

June 3, 2025

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Mr. Stephen Astle
Director
Defense Industrial Base Division
Office of Strategic Industries and Economic Security
Bureau of Industry and Security
U.S. Department of Commerce
1401 Constitution Avenue, N.W.
Washington, D.C. 20230-0002

RE: Aeronautical Repair Station Association (ARSA) Comments on Section 232 National Security Investigation of Imports of Commercial Aircraft and Jet Engines and Parts for Commercial Aircraft and Jet Engines (Docket No. BIS-2025-0027, XRIN 0694-XC127)

Dear Mr. Astle:

These comments¹ are submitted by [ARSA](http://www.arsa.org), the trade association for the international aviation maintenance industry.

(A) Aviation Maintenance Industry Overview

(1) Global Footprint

Under the International Convention on Civil Aviation (the Chicago Convention), the state of registry of an aircraft controls its maintenance.² Thus, only “persons” approved by the FAA may perform maintenance³, preventive maintenance, and alterations on U.S. civil aviation products and articles⁴ (i.e., air carriers certificated under 14 CFR parts [121](#) or [135](#), repair stations certificated under 14 CFR part [145](#), and mechanics and repairmen certificated under 14 CFR part [65](#)).⁵

¹ U.S. Department of Commerce, Bureau of Industry and Security, “Notice of Request for Public Comments on Section 232 National Security Investigation of Imports of Commercial Aircraft and Jet Engines and Parts for Commercial Aircraft and Jet Engines”, 90 FR 20273, May 13, 2025 (<https://www.federalregister.gov/documents/2025/05/13/2025-08500/notice-of-request-for-public-comments-on-section-232-national-security-investigation-of-imports-of>).

² See, International Agreement on Civil Aircraft, Annex 8 (“[Airworthiness of Aircraft](#)”).

³ 14 CFR sec. 1.[1](#) defines maintenance as “inspection, overhaul, repair, preservation, and the replacement of parts, but excludes preventive maintenance.”

⁴ 14 CFR sec. 21.1(b)([6](#)) defines a product as “aircraft, aircraft engine, or propeller.” 14 CFR sec. 21.1(b)([2](#)) defines an article as “a material, part, component, process, or appliance”.

⁵ See 14 CFR sec. 43.[3](#).

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There are 5,797 FAA certificated repair stations globally, 4,594 of which are in the United States.⁶ These facilities keep America's fleet of passenger, cargo, business, private, and government aircraft airworthy. Significantly, many foreign FAA-certificated repair stations are operated by U.S. companies seeking to provide product support to global customers. Because only FAA-approved persons may perform maintenance on U.S. civil aircraft, foreign repair stations are also essential to supporting air carrier fleets and other operations of U.S.-registered aircraft around the world.

In addition to their FAA certificates, many U.S. repair stations hold approvals authorizing work on aviation products and articles under the regulatory jurisdiction of foreign aviation authorities. For example, 1,421 U.S. repair stations hold certificates from the European Union Aviation Safety Agency (EASA) authorizing the repair stations to work on aviation products and articles registered in the EU.⁷ Certificated organizations providing maintenance are also supported by the global ecosystem of non-certificated firms providing a wide array of specialized and general business support services.

Eighty-five percent of U.S. firms involved in aviation maintenance are small and medium size entities, which is reflective of the high level of specialization in the industry.⁸ Repair stations are rated by the FAA to perform work on specific parts of the aircraft (e.g., airframe, instrument, powerplant, radio, etc.). This focus allows repair stations to obtain a better return on investment in their housing, facilities, equipment, training, etc., which in turn allows repair stations to provide maintenance services to customers on a more efficient and cost-effective basis.

(2) Employment and Economic Impact

Globally, the civil aviation maintenance, repair, and overhaul (MRO) industry, which is comprised of repair stations, airline mechanics, and parts manufacturers and distributors, employs 449,765 workers and generates \$119.7 billion in annual economic activity. The MRO industry employs nearly 339,000 U.S. workers and generates \$68.6 billion in economic activity, accounting for more than 75 percent of the global MRO industry's workforce and 57 percent of the world market.⁹

Repair stations are the largest category of employers, with nearly 189,000 U.S. technicians at the beginning of 2025. Approximately 76,000 U.S. maintenance workers are employed by commercial airlines. Repair stations and airlines collectively represent the biggest segment of the MRO industry; with more than 265,000 employees and \$43.7 billion in annual revenue. The segment accounts for 78 percent of the industry's workforce and 64 percent of its economic activity. Additionally, parts manufacturing and distribution to support the international maintenance market produces 36 percent (\$24.9 billion) of the industry's annual economic activity and employs 22

⁶ FAA repair station facility dashboard (<https://www.faa.gov/av-info/facility-dashboard>).

