American Research Journal of Humanities and Social Sciences

Volume 10, Issue 1, 16-23 Pages
Research Article | Open Access
ISSN (Online)- 2379-1047
DOI : 10.21694/2378-7031.24004

AMERICAN RESEARCH JOURNALS
An Academic Publishing House

Deregulation of Air Transport Ground Handling Services after 2011: Labor Responses and Opportunities for Future Research

Megan Brown, PhD

Metropolitan State University, St. Paul, Minnesota, USA.

ABSTRACT

This review examines the deregulation of air transport ground handling services, with a focus on developments after 2011. Although ground handling deregulation has received limited attention in academic and industry sources, there are promising research avenues exploring the impact of deregulation on prices, workers, and consumers. This review also considers the responses of labor movement actors, from local to global union federations, to the challenges posed by the deregulation of the ground handling industry. Finally, this review explores areas for future research, finding that research is needed on ground handling deregulation in the global south.

KEYWORDS: *aviation, deregulation, outsourcing, ground handling*

INTRODUCTION

The uneven deregulation of the global airline industry represented a transformative shift in the dynamics of aviation economics and operations in the latter half of the 20th century. Beginning with the US deregulation of the airline industry in 1978, policy reforms across international jurisdictions dismantled government-controlled monopolies and increased market-driven competition within the airline industry (Smithsonian, 2021). The European market followed with deregulatory efforts in 1986, and developing or Global South markets adopted patchwork regulatory and deregulatory policy schemes depending on their level of development as airline services reached them (González, 2022). Since these deregulatory policy movements, there has been substantial academic research on the impact of airline deregulation, which reshaped the structure of the industry and influenced broader economic, social, and environmental dimensions (Gourdin, 2015; O'Connell & Williams, 2011; Reid, 2014; Rose, 2012; Winston & de Rus, 2008). The process of deregulation was driven by the belief that market forces, rather than government oversight, could lead to greater efficiency, reduced fares, and increased consumer choice within the airline sector (Dempsey & Goetz, 1992). Although the specifics of deregulation varied from country to country, common elements included liberalizing routes, removing fare controls, and encouraging new entrants into the market (Gourdin, 2015).

While a substantial academic literature investigated the broader issue of deregulation within the aviation industry, a related but distinct iteration of deregulation went under theorized and understudied: the deregulation and subcontracting of ground handling services within airports. The deregulation of this component of the airline industry occurred later than the broad deregulation of aviation, as airlines realized the benefits of subcontracting a wide variety of services that they had previously done in-house. In many respects, the deregulation and decentralization of this industry is on-going, with particularly important effects on emerging economies and the global south more generally. This literature review will focus on the limited work done to understand the extent of deregulation on global ground handling services, the implications and consequences of these deregulatory maneuvers, and offer suggestions for further research.

What Are Ground Handling Services?

In the context of the aviation industry, ground handling refers to a wide range of services and activities that take place on the ground at an airport to ensure the safe, efficient, and timely arrival, departure, and maintenance of aircraft. For a comprehensive list of ground handling services, please see Chart 1. Prior to the late 1990s/early 2000s, these services were mostly completed in-house by airline employees, but as the popularity of subcontracting grew in other industries, airlines followed suit (Rutner & Brown, 1999). Following several airline crises, including the aftermath of the September 11 airline attacks in the United States and the global financial crisis of 2008, airlines intensified their efforts to contract out ground handling services.

In the EU, ground handling services were formally deregulated in 1996 following the European Council Directive 96/67/EC, which allowed for two forms of deregulation: self-handling by airports themselves and the ability to contract to a limited number of third-party ground handlers (Meersman et al., 2011; Tomova & Kirschnerova, 2015). Different member states took different tacts while implementing this directive, with some implementing very few restrictions to contractors seeking to enter their ground handling markets, and others using a licensure system for third parties entering the ground handling industry (Meersman et al, 2011). Currently, EU member states are required to employ a minimum of two ground handling contractors for each category of service, specifically baggage, ramp, fuel, and freight Meersman et al, 2011). By 2014, this resulted in approximately 45% of European ground handling market share being handled by independent companies (Airport Ground Handling – Industry Overview. Part 1: Liberalisation, Efficiency & Compensation, 2014).

