2021 estimate corroborated by PA discussions with trade unions. Units shown in FTEs (Full Time Equivalent).

In 2020, headcount fell by 45% on 2019 levels as the effects of the Covid-19 pandemic reduced flying activity by almost two-thirds (-61%) over the same period; passenger numbers fell further (-76%). This reduction continued in 2021, with more than half (51%) of FTEs being made redundant by the end of the year compared to 2019 levels. This compares against a two-thirds (66%) reduction in flight volumes in 2021 compared to 2019.

The impact of such significant reductions on productivity is further explored in Productivity on p.51. At the time of writing, data was not available for specific types of ground handling roles or service types.

Other sources show changes in staff numbers (headcount), which fell similarly. For example, the Office for National Statistics estimates that headcount fell by 57% between 2021 and 2019, as shown in the figure below.

Figure 34: Change in Headcount in UK Aviation, 2019-2021



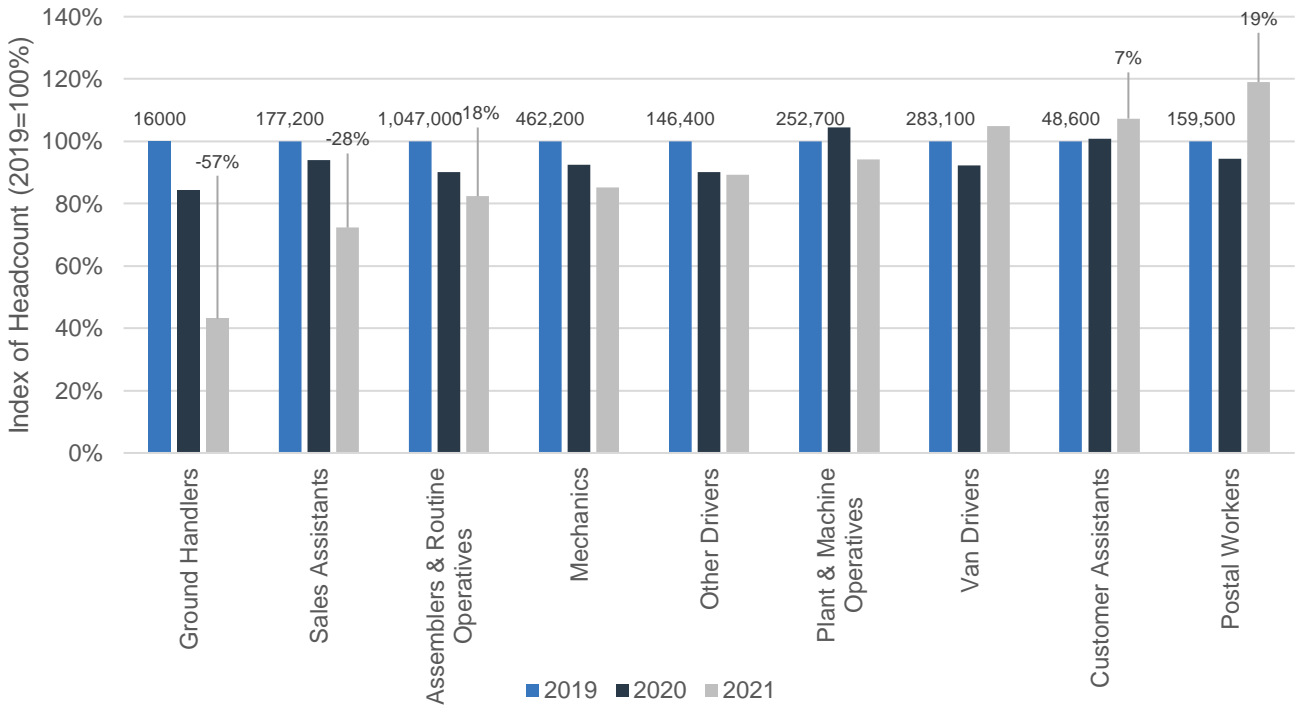
Source: PA analysis of ONS employment (headcount) data. Standard Occupation Classification codes: 8233 (Air Transport Operatives), 6214 (Air Travel Assistants) and 3512 (Aircraft Pilots and Flight Engineers).

Note that there is little evidence to suggest that headcount is likely to have fallen faster than FTE over this period. Differences in the trends shown between the two data sets are likely due to uncertainties in the ONS data.³⁶ Furthermore, differences in absolute values between the two data sets are likely because each counts different groups of staff. On the one hand, the FTE data covers all ground handling staff across all service types (above- and below-wing); on the other hand, the ONS headcount estimates show the number of staff employed only in below-wing ground handling services.

As is also shown in the figure above, ground handling staff were hardest hit in comparison to other aviation occupations where data is available. For example, the number of pilots fell by 25% over the same time period. This is also true in comparison to similar roles in the wider economy, as shown in the figure below.

³⁶ The ONS data reports a 95% confidence interval of +/- 4000 staff from the figures presented in above.

Figure 35: Change in Headcount by Comparable Occupations, 2019-2021



Source: PA analysis of ONS employment data. Standard Occupation Classification codes: 8233 (Air Transport Operatives), 7111 (Sales and Retail Assistants), 813 (Assembles and Routine Operatives), 5231 (Vehicle technicians, mechanics and electricians), 8229 (Mobile machine drivers and operatives n.e.c), 812, (Plant and Machine Operatives), 8212 (Van drivers), 721 (Customer Service Occupations), 9211 (Postal workers, mail sorters, messengers and couriers).

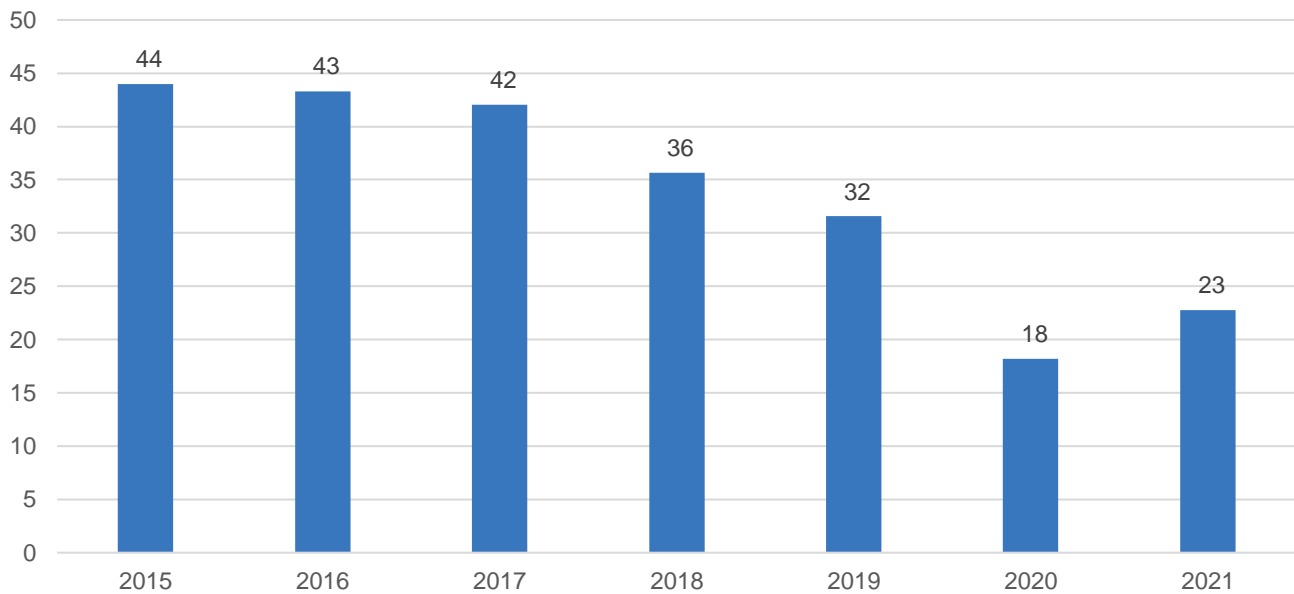
For example, the number of Sales Assistants fell by 28% between 2019 and 2021, in contrast to ground handling’s 57% reduction in headcount. In contrast, some other comparable occupations saw a marked increase in recruitment. For example, the number of postal workers and couriers increased by 19% over the same period. Notably, the increase in the number of postal workers in this period (+30,000) is equivalent to almost double the total number of ground handling staff employed in 2019.

The latest picture of labour resourcing in 2022 is mixed across the industry, with different levels of resourcing readiness seen across ground handling agents at the same airports. For example, while data on 2022 staff levels is not yet widely available, one large ground handling agent operating at London Heathrow reported staffing levels in excess of 2019 levels, despite 35% fewer aircraft turns completed (“output”) versus 2019.

Productivity

Average ground handling productivity is measured as the number of aircraft turns per full-time equivalent employee. The figure below illustrates UK productivity, sourcing data from a selected sample of UK ground handling agents’ total operations. This sample – consisting of Cobalt, Dnata, GH London and Menzies – has been selected based on both data availability (which must be available for the full time series) and having a relatively stable service mix across the time period (different ground handling services require different degrees of labour intensity per unit output). However, one important caveat is that this metric does not permit changes in the *scope* of services over time to be controlled for. For example, ramp handling for wide body aircraft require substantially more resource than narrow bodies.

Figure 36: Number of Aircraft Turns per FTE, 2015-2021



Source: PA analysis of the financial statements of Cobalt Ground Solutions Limited, Dnata Limited, GH London Limited, Menzies Aviation UK Limited. Note: sample limited to ground handling agents where data for the full time series was available.

The figure above shows that staff productivity has fallen since 2015. This trend was accelerated by the pandemic, whereby productivity fell more than 40% between 2019 and 2020 following a substantial reduction in traffic (-61%) which exceeded that of headcount (-44%). However, changes in productivity in 2020 and 2021 are expected to be driven predominantly by volume reductions rather than changes to underlying worker productivity. This is largely because the Coronavirus Job Retention (“furlough”) Scheme incentivised employers to retain staff despite significant reductions in output. Productivity recovered slightly in 2021, following further headcount reductions.

Nevertheless, several stakeholders expect underlying staff productivity to have fallen through the Covid-19 pandemic because of several factors:

- Higher rates of staff turnover and absenteeism
- A greater proportion of staff on ‘escorted’ airport passes
- Significant increase in the number of staff who are new to ground handling
- Significant reduction in the number of staff with more than 5 years of ground handling experience
- Training being provided virtually or in staff’s free time in some instances, which may reduce training quality

The sector recognises its dependence on labour and has looked at technology to increase labour productivity. For example, several ground handling agents have investigated opportunities to pursue automation to achieve this. Possible use cases for new technologies in ground handling include automated vehicles and passenger boarding bridges and e-boarding gates.

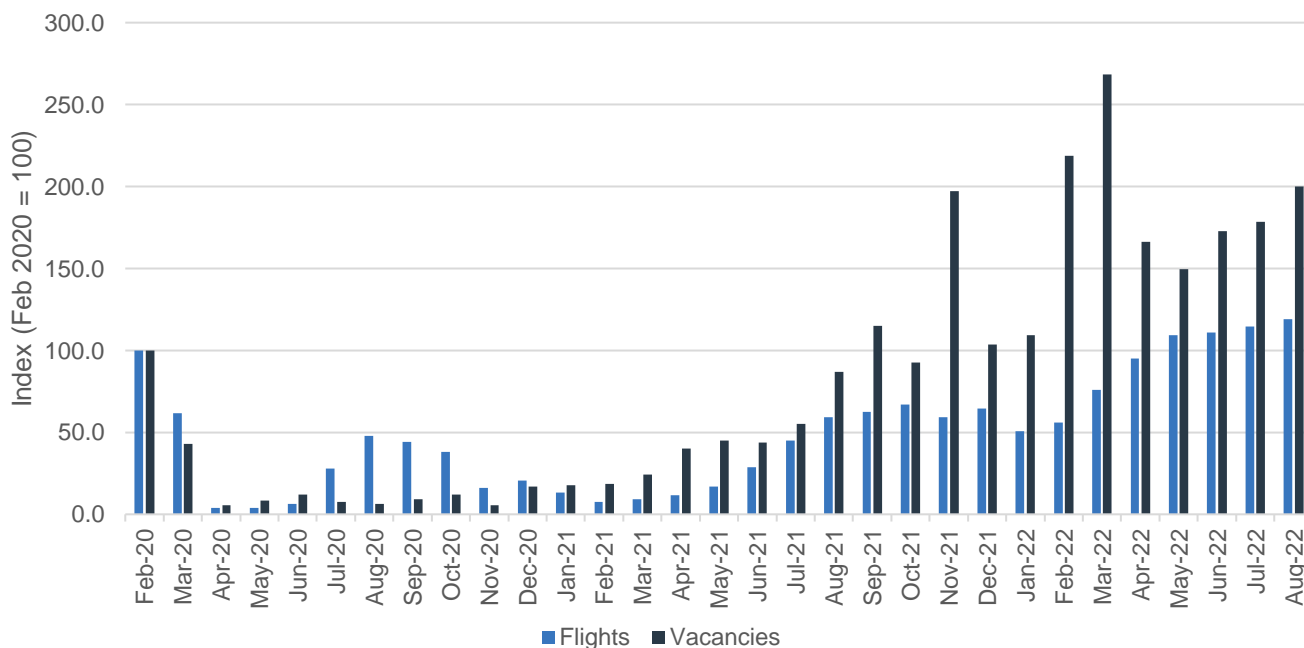
Vacancies

The trend seen with the reduction of ground handling staff through 2020 and 2021, as described above, reversed in 2022 with the partial recovery of traffic volumes. Although data on employment numbers for 2022 is not available at the time of writing, the number of ground handling vacancies³⁷ increased

³⁷ Vacancies have been defined as UK-based job advertisements containing the following job titles: Baggage Handler, Baggage Agent, Baggage, Ground handling agent, Ramp Handler, Ramp Supervisor, Aircraft Preparation, Load Planning Officer, Aircraft Dispatcher, Aircraft Fueller, Catering Delivery Driver, Flight Operations Manager, Cargo Handler, Logistics Manager, Freight Handler, Tug Driver, Ramp Marshaller, Airside, Airside Operations, Ground Operations, Groundcrew, Cabin Service Staff, Cabin Cleaners, Dispatch Agent Operations, Ramp, Aircraft Cleaner, Dispatch Agent, Aircraft Loader, and Aircraft Maintenance. This sample was taken from the

substantially, exceeding the pace of recovery of flights. By February 2022, flights had recovered to 56% of February 2020 levels while the number of vacancies had more than doubled (220%). This is illustrated in the figure below, showing the number flights and new vacancies posted, by month, indexed to February 2020 levels.