⁷ European Union Aviation Safety Agency, "Status of EASA Part-145 organisations located in the USA, Canada, and Brazil" (<https://www.easa.europa.eu/en/domains/aircraft-products/continuing-airworthiness-organisations/valid-and-invalid-basa-part-145-approvals-dataset>).

⁸ Oliver Wyman (OW), Global Fleet and MRO Market Forecast 2025 to 2035, March 2025 (<https://arsa.org/wp-content/uploads/2025/03/ARSA-OW-2025FleetAndMROMarketReport-ExecSum-03162025.pdf>). Unless otherwise indicated, the OW Forecast is the source of all economic data cited in these comments.

⁹ *Id.*

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percent of its workers (73,000 employees). A state-by-state overview of the industry's U.S. economic footprint is included as an attachment.

(3) Importance of the Agreement on Trade in Civil Aircraft

The Agreement on Trade in Civil Aircraft (the Agreement),¹⁰ which entered into force on Jan. 1, 1980, is a significant and positive factor in the growth of the U.S. aerospace sector over the past 45 years. For the United States and other 32 signatories, the agreement eliminated import duties on all civil aircraft, their components and subassemblies, as well as civil aircraft engines, flight simulators, and their parts and components.¹¹

Tariff free treatment allows all sectors of the U.S. aerospace industry to thrive through safety, quality, and innovation in a highly competitive global market. For example, the United States is both the world's leading exporter and importer of aircraft parts. Over the past year, the United States exported \$129 billion worth of aircraft parts compared to \$15.3 billion in imports, resulting in a \$113 billion trade surplus. France, the United Kingdom (UK), and Germany, all signatories to the Agreement, accounted for almost 25 percent of U.S. aircraft parts exports, while close to half of parts imports came from signatories the UK, France, Canada, and Japan.¹²

The agreement has particularly benefited America's aviation maintenance sector; tariff-free importation of products and articles for maintenance reduces costs and compliance complexity. The industry's growth demonstrates the benefits of allowing U.S. firms to compete based on safety, quality, and innovation without tariff protection.

The U.S. government's imposition of tariffs on aviation products and articles will increase costs and compliance complexity for U.S. repair stations domestically. It will also potentially subject U.S. companies to retaliatory action by foreign governments, which would further undermine the competitiveness of the U.S. aerospace industry.

To support continued growth, ARSA urges that the United States reaffirm its commitment to the Agreement and prioritize expanding participation beyond the current signatories as part of trade negotiations.

(B) Responses to Questions Raised in Notice of Request for Comments

Below are ARSA's responses to questions raised in the Federal Register notice. ARSA is addressing only the referenced question numbers and declines to comment on those not included due to insufficient data.

(i) The current and projected demand for commercial aircraft and jet engines, and parts for commercial aircraft and jet engines, in the United States.

¹⁰ World Trade Organization (WTO), "Agreement on Trade in Civil Aircraft" (https://www.wto.org/english/docs_e/legal_e/tca_e.htm).

¹¹ See WTO, "Agreement on Trade in Civil Aircraft Overview" (https://www.wto.org/english/tratop_e/civair_e/civair_e.htm).

¹² Observatory of Economic Complexity, "Aircraft Parts in United States (HS4 88.03)" (<https://oec.world/en/profile/bilateral-product/aircraft-parts/reporter/usa>).

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As of March 2025, there are 29,079 civil aircraft in the global fleet; a number that is expected to grow by 2.8 percent annually between 2025 and 2035 to 38,300 aircraft.

In the wake of the COVID pandemic, the aircraft manufacturing sector struggled to expand production due to a long-standing shortage of technical workers and supply chain disruptions. As a result, deliveries by 2035 are expected to fall 2,000 aircraft short of pre-COVID projections.

By 2035, the fleet is also expected to be more widely distributed across the globe. While North America will maintain its status as the largest region, with a projected 25 percent share of the fleet, China is expected to increase to a 16.4 percent share by 2035 from 15.4 percent today; the Middle East is expected to grow from 5.3 percent to 6.7 percent, and India from 2.4 percent to 4.3 percent.