In the US, ground handling services are only very rarely handled either by airlines or airports, and are almost exclusively handled by ground handling subcontractors (Tomova & Kirschnerova, 2015). This market structure is not always the case, of course, and other mechanisms of organizing ground handling services include monopolistic control by the airport and vertical organization of the services by airlines themselves. While these other two mechanisms of organizing ground handling services still exist, the deregulation of ground handling services, combined with the economic pressures of the airline industry, have resulted in the rise of large, transnational airline contractors who perform ground handling functions at multiple airports across several countries. The largest of these include Swissport, headquartered in Switzerland, and Menzies, headquartered in the UK. The increasing consolidation of ground handling services is a major trend in the industry, affecting the dynamics of competition and the treatment of ground handling workers across the Global North (Tomova & Kirschnerova, 2015).

Table 1. Ground Handling Services

Type of Ground Handling Service	Description of Activity
Aircraft Ramp Services	Aircraft marshaling, chocking, and towing.
Baggage Handling	Loading and unloading passengers' luggage and cargo from the aircraft.
Passenger Services	Assisting passengers during boarding and disembarkation, including wheelchair assistance and boarding gate coordination.
Fueling	Overseeing the refueling of aircraft.
Catering	Catering, where meals and beverages are loaded onto the aircraft.
Safety and Security	Maintaining the safety and security of the aircraft and passengers, including security checks and monitoring restricted areas.
Aircraft Maintenance	Routine maintenance tasks, such as cleaning the aircraft's interior and restocking supplies.
De-icing/Anti-icing	In cold weather, ground handlers are responsible for removing ice and snow from the aircraft's surfaces to ensure safe takeoff and landing.
Ground Support Equipment (GSE) Operations	Ground support equipment maintenance, including baggage carts, cargo loaders, pushback tractors, and aircraft stairs.

LITERATURE REVIEW METHODS

The studies used for this literature review were gathered systematically. Since this topic is broadly important to academics, industry professionals, and labor activists, both academic literature and "'gray literature," such as white papers, were included for analysis. The databases searched include Science Direct Journals, Google Scholar, Academic Search Premier, and Wiley Online, as well as industry sources such as Aviation Week Intelligence Network. The terms searched include "ground handling services," "deregulation," "subcontracting," and separate searches for specific ground handling services (such as baggage handling, ramp services, aircraft fueling, etc.). Once papers were located, the citations were mined for further examples.

Once the list of studies was determined, I reviewed the subject and quality of the study to ensure that the article is relevant to the topic and high quality. For inclusion in this review, I also ensured that the publication date was after 2011. Several studies were excluded because they were not relevant to the ground handling industry in aviation or because they lacked credibility. For a few gray literature studies, results were included despite some quality concerns, but were interpreted with caution. A limitation of this review is that only the English-language literature was reviewed. All studies were collected into an open source Zotero database, which was shared with staff members in the International Transport Workers Federation, who provided comments on the comprehensiveness and added relevant sources. Once the studies were compiled, conducted a thematic analysis, following Braun and Clark (2006). The coding process engaged with each article on its own terms, reading and responding inductively to the questions, arguments, and methods used. Codes were then analyzed to develop themes. Ultimately, I reduced the number of themes to three: questions relating to how deregulation affects service quality and price, questions relating to changing industry norms throughout the Global South, and finally, the response of labor unions to deregulation.

FINDINGS

The deregulation, outsourcing, and/or subcontracting of the ground handling market has received less attention than anticipated in either the academic, popular, or industry press over the past 10 years. Below, I will explore and expand upon the three themes I identified in my analysis, focusing on gaps in the literature and areas for further research.

Does Deregulation and Outsourcing Improve Service and Price? A divide between industry, academic and popular commentary

A key question in the literature was whether the deregulation of ground handling, specifically deregulation that led to the outsourcing of ground handling services, improved services, decreased costs, or otherwise improved the industry. Within literature addressing this question, a central divide exists between industry and economics literature and popular and critical academic literature approaching this question.