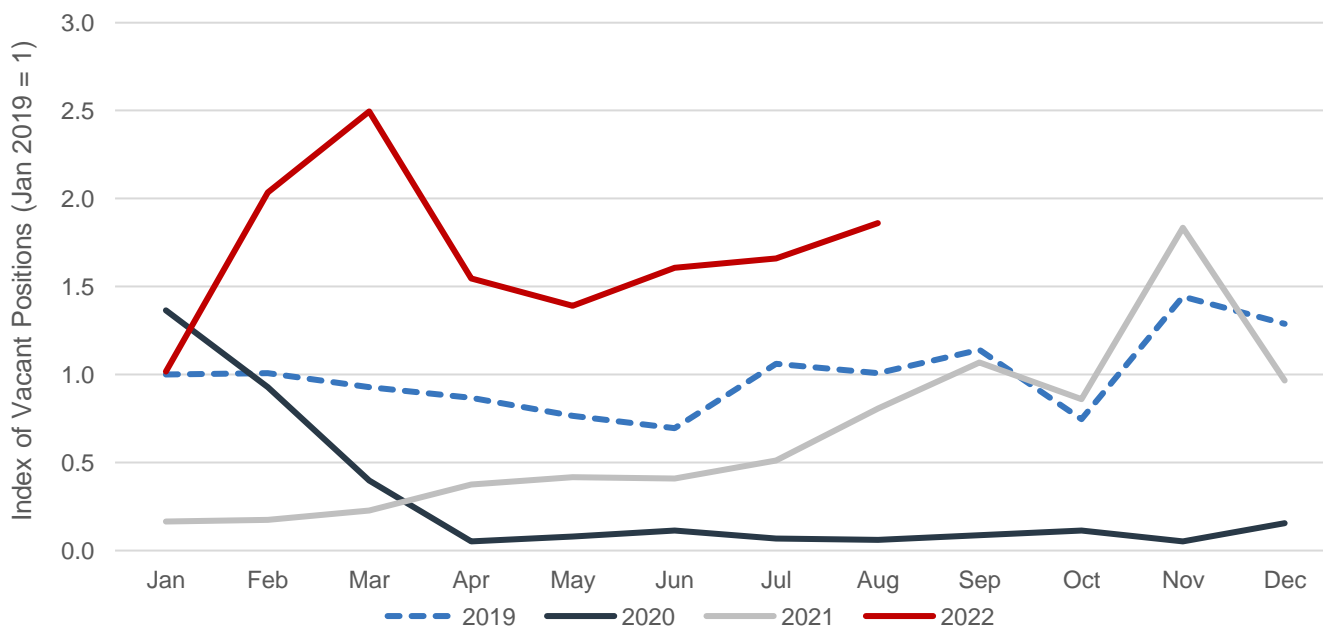
Figure 37: UK Ground Handling Vacancies Over Time, February 2020 – August 2022



Source: PA analysis of data shared by the DfT from third-party, Lightcast, collected by harvesting online job postings from a variety of sources removing duplicates. The data provider clarified that there are likely to be some small methodological errors in the figures presented.

Changes in the absolute number of vacancies is shown by month in the figure below – based on the same methodology as described above.

Figure 38: Index of Vacant Ground Handling Positions in the UK, January 2019 - August 2022



following companies: Swissport Ltd, Menzies Aviation Plc, Dnata Limited, British Airways Maintenance Cardiff Limited, Worldwide Flight Services Limited, ASC Cargo Handling, Dalcross Handling Aberdeen Ltd, Dalcross Handling Limited, Cobalt Ground Solutions Limited, Cobalt Group, Universal Aviation (UK) Limited, and North Air.

Source: Data shared by the DfT from third-party, Lightcast, collected by harvesting online job postings from a variety of sources removing duplicates. Lightcast clarify that there are likely to be small methodological errors in the figures presented.

As shown above, the number of vacant ground handling positions (“vacancies”) fluctuated seasonally pre-pandemic: peaking at 160 vacancies in November 2019 in preparation for the following summer and reaching a trough of around 80 vacancies in summer in anticipation of the winter lull in demand. This would imply, in normal conditions, readiness time of approximately 6 months to adequately resource the following season. In October 2021, there is evidence of similar preparation, with the number of vacancies exceeding 2019 levels for the first time since January 2020. However, the number of new job vacancies was scaled back following the spread of the Omicron variant of Covid-19 in the winter of 2021.

The number of vacant ground handling positions increased rapidly from January 2022, peaking in March 2022. However, even if all of these vacancies had been filled, ground handling agents were significantly under resourced for the coming summer. The implied resource requirement for August 2022 was at least 11,200 staff.³⁸ This assumes that underlying staff productivity remained the same as 2019 levels, which is unlikely to be the case as described in Productivity on p.57.

At the end of 2021, approximately 9,000 staff were available implying a short fall of over 2,000 staff for the coming summer. Had all open vacancies been filled by May, which was not the case, this would still have led to a shortfall of more than 1,200 staff. It is unclear how much progress has been made in filling these vacancies throughout 2022 and the picture is likely to differ across different ground handling agents and airports.

Recruitment

Recruitment for ground handling staff is typically a four-step process: 1) CV submission and review; 2) interview with organisation or recruitment agency; 3) criminal record check; and 4) offer of employment.

Several ground handling agents and airports stated that the main bottleneck comes after the hiring process, however, through the time taken to acquire an airport ID pass following an offer of employment. This process can take several weeks to complete, in which time many new hires may accept offers of employment elsewhere. This has been a significant challenge in light of “labour market availability...falling to historically low rates”³⁹ in 2022 according to the Office for National Statistics. Furthermore, issues with different types of airport ID passes create inefficiencies, with staff on temporary passes needing to be escorted by a staff member with a permanent pass. One prominent airport commented that this also applies for when an employee is moving between organisations at the same airport, as they have to go through the same application and referencing process again, causing further delays. Although no further details were disclosed.

This process for securing an airport pass is, in principle, straightforward. This involves the collection of five years of references covering employment, education and any gaps exceeding 28 days; an ID check; a Criminal Record Check. These requirements are determined by Implementing Regulation (EU) 2015/1998⁴⁰ which has been transposed into UK legislation.

However, almost all stakeholders encountered significant challenges with this process when hiring new staff. At one major UK airport, for example, the five-year background check process conducted by the airport typically takes between six and eight weeks to complete. This can, however, sometimes take much longer (months).

Applicants must then also wait for other parts of the process to complete. For example, the airport is responsible for processing and issuing the airport ID card; this process can take between an additional three and 10 days to complete, depending upon whether there are any issues with the application as part of the airports’ own checks.

Authorised signatories at the sponsoring ground handling agent collect all of the candidate’s information with the information, which is then submitted to the airport authority. The airport then submits some of

³⁸ This is based on the product of the percentage of flights flown in August 2022 compared to the same month in 2019 and the number of ground handling staff employed in 2019.

³⁹ Office for National Statistics. (2022). Alternative measures of underutilisation in the UK labour market. 5 September 2022.

⁴⁰ Commission Implementing Regulation (EU) 2015/1998 of 5 November 2015 laying down detailed measures for the implementation of the common basic standards on aviation security.

this information to UK Security Vetting (UK SV), but completes many of its own checks in-house. The airport must satisfy itself that its checks are adequate for its own assessment of security risks at that specific airport.

In addition to the five-year employment and education checks, criminal record check and ID verification, from January 2022 a national security vetting requirement was introduced by UKSV known as an “Accreditation Check.” The “Accreditation Check” process has been cited as being relatively fast, taking approximately one day to complete. Furthermore, the use of HM Revenue and Customs employment history data was used over Summer 2022 to accelerate the verification of employment history, as part of the five year employment history checks.

Turnover

Several ground handling agents and one trade union stated that ground handling careers have shortened over the last 20 years, suggesting that this may be because contracts, pay and working conditions for ground handling staff have deteriorated significantly over time. Pre-pandemic, typical staff tenure was seven years according to one ground handling agent. Another stated that, on average, almost half (45%) of employees are continually employed for five years or less.

During and after the pandemic, several stakeholders provided evidence that employee turnover has significantly increased. For example, one ground handling agent reported turnover rates of between 30% and 65% per annum in 2021 and 2022. This presents a challenge for the industry in terms of ground handling agents’ ability to effectively resource, thereby increasing recruitment costs, airport access pass costs, and training costs while reducing employees’ average level of experience. The early evidence available suggests that high rates of employee turnover is not a short-term issue for the sector:

- In 2022, one large ground handling agent reported losing 50% of all new recruits within 3 months of starting
- In the fourth quarter of 2022, a major UK airport disclosed that resource requirements in their staff ID centre had remained as high as 2022 peaks, suggesting that the number of applications had remained high despite improved resourcing levels.
- The number of experienced staff – those who are more likely to stay in the sector longer-term – has collapsed:
 - The number of employees on legacy contracts has decreased by ~85% over the course of the pandemic, from more than half (57%) of Swissport’s 2019 workforce to 12% of a much smaller workforce in 2022
 - In 2022, less than one-third (30%) of Swissport’s 2022 workforce have more than four years of experience
 - In 2022, at one large ground handling agent, the number of staff with less than one year of experience more than quadrupled compared to 2019 levels to 45% of the total workforce
 - Stakeholders assessed that experienced staff had not sought to return to the industry
- Another stakeholder stated that there is an ever-smaller group of people possessing the key operational experience required for effective performance of key ground handling roles.

Given ongoing tightness in the labour market, it is possible that this challenge persists, undermining the industry’s ability to effectively resource.

The industry has changed some aspects of its approach to recruitment in response to tighter labour market conditions. For example, some ground handling agents have also retained staff who might normally be made redundant and re-hired for the summer season.

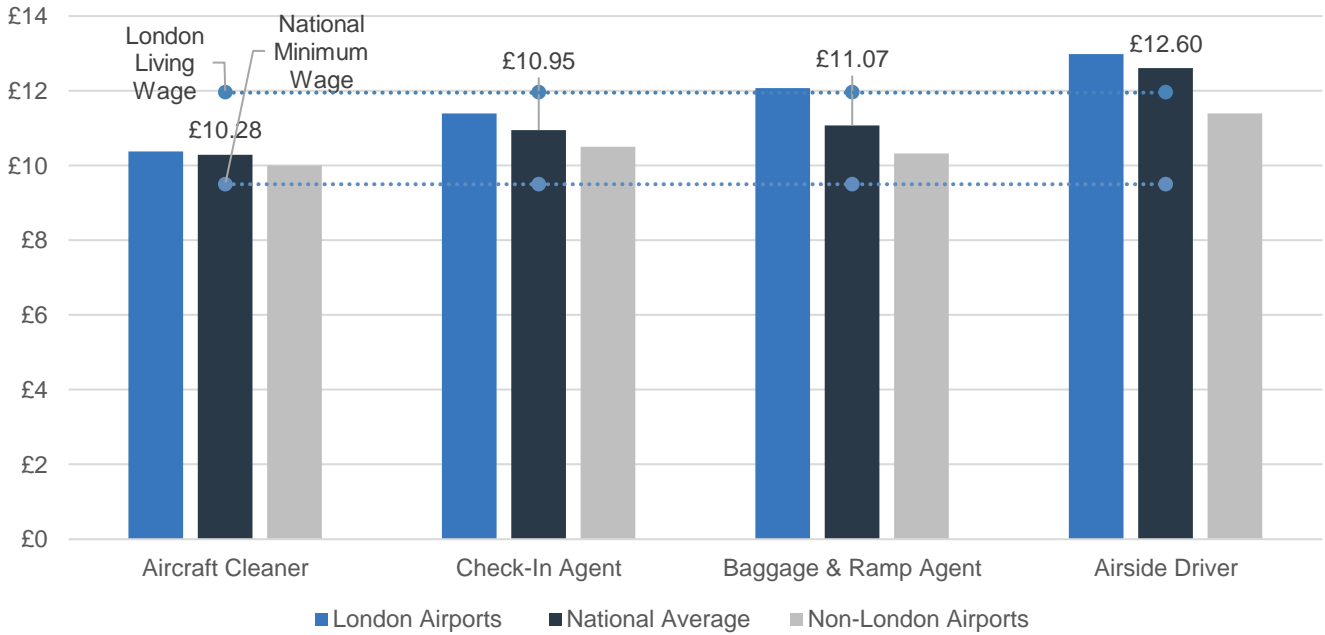
Nevertheless, given the constraints of Summer 2022, Government and industry should seek to pro-actively address or mitigate this issue. Resource planning and recruitment for Summer 2023 is already in full swing at the time of writing – ground handling agents recruit the most in November and December. Therefore, stakeholders should seek to address this as soon as possible.

Wages

The average hourly wages for some ground handling roles across the UK vary between £10.28 per hour for Aircraft Cleaners to £12.60 per hour for Airside Drivers. Some roles are skilled, such as Airside Drivers who require a UK Driving Licence and may also require a Heavy Goods Vehicle (HGV) Licences. Others, such as aircraft cleaners, are unskilled but still require airport security clearance. As we would

expect, roles in London are generally better remunerated than those outside of London, with an average wage premium of 11%.

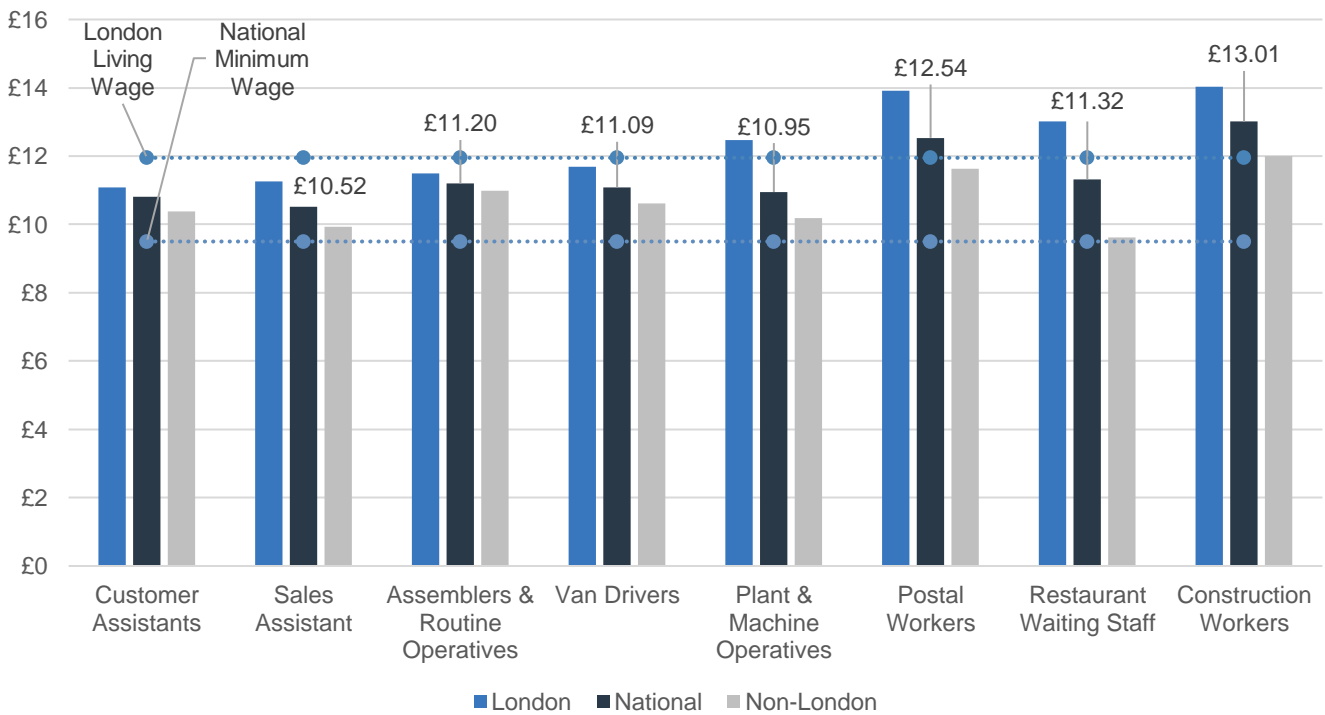
Figure 39: Hourly Wage for Selected Ground Handling Roles, 2022



Source: PA analysis of live postings on Indeed, Total Jobs, Glassdoor, Reed and HR Go Recruitment. Note: As part of this analysis, we have identified Heathrow, Stansted, Luton and Gatwick as ‘London Airports.’ Aircraft cleaner hourly ‘London Airports’ wage is for a quoted role at London Luton Airport.

The figure below shows typical hourly wages for similar roles available in other sectors of the economy. Postal workers are remunerated similarly to airside drivers while check-in agents are remunerated similarly to Customer Assistants and Sales Assistants. This suggests that there is not a significant pay differential between ground handling and similarly skilled roles in other sectors.