(ii) The extent to which domestic production of commercial aircraft and jet engines, and parts for commercial aircraft and jet engines, can meet domestic demand.

Current forecasting suggests that domestic production of civil aircraft and engines will be insufficient to meet demand.

The Boeing Company's narrow body aircraft production is well below its 2018 peak of 52 aircraft per month and its stated goal of 56 per month. The FAA-imposed production cap of 38 737 MAX jets per month has dramatically curbed production. Slower aircraft deliveries require airlines to increase utilization of current fleets and operate older aircraft longer, which in turn will increase maintenance activity.

In 2024 Airbus outsold Boeing by nearly 500 aircraft, the sixth year in which America's largest exporter was outproduced by Airbus. That year Airbus delivered 602 of its popular A320neo family narrowbodies; Boeing only delivered 260 of its biggest seller, the 737 MAX. Airbus now holds a 52 percent share of the narrowbody market compared to a 46 percent share in 2018. The same is happening in sales of widebodies, where Boeing also had the historical edge. In 2024, Airbus delivered one more widebody than Boeing and netted 220 new widebody orders versus Boeing's 133.

COMAC, China's only commercial airframe producer, seeks to break into the global aerospace market. COMAC initially entered the Chinese domestic market with the ARJ21 and domestic orders for its narrowbody C919 aircraft are increasing. Currently, COMAC's market reach is limited by the lack of civil aviation authority certification in most countries, including the United States and Europe. While the C919 has yet to be ordered outside of China, time is on its side.

While the United States has the capability to produce wide and narrowbody aircraft, there is no U.S. regional jet manufacturer to support shorter routes and serve smaller markets. As such, the United States is reliant on regional jets purchased from trading partners (primarily Canada and Brazil). Increasing the costs of these aircraft through the imposition of tariffs will make it more expensive for U.S. carriers to provide regional services.

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A significant headwind to increasing production is a chronic technical worker shortage that has plagued the industry for years and which industry and Congress have aggressively sought to address.¹³

The latest maintenance industry workforce pipeline report from the Aviation Technician Education Council (ATEC) suggests workforce development efforts are having a positive impact. For example, new mechanic certificates jumped 32 percent in 2023, enrollment at aviation maintenance technician schools (AMTS) was up six percent, and 32 percent more veterans obtained FAA airframe and powerplant (A&P) mechanic certification compared to 2022.¹⁴

However, the report found that the influx of new mechanics will be insufficient to meet commercial aviation's projected needs amid rising demand for air travel for the next decade. The current shortage is estimated at nine percent and will reach nearly 20 percent--equivalent to about 25,000 certificated mechanics--by 2028. The shortfall becomes larger when non-airline sectors, including business aviation and new powered lift aircraft, are considered.¹⁵

In addition to the workforce shortage, the 2024 Aerospace Supply Chain Resiliency Task Force (ASCRTF) Report found that the U.S. government itself creates major risks.¹⁶ The highly regulated nature of the aviation industry means that its efficiency is significantly impacted by the FAA, which in recent years has suffered from a lack of consistent leadership and staffing shortages. The risk of government shutdowns has also been a distraction for FAA personnel. Industry stakeholders regularly experience slow certification timelines and inconsistent application of FAA rules and guidance that delay the introduction of new technologies. The agency has been slow to keep up with technological progress, for example, in accepting digital documentation.

Other risks cited by the ASCRTF report are DOD policies that limit competition for aviation maintenance services, which are a factor in the consolidation of the defense industrial base¹⁷, access to critical resources (e.g., minerals and materials), and dependence on adversarial nations.¹⁸

(iii) The role of foreign supply chains, particularly of major exporters, in meeting U.S. demand for commercial aircraft and jet engines, and parts for commercial aircraft and jet engines.

A single global supply chain serves Boeing, Airbus, and smaller commercial aircraft manufacturers like Embraer. As the world's leading exporter of aircraft parts, the United States dominates that supply chain. Contractors of all sizes are operating at full capacity to try to meet the higher production levels promised by the two major aircraft manufacturers. At the same time,

¹³ See, e.g., FAA Reauthorization Act of 2024, Pub. L. 118-63, Title IV ("Aerospace Workforce").

¹⁴ ATEC Pipeline Report, Sept. 19, 2024 (<https://www.atec-amt.org/news/mechanic-workforce-pipeline-flow-increasing-but-demand-still-out-pacing-supply>).

¹⁵ *Id.*

¹⁶ Aerospace Supply Chain Resiliency Task Force Report, Nov. 5, 2024 (<https://arsa.org/ascr/>).