Industry and economics literature sources remain upbeat and positive about the effects of outsourcing. In industry press, for example, an interview with Mark Albrecht of United Airlines, published by Airside International, argues that outsourcing allows airlines to focus on 'core competencies' and allow contractors to enjoy 'economies of scale' (*GSE Procurement*, 2018). This does not result in 'service degradation,' according to Albrecht, because of service level agreements (*GSE Procurement*, 2018). These positive findings expand into the academic literature. Rose (2012)argued that regulating well is exceedingly different, and that regulations and deregulations are made by functionaries who cannot fully understand the incentives and disincentives caused by their regulatory behavior. In a study by Borenstein and Rose (2014), price levels were found to have decreased as a result of the deregulation of the US ground handling market, which also resulted in consumers benefitting because of increased services and technology and ticket-purchasing processes (Borenstein & Rose, 2014). Others, including Dobruszkes (2009), found that deregulation increased the number of firms active in a specific market, which he concluded also improved competition in the industry overall. Several studies have found positive effects on prices as a result of increased competition. One of these areas is the field of baggage handling fees, a popular addition in the US aviation market over the past 15 years. A series of studies on the question of how baggage handling fees affect overall prices have found that companies charging baggage handling fees also made small reductions in ticket prices (Henrickson & Scott, 2012; Scotti et al., 2016; Scotti & Dresner, 2015).

While industry and business literature emphasize the positive aspects of deregulation, critical academic and popular press sources are more critical of the promise of deregulation and subcontracting to improve industry outcomes, especially outcomes that affect workers and consumers. According to Meerman (2011), the ground handling industry "occupies a relatively weak position within the transport chain" because independent firms are under pressure from both airport authorities and airlines (pg. 5). Airport authorities, especially in the European market, are incentivized to increase costs to contractors through licensure fees because they frequently act as competitors, while airlines successfully juggle contracts with different firms as a means to depress prices (Meersman et al., 2011). Competition among airlines also intensifies the competition among ground handling companies in European and US markets. In this wing of the literature, the deregulation of ground handling has been shown to increase prices (Barbot, 2012), decrease innovation (Türeli et al., 2019), and lead to more delayed flights (Zagrajek & Hoszman, 2018). While industry sources continue to argue that deregulation produces 'economies of scale,' there is critical literature pushing back on that idea.In addition, the transaction costs associated with contracting eat away at any benefits of deregulation (Fuhr, 2009). One study by Türeli et al. (2019) argues that ground handling is an important aspect of customer satisfaction with airline performance, but airlines are limited in their capacity to innovate and maximize efficiency because the services aren't done in house. In another analysis of 122 airports, the presence of outside firms operating ground handling businesses was found to have encouraged airports to increase prices (Barbot, 2012). In particular, this study found that consumers were worse off overall in the civilian aviation market, since the market was characterized by competition among complementary goods.

In addition to potentially harming consumers by driving price increases, deregulation also affects the quality of ground handling services. Zagrajek and Hoszman (2018) found that the quality of ground handling was an important determinant of air traffic volatility, finding that aircraft and ramp handling is the fourth most common cause of delayed flights. Additionally, deregulation was implicated in several employment practices that decreased the quality of ground handling, including staff shortages and untrained staff caused by high turnover. Moreover, poor resource management by small ground handling firms and poor quality ground service support equipment also increase air traffic volatility. Governing policies related to ground handling deregulation have been found to affect the market in some surprising ways. For example, in EU member states, operating licenses are limited to a maximum length of 7 years, in an effort to increase competition between firms. Fuhr (2009) found that this requirement was artificial, and that it negatively affected the contractual relationships between ramp service firms and airlines. In this study, short contract periods resulted in underinvestment by new entrants and worse economic performance, mostly because of increased contract costs.

Literature on the effects of deregulation has shown a split between optimistic industry perspectives and critical academic and popular critiques. While there is some evidence of increased efficiency, decreased costs, and some economies of scale in ground services deregulation and outsourcing, there is perhaps more work outlining critiques revolving around detrimental effects on workers, consumers, and service quality. As we will see, these critiques are now beginning to address how deregulation and outsourcing are affecting the Global South.