Figure 40: Hourly Wage for Wider UK Economy Roles, 2022



Source: PA analysis of live postings on Indeed, Total Jobs, CV Library, Reed.co.uk.

Data analysed on remuneration predominantly focussed on hourly wage rates. Other benefits are also common, including overtime (typically remunerated at a 50% wage premium) and discounted flights for staff at self-handling airlines. This helps to keep airlines' ground handling roles particularly attractive. In 2022, some ground handling roles also included joining bonuses, typically up to £1,000. Furthermore, performance bonuses are rare.

Ground handling agents advised that zero-hours contracts were once popular across the sector to make their staff costs more elastic (responsive to demand). Following the pandemic, however, several ground handling agents stated that such contracts are no longer attracting applicants. One airport suggested that the opening of several online retail Fulfilment Centres had tightened the availability of suitable labour. Finally, some ground handling agents have stated that it has become more common for off-roster working to be incentivised through overtime, offering higher rates of pay than zero hours contracts.

Working Conditions and Training

Although ground handling wages are not significantly different to those of comparable roles, working conditions are more challenging. For example, ground handling staff often work in physically demanding environments including cramped aircraft holds in inclement weather, and at anti-social and irregular hours.

Specifically, the nature of some ramp and baggage roles – involving a large amount of manual handling of heavy and unpredictable loads – could mean that staff are more likely to suffer from musculoskeletal conditions.⁴¹ In addition to statutory sick pay entitlements, one prominent ground handling agent offers employees a range of service-related company sick pay entitlements. For example, these entitlements range from four weeks' worth of full pay after one year of service to 26 weeks' worth of full pay after 5 years. Moreover, shift patterns can range from 8 to 12 hours in length, including both day and night shifts. Furthermore, rosters are often adapted at late notice in response to changes in the live operation in the event of delays or cancellations.

Staff training also forms an important part of employees' total benefits, particularly when formal qualifications may be sponsored by employers, e.g. Aviation Ground Specialist Apprenticeship.⁴² There are no minimum guarantees in terms of training requirements for employees. The level of training required to safely conduct ground handling roles is determined by the industry.

Stakeholders disagree whether training is sufficient. On the one hand, most ground handling agents claimed that sufficient training is provided to staff. Two large UK ground handling agents stated that 15 working days of training are given to a new starter with no experience for roles in passenger, baggage, ramp and ground administration and supervision. Another added that significant training opportunities and funding is available, including apprenticeships, training and qualifications. No differences were identified in the levels of training offered between different models of ground handling (i.e. self-handling, airport-handling, third-party handling).

On the other hand, however, two trade unions have criticised the quality of training provided, with one claiming that training at some ground handling agents has been "fast tracked." For example, some training has been transferred online and completed in as little as five days. Furthermore, the union stated that some ground handling agents were expecting training modules to be completed during an employee's own time, rather than during working hours. The union cited two anecdotal examples of where poor staff training may have led to two incidents involving new employees in the live operational environment. No further details were provided.

A 2018 report by the European Transport Workers' Federation⁴³ claimed that:

"In addition to the diversified landscape of applicable regulations, several survey respondents stated that regulations are met on paper, but hardly in practice. Some employees mentioned that regulations are solely complied with during audits, i.e. audits are often not representative of the actual situation.

In many cases, training is provided by experienced employees, not by qualified trainers. Although the former know a lot about the field of work, it is questionable whether they are able to transfer knowledge

⁴¹ No data was identified on the incidence of health problems in ground handling staff.

⁴² <https://findapprenticeshiptraining.apprenticeships.education.gov.uk/courses/86>

⁴³ p.38. European Transport Workers' Federation (2018). Market Access, Social Conditions, Training, Qualifications and Quality Standards in the Ground Handling Industry.

in a way comprehensible for every (potential) employee. Moreover, temporary staff do not always receive full training, but just the basic training allowing them to do the work. In many cases, (temporary) staff have not even completed training.”

Notably, a recent European Aviation Safety Agency (EASA) Working Paper stated that the training of ground handling personnel is “considered to be one of the most important aspects that the future ground handling regulation will need to improve.”⁴⁴ Therefore, at the time of writing, EASA is investigating the implementation of a training and assessment programme to ensure that persons are competent to perform the tasks as per the established standards. It is not clear whether this is also being pursued by the UK CAA.

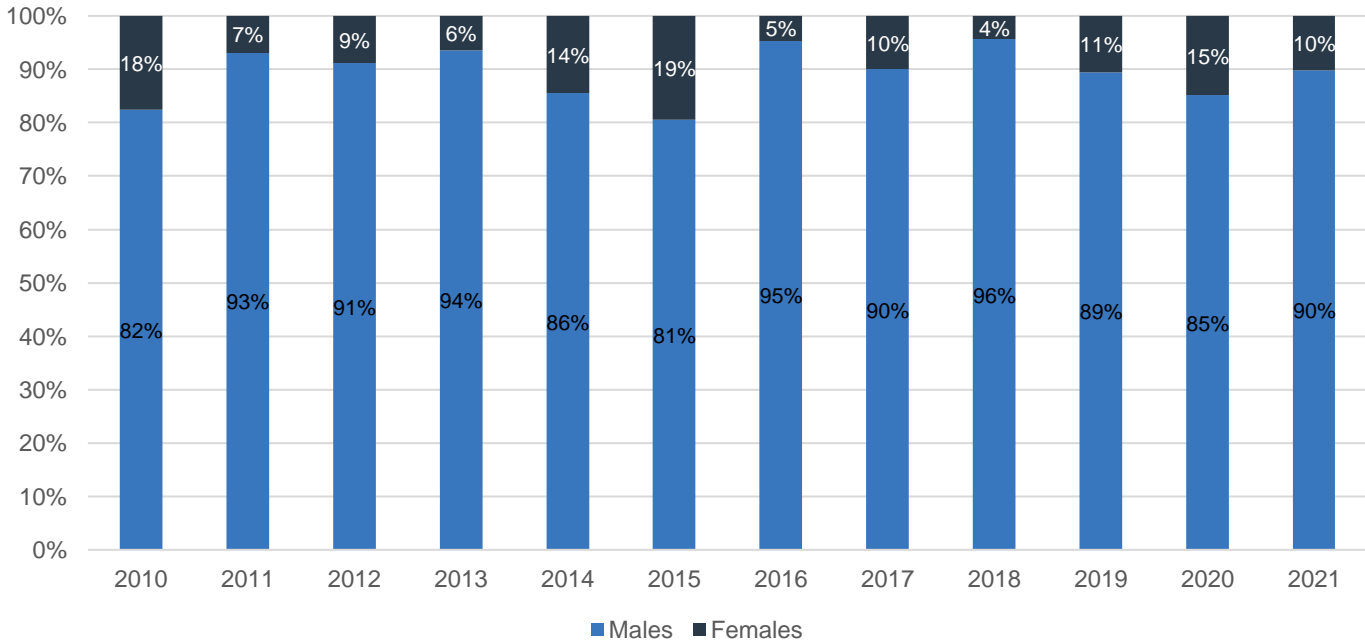
Workforce Demographics

The sector employed between 11,000 and 18,000 full time equivalent employees between 2010 and 2020, of which 90% were male in 2021. The proportion of men to women has remained relatively constant over time, varying between 80% and 90%. This is supported by data provided by one stakeholder who commented that ground handling agents are reporting 25-30% turnover with an ever-smaller group of people possessing the key operational experience required for roles.

Through our analysis of stakeholder responses, it can be seen that both Covid-19 and Brexit have led to a reduction in the number of European workers. One handler cited that this is particularly true of workers from Portugal, Poland, Italy and Romania. Another added that while the Settled Status scheme has been helpful for those foreign workers whose families reside in the UK, during the pandemic, many employees returned to their home countries and did not return to work in aviation.

Stakeholders also provided commentary on the changing age demographics of their workforce. For example, one global ground handling agent commented that within ground handling, they had seen a spike in the under 30’s joining the business which had increased by 117% over the last 12 months. They added that younger workers typically join the company, but do not stay to accrue the length of service seen historically. A less experienced and more transitory workforce may further reduce staff productivity and increase training costs.

Figure 41: Ground Handling Staff by Gender, 2010-2021



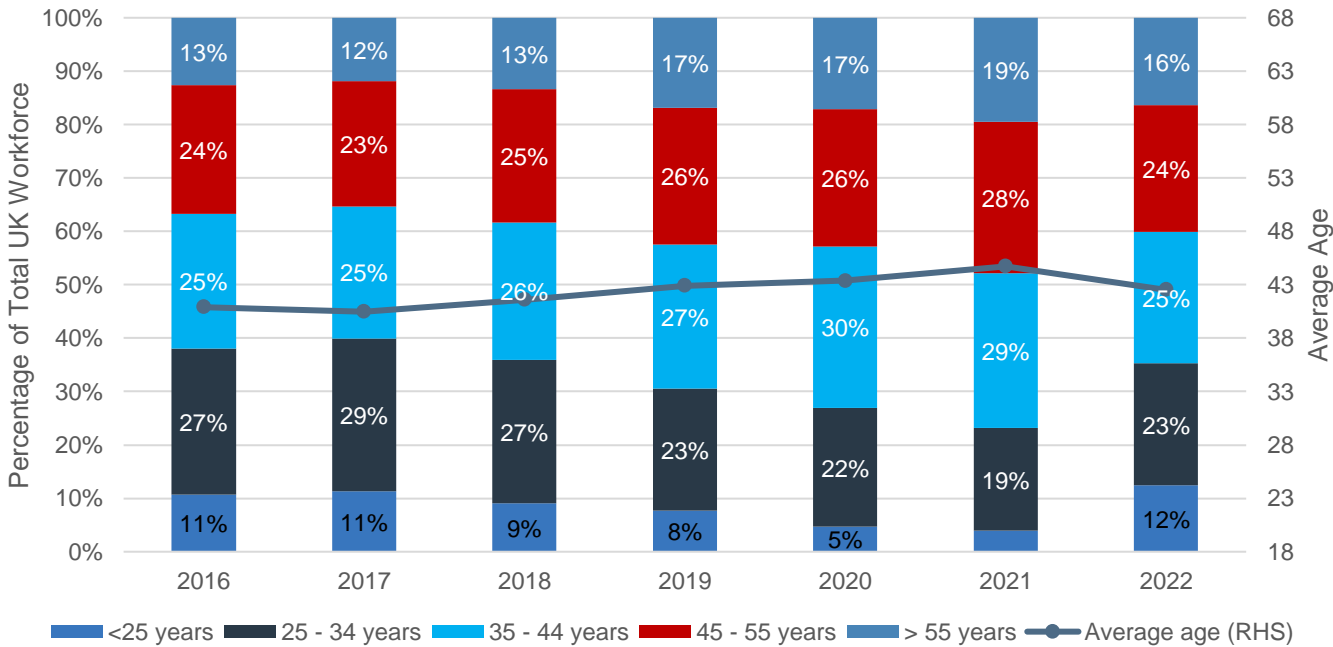
Source: PA analysis of ONS employment data.

Between 2016 and 2021, older workers made up an increasing share of the ground handling labour force. The proportion of under-25s in the workforce more than halved between 2016 and 2021.

⁴⁴ p.32. European Aviation Safety Agency (2022). Working Paper on the draft EU Ground Handling Regulation. Ground Handling Requirements. RMT.0728.

Conversely, the number of over 45s increased from 37% of total headcount in 2016 to almost half of all workers (47%) in 2021. This is likely to be driven in part by the temporal progression of existing staff. However, with typical staff tenure between three and seven years, this is unlikely to be the sole driver of the trends observed below. By 2022, the distribution of staff by age was strikingly similar to that seen in 2016, essentially erasing the changes observed since 2016. This likely reflects the effects of the termination of the Coronavirus Job Retention (“furlough”) Scheme, where older, more expensive staff were more likely to have been made redundant.

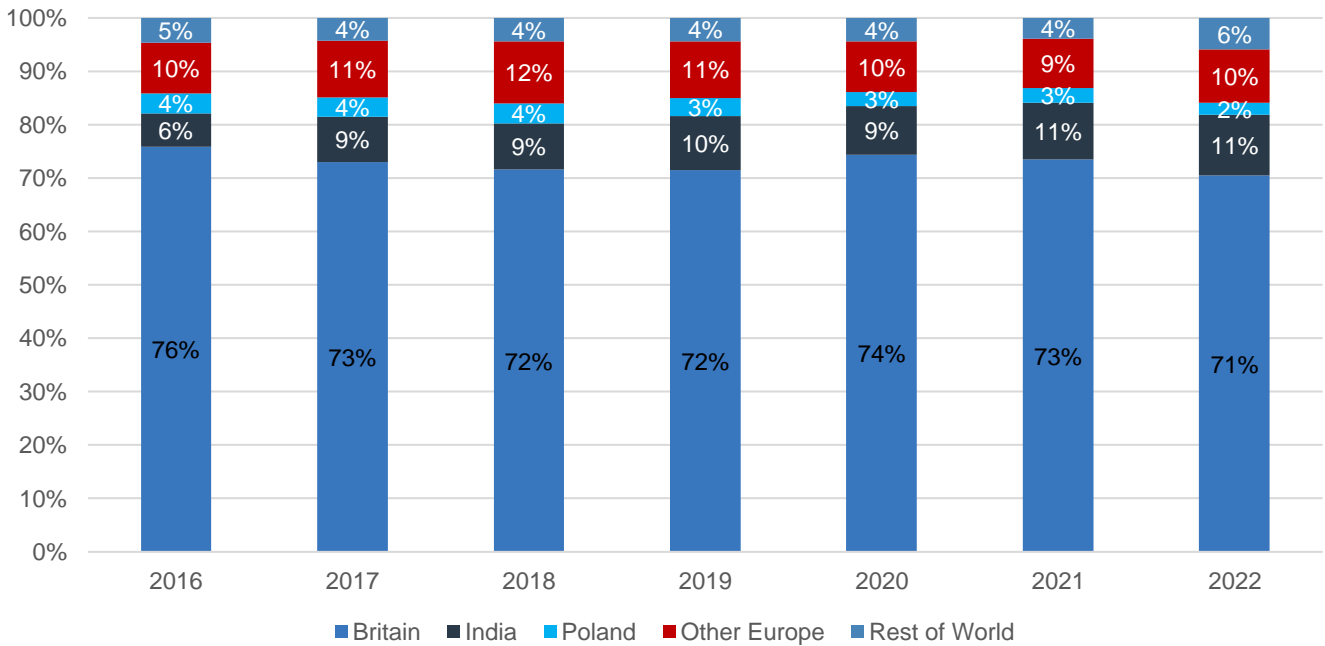
Figure 42: Ground Handling Staff by Age, 2016-2022



Source: PA analysis of a large UK ground handling agent’s worker demographics data.

Between 2016-2022, the greatest demographic change in nationality can be seen with the decrease in the proportion of British workers. During the period, this has decreased by 5% with only 71% of workers recorded to be of British nationality in 2022 down from 76% in 2016. Similarly, a significant decrease can be seen in the number of Polish workers which has halved in the time period. This is in contrast to workers of Indian nationality which has almost doubled in the period to form 11% of the total workforce in 2022. This composition has remained relatively constant over time, in contrast to some of the viewpoints shared by stakeholders surrounding the impacts of Brexit on the composition of the workforce.