¹⁷ See discussion in section B(iv) below.

¹⁸ ASCRTF report, *supra*, note 14.

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increased utilization of the current fleet has placed pressure on the maintenance industry that depends upon the same supply chain for spare parts. This has put the entire aerospace supply chain, which was already struggling to meet lower targets, under intense pressure. Increasing capacity is made more challenging by shortages of critical raw materials, such as composites and titanium, and labor.

The proposed production increases are particularly difficult for smaller suppliers, with less ability to absorb higher material costs, shipping delays, and changes to production schedules. They are also more exposed to being burdened with excess inventory if monthly production falls short of targets.

Safety certification of aviation products and articles is an important supply chain consideration. Aircraft are highly engineered, and every article installed on the aircraft must be consistent with an FAA-approved design. It is therefore difficult for aircraft manufacturers to change suppliers after the FAA issues design and/or production approval because there may be no other company capable of providing the required article; changing the design to incorporate alternatives may take considerable time given the current certification delays. As such, in determining the appropriateness of aviation sector tariffs, the U.S. government must consider the additional associated costs and disruptions. U.S. aviation manufacturers will be forced to increase prices (and therefore become less competitive globally) if U.S. tariffs increase the cost of inputs from foreign sources.

(iv) The concentration of U.S. imports of commercial aircraft and jet engines, and parts for commercial aircraft and jet engines, from a small number of suppliers and the associated risks

DOD is a purchaser and user of commercial derivative aircraft (those originally designed for civil operation). Issues impacting the civil aviation supply chain therefore have national security implications and DOD affects the market. For years, ARSA has raised concerns about DOD procurement practices that make it difficult for smaller maintenance providers and parts suppliers to compete for DOD aircraft maintenance contracts. In particular, DOD has been slow to respond to congressional directives to make greater use of alternative FAA-approved parts manufacturer approval (PMA) parts on DOD's commercial derivative aircraft.¹⁹ Similarly, DOD has historically been insufficiently aggressive in requiring manufacturers to provide maintenance data necessary to competitively bid and perform maintenance on DOD aircraft.²⁰ Improving DOD policy in this area will enhance competition, improve readiness, allow more small companies to support DOD, and expand the defense industrial base in the face of unprecedented geopolitical challenges.

¹⁹ See, e.g., Servicemember Quality of Life Improvement and National Defense Authorization Act for Fiscal Year 2025, Pub. L. 118-159, Sec. 161 ("Modification to Air Force and Navy use of commercial dual-use parts in certain aircraft and engines").

²⁰ See, e.g. Executive.gov, "Hegseth Wants Army to Implement Transformation Strategy, Acquisition Reform", May 2, 2025 (<https://executivegov.com/2025/05/hegseth-army-transformation-strategy-acquisition-reform/>) ("Hegseth also wants the Army to identify and propose contract modifications for right to repair provisions where intellectual property matters restrict the service branch's ability to perform maintenance and access the necessary maintenance tools, technical data and software.")

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(v) *The impact of foreign government subsidies and predatory trade practices on the competitiveness of the commercial aircraft and jet engine industry, as well as the associated commercial aircraft and jet engine parts industry, in the United States.*

Thanks to the Agreement, the U.S. aviation sector has been subject to fewer artificial trade barriers. The largest challenge for the maintenance sector is global regulatory compliance.

As described in section (A)(1) above, the state of registry controls the maintenance of the aircraft. ARSA members must therefore work under different regulatory frameworks when performing work on foreign products and articles. Regulatory harmonization initiatives by the International Civil Aviation Organization (ICAO) and bilateral aviation safety agreements (BASAs) between the FAA and other global authorities have failed to make regulatory compliance more efficient. BASAs are designed to allow U.S. repair stations to serve foreign customers based on the repair station's FAA certificate and compliance with additional requirements stated in BASA documents. However, the United States only has a handful of BASAs that address maintenance and there are many inconsistencies in the ones that are in effect.

To expand the competitiveness and reach of U.S. industry and reduce non-tariff trade barriers, the United States should pursue BASAs that address maintenance at the same time design, production, and pilot training are being addressed. In negotiating such agreements, the United States must promote U.S. regulations and avoid inclusion of unnecessary foreign regulatory mandates that provide no safety benefit and may serve as non-tariff barriers to trade.²¹

Additionally, the United States is falling behind other leading aviation authorities in the mutual acceptance of certificates. For example, EASA and Transport Canada Civil Aviation (TCCA) recently entered into an agreement by which the two authorities mutually accept each other's component repair station certificates without any further requirements. This allows, for example, a Canadian repair station to perform work on components under EASA's regulatory jurisdiction without any further approval from EASA. U.S. repair stations, however, must maintain EASA certification and adhere to additional EASA special conditions not required by FAA regulations.