Emerging Theme: Aviation in the Global South

A significant gap in the literature exists relating to the deregulation of the ground handling market in the Global South, with some notable exceptions that point to the continued need for engagement with how these economic shifts are affecting non-western nations. The air transport industry in the Global South is currently undergoing massive shifts, including both deregulatory policy changes within nations and industry innovations in transportation networks among and between Global South nations. While there is little literature that focuses on either deregulation or outsourcing in the ground handling industry in the Global South, there is a growing body of work exploring aviation deregulation in general. A special issue in the Journal of Transport Geography was dedicated to exploring how the aviation industry in the Global South is evolving (Njoya & Knowles, 2020). This new scholarship has yet to focus on ground handling, and attention to this aspect of the aviation industry has been highlighted as an area for further research (Njoya & Knowles, 2020). These industry shifts have implications for the aviation industry as a whole, but more importantly have large implications for regional economic growth and patterns of geographic development.

Firstly, several studies are beginning to identify the centrality of the aviation industry as an economic development driver, especially for geographically isolated countries in the global south. The geography of many countries in the global south limits engagement with world markets, making air transport incredibly important for economic development (United Nations Conference on Trade and Development, 2004). While overall economic development throughout the Global South is high, the aviation industry - specifically passenger flights - remains one of the fastest-growing sectors (Addou et al., 2019). That said, the development of commercial aviation has progressed more in the Global North when compared with the Global South, and Africa lags behind Asia and Latin America in industry penetration. Low-cost carrier (LCC) market penetration, to take one example, has grown an average of 13% in Africa, compared with 29.5% in Asia Pacific and 36% in Latin America (CAPA, 2019). In another example, O'Connor et al. (2020) shows that Vietnam has developed their aviation industry by focusing on creating linkages with the Asia Pacific corridor, which they also link to overall economic development.

As Global South countries experience growth in this sector, several are exploring the deregulation of their previously-nationalized aviation industries. This is a relatively new phenomenon, happening approximately 20 years after deregulatory efforts throughout Europe and North America, but scholarship is starting to explore the effects of this deregulation (Çetin & Benk, 2011; Mhlanga, 2017). In Africa, for example, the Yamoussoukro Decision in 1999 exemplified a continent-wide international effort to deregulate and liberalize the airline industry, but this decision is unevenly applied throughout the continent and several countries remain more restrictive in their regulatory frameworks for the industry (Njoya, 2016). Firstly, it appears that the broad deregulation of the aviation industry has not resulted in an increase in flights between Global South countries. In particular, there is a marginalization of intra-Global South routes: flights originating the Global South are more likely than their Global North counterparts to end internationally - and not in another Global South Market. Bofinger has argued that this is because of costs, low incomes, and political and economic fragmentation, as well as the lack of "open skies" policies (2017). It may also be because of relatively high costs and lower profitability. The North American market boasts the most robust profitability, while Middle East, African, and Latin American airlines *lost money* in 2019 (Economic Performance of the Airline Industry, 2019). Just as a note, these figures do not account for changes due to the Covid pandemic, but are useful benchmarks for the industry as it emerges from the crisis.

Case study research into the effect on specific nations have expanded in recent years. One prominent example is Mhlanga (2017), who explored the airline market in South Africa, which was a state-owned monopoly until deregulation in 1991. Despite deregulation, South African Airline (SAA) is still the dominant player, and described as a "bully" that uses its former monopoly status to influence the broader industry (Mhlanga, 2017). This bullying expanded to the ground handling market, since monopoly power over ground handling services still existed in that country despite broader deregulation, allowing the monopolist SAA to maintain dominance over flight traffic. During the process of airline deregulation in South Africa, SAA was the only airline authorized to offer ground handling services at airports, which meant that any competitor airlines had to contract with SAA for ground handling. Of course, SAA overcharged for these services as a strategy to maintain competitive advantage (Mhlanga, 2017). Charlier and Dobruszkes (2020) found some geographic disparity in the penetration of different market actors, with low-cost-carriers more active on South Africa's "Golden Triangle" (pg. 1) while state-sponsored airlines serve low-competition routes. According to this analysis, the deregulation of the airline industry in South Africa resulted in 61% market share being held by these low-cost-carriers.