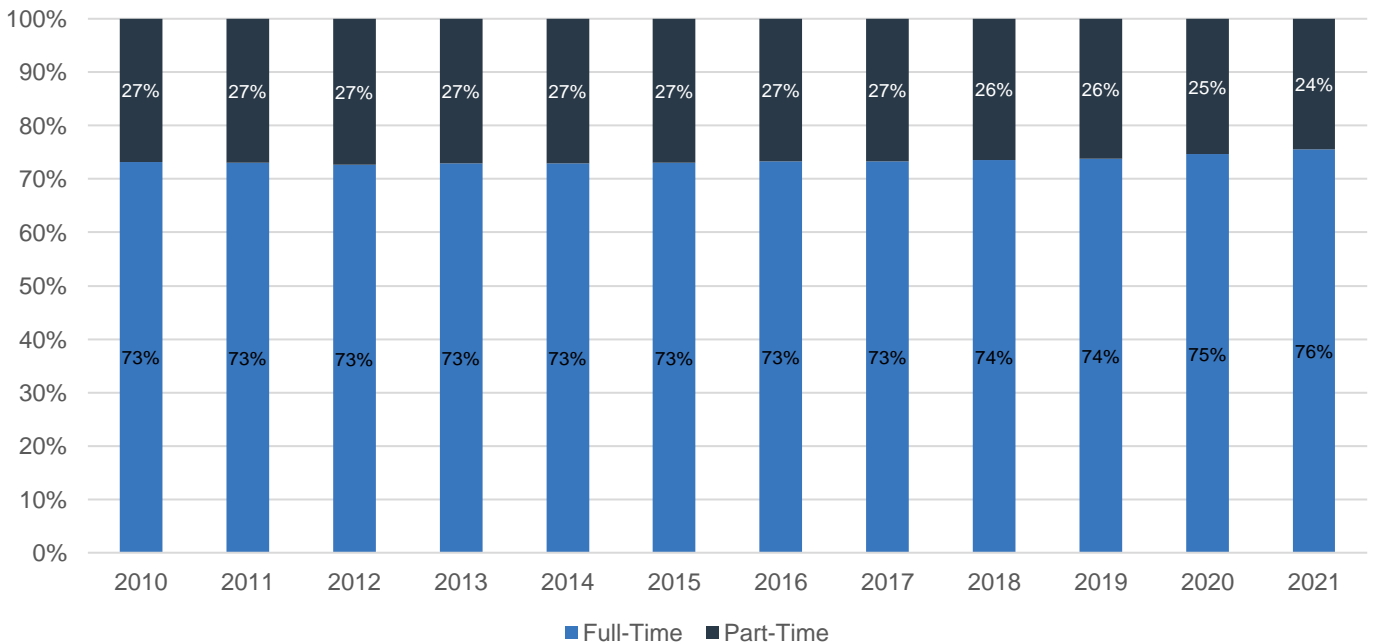
Figure 43: Ground Handling Staff by Nationality, 2016-2022



Source: PA analysis of a large UK ground handling agent’s worker demographics data.

Three-quarters of ground handling employees by headcount are on full-time contracts, whilst a quarter of the workforce is employed on part-time contracts such as zero-hours contracts. Part time contracts are likely to be used to satisfy resourcing peaks throughout the day or week, particularly over summer where these peaks may be especially pronounced.

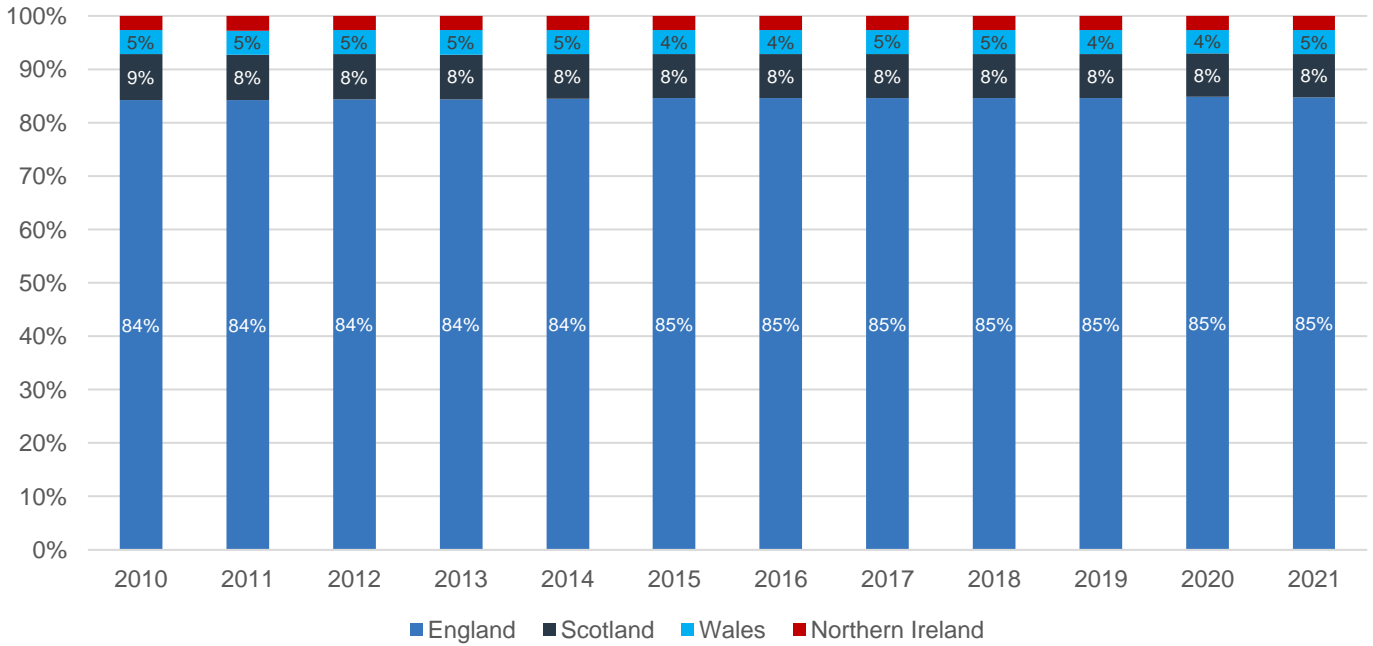
Figure 44: Ground Handling Staff by Employment Type, 2010-2021



Source: PA analysis of ONS employment data.

Furthermore, as illustrated in the figure below, the overwhelming majority (85%) of ground handling staff are employed in England. This trend has been constant over time.

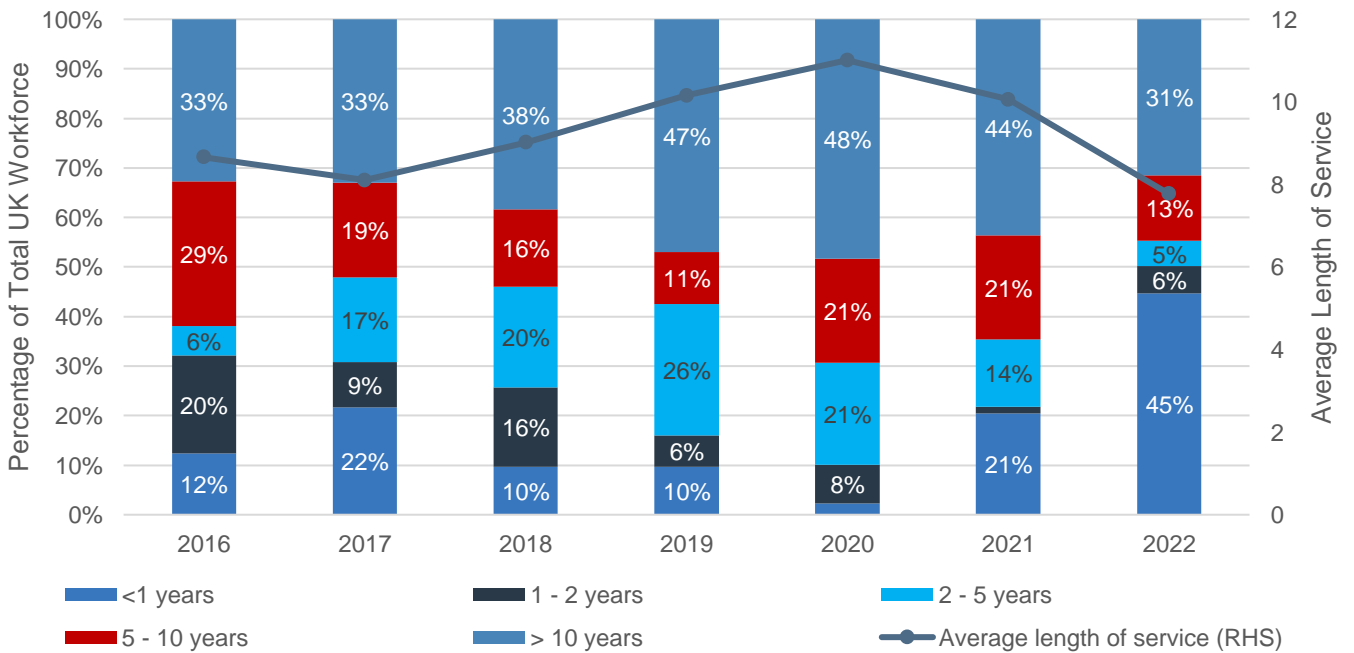
Figure 45: Distribution of Ground Handling Staff Across the UK, 2010-2021



Source: PA analysis of ONS employment data.

Staff's average level of experience has fallen significantly between 2019 and 2022. In 2022, almost half of ground handling staff have worked at a ground handling agent for one year or less.

Figure 46: Ground Handling Staff by Length of Service, 2016-2022



Source: PA analysis of a large UK ground handling agent's worker demographics data.

Equipment

The availability and serviceability of ground support equipment (GSE) and centralised infrastructure also impacts ground handling agents' ability to supply passenger, ramp and baggage handling services.

GSE refers to vehicles, carriages, apparatuses (e.g. loading devices) and other equipment found at an airport that is used to service aircraft in between flights. GSE supports all ground handling services from ramp and baggage, to catering and passenger services and usually involves a variety of aircraft mobility vehicles, ground power, cleaning and refuelling units, and cargo and passenger loading equipment (e.g. boarding gates).

Centralised Infrastructure, a subset of GSE, refers to any equipment or infrastructure used for the supply of ground handling services " whose complexity, cost or environmental impact does not allow of division or duplication, such as baggage sorting, de-icing, water purification and fuel-distribution systems."⁴⁵ The airport is responsible for the provision of centralised infrastructure, and recovers the costs of providing this through airport charges. Centralised infrastructure is common to all airports.

Ground Support Equipment

There are three key models of GSE provision at airports:

1. Direct ownership: ground handling agents may also choose to purchase their equipment directly from GSE manufacturers.
2. Leasing: TCR, a leading provider of GSE, has created a market for GSE leasing and maintenance. TCR offers a leasing solution where ground handling agents sell and lease back their GSE. The advantages of this for ground handling agents are that they are able to finance their assets more efficiently and are able to reduce the overall size of their GSE fleet.
3. Pooling: some European airports, including Luton airport, have introduced GSE pooling – the practice of sharing the supply of GSE across several or all ground handling agents operating at a specific airport. The airport (either directly or through an agent, e.g. TCR) operates the GSE fleet, which is then supplied to handlers either on a pay-per-use basis or similar.

Note that, when airlines change ground handling agent, deals are usually driven by the acquirer (the new service provider) where there may be a shortfall in GSE. Some may be sold to other ground handling agents elsewhere, or written off. GSE leasing has insulated some ground handling agents from this risk, however.

There are three key challenges in the provision and operation of GSE, which can be summarised as follows:

- Low GSE utilisation rates, driven by a combination of factors including schedule peakiness, ramp congestion, duplication of equipment, lack of parking areas and poor equipment serviceability
- Low levels of investment as a result of supply chain delays, high upfront costs, and low industry profitability, leading to high equipment age, poor equipment reliability and high maintenance costs
- Lack of suitable airport infrastructure to support zero-emission GSE

Firstly, low GSE utilisation is a key challenge facing the sector as it seeks to operate more effectively and at lower cost, with KPMG estimating that inefficiencies in the utilisation of GSE added 16% to the direct costs of ground handling.⁴⁶ This is particularly true where multiple ground handling agents operate at a given airport, increasing – for example – the number of spare vehicles required to provide a given level of operational resilience.

Secondly, the global GSE supply chain has faced significant disruption throughout and following the pandemic. Several ground handling agents raised challenges with global supply chains as the main barrier to acquiring new equipment, resulting in longer lead times for replacement GSE and spare parts and a shortage of equipment. One ground handling agent commented that, because of this, some GSE has not been replaced once its operational lifespan has elapsed. Another assessed that the number of formal, documented agreements in place between ground handling agents for sharing GSE on a reciprocal basis had increased compared to before Covid-19.

Furthermore, low industry profitability may make it more challenging for the sector to attract investment or acquire debt to finance future investment. GSE is specialist, safety critical and high-performing

⁴⁵ Regulation 14(1). Airports (Ground Handling) Regulations 1997.

⁴⁶ p.5 KPMG International (2021). Aviation 2030: Ground handling beyond COVID-19.

equipment, and comes at considerable expense to acquire; and ground handling agents have faced substantial balance sheet pressure throughout the pandemic, taking on additional debt to protect liquidity. This is described further in Financial Performance. Notably, however, stakeholders did not raise this as a key constraint on industry investment and this has not been raised in other literature on ground handling.

A third key challenge facing GSE provision and operation is the lack of available centralised infrastructure at airports to support the adoption of zero-emission GSE. Specifically, ground handling agents stated that they face barriers to investing in zero-emission GSE as many airports lack adequate charging infrastructure for electric equipment. One ground handling agent identified this as the main barrier to the uptake of zero-emission GSE at some airports. One of the UK's leading Low-Cost Carriers also encouraged airports to incentivise ground handling agents to invest in zero-emission GSE.

Finally, analysis of EASA incident reports⁴⁷ suggests a link between operational safety and the quality, serviceability and appropriateness of the GSE being used. The following factors are common in incidents involving staff injury or damage to aircraft:

- Poor GSE maintenance and serviceability
- The use of GSE which is not fit for purpose or used for tasks which it was not designed for
- Non-compliance with the user instructions and specifications for the GSE

Therefore, at the time of writing, EASA is considering a programme to “ensure proper functioning and maintenance of GSE ... to avoid staff injuries and damage to the aircraft. Such a programme should also enable the use of both innovative technologies and technologies with less impact on the environment.”⁴⁸

Centralised Infrastructure

Airports can apply to the CAA to reserve to itself the management of centralised infrastructure under Regulation 14 of the Airports (Ground Handling) Regulations, but do not always do so. Under this regulation, ground handling agents at the airport must not use other equipment as an alternative to using the centralised infrastructure designated by the CAA. The CAA has approved applications to reserve centralised infrastructures at the following UK airports: Birmingham, Leeds Bradford, London City, London Luton, Manchester and Stansted. Many other airports, including London Heathrow, have not applied for such protections, and there is no requirement to under the Regulations. However, centralised infrastructure is still commonly provided by the airport operator, usually exclusively.

Centralised infrastructure plays a critical role at airports, and several airlines and ground handling agents cited issues with the provision of centralised infrastructure as one of, if not the most significant drivers of disruption over Summer 2022. For example, in June 2022, widespread disruption was seen with Heathrow's centralised infrastructure by way of the Terminal 2 baggage handling system after luggage had piled up following a technical malfunction, with two-hour waits reported at baggage reclaim.⁴⁹

Stakeholders also provided commentary on the passthrough costs of centralised infrastructure via airport charges to all companies operating at the airport from airlines, retailers and handlers. A leading LCC noted that recovery of centralised infrastructure costs is often disproportionate with the largest carriers paying for the largest share of infrastructure costs regardless of use or value to that carrier's operations. This was not, however, a widespread view across stakeholders.