In April 2020, ARSA and 14 other organizations called on the FAA to amend 14 CFR part 43 to allow (not require) the FAA to accept foreign maintenance certificates pursuant to a BASA. Doing so would pave the way for more favorable treatment of U.S. repair stations by foreign authorities and further reduce non-tariff trade barriers.²²

(viii) *The feasibility of increasing domestic capacity for commercial aircraft and jet engines, and parts for commercial aircraft and jet engines, to reduce import reliance.*

²¹ See, e.g., ARSA Request to Joint Maintenance Coordination Board and Certification Oversight Board: New Parts Installed by U.S. Repair Stations During Maintenance regarding imposition of parts documentation requirements inconsistent with FAA regulations, Jan. 31, 2023 (<https://arsa.org/wp-content/uploads/2023/01/Industry-JMCB-COB-Letter-Parts-Documentation-01312023.pdf>).

²² See ARSA, "ARSA-led Petition Would Provide FAA Path to Reciprocal Acceptance", April 20, 2020 (<https://arsa.org/reciprocal-acceptance/>).

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As described in section B(2) above, the technical workforce shortage, U.S. government (e.g., FAA's slowness in certifying new products), access to critical materials, and supply chain disruptions are all barriers to increased capacity.

(ix) The impact of current trade policies on domestic production of commercial aircraft and jet engines, and parts for commercial aircraft and jet engines, and whether additional measures, including tariffs or quotas, are necessary to protect national security.

See discussion in section A(3) above regarding the Agreement, which ARSA believes has resulted in an economically efficient allocation of resources in the industry due to the tariff-free environment. This, in turn, has reduced costs and allowed U.S. firms to dominate the global industry due to competition based on safety, quality, and innovation. For the reasons stated, U.S. industry will benefit from expanded participation in the agreement.

(C) Conclusion

ARSA appreciates the opportunity to highlight the success of America's aerospace sector, the ways in which it has benefited from tariff free treatment under the Agreement, and foreign and domestic barriers to competitiveness.

Sincerely,

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Attachment: U.S. Civil Aviation MRO Employment and Market Impact

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Attachment: U.S. Civil Aviation MRO Employment and Economic Impact



US CIVIL AVIATION MRO EMPLOYMENT AND ECONOMIC IMPACT

The US civil aviation maintenance, repair, and overhaul (MRO) industry employs nearly 339,000 workers and generates \$68.6 billion in economic activity. Overall employment was almost 3.5% higher at the start of this year than at the beginning of 2024, while economic activity was up 5.7%.

Companies that are certificated by the Federal Aviation Administration (FAA) under Part 145 are the largest MRO employers, with nearly 189,000 technicians at the beginning of 2025. Approximately 76,000 workers are employed by commercial airlines.

The biggest chunk of both employment and economic activity is generated by repair stations and airline maintenance operations. With over 265,000 employees and \$43.7 billion in revenue, the segment accounts for 78% of the industry's workforce and 64% of its economic activity.

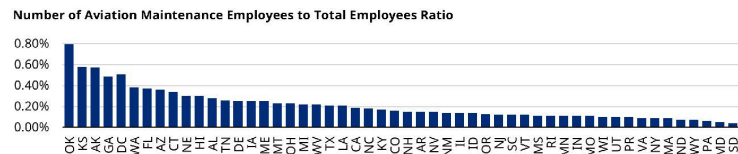
Parts manufacturing and distribution produces 36%, or \$24.9 billion, of the economic activity and employs 22% of the sector's workers, with more than 73,000 employees.