Another case study example occurred in Brazil, where, In 2017, the ANAC (National Civil Aviation Agency) released Resolution 400/2016, which deregulated baggage handling in one specific way: following this deregulation, airlines were no longer required to offer free checked bags. Barros et al. (2021) studied the effect of this deregulatory policy regarding Brazilian checked-baggage, finding that firms' profits actually did not change with the deregulation. Moreover, allowing extra baggage charges resulted in lower ticket prices but an increase in total price, while also resulting in an increase in tickets sold. These findings show a struggling national aviation industry in Brazil, even pre-pandemic.

These preliminary studies suggest that more work is needed to understand the contours of industry deregulation in the Global South, especially now that this deregulatory effort is expanding to the ground handling sector. Large multinational ground handling contractors like Menzies are beginning to expand into the Middle Eastern and African markets, and have the potential to shape the industry significantly.

Labor Responses to Deregulation in the Ground Handling Industry

While this review does not have the capacity to fully review the variety of organizing work being done by labor unions to interrupt deregulatory processes in the ground handling industry, I will close by sharing a few examples of campaigns that seek to combat the negative effects of deregulation on ground handling workers.

Global labor unions are responding to deregulatory efforts in several interrelated ways. First, they seek to influence international policy specifically related to ground handling industry shifts. The International Transport Worker Federation, for example, recently joined the International Civil Aviation Organization's (ICAO) Ground Handling Task Force (ITF, 2022). This followed a successful effort to report on the safety issues associated with the Covid pandemic among ground handling workers, which the ITF presented to decision-makers at the High-Level Conference on Covid-19 Safety Stream in 2021 (*Considerations on the Need to Strengthen the Regulation of Ground Handling*, 2021). ITF Engagement with this issue also involves supporting local trade unions that organize ground handling workers and providing convening spaces to connect local unions with one another to discuss regulatory policy goals.

On the local level, labor organizing to address outsourcing in ground handling has grown, particularly in the US context. The Service Employees International Union (SEIU) has organized ground handling workers for over a decade across dozens of US airports. This organizing campaign emerged following outsourcing efforts by large airlines, which broke long-standing unions that had previously represented ground handling workers and resulted in significant pay decreases and diminished job quality (Mendoza et al., 2012; Reynolds, 2001). These successful organizing campaigns have been modeled on the Justice for Janitor's campaign (Aguiar & Ryan, 2009), which refused a "contractor by contractor" approach to formal union elections and sought to influence larger decision-makers - whether this was the airline making the contracting decisions (Rosenblum, 2017) or the airport governing body (Hill & Eimer, 2022). As leverage points for individual contractors and individual airlines dwindled, organizers continued fighting for local policy change to increase working standards, from wages and benefits to paid time off (Rosenblum, 2017). Increasingly in the US, this involves advocating for geographic or sectoral standards, which had been commonplace in the US in the early 20th century, but fell out of favor (Rolf, 2016). These creative local labor responses to deregulation within the ground handling industry have spun off several additional campaigns to address low-wage work more generally (Brown, 2017).

CONCLUSION

This review explores the often-overlooked topic of air transport ground handling deregulation, focusing on developments after 2011. It finds that there has been less attention on the question of deregulation in this industry sector than in others, especially following a flurry of studies on the subject in the 1990s and 2000s. Despite its relative lack of attention in academic and industry spheres, there are several themes that emerged in the existing literature that are worthy of further research. First, questions relating to how deregulation affects price, quality, and workers remains important, but current work does not sufficiently address the questions for the emerging markets that are currently grappling with policy questions around deregulation. Finally, there remains many opportunities to investigate the proactive responses of labor movements, spanning from local to global levels, as they work to address the challenges posed by industry shifts. Looking ahead, this review suggests attending specifically to the unique situation of deregulation in the Global South, given how important it is to understand the implications of ground handling deregulation across different socio-political and geographical contexts.