Finally, stakeholders did not comment on whether the Government's super-deduction⁵⁰ has been effective at stimulating investment in new GSE or centralised infrastructure. The super-deduction, applicable between April 2021 and March 2023, refers to a 130% deduction in capital allowance on qualifying plant and machinery investments. This allows companies to reduce their tax liability by up to 25% for every Pound invested.

⁴⁷ p.12. European Aviation Safety Agency (2022). Working Paper on the draft EU Ground Handling Regulation. Ground Handling Requirements. RMT.0728.

⁴⁸ *Ibid.*

⁴⁹ BBC (2022). Heathrow Terminal 2 baggage piles up after malfunction. Available here. <https://www.bbc.co.uk/news/uk-england-london-61848486>

⁵⁰ Gov.uk (2022). <https://www.gov.uk/guidance/super-deduction>

International Comparisons

This section of the report assesses the ground handling market in Germany, the Netherlands, Spain and the USA. The rationale for selecting each of these countries is described in the table below.

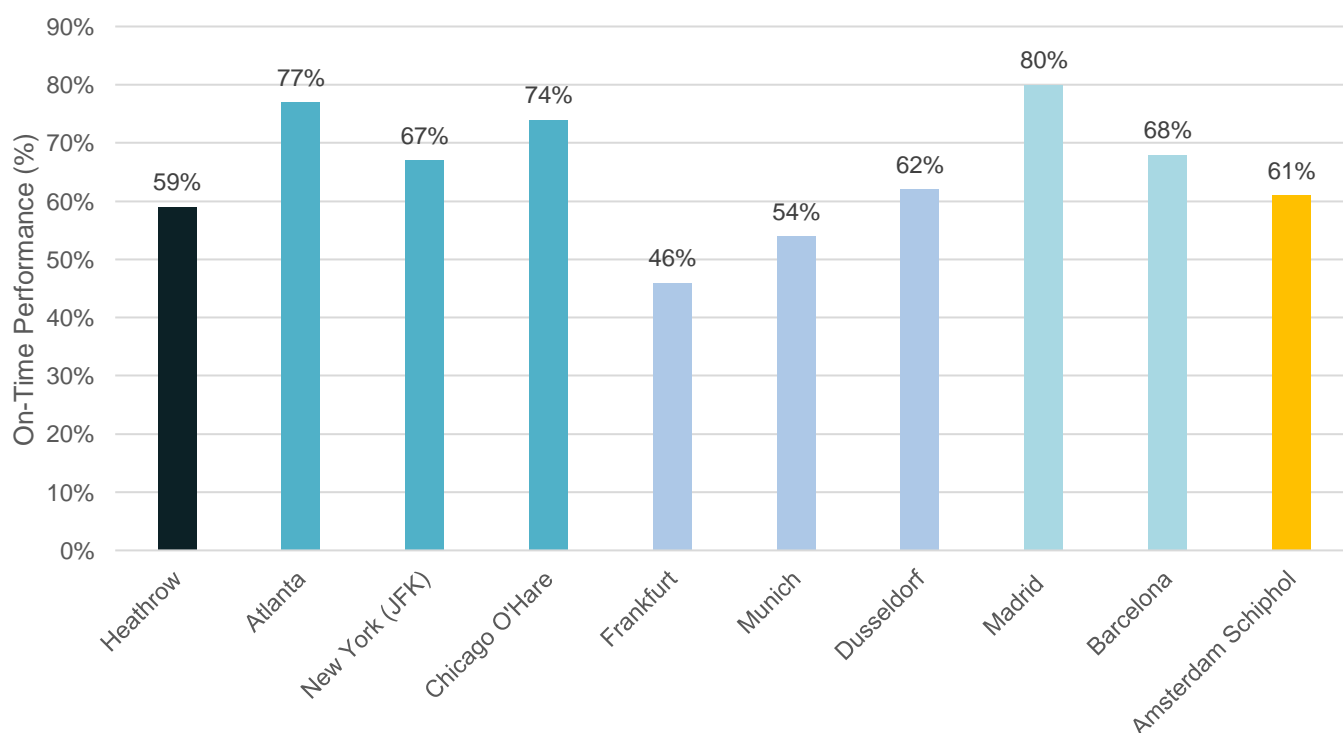
Table 9: Country Fiche Selection Rationale

Country	Selection Rationale
Germany*	Germany has a similar regulatory framework on ground handling to the UK, albeit with significant restrictions on competition in ground handling, including on self-handling.
Spain*	As with Germany, Spain also imposes significant restrictions on third-party handling and significant involvement by the state-owned airport operator; self-handling is unrestricted.
Netherlands*	Similarly to the UK, and unlike Germany and Spain, the Netherlands enforces no formal restrictions on competition.
USA	In contrast to the UK and Europe, the USA does not have bespoke legislation for competition in ground handling and most flights are self-handled by large US airlines.

Source: PA analysis of ground handling models in different geographies. (*) Note: indicates countries where Directive 96/67/EC on Ground Handling is currently in force.

Many of these countries also experienced severe ground handling disruption over Summer 2022, as illustrated below. Germany was particularly badly affected, with On-Time Performance (OTP) at Frankfurt International airport reported at 46%. By way of comparison, the London Heathrow performed slightly better at 59%, whilst Gatwick and Manchester fared worse with 40% and 43% OTP respectively. Disruption at Spanish and US airports was much less severe than in the UK or Germany.

Figure 47: On-Time Performance Rates in August 2022



Source: PA analysis of OAG On-Time Performance data. Defined as departing within 15 minutes of scheduled departure time; flights cancelled are included and treated as not on time.

Germany

Policy

In 1998, Germany and other EU Member States partially liberalised the ground handling market through the transposition of Directive 96/67/EC on Ground Handling. As previously discussed in the Airports (Ground Handling) Regulations 1997 subsection of this report, the Directive prohibits the monopolistic provision of ground handling at airports over a certain size. In summary:

- The Directive requires Member States to ensure free access by suppliers of ground handling services
- Apart from for airside services (baggage, ramp, fuel and oil, and freight and mail handling)
- Member States may not restrict the number of providers of airside services to fewer than two

The Ground Handling Directive, as it is otherwise known, was transposed into German law through the 'Regulation on Ground Handling Services at Aerodromes' (*Verordnung über Bodenabfertigungsdienste auf Flugplätzen*) in 1997.⁵¹ All of its provisions entered into force in 2001. The Regulation applies to every German airport that has at least two million passengers or 50,000 tonnes of freight recorded annually. This contrasts with the UK which has lower thresholds for self-handling (one million passengers, 25,000 tonnes of freight), albeit the same thresholds for third-party handling.

The Federal Ministry of Transport and Digital Infrastructure is responsible for overseeing competition in the German ground handling market. Unlike the UK, the Ministry has imposed the tightest possible restrictions on competition for airside services (to two providers) as permitted by the Ground Handling Directive at several major German airports. Restrictions are detailed in the table below.

Table 10: Restrictions on the Number of Ground handling agents at German Airports

Services	Frankfurt	Munich	Düsseldorf	Hamburg
Baggage handling	2	2	2	2
	2	2	3	2
Ramp handling	2	2	2	2
	2	2	2	2
Freight and mail handling	2	2	2	2
	2	2	3	2
Refuelling services	Unrestricted	2	2	2
	Unrestricted	2	4	2

Source: PA analysis on the Ordinance on Ground Handling Services at Aerodromes.

While the Ministry has not made public the criteria it uses to evaluate restrictions on competition, it also allows the number of ground handling agents to be restricted to a single provider (monopoly), "if special space or capacity reasons, in particular in connection with the traffic density and the degree of use of the areas at an airport, require it."⁵² Under these circumstances, approval must also be granted by the European Commission.

Germany also requires that ground handling service providers conform to minimum business requirements as part of their procedures to grant an operating licence – a process administered at national level. These criteria include:

- A guarantee that the business is run in accordance with statutory provisions in compliance with the law

⁵¹ Ordinance on Groundhandling Services at Aerodromes (1997). Available from: http://www.gesetze-im-internet.de/badv/_3.html

⁵² Section 3, Paragraph 4. Ordinance on Groundhandling Services at Aerodromes (1997). Available from: http://www.gesetze-im-internet.de/badv/_3.html

- Possession of sufficient financial resources to conduct proper business operations
- Employees to have awareness of, and comply with, safety regulations and have a sufficient command of the German language for this purpose
- Employees to be trained within the framework specified by the respective airport company for performance of key operational activities

Competition

In Germany, the prevailing ground handling model is airport handling with ground handling services delivered by subsidiary entities of the airports themselves. German airports grant operating licences to ground handling agents through a tendering process for an agreed number of licences which are limited to a fixed period of time.

Table 11: Providers of Ground Handling Services at German Airports

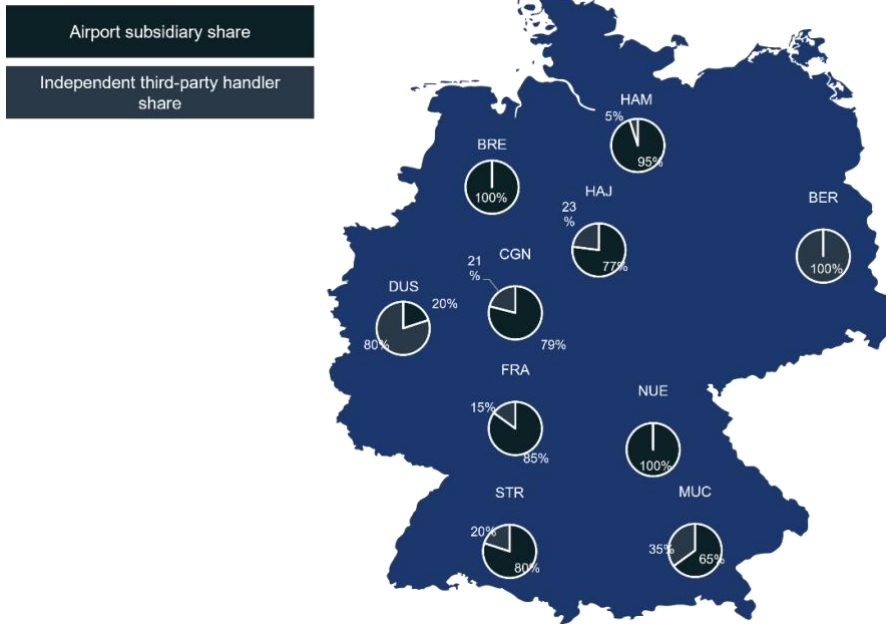
Type	Frankfurt	Munich	Düsseldorf	Hamburg
Primary Handler	Fraport Ground Services	AeroGround Flughafen München	Flughafen Düsseldorf Ground Handling	Hamburg Airport Ground Handling
Secondary Handler	WISAG Ground Services	Swissport Losch München	Acciona Airport Services	WISAG Ground Services
Tertiary Handler	-	-	Aviapartner	-

Source: PA Analysis of ground handling services at German airports.

The figure below shows the market shares of independent ground handling operators at German airports. According to the German Airline Association (BDF), by 2014, 15 years after the opening of the market, new market entrants for ground handling services held a market share of 20% in terms of flight movements.⁵³ As we have previously seen, the German ground handling market is dominated by airport or airport subsidiary providers with the third-party ground handling agents assuming a secondary role in all but two cases (Berlin Brandenburg, Dusseldorf). Berlin Brandenburg is the only airport where the airport does not provide ground handling in-house, with services instead provided by AeroGround (a subsidiary of Munich Airport), WISAG and Swissport.

Figure 48: Business Model Shares at German Airports (2014)

⁵³ BDF (2014). Ground handling services and service providers by location and market share. Available here. http://www.bdf.aero/files/9014/0724/3262/20_Marktanteile_Bodenverkehrsdienste.pdf



Source: PA Analysis of ground handling provision at German airports.

Performance

From our review of available literature, key German airports experienced significant disruption. For example, in August 2022, Frankfurt International reported OTP of 46%, Munich International (54%) and Dusseldorf (62%).⁵⁴ There was a reported shortfall of 2,000 ground handling workers across German airports over Summer 2022.⁵⁵

⁵⁴ OAG. Monthly OTP Data. Available here: <https://www.oag.com/en/on-time-performance-airports-august-2022>

⁵⁵ AviationPros (2022). [German Airports To Seek Temporary Staff From Turkey for Summer | Aviation Pros](#)

Spain

Policy

In 1998, Spain and other EU Member States partially liberalised the ground handling market through the transposition of Directive 96/67/EC on Ground Handling. As previously discussed in this report, the Ground Handling Directive prohibits the monopolistic provision of ground handling at airports over a certain size.

The Ground Handling Directive, as it is otherwise known, was transposed into Spanish law through the Royal Decree 1161/1999, of July 2, which regulates the provision of airport ground handling services (*Real Decreto 1161/1999, de 2 de julio, por el que se regula la prestación de los servicios aeroportuarios de asistencia en tierra*) in 1998. All of its provisions entered into force in 1999.

The Regulation applies to every Spanish airport that has at least one million passengers or 25,000 tonnes of freight recorded annually and restricts the number of third-party ramp providers; there are no restrictions on other restricted services such as baggage and freight and mail handling. The Spanish Ministry of Public Works is responsible for overseeing competition in the Spanish ground handling market. For airports under two million passengers per annum, the limit is set at one third-party ground handling agent, and above that at two, except at the five largest airports where it is set at three. These are: Madrid (62m passengers pa), Barcelona (53 million passengers pa), Palma (30 million passenger pa), Malaga (20 million passengers pa) and Alicante (15 million passengers pa).

However, there are no restrictions under Spanish law for airline self-handling. As a result, many airlines self-handle in Spain (including Ryanair, easyJet, Norwegian, etc).⁵⁶

Competition

In Spain, the selection of new third-party ground handling agents is overseen by the Spanish airport operator, AENA. AENA is the leading airport operator by number of passengers in the world and manages 46 airports in Spain with a total passenger volume of 293 million.⁵⁷ Spain grants operating licences to ground handling agents through a tendering process at the airport level for an agreed number of licences. These licences are capped for a fixed period of time.

AENA works with airlines others, inviting all relevant airport stakeholders to participate in the handling tender definition. This was seen with the launch of public tender for ground handling services for 43 airports over a period of seven years which commenced in 2021. Thus, 41 licences will be tendered in 21 lots for assistance to third parties for ramp handling.⁵⁸

An overview of some of the largest providers of ground handling services is explored in the table below.