Exhibit 1: US civil aviation MRO employment and economic impact, 2025



Source: Bureau of Labor Statistics, Bureau of Transportation Statistics, Federal Aviation Authority, Oliver Wyman Analysis

Exhibit 2: US civil aviation MRO employment and economic impact, 2025



Source: Bureau of Labor Statistics, Bureau of Transportation Statistics, Federal Aviation Administration, Oliver Wyman Analysis

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Exhibit 3: US civil aviation MRO employment and economic impact, 2025

State	Aviation Maintenance Industry Employment				Aviation Maintenance Industry Economic Activity		
	Maintenance, Repair, and Overhaul (MRO)		Parts Manufacturing & Distribution	Total	Maintenance, Repair, and Overhaul (MRO) (\$ M)	Parts Manufacturing & Distribution (\$ M)	Total Economic Activity (\$ M)
	FAA Repair Station	Air Carrier		Employment			
AL	6,288	139	1,765	8,192	\$1,057	\$602	\$1,659
AK	1,616	1,264	208	3,088	\$474	\$71	\$545
AR	6,822	154	550	7,526	\$1,147	\$187	\$1,335
AZ	822	1,598	2,929	5,349	\$398	\$999	\$1,397
CA	17,342	5,244	8,429	31,016	\$3,715	\$2,875	\$6,589
CO	3,151	2,829	623	6,603	\$984	\$213	\$1,196
CT	1,479	314	1,614	3,408	\$295	\$551	\$846
DC	0	3,859	71	3,930	\$635	\$24	\$659
DE	0	18	348	366	\$3	\$119	\$122
FL	19,192	8,548	8,266	36,005	\$4,563	\$2,819	\$7,381
GA	8,795	2,785	6,216	17,796	\$1,905	\$2,120	\$4,024
HI	1,479	965	280	2,725	\$402	\$96	\$498
ID	1,027	378	247	1,652	\$231	\$84	\$315
IL	5,795	2,991	1,729	10,515	\$1,445	\$590	\$2,035
IN	1,562	303	949	2,813	\$307	\$323	\$630
IA	493	150	1,100	1,743	\$106	\$375	\$481
KS	3,192	128	2,438	5,758	\$546	\$831	\$1,377
KY	6,082	2,054	461	8,597	\$1,338	\$157	\$1,495
LA	1,753	1,182	870	3,805	\$483	\$297	\$779
ME	548	99	438	1,085	\$106	\$149	\$256
MD	2,068	370	274	2,713	\$401	\$94	\$495
MA	2,137	927	705	3,769	\$504	\$241	\$745
MI	4,356	2,770	2,118	9,244	\$1,172	\$722	\$1,894
MN	2,822	1,066	655	4,543	\$639	\$223	\$863
MS	1,932	128	359	2,419	\$339	\$123	\$461
MO	2,740	952	675	4,366	\$607	\$230	\$837
MT	452	330	265	1,047	\$129	\$90	\$219
NE	630	214	883	1,727	\$139	\$301	\$440
NV	2,849	1,007	394	4,251	\$634	\$135	\$769
NH	342	59	298	699	\$66	\$102	\$168
NJ	2,315	1,724	1,061	5,100	\$664	\$362	\$1,026
NM	1,274	200	311	1,785	\$242	\$106	\$348
NY	4,110	3,349	1,571	9,030	\$1,227	\$536	\$1,762
NC	7,151	3,514	1,728	12,392	\$1,754	\$589	\$2,343
ND	274	36	79	389	\$51	\$27	\$78
OH	4,356	3,617	2,703	10,676	\$1,311	\$922	\$2,233
OK	10,041	470	4,023	14,534	\$1,729	\$1,372	\$3,101
OR	1,589	905	509	3,003	\$410	\$174	\$584
PA	3,219	1,686	720	5,625	\$807	\$245	\$1,052
PR	918	85	255	1,257	\$165	\$87	\$252
RI	96	78	139	313	\$29	\$47	\$76
SC	1,808	402	714	2,924	\$364	\$243	\$607
SD	0	100	24	124	\$16	\$8	\$25
TN	7,288	4,125	1,143	12,556	\$1,877	\$390	\$2,267
TX	22,411	9,209	6,094	37,714	\$5,201	\$2,078	\$7,279
UT	2,932	780	296	4,007	\$610	\$101	\$711
VT	137	42	95	274	\$29	\$32	\$62
VA	3,411	2,209	547	6,167	\$924	\$187	\$1,111
WA	5,466	1,153	3,690	10,309	\$1,089	\$1,258	\$2,347
WV	479	7	457	944	\$80	\$156	\$236
WI	1,425	235	790	2,450	\$273	\$269	\$542
WY	329	99	30	458	\$70	\$10	\$81
Total	188,466	76,850	73,134	338,779	\$43,692	\$24,940	\$68,632

Source: Bureau of Labor Statistics, Bureau of Transportation Statistics, Federal Aviation Authority, Oliver Wyman Analysis