REFERENCES

1. 2021 Safety Report. (2022). Flight Safety Foundation. https://flightsafety.org/wp-content/uploads/2022/02/FSF-2021-Safety-Report_rev5.pdf
2. Addou, M. A., Adel, C. A., &Mnakbi, M. I. (2019). 2019 Annual Report. AFFRA, 76.
3. Affianti, N., Purnami, N., & Etika, R. (2019). Noise and hearing loss experience among ground handling workers in Juanda airport Surabaya. Pollution Research, 38(August Suppl. Issue), Article August Suppl. Issue.
4. Aguiar, L., & Ryan, S. (2009). The Geographies of the Justice for Janitors. Geoforum, 40, 949–958.
5. Airport ground handling – industry overview. Part 1: Liberalisation, efficiency & compensation. (2014). Centre for Aviation. https://centreforaviation.com/analysis/reports/airport-ground-handling--industry-overview-2014-part-1-liberalisation-efficiency--compensation-195301

6. Barbot, C. (2012). Opening Ground Handling Markets to Competition: Effects on Welfare. Transportation Science, 46(4), 536–546. https://doi.org/10.1287/trsc.1120.0413

7. Barros, F., Castilho, R., &Galveas, D. (2021). On the Regulation of Checked Baggage in the Airline Industry. International Economic Journal, 25(3), Article 3.

8. Bofinger, H. C. & UNU-WIDER. (2017). Air transport in Africa: A portrait of capacity and competition in various market segments (36th ed., Vol. 2017). UNU-WIDER. https://doi.org/10.35188/UNU-WIDER/2017/260-1

9. Borenstein, S., & Rose, N. L. (2014). How Airline Markets Work…or Do They? Regulatory Reform in the Airline Industry. In Economic Regulation and Its Reform: What Have We Learned? (pp. 63–135). University of Chicago Press. https://www.nber.org/books-and-chapters/economic-regulation-and-its-reform-what-have-we-learned/how-airline-markets-workor-do-they-regulatory-reform-airline-industry

10. Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

11. Brown, M. E. (2017). The Geographies of the $15 Wage Movement: New Union Campaigns, Mobility Politics, and Local Minimum Wage Policies [Thesis]. https://digital.lib.washington.edu:443/researchworks/handle/1773/40911

12. CAPA. (2019). LCCs: Global market share gains led by emerging markets. https://centreforaviation.com/analysis/reports/lccs-global-market-share-gains-led-by-emerging-markets-459927

13. Çetin, T., &Benk, S. (2011). Regulation, Deregulation, and Competition in the Turkish Airline Industry. In T. Çetin& F. Oğuz (Eds.), The Political Economy of Regulation in Turkey (pp. 193–214). Springer. https://doi.org/10.1007/978-1-4419-7750-2_9

14. Charlier, J., &Dobruszkes, F. (2020). Between external forces and internal factors: The geography of domestic airline services in South Africa. Journal of Transport Geography, 87, 102795. https://doi.org/10.1016/j.jtrangeo.2020.102795

15. Considerations on the Need to Strengthen the Regulation of Ground Handling. (2021). High-Level Conference on Covid-19 Safety Stream. https://www.icao.int/Meetings/HLCC2021/Documents/WP/EN/SAF/wp_095_en.pdf

16. Dempsey, S. P., & Goetz, A. (1992). Airline Deregulation and Laissez-Faire Mythology.

17. Dobruszkes, F. (2009). Does liberalisation of air transport imply increasing competition? Lessons from the European case. In Transport policy (Vol. 16, Issue 1, pp. 29–39).

18. Du, J. Y., Brunner, J. O., &Kolisch, R. (2014). Planning towing processes at airports more efficiently. Transportation Research Part E: Logistics and Transportation Review, 70, 293–304. https://doi.org/10.1016/j.tre.2014.07.008

19. Du, Y., Zhang, Q., & Chen, Q. (2008). ACO-IH: An improved ant colony optimization algorithm for Airport Ground Service Scheduling. 2008 IEEE International Conference on Industrial Technology, 1–6. https://doi.org/10.1109/ICIT.2008.4608674

20. Economic Performance of the Airline Industry. (2019). IATA. https://www.iata.org/en/iata-repository/publications/economic-reports/airline-industry-economic-performance---december-2019---report/

21. Fuhr, J. (2009). Liberalisation of the European Ramp-Handling Market: A Transaction Cost Assessment. Journal of Transport Economics and Policy, 43(1), Article 1.