Table 12: Overview of largest ground handling services providers in Spain⁵⁹

Entity	Overview
	<ul style="list-style-type: none">Iberia Airport Services is based in 29 Spanish airports and is the leading provider of ground handling services in Spain⁶⁰Iberia staff is made up of 7,500 employees and they have over 8,500 units of GSEPre-Covid-19, Iberia Airport Services provided handling services to 340,000 aircraft and 101 million passengers





⁵⁶ Law 66/1997, of December 30, on Fiscal, Administrative and Social Order Measures. Available from: <https://www.boe.es/buscar/doc.php?id=BOE-A-1997-28053>

⁵⁷ AENA. Company Profile. Available from: <https://www.aena.es/en/corporative/about-aena/company-profile.html>

⁵⁸ Tenerife Weekly (2022). AENA puts out to tender ground assistance for the two Tenerife airports. Available from: [AENA puts out to tender ground assistance for the two Tenerife airports - Tenerife Weekly News](#)

⁵⁹ The Current Ground Handling Map in Spanish Airports (2014). Available from: [The current ground handling map in the Spanish airports \(flightconsulting.com\)](#)

⁶⁰ IBAS at a Glance (2022). Available from: https://handling.iberia.es/wp-content/uploads/2022/05/220530_IBAS-at-a-glance.pdf

Entity	Overview
	<ul style="list-style-type: none"> Spanish handling company with operations in Spain, Morocco and Mexico Currently Spain's second largest handling operator, with licences for 20 airports Provides services in Madrid, Barcelona, Bilbao, Seville, Tenerife North, Tenerife South, Gran Canaria, Girona and Alicante Contracts with over 300 airlines globally with a yearly workload of 300,000 flights
	<ul style="list-style-type: none"> Provides passenger and ramp handling services at 13 airports including: Barcelona, Lanzarote and Valencia Current market share in Spain is 18% with most low-cost airlines forming their client base Provides cargo handling services at five Spanish airports including MAD and BCN.
	<ul style="list-style-type: none"> Currently provides ramp handling services in 4 airports; Alicante, Murcia, Almeria and Jerez Provide passenger handling in Asturias, Santiago de Compostela, Barcelona, Palma de Mallorca, Ibiza, Seville, Málaga, Tenerife and Alicante Menzies Spain has 900 employees and generated 28.5 million Euros in 2013
	<ul style="list-style-type: none"> Spanish handling company with operations in Spain, Germany and Chile⁶¹ Operate at 21 airports handling over 100,000 aircraft turns and over 3,000 employees Acciona's Airport Services division is taking part in IATA's Ground Operations Standards (GOS) Task Force this year to ensure ground operations resume safely as the air travel recovers from the Covid-19 pandemic

Source: PA analysis.

Performance

Analysis of On-Time Performance (OTP)⁶² suggests that Spanish airports experienced less disruption compared to German and Dutch airports. In August 2022, Madrid International reported OTP at 80% and Barcelona International at 68%⁶³ compared to 61% at Schiphol and an average OTP of 54% for the three German airports cited above (Frankfurt, Munich and Dusseldorf).

However, despite stronger OTP performance, Spanish airports have experienced labour challenges from the Summer 2022 period onwards. Local media reported that airport staff in Spain intend to strike for 25 days between September and December 2022 in protest over pay and working conditions. Three Spanish unions have organised the strikes amid an ongoing dispute with airport operator AENA. These strikes are reportedly set to disrupt Spanish aviation over Winter 2022.⁶⁴

⁶¹ Acciona. Airport handling. Available here: https://www.acciona.com/solutions/transport/activity-areas/airports/handling/?_adin=01833301559

⁶² PA Consulting Analysis of OAG performance data. Available here: <https://www.oag.com/en/on-time-performance-airports-august-2022>

⁶³ OAG. Monthly OTP Data. Available here: <https://www.oag.com/en/on-time-performance-airports-august-2022>

⁶⁴ Evening Standard (2022). [Spanish airport strikes: When are staff striking and how will it impact my travel? | Evening Standard](#)

Netherlands

Policy

In 1998, the Netherlands and other EU Member States liberalised the ground handling market through the transposition of Directive 96/67/EC on Ground Handling. As previously discussed in this report, the Directive prohibits the monopolistic provision of ground handling at airports over a certain size.

The Ground Handling Directive, as it is otherwise known, was transposed into Dutch law through the 'Regulation on Ground Handling of Aerodromes' (*Regeling grondafhandeling luchtvaartterreinen*). All of its provisions entered into force on 1 January 1998.⁶⁵ The Regulation applies to every Dutch airport that has at least two million passengers or 50,000 tonnes of freight recorded annually. This contrasts with the UK which has lower thresholds for self-handling (one million passengers, 25,000 tonnes of freight), albeit identical thresholds for third-party handling. The Ministry of Infrastructure and Water Management is responsible for overseeing competition in the Dutch ground handling market. As in the UK, the Ministry has not imposed any restrictions on the number of ground handling agents permitted at any Dutch airport.

Competition

In the Netherlands, Schiphol has the largest number of independent ground handling agents. Our research indicates that Eindhoven and Rotterdam each have a single provider of ground handling services. Rotterdam only recently met the threshold of two million passengers in 2019. It can therefore be argued that without the onset of Covid-19, the airport would have fallen in scope of the Directive. In contrast, at Eindhoven, despite there being few restrictions on competition, a second handler does not wish to enter the airport campus to provide ground handling services in direct competition with the airport provider.

Table 8: Providers of Ground Handling Services at Dutch Airports

Schiphol	Eindhoven	Rotterdam*
KLM Ground Services, Dnata, Swissport, WFS, Menzies, Aviapartner, Randstad, Air Dispatch Aviation, Nayak Aircraft Services, Gate Gourmet	Viggo Eindhoven Airport	Aviapartner

Source: PA analysis. (*) Note: Rotterdam is not yet in scope as it handled fewer than 2m pax per annum in 2022.

Performance

As experienced across many major European airport operations across the Summer 2022 period, disruption was also seen at Schiphol Airport. Schiphol experienced a significant increase in queue times during the May Bank holidays, mainly due to staff shortages in baggage handling and airport security.⁶⁶ The airport also reported that there would be an average of 13,500 excess passenger to handle in July 2022 if all scheduled planes were entirely full with airlines having to cut flights. KLM, the largest user of the airport, reduced its seat capacity by roughly half.⁶⁷ Moreover, the airport capped the number of passengers, as also seen at London Heathrow. This has continued at Schiphol which is, in part, why disruption at the airport is lower. Airport management have overseen a programme of imposing harsher caps and traffic management at a scheduling level.

Reports of industrial action by KLM ground crew at the airport was reportedly due to poor working conditions and the airlines' recent decision to outsource some labour to another agency.⁶⁸ Further commentary suggests that competition among handling agents at Schiphol may have contributed to

⁶⁵ Verheid.nl. wetten.nl - Regulation ground handling aerodromes - BWBR0009365 (overheid.nl)

⁶⁶ Airside International (2022). <https://www.airsideint.com/klm-ground-workers-threaten-another-walkout-in-july-over-stalled-contract-talks/>

⁶⁷ Airside International (2022). <https://www.airsideint.com/klm-ground-workers-threaten-another-walkout-in-july-over-stalled-contract-talks/>

⁶⁸ NL Times (2022). <https://nltimes.nl/2022/04/23/klm-ground-crew-strike-causes-delays-schiphol>

poorer working conditions and reduced wages for ground handling staff. In August 2022, Amsterdam Schiphol Airport reported OTP of 61%.⁶⁹

⁶⁹ OAG. Monthly OTP Data. Available here: <https://www.oag.com/en/on-time-performance-airports-august-2022>

United States of America

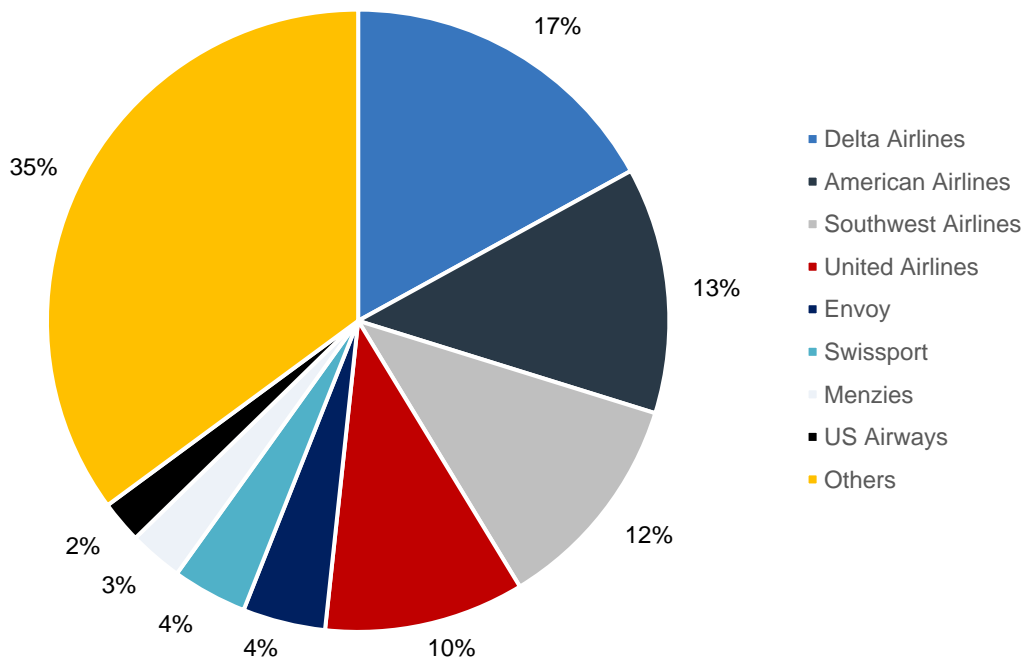
Policy

The Federal Aviation Administration (FAA) regulates the ground handling market in the USA. The ground handling market is liberalised in the USA and no licence is required. All that is required is authorisation from the airport. Airports are prohibited from granting exclusive rights to any ground handling service providers. The FAA stipulates that the airport is to be made for public use on reasonable terms, and without unjust discrimination, to all types, kinds, and classes of aeronautical uses.⁷⁰ Airlines are therefore free to choose whether to operate their own ground handling services or choose between private operators. Similarly, the airport can also provide services in-house.

Competition

The market shares of the major companies in the US ground handling market for ramp and passenger services are shown below.

Figure 49: Ground Handling Market Share by Company (Ramp and Passenger Handling)⁷¹



Source: Steer Davies Gleave (2016).

The US ground handling market is dominated by the major airlines' own ground handling operations, which are either operated by the airline directly or through subsidiary companies - which typically operate at smaller regional airports. These ground handling operations primarily exist to supply services to their parent companies, but also offer their services to other airlines and are therefore considered by international ground handling agents as competition for the market. The continued operation, either directly or indirectly, of their own ground handling operations by most of the major US airlines is primarily due to labour contracts and union agreements that prevent airlines from outsourcing these services. The prevalence of the airline self-handling model can be seen outside the United States with United Airlines being one of only two carriers to self-handle at London Heathrow, alongside British Airways.

Whilst airline self-handling appears to be the prevailing business model among US legacy carriers, American Low-Cost Carriers (LCCs) have typically sought to outsource provision of ground handling services. For example, Spirit Airlines, one of America's largest Ultra Low-Cost Carriers (ULCCs) completely outsource ground handling provision in almost half of their stations with the exception of Fort Lauderdale-Hollywood International Airport as they require all of the standard services including

⁷⁰ FAA (2013). [Airport Sponsor and Airport User Rights and Responsibilities, 2013 \(faa.gov\)](https://www.faa.gov/airports/airport-user-rights-and-responsibilities-2013)

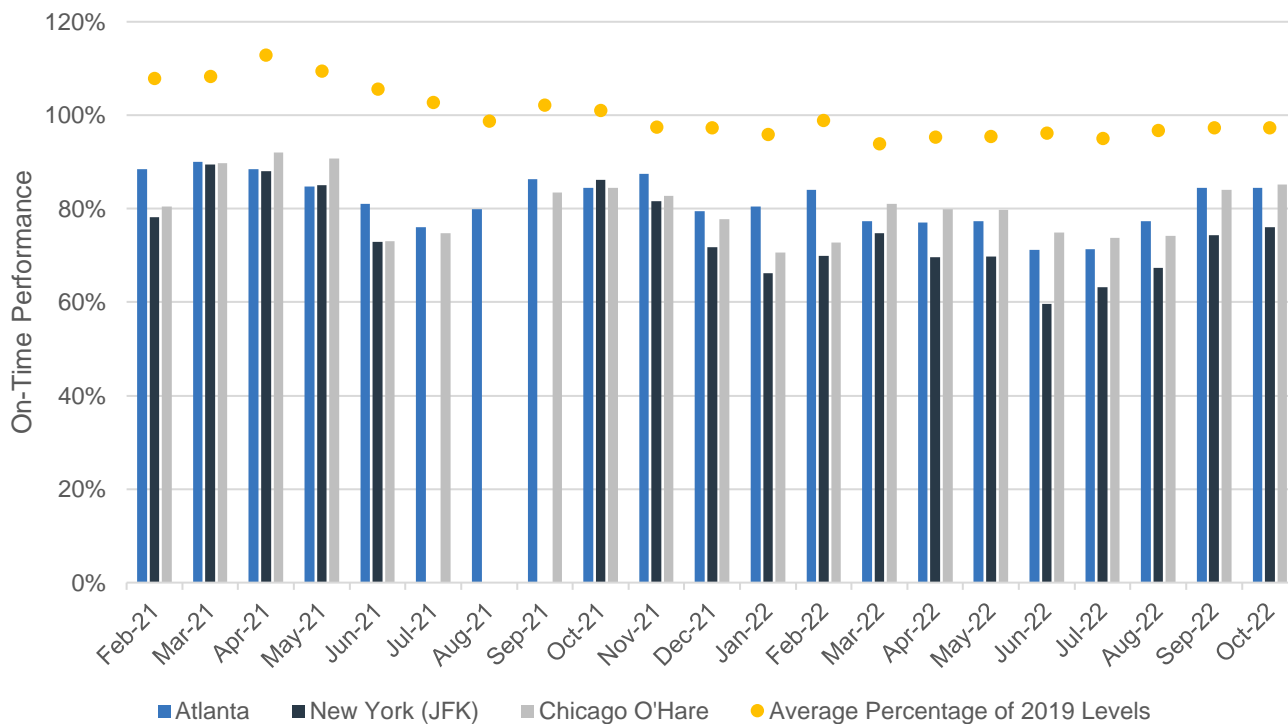
⁷¹ Steer Davies Gleave (2016). Study on airport ownership and management and the ground handling market in selected non-EU countries. Brussels. Available from: <https://transport.ec.europa.eu/system/files/2016-09/2016-06-airports-and-gh.pdf>

passenger service, ramp, aircraft cleaning, wheelchair assistance and fuelling.⁷² This was followed by the decision taken by Frontier in 2015 to outsource all ramp, baggage, gate and ticket-counter ground handling at Denver International Airport (DEN) and General Mitchell International Airport (MKE) in Milwaukee.⁷³

Performance

The figure below shows On-Time Performance across three major US airports (Atlanta, New York (JFK) and Chicago O’Hare) between February 2021 and October 2022.

Figure 50: On-Time Performance at Three Major US Airports, by Month, 2021-2022



Source: PA analysis of OAG On-Time Performance data. Note: ‘Percentage of 2019 Levels, Average’ shows the unweighted average of the following airports: Atlanta, New York (JFK) and Chicago O’Hare.

Overall, US airports experienced less disruption during Summer 2022 compared to many European airports, including the UK. However, traffic recovery in the US occurred during the previous year, in Summer 2021. Despite this, as shown in the figure above and in stark contrast to Europe, performance at a sample of the USA’s largest airports was better than 2019 levels for most months in 2021. Furthermore, although performance in the US deteriorated slightly in 2022 compared to 2021, performance was essentially equal to 2019 levels.

Looking at 2021, month-by-month growth in US flight volumes was very similar to the UK in 2022. For example, in January 2021, US flight volumes were 58% of January 2019 levels, and reached 81% by July. UK airports experienced significant performance issues in June and July 2022. In contrast, as shown in the figure above, average On-Time Performance across three major US airports (Atlanta, New York (JFK) and Chicago O’Hare) had marginally improved (+5% versus 2019).

In 2022, the number of flights operated in the US stayed high and relatively constant month by month. For all months in 2022 for which data was available (Jan-Aug), traffic exceeded 80% of 2019 levels year on year. Average On-Time Performance across three major US airports (Atlanta, New York (JFK) and Chicago O’Hare) remained above 90% of 2019 levels for all months in 2022. This is in contrast to the

⁷² Aviation Pros (2017). Ground Handling and Low Cost Carriers. Available here: <https://www.aviationpros.com/ground-handling/ground-handlers-service-providers/article/12313649/ground-handling-and-lowcost-carriers>

⁷³ Aviation Pros (2017). Ground Handling and Low Cost Carriers. Available here: <https://www.aviationpros.com/ground-handling/ground-handlers-service-providers/article/12313649/ground-handling-and-lowcost-carriers>

situation in Europe and the UK, where performance fell substantially in June and July relative to 2019 levels as flight volumes began recovering. For example, in August 2022, 74% of flights departed on time from Chicago O'Hare (98.67% of August 2019 levels). In contrast, at London Heathrow only 59% departed on time in the same month (88.21% of August 2019 levels).

Conclusions

At this time, the sector is not calling for root and branch reform of the Airports (Ground Handling) Regulations or how ground handling works in the UK. While this Study has not investigated whether there is or is not market failure in the UK ground handling market, it is clear that the sector faces a number of short- and long-term challenges. This section summarises these and highlights examples of best practice. Other recommendations shared by stakeholders have been shared directly with DfT for further consideration.

Recruitment, Retention and Skills

Labour market challenges have been cited as one of the primary causes of the disruption in Summer 2022. Although ground handling wages are not significantly different to those of comparable roles in other sectors, working conditions are more challenging - as explored in *Operational Resourcing*.

The challenges here are twofold and are first concerned with the general lack of appeal of working in ground handling, as well as the inability to retain staff against competing sectors such as logistics, retail and hospitality. Ground handling staff often work in physically demanding environments including cramped aircraft holds in inclement weather, and on shifts that often involve working at anti-social and irregular hours. The nature of some ramp and baggage roles is a large amount of manual handling of heavy loads, which means that staff are more likely to suffer from musculoskeletal conditions.

A further challenge cited in this area relates to training. For example, one stakeholder reported that training is also relatively short, taking between five to seven working days, and has been “fast tracked” at one large UK ground handling agent. Moreover, a report from the European Transport Workers’ Federation has highlighted how “temporary staff do not always receive full training, but just the basic training allowing them to do the work. In many cases, (temporary) staff have not even completed training.”⁷⁴ Unions also questioned the nature and quality of virtual e-learning which has become more common in ground handling.

The European Aviation Safety Agency (EASA) has also highlighted concerns on ground handling training in continental Europe, as discussed in *Operational Resourcing*. At present, there is no industry standard training syllabus and no basic requirements are set by industry or in legislation in the UK or most (if not all) other European countries. Incidents involving staff injury or damage to aircraft have led the Agency to consider the need for a programme on training to ensure that personnel are competent to perform in a safety critical environment.

Several ground handling agents, however, claimed that sufficient training is provided to staff. Two large UK ground handling agents stated that 15 working days of training are given to a new starter with no experience for roles in passenger, baggage, ramp and ground administration and supervision. Another added that significant training opportunities and funding is available for staff training, including apprenticeships, training and qualifications.

Finally, staff productivity is also likely to be lower in 2022 than 2019, not only due to inefficiencies from operating below capacity, but also due to reductions in average worker experience, high levels of staff turnover, and large numbers of staff on escorted airport ID passes. Productivity per full-time equivalent employee approximately halved between 2015 and 2021; it is unlikely that this can be attributed solely to the decline in traffic volumes given the shortages of staff reported in the sector.

Long Processing Times for Airport ID Passes

Processing times for securing airport ID passes (a process which is managed by airports) have also been cited as a major challenge to restaffing following the pandemic. This has been a considerable bottleneck in the recruitment process and remains a key issue at the end of 2022, with one prominent transatlantic airline claiming that the current airport ID pass application process is a significant driver of inefficiency and a major impediment to effective recovery. At one major UK airport, for example, the process for securing the five-year background check⁷⁵ was typically completed within between six and

⁷⁴ p.38. European Transport Workers’ Federation (2018). Market Access, Social Conditions, Training, Qualifications and Quality Standards in the Ground Handling Industry.

⁷⁵ A requirement of Implementing Regulation (EU) 2015/1998.

eight weeks. In 2022, however, the airport gave examples where this process can now sometimes take several months.

This also generates a negative feedback loop where the longer the process takes, the more new starters may drop out of the process, requiring additional replacements to be identified, increasing the number of new applications that need to be processed by the airport ID centre, thereby increasing the time taken to process applications, etc. This was reported by several airports and ground handling agents throughout the summer season; with a significant proportion of new starters dropping out of the process and accepting job offers in other sectors. While data on this was not available, several airports stated that this had significantly increased over Summer 2022.

Poor Operational and Financial Resilience

Most contracts between ground handling agents and airlines are on the basis of a pre-agreed price per aircraft turnaround (“fixed-price” pricing model). These do not typically support high levels of operational resilience, which contributed to the significant performance challenges witnessed over Summer 2022 when UK aviation recovered.

Throughout the Covid-19 pandemic, there was significant uncertainty over the pace and timeline of recovery in passenger volumes which made effective resource planning difficult. This was compounded by the typical model of revenue recovery used in UK ground handling, whereby ground handling agents are remunerated based on output (the fixed price model⁷⁶), e.g. the number of completed turn arounds, passengers boarded. Should flight schedules be scaled back, as was the case following a series of false starts by the industry, ground handling agents face a revenue shortfall – incurring the costs of resourcing the original schedule but often a significant fall in revenue. While there may be specific contractual conditions designed to partially alleviate this, such as minimum revenue guarantees, these usually do not enable sufficient cost recovery to incentivise high levels of operational resilience. The same can be said of performance penalties, particularly when many ground handling agents were in poor financial health as a result of the Covid-19 pandemic.

Furthermore, resource planning by ground handling agents is usually based on the airlines’ planned schedules, rather than what is eventually flown. However, airlines operated significantly more ‘off schedule’ (delayed by more than 15 minutes) flights throughout Summer 2022, as analysed in *Operational Performance*. When a flight is significantly delayed (i.e. for longer than 15 minutes), most contracts only require the ground handling agent to provide “best endeavours” to carry out remaining services. One ground handling agent stated that this usually results in significant additional costs for ground handling agents who are not fully compensated for the costs of disruption faced, e.g. resources out of schedule leading to performance penalties for underperformance of other flights. Similar to the above paragraph, managing such delays directly impacts ground handling efficiency.

Finally, most stakeholders agreed that price is a significant driver of competitive advantage, if not the most important. In some instances, stakeholders suggested that ground handling agents have likely bid very near or below cost either deliberately to gain market share or inadvertently due to cost uncertainty, e.g. disruption. This is in part due to the highly competitive nature of the industry. The winner may then under-resource in a way which provides little operational resilience in an attempt to make a profit. This may then adversely impact service quality should operational demands suddenly change – as was the case when traffic recovered faster than expected – should airline and airport safeguards be insufficient.

Greater levels of resilience could be enabled through contractual changes, for example greater minimum revenue guarantees, greater compensation for schedule changes which have already been resourced, alternative pricing models (i.e. cost-plus), etc.

Ineffective Collaboration

Whilst established forums for collaboration within the ground handling industry do exist, several ground handling agents assessed that these are not always effective at encouraging airlines, airports and ground handling agents to share information and best practice. For example, Airport Operator Committees (AOC) are usually dominated by airlines’ agendas. Likewise, Airport User Committees (AUC) do not always include ground handling agent representatives (this is not, however, a strict requirement of the Airports (Ground Handling) Regulations).

⁷⁶ See Pricing Models on p.14

Moreover, it has been highlighted that there is an imbalance in the perception of ground handling agents in these committees which may undermine effective collaboration in ground handling. For example, ground handling agents are not always seen as equal partners at airports, with the risk that poor communication leads to a misalignment of expectations in terms of ground handling operational delivery (e.g. resource planning), investment and other topics between different stakeholder groups. For example, airlines typically present their planned schedules to ground handling agents without prior consultation on the operational constraints which the former may face. Moreover, airlines do not always provide their planned schedules to ground handling agents in a timely manner, i.e. with sufficient time to plan effectively. One ground handling agent shared that one airline had only shared its Winter 2023 schedule one week prior to the start of the season. In general, AUCs, AOCs and other airport consultative committees should operate on the principles of transparency, fairness and open dialogue.⁷⁷

Notably, some airlines and ground handling agents assessed that this behaviour was less common for ground handling contracts which are based on a “cost-plus” pricing model. Through this model, some stakeholders claimed, airlines tend to adopt a more collaborative relationship with their ground handling agents. This is likely because airlines bear more of the cost risk than under the alternative “fixed-price” model.

Limited collaboration also occurs at the national level. While some groups have been established, these do not focus exclusively on ground handling, its delivery or the sharing of best practice. For example, the CAA chairs an Industry Resilience Group consisting of airports, airlines, air navigation service providers and regulators. The Group’s terms of reference are yet to be published at the time of writing, the Group is expected to aim to support a “systemised approach to the way in which the UK’s aviation network is planned and operated to enhance its...operating resilience, reduce delays and the associated costs.”⁷⁸ The Ground Handling Operations Safety Team (GHOST) also exists to share learnings on ground handling issues. GHOST is a joint CAA and industry team with the aim of improving aviation safety. Topics for discussion are identified using Mandatory Occurrence Reporting (MOR) data, market intelligence, and feedback from members. Stakeholder generally assess these groups to be working well.

Ineffective Coordination

There is a commonly held view in the industry that the best and most efficiently run airports are where there is an alignment of objectives between airports, airlines and ground handling agents backed up by close coordination. For example, minimum performance standards determined by an airport for ground handling agents are very different to the operational standards contractually agreed between an airline and the ground handling agent. This can result in different service quality outcomes across stands across the same terminal, complicating operational delivery. For example, should an aircraft fail to depart on time due to poor ground handling performance at one ground handling agent then delay can cascade across the airport, affecting other airlines through lack of available stands, staff, equipment, or other operational constraints.

Therefore, several UK airports have taken steps to influence overall ground handling performance at their airport. Examples of this include:

- Mandatory performance standards within an airport’s ground operations licence at London Heathrow.⁷⁹
- A performance penalty regime through a ground operations licensing agreement at Edinburgh.⁸⁰

⁷⁷ Department for Transport (2014). Guidelines for Airport Consultative Committees. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/979232/guidelines-airport-consultative-committees.pdf

⁷⁸ <https://www.caa.co.uk/consumers/guide-to-aviation/improving-resilience-for-uk-airports-and-airspace/>

⁷⁹ Heathrow Airport Limited (2022). Heathrow Airport Limited Conditions of Use including Airport Charges from 1 January 2022. Available from: https://www.heathrow.com/content/dam/heathrow/web/common/documents/company/doing-business-with-heathrow/flights-condition-of-use/conditions-of-use-documents/LHR_Conditions_of_Use_2022.pdf

⁸⁰ Edinburgh Airport (2020). Edinburgh Airport Conditions of Use. Available from: https://edinburghairport.s3-eu-west-1.amazonaws.com/files/2019/12/EDI_Conditions_of_Use_2020.pdf

- Codes of practice which all ground handling agents operating at the airport have agreed to at London Luton.⁸¹
- Operational resilience bonds at Edinburgh and London Gatwick to ameliorate poor performance by ground handling agents in the event that performance standards are breached. This bond is either not charged or returned to the ground handling agent should no breaches occur.
- Additionally, at Singapore Changi Airport, a Ground Operations Efficiency Measures System (GOEMS) has been implemented which requires airlines to meet specific performance standards on, for example, 'first bag on' and 'first bag off.' Singapore Changi airport argues that its use of minimum performance standards through GOEMS (described above) increases its competitiveness and value proposition against its airport peer group.

However, airports face some important barriers to doing so more effectively:

- The airport does not have visibility over the service quality standards agreed between an airline and its ground handling agent through the Ground Handling Agreement.
- Airlines and ground handling airlines do not frequently share resource and resilience plans, performance KPIs, or other ground handling operational data with the airport.
- Some airlines oppose airports taking a more proactive role in ground handling performance management.
- Performance penalties can be challenging to enforce; for example, some carriers at an airport are so large that it is not credible to threaten to suspend their ground handling agent's licence.

Furthermore, ground handling performance data is not collected at the national level, so regulators (the CAA) and government (DfT) have little up to date visibility of ground handling operational resilience or performance. This is despite such data likely being readily collected by airlines and ground handling agents. For example, airlines typically specify data sharing requirements in their Ground Handling Agreements with ground handling agents. Airports also collect some data on baggage performance metrics, but usually lack a full picture of ground handling performance at the airport (e.g. resourcing plans, etc.).

Infrastructure and Investment Constraints

Almost all stakeholders have indicated that there is a need for greater investment in automation and technology. This could lead to, for example, greater worker productivity, thereby helping to alleviate labour resourcing challenges over the long-term. However, following the Covid-19 pandemic, the aviation industry is heavily indebted and has less cash available for investment, particularly in the context of rising interest rates over the course of 2022. Furthermore, some ground handling agents explained how supply chain delays have resulted in longer lead times for new ground support equipment (GSE), leading to an increase in the use of old equipment.

There are also challenges in the use of GSE, which is sometimes underutilised and/or poorly managed. To help address this, London Luton Airport⁸² introduced a system of GSE pooling before the Covid-19 pandemic to mitigate challenges in the supply of equipment, particularly during daily and seasonal peak demand.

While a detailed assessment of GSE pooling has not been carried out as part of this study, Luton airport highlighted that the approach has the potential to unlock the following benefits:

- Enabled a faster recovery by ensuring that sufficient GSE was available and serviceable
- Promotes greater efficiency through higher resource utilisation, purchasing economies (greater purchasing power), operational reliability and lower maintenance costs; for example, TCR estimate that pooling at one airport allowed the GSE fleet to reduce by ~20% in number⁸³
- Promotes greater safety and operational effectiveness through use of common equipment types and training
- Encourages collaboration between ground handling agents and the airport

⁸¹ p.51 Department for Transport (2018). Aviation 2050: The future of UK Aviation.

⁸² p.62, Department for Transport (2018). Aviation 2050: The future of UK Aviation.

⁸³ TCR (2022). The Benefits of GSE Pooling. Available from: <https://www.tcr-group.com/solution-service/gse-pooling/#:~:text=GSE%20pooling%20allows%20operators%20to,with%20ever%20tighter%20environmental>.

- Reductions in the number of incidents through improved equipment tracking using telematics to track the usage of GSE by individual members of staff, resulting in fewer insurance claims and reducing overall repair costs
- Better coordination of GSE with supporting infrastructure (charge points, vehicle parking, etc.); this could also act as a catalyst for the decarbonisation of ground handling

Luton airport reported that safety incidents involving damage to equipment and the rate of equipment failure have both decreased significantly. For example, costs of damage have reportedly fallen more than seven-fold since the introduction of GSE pooling, and one ground handling agent at the airport stated that the introduction of GSE pooling has led to operating expenditure savings of approximately 2% per annum.

Annex A: Role Summaries

This section describes the typical responsibilities, qualifications, competencies, career progression and key performance indicators associated with key roles in the ground handling sector.

