



NOT ENOUGH MECHANICS

BABY BOOMER RETIREMENTS LEAVE AVIATION SHORTHANDED JUST AS THE GLOBAL FLEET IS EXPANDING

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A shortage of aviation mechanics within the next decade threatens the projected expansion and modernization of the global airline fleet. Based on Oliver Wyman projections, the gap between the supply of mechanics and demand for them should develop in the United States by 2022 and reach a peak of 9 percent by 2027.

The problem may emerge sooner in Asia where a bulk of the growth in the aircraft fleet is slated to take place. The increase in the number of planes, combined with a shortage of mechanics, may force them to maintain additional spare planes to avoid cancellations and late departures resulting from maintenance delays.

The shortage is, in part, a consequence of an aging global population. Between now and 2027, a record number of maintenance technicians will be eligible to retire as more baby boomers reach their 60s. For example, in the US, the median age of aviation mechanics is 51 years old, nine years older than the median age of the broader US workforce as calculated by the US Bureau of Labor Statistics.

WHERE ARE THE YOUNG MECHANICS?

And while there are plenty of millennials to step up and take their place, so far they have not done so. Oliver Wyman projections show that the number leaving the maintenance technician workforce will outpace the number preparing to enter it for most of the next decade.

To some degree, the problem stems from aviation mechanics' current wages, benefits, and perks. In an Oliver Wyman survey of executives from the airlines and maintenance, repair, and overhaul (MRO) industry, 51 percent of respondents identified wages and benefits as an obstacle. The Aviation Technician

While there are plenty of millennials to fill the void, so far they are choosing other careers

Education Council (ATEC) estimates that 30 percent of those who finish an aviation maintenance training course end up accepting employment in another industry.

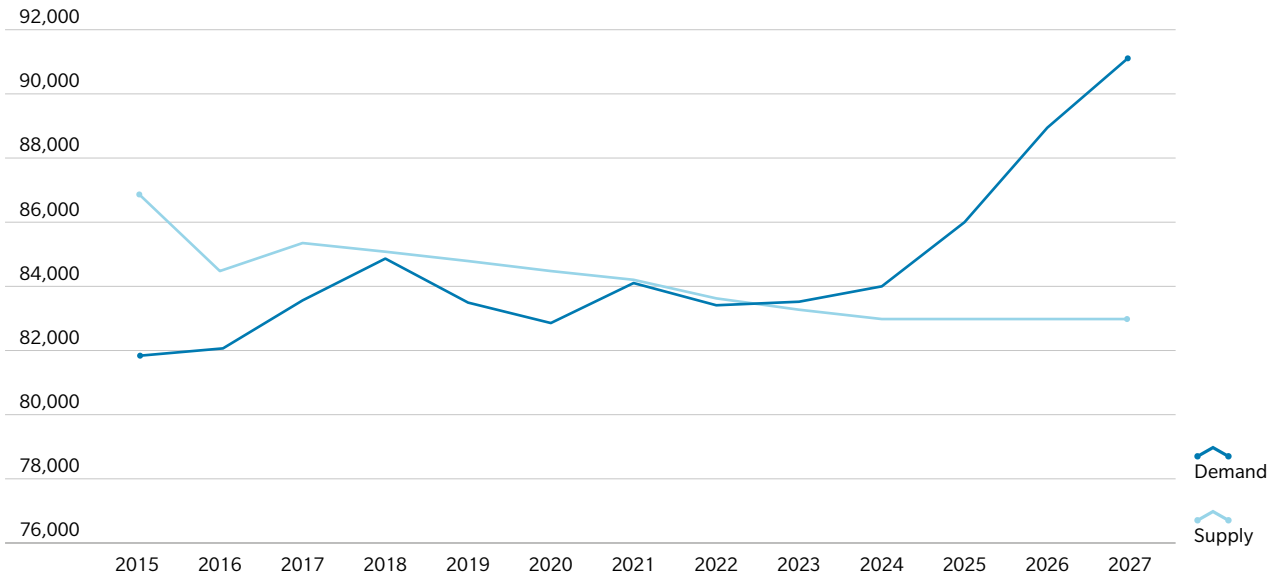
The aging of the mechanic workforce and rash of anticipated retirements could not come at a worse time for the industry, as it gears up to accommodate a larger, newer, and more technologically advanced fleet. The *Oliver Wyman Fleet Forecast* shows global airlines adding 10,133 planes by 2027, growing the fleet by 40 percent to 35,501. This reflects purchases of 20,444 next-generation aircraft in those 10 years and the retirement of 10,311 planes. The Asian fleet will double in size over the next decade and, beginning next year, will become the largest region.