22. Ghiani, G., &Improta, G. (2000). An efficient transformation of the generalized vehicle routing problem. European Journal of Operational Research, 122(1), Article 1. https://doi.org/10.1016/S0377-2217(99)00073-9

23. González, J. (2022, June 2). Economic Regulation of the Commercial Aviation Sector and the 1978 Airline Deregulation Act | In Custodia Legis [Webpage]. The Library of Congress. https://blogs.loc.gov/law/2022/06/economic-regulation-of-the-commercial-aviation-sector-and-the-1978-airline-deregulation-act

24. Gourdin, K. N. (2015). A Profile of the Global Airline Industry. Business Expert Press. http://ebookcentral.proquest.com/lib/metrostate/detail.action?docID=4189524

25. GSE procurement: Outsourcing works. (2018). Airside International. https://www.airsideint.com/issue-article/gse-procurement-outsourcing-works/

26. Henrickson, K. E., & Scott, J. (2012). Chapter 8 Baggage Fees and Changes in Airline Ticket Prices. In J. Peoples (Ed.), Pricing Behavior and Non-Price Characteristics in the Airline Industry (Vol. 3, pp. 177–192). Emerald Group Publishing Limited. https://doi.org/10.1108/S2212-1609(2011)0000003010

27. Hill, R., &Eimer, S. (2022). Winning Against the Odds: The 32BJ SEIU Organizing Model. New Labor Forum, 31(2), 27–34. https://doi.org/10.1177/10957960221091478

28. Ho, S. C., & Leung, J. M. Y. (2010). Solving a manpower scheduling problem for airline catering using metaheuristics. European Journal of Operational Research, 202(3), 903–921. https://doi.org/10.1016/j.ejor.2009.06.030

29. Meersman, H., Pauwels, T., Struyf, E., de Voorde, E. V., &Vanelslander, T. (2011). Ground handling in a changing market. The case of Brussels Airport. Research in

Transportation Business & Management, 1(1), 128–135. https://doi.org/10.1016/j.rtbm.2011.06.003