Airside Agents

Table 14: Description of Airside Roles

Airside Agents			
	Agent Levels 1-3	Team Leader Level 4	Supervisor Level 5
Role Summary	To provide the necessary underwing ground support services to aircraft as required by our customer airlines including, but not limited to, the loading and unloading of baggage, cargo and mail, sorting and transporting baggage to and from the aircraft and the operation of specialist ground servicing equipment	To motivate, engage and inspire staff to deliver the best possible service as well as maintain excellence relationships with customers and authorities	
Job Responsibilities	<ul style="list-style-type: none"> • Load/unload luggage, cargo, wheelchairs and other mobility devices to/from aircraft • Deliver luggage to claim area and unload onto conveyor system • Deliver air cargo to appropriate recipient • Placement of chocks and cones around the aircraft • Drive and/or operate ground support equipment • Report all equipment malfunctions to the appropriate supervisor/manager • Comply with relevant legislation, airport authority and carrier security requirements 	<ul style="list-style-type: none"> • Supervise/allocate tasks including reporting absences and overtime • Plan and deploy resource to ensure rosters meet customer and operational requirements • Develop an open feedback culture by managing the performance of employees and ensure workplace standards are maintained • Build and maintain relationships with customers and airport authorities • Encourage consistency and collaboration by ensuring clear communication at all levels • Resolve conflict and irregularities and take appropriate action • Responsible for maintenance of assigned equipment and materials • Contribute/assist with local emergency plans 	<p>In addition to L4 responsibilities:</p> <ul style="list-style-type: none"> • Maintain applicable safety and performance standards • Conduct daily shift briefings • Conduct safety meetings/briefings • Liaise with team leaders ensuring daily workforce requirements are met • Perform daily/weekly audits • Lead and ensure the shift operation is effectively managed • Proactively share knowledge and own experience with colleagues
Qualifications and Competencies	<ul style="list-style-type: none"> • Flexible to work a variety of shifts (days, evening, nights, weekends and public holidays) 	<ul style="list-style-type: none"> • In addition to L1-L3: • Experience of leading teams • Excellent organisational and planning skills • Excellent oral and written communication skills 	

Airside Agents			
	Agent Levels 1-3	Team Leader Level 4	Supervisor Level 5
	<ul style="list-style-type: none"> • Ability to speak and understand the English language • Ability to travel to the airport at times where public transport is not available • Willingness to work in inclement weather • Able to work in a manual handling environment and repeatedly lift up to 32kg throughout a shift • Able to work in some confined spaces (aircraft hold) • Hold a full driving licence (depending on operational needs) • Previous experience working in an aviation environment is desired 	<ul style="list-style-type: none"> • Proficient in Microsoft Office 	
Career Progression	<ul style="list-style-type: none"> • After successful completion of 12 months services, subject to passing a probationary period, ability to attain Grade A2/3. Further progression is subject to job vacancies arising. Satisfactory completion of three years continuous service typically. Attainment of competency in all basic, intermediate and advanced tasks and duties. 	<p>In addition to L3:</p> <ul style="list-style-type: none"> • Demonstrating competent supervisory skills and/or attending the relevant supervisory skills course(s) 	<p>In addition to L4:</p> <ul style="list-style-type: none"> • Demonstrating competent supervisory and 'first line' management skills and/or attending relevant supervisory skills course
Key Performance Indicators	<ul style="list-style-type: none"> • No delays attributable to turnaround handling performance failures • Baggage offload completed within the agreed performance timescales • All turnarounds completed in compliance with the current turnaround audit requirements • No reportable injuries • No aircraft damage incidents • No AAA failures attributable to airside operations • No complaints received in respect of poor or inadequate communication or reporting • No attributable audit failures • All operational, revenue and cost related information presented in a complete and timely manner at all times 		

Source: PA analysis

Baggage Hall Agents

Table 15: Description of Baggage Hall Roles

Baggage Hall Agents			
	Agent Levels 1-3	Team Leader Level 4	Supervisor Level 5
Role Summary	To provide all necessary and required baggage sortation services to ensure departing baggage is loaded on the correct flight, and arriving baggage is reconciled with passengers in a timely manner.	To motivate, engage and inspire staff to deliver the best possible service as well as maintain excellence relationships with customers and authorities	
Job Responsibilities	<ul style="list-style-type: none"> • Load/unload luggage, cargo, wheelchairs and other mobility devices to/from aircraft • Deliver luggage to claim area and unload onto conveyor system • Deliver air cargo to appropriate recipient • Load/unload wheelchairs and child strollers and deliver to designated location • Placement of chocks and cones around the aircraft • Drive and/or operate ground support equipment • Report all equipment malfunctions to the appropriate supervisor/manager • Comply with relevant legislation, airport authority and carrier security requirements 	<ul style="list-style-type: none"> • Supervise/allocate tasks including reporting absences and overtime • Plan and deploy resource to ensure rosters meet customer and operational requirements • Develop an open feedback culture by managing the performance of employees and ensure workplace standards are maintained • Build and maintain relationships with customers and airport authorities • Encourage consistency and collaboration by ensuring clear communication at all levels • Resolve conflict and irregularities and take appropriate action • Responsible for maintenance of assigned equipment and materials • Contribute/assist with local emergency plans 	<p>In addition to L4 responsibilities:</p> <ul style="list-style-type: none"> • Ensure compliance with corporate and airport safety and security procedures in order to meet/exceed regulatory and workplace standards • Participate and contribute to internal communications • Perform daily/weekly audits • Build and maintain good management/workforce relations • Lead and ensure the shift operation is effectively managed • Proactively share knowledge and own experience with colleagues
Qualifications and Competencies	<ul style="list-style-type: none"> • Flexible to work a variety of shifts (days, evening, nights, weekends and public holidays) • Ability to speak and understand the English language • Ability to travel to the airport at times where 	<p>In addition to L1-L3:</p> <ul style="list-style-type: none"> • Excellent organisational and planning skills • Excellent oral and written communication skills • Proficient in Microsoft Office 	<p>In addition to L4:</p> <ul style="list-style-type: none"> • Preferably three years supervisory experience • Demonstrating competent supervisory and 'first line' management skills

Baggage Hall Agents

	Agent Levels 1-3	Team Leader Level 4	Supervisor Level 5
	<p>public transport is not available</p> <ul style="list-style-type: none"> • Willingness to work in inclement weather • Able to work in a manual handling environment and repeatedly lift up to 32kg throughout a shift • Able to work in some confined spaces (aircraft hold) • Hold a full driving licence (depending on operational needs) • Previous experience working in an aviation environment is desired • ability 		
Career Progression	<ul style="list-style-type: none"> • After successful completion of 12 months services, subject to passing a probationary period, ability to attain Grade B2/3. Further progression is subject to job vacancies arising. Satisfactory completion of three years continuous service typically. Attainment of competency in all basic, intermediate and advanced tasks and duties. 	<ul style="list-style-type: none"> • Further progression is subject to job vacancies arising 	<ul style="list-style-type: none"> • Satisfactory completion of three years continuous service typically • Attainment of competency in all basic, intermediate and advanced tasks and duties
Key Performance Indicators	<ul style="list-style-type: none"> • All turnarounds completed in compliance with the current turnaround audit requirements • No reportable injuries • No aircraft damage incidents • No AAA failures attributable to baggage operations • No complaints received in respect of poor or inadequate communication or reporting 	<p>In addition to L1-L4:</p> <ul style="list-style-type: none"> • No delay code (18) attributable • Baggage offload completed with agreed performance timescale • No attributable audit failures • All operational, revenue and cost related information presented in a completed and timely manner at all times 	

Source: PA analysis

Operations and Dispatch Agents

Table 16: Description of Operations and Dispatch Roles

Operations and Dispatch Agents			
	Operations / Dispatch Levels 1-3	Operations Controller Level 4	Supervisor Level 5
Role Summary	To manage the entire arrival and departure process overseeing all activities to ensure a safe working environment and achieve on time departure. Deal with a variety of airline systems and represent employer through effective communication with flight and cabin crew at the aircraft side	To motivate, engage and inspire staff to deliver the best possible service as well as maintain excellence relationships with customers and authorities	
Job Responsibilities	<ul style="list-style-type: none"> • Prepare paperwork for crew including flight plans, weather reports, passenger lists and documentation • Communicate aircraft fuel and load data between flight crew and load control departments • Prioritise tasks and manage the turnaround of an aircraft from arrival to departure • Operate air bridges and stand guidance systems • Drive vehicles airside to provide crew transport to and from the aircraft • Deal with aircraft weight and balance calculations as required • Report all equipment malfunctions to the appropriate supervisor/manager • Comply with all UK/Ireland/EU legislation, airport authority and carrier security requirements • Maintain the highest standards of safety and security at all times 	<ul style="list-style-type: none"> • Supervise/allocate tasks including reporting absences and overtime • Plan and deploy resource to ensure rosters meet customer and operational requirements • Develop an open feedback culture by managing the performance of employees and ensure workplace standards are maintained • Build and maintain relationships with customers and airport authorities • Encourage consistency and collaboration by ensuring clear communication at all levels • Resolve conflict and irregularities and take appropriate action • Responsible for maintenance of assigned equipment and materials • Contribute/assist with local emergency plans 	
Qualifications and Competencies	<ul style="list-style-type: none"> • Flexible to work a variety of shifts (days, evening, nights, weekends and public holidays) • Ability to speak and understand the English language • Ability to travel to the airport at times where public transport is not available • Willingness to work in inclement weather 	<p>In addition to L1-L3:</p> <ul style="list-style-type: none"> • A minimum of three GCSEs or equivalent • Proficient in computer skills and able to learn employer and airport systems • Commitment to good customer service and continuous improvement • Self-motivated and able to inspire others, with demonstrable experience leading teams • Excellent organisational and planning skills 	

Operations and Dispatch Agents

	Operations / Dispatch Levels 1-3	Operations Controller Level 4	Supervisor Level 5
	<ul style="list-style-type: none"> • Able to work in a manual handling environment and repeatedly lift up to 32kg throughout a shift • Able to work in some confined spaces (aircraft hold) • Hold a full driving licence (depending on operational needs) • Previous experience working in an aviation environment is desired • Ability to speak additional languages desirable 		
Career Progression	<ul style="list-style-type: none"> • After successful completion of 12 months services, subject to passing a probationary period, ability to attain Grade O2/3. Further progression is subject to job vacancies arising. Satisfactory completion of three years continuous service typically. Attainment of competency in all basic, intermediate and advanced tasks and duties. 	<ul style="list-style-type: none"> • Further progression is subject to job vacancies arising 	<ul style="list-style-type: none"> • Satisfactory completion of three years continuous service typically • Attainment of competency in all basic, intermediate and advanced tasks and duties
Key Performance Indicators	<ul style="list-style-type: none"> • Departure outbound efficiency • Arrival inbound efficiency • Meet targets regarding turnaround times on the apron • Minimal instances of missing passengers, baggage or cargo • Minimal number of aircraft instances 	<ul style="list-style-type: none"> • Agreed customer standards for the provision of operations will be maintained within budget/forecast labour cost targets • Lateness and absenteeism and staff turnover actively managed in line with Company policy • Maintenance of good customer and employee relations, disciplinary issues and level of complaints attributed to the shift • Consistent accuracy and completeness of paperwork within timescales and standards set by local management • Completion of operations audits and follow-up to be completed every winter and summer season • Completion of formal staff appraisals, for all staff 	

Source: PA analysis

Customer Service Agents

Table 17: Description of Customer Service Roles

Customer Service				
	Agent Levels 1-3	Senior Agent Level 3	Team Leader Level 4	Supervisor Level 5
Role Summary	<ul style="list-style-type: none"> To provide all necessary help and support to passengers as required by our customer airlines which may include check in, baggage processing, reservations and ticketing, boarding of flights, air-bridge operation, greeting arriving passengers, handling of VIPs, provide special passenger assistance, handle customer complaints and other duties as assigned 	<ul style="list-style-type: none"> To provide all necessary help and support to passengers as required by our customer airlines to include reservations and ticketing, passenger queries, handling of VIPs, provide special passenger assistance, handle customer complaints and other duties as assigned 	<ul style="list-style-type: none"> To motivate, engage and inspire staff to deliver the best possible service as well as maintain excellence relationships with customers and authorities 	
Job Responsibilities	<ul style="list-style-type: none"> Assist passengers with self-service check-in Inspect and verify passenger documentation Issue boarding passes and reschedule passengers affected by flight interruptions Manage passenger baggage processing including handling and fee calculation Assist passengers as needed through arrival and check in processes Direct passengers through customs, immigration and quarantine as required Make public address announcements Comply with all relevant legislation Operate computers and specialist equipment e.g. air-bridge, scanners Maintain the highest standards of safety and security at all times 		<ul style="list-style-type: none"> Supervise/allocate tasks including reporting absences and overtime Plan and deploy resource to ensure rosters meet customer and operational requirements Develop an open feedback culture by managing the performance of employees and ensure workplace standards are maintained Build and maintain relationships with customers and airport authorities Encourage consistency and collaboration by ensuring clear communication at all levels Resolve conflict and irregularities and take appropriate action Responsible for maintenance of assigned equipment and materials Contribute/assist with local emergency plans 	

Customer Service				
	Agent Levels 1-3	Senior Agent Level 3	Team Leader Level 4	Supervisor Level 5
Qualifications and Competencies	<ul style="list-style-type: none"> • A minimum of three GCSEs or equivalent • Flexible to work a variety of shifts (days, evening, nights, weekends and public holidays) • Ability to speak and understand the English language • Ability to travel to the airport at times where public transport is not available • Excellent communication skills (written and verbal) • Proficient in computer skills and able to learn employer and airport systems • Willingness to work in inclement weather • Able to demonstrate good customer service • Commitment to continuous improvement • Self-motivated and able to work independently • Previous experience working in an aviation environment is desired • Ability to speak additional languages desirable 		<p>In addition to L1-L3:</p> <ul style="list-style-type: none"> • Self-motivated and able to inspire others, with demonstrable experience leading teams • Excellent organisational and planning skills 	
Career Progression	<ul style="list-style-type: none"> • After successful completion of 12 months services, subject to passing a probationary period, ability to attain Grade P2/3. Further progression is subject to job vacancies arising. Satisfactory completion of three years continuous service typically. Attainment of competency in all basic, intermediate and advanced tasks and duties. 	<ul style="list-style-type: none"> • Satisfactory completion of three years continuous service typically • Attainment of competency in all basic, intermediate and advanced tasks and duties 		
Key Performance Indicators	<ul style="list-style-type: none"> • Total customer satisfaction recorded through secret shoppers and review platforms e.g. TripAdvisor • Departmental sales targets met and exceeded • Department budget targets met and exceeded 	<ul style="list-style-type: none"> • Departmental sales targets met and exceeded • Departmental Cost of Sales targets met and exceeded • Budget milestones met and exceeded • Periodical sales targets met and exceeded • Periodical Cost of Sales targets met and exceeded • Budget milestones met and exceeded 	<p>In addition to L3,</p> <ul style="list-style-type: none"> • Lateness, absenteeism and staff turnover actively managed within agreed local limits • Uniform standards and presentation consistently maintained in line with Company policy • Customer service targets met and exceeded 	

Customer Service			
Agent Levels 1-3	Senior Agent Level 3	Team Leader Level 4	Supervisor Level 5
	<ul style="list-style-type: none"> Customer service targets met and exceeded 		

Source: PA analysis

Annex B: Glossary

This section describes the key terms used throughout this report.

Table 18: Glossary of Terms

Term	Description
ACI	Airports Council International
AH	Airport-Handling
Aircraft turn around (“turns”)	A flight for which all ground handling services have been completed
Apron	The areas of an airport where aircraft are parked, refuelled and un/loaded with passengers and cargo
ASIG	Aircraft Service International Group
CAA	Civil Aviation Authority
Cancellation	The non-operation of a previously planned flight, announced less than 24 hours before or after its scheduled departure time
CMA	Competition and Markets Authority
DfT	Department for Transport
EASA	European Union Aviation Safety Agency
EC	European Commission
GHA	Ground Handling Agent
GHSP	Ground Handling Service Provider
GSE	Ground Service Equipment
IATA	International Airport Transport Association
ICAO	International Civil Aviation Organisation
IGOM	IATA Ground Operations Manual
ONS	Office for National Statistics
OTP	On-Time Performance
PRM	Passengers with Reduced Mobility
ROIC	Return on Invested Capital
SH	Self-Handling