BIGGER, MORE MODERN FLEET

Within the next 10 years, 58 percent of the fleet will be comprised of planes designed and built after 2000. Mechanics moving forward will need the skill sets to work not only on the newest planes, but also on those that have been flying for 20 years – and the skills are not necessarily the same. This requirement further complicates the shortage; when supply and demand are tight, employers have to hope that the right mechanics with the right skill

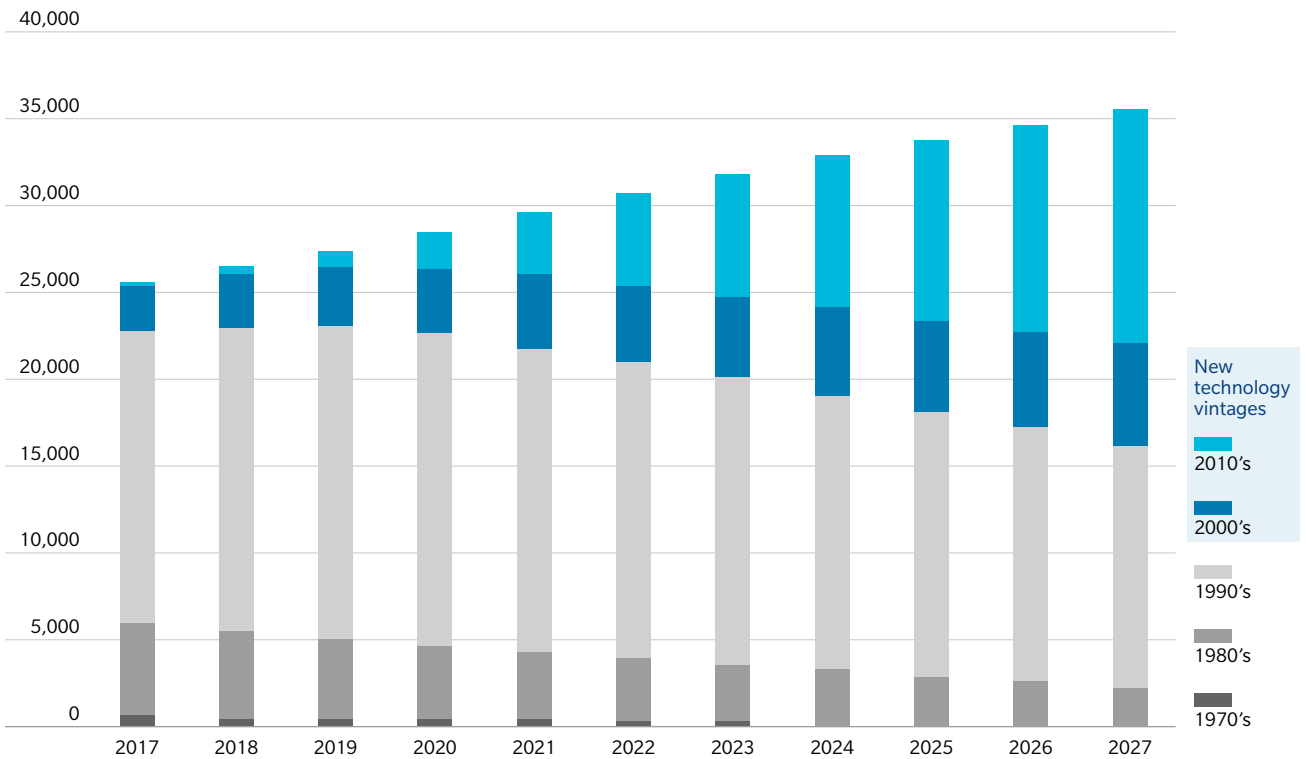
EXHIBIT 1: FEWER MECHANICS, MANY MORE PLANES

The supply of commercial aviation mechanics will dip in less than 10 years...¹



...Just about the time when the global fleet will be 10,000 planes bigger and roughly half comprised of technologically advanced aircraft produced since 2000.²

NUMBER OF AIRCRAFT



1 Source: Oliver Wyman Commercial MRO Maintenance Technician Labor