30. Mendoza, D., Greenwich, H., Brown, M., &Levkovitz, T. (2012). First-class Airport, Poverty-class Jobs: How the Port of Seattle and Alaska Airlines Create Prosperity for Some and Economic Hardship for Others. Working Washington.
31. Mhlanga, O. (2017). Impacts of deregulation on the airline industry in South Africa: A review of the literature. https://openscholar.ump.ac.za/handle/20.500.12714/129
32. Njoya, E. T. (2016). Africa's single aviation market: The progress so far. Journal of Transport Geography, 50, 4–11. https://doi.org/10.1016/j.jtrangeo.2015.05.009
33. Njoya, E. T., & Knowles, R. D. (2020). Introduction to the special issue: Air transport in the Global South. Journal of Transport Geography, 87, 102814. https://doi.org/10.1016/j.jtrangeo.2020.102814
34. Norin, A., Granberg, T. A., Yuan, D., &Värbrand, P. (2012). Airport logistics – A case study of the turn-around process. Journal of Air Transport Management, 20, 31–34. https://doi.org/10.1016/j.jairtraman.2011.10.008
35. O'Connell, J. F., & Williams, G. (2011). Air Transport in the 21st Century: Key Strategic Developments. Taylor & Francis Group. http://ebookcentral.proquest.com/lib/metrostate/detail.action?docID=730790
36. O'Connor, K., Fuellhart, K., & Kim, H. M. (2020). Economic influences on air transport in Vietnam 2006–2019. Journal of Transport Geography, 86, 102764. https://doi.org/10.1016/j.jtrangeo.2020.102764
37. Pierobon, M. (2014, February 20). The Need For Comprehensive Safety Risk Management. Aviation Pros. https://www.aviationpros.com/ground-handling/ground-handlers-service-providers/article/11299687/comprehensive-safety-risk-management
38. Rahmawati, F., Suroto, S., &Wahyuni, I. (2016). Hubungan Antara Beban KerjaFisikDengan Tingkat KebugaranJasmaniPekerja Bagian Ground Handling Di Bandara Ahmad Yani Semarang (StudiKasus Pada Pekerja Porter PT. GapuraAngkasa). Jurnal Kesehatan Masyarakat Universitas Diponegoro, 4(3), Article 3.
39. Ramadhani, S. (2018). Use Of HPE And Hearing Function Disorder Of Ground Handling Workers At Kualanamu Airport. Jurnal Kesehatan Masyarakat Andalas, 12(1), Article 1. https://doi.org/10.24893/jkma.v12i1.229
40. Reid, C. (2014). Airline Competition and Consolidation: Issues and Trends. Nova Science Publishers, Incorporated. http://ebookcentral.proquest.com/lib/metrostate/detail.action?docID=2097200
41. Reynolds, D. (2001). Living Wage Campaigns as Social Movements: Experiences from Nine Cities. Labor Studies Journal, 26(2), 31–64. https://doi.org/10.1177/0160449X0102600203
42. Rolf, D. (2016, April 18). Toward a 21st-Century Labor Movement. The American Prospect. https://prospect.org/api/content/a75915ce-fc3c-5dce-9c27-2ccdafd0f1d5/
43. Rose, N. L. (2012). After Airline Deregulation and Alfred E. Kahn. In The American economic review (Vol. 102, Issue 3, pp. 376–380).
44. Rosenblum, J. (2017). Fight for $15: Good Wins, but Where did the Focus on Organizing Go? Labor Studies Journal, 42(4), 387–393. https://doi.org/10.1177/0160449X17742799
45. Rutner, S., & Brown, J. (1999). Outsourcing As an Airline Strategy. Journal of Air Transportation World Wide, 4(2), 22–31.
46. Scotti, D., &Dresner, M. (2015). The impact of baggage fees on passenger demand on US air routes. In Transport policy (Vol. 43, pp. 4–10).
47. Scotti, D., Dresner, M., & Martini, G. (2016). Baggage fees, operational performance and customer satisfaction in the US air transport industry. In Journal of air transport management (Vol. 55, pp. 139–146).
48. Smithsonian. (2021). Airline Deregulation: When Everything Changed. National Air and Space Museum. https://airandspace.si.edu/stories/editorial/airline-deregulation-when-everything-changed
49. Šváb, P., Pilát, M., Kešeľová, M., Tomanová, K., &Machalová, B. (2021). Improving safety with progressive methods to decrease risks during Ground handling at the airports. 12.
50. Tabares, D. A., Mora-Camino, F., & Drouin, A. (2021). A multi-time scale management structure for airport ground handling automation. Journal of Air Transport Management, 90, 101959. https://doi.org/10.1016/j.jairtraman.2020.101959
51. Tomova, A., &Kirschnerova, I. (2015). The Players in Airport Ground Handling: A New Typology Reflecting the International Expansion. EkonomiczneProblemyUsług, 119, 145–158.
52. Türeli, N. Ş., Durmaz, V., Bahçecik, Y. S., &Akay, S. S. (2019). An Analysis of Importance of Innovatice Behaviors of Ground Handling Human Resources in Ensuring Customer Satisfaction. Procedia Computer Science, 158, 1077–1087. https://doi.org/10.1016/j.procs.2019.09.149
53. United Nations Conference on Trade and Development (Ed.). (2004). Beyond conventional wisdom in development policy: An intellectual history of UNCTAD 1964-2004. United Nations.

54. Winston, C., & de Rus, G. (2008). Aviation Infrastructure Performance: A Study in Comparative Political Economy. Brookings Institution Press. http://ebookcentral.proquest.com/lib/metrostate/detail.action?docID=1069043

55. Zagrajek, P., &Hoszman, A. (2018). Impact of Ground Handling on Air Traffic Volatility. Journal of Management and Financial Sciences, 33, Article 33. https://doi.org/10.33119/JMFS.2018.33.8

Citation: Megan Brown, "Deregulation of Air Transport Ground Handling Services after 2011: Labor Responses and Opportunities for Future Research", American Research Journal of Humanities and Social Sciences, Vol 10, no. 1, 2024, pp. 16-23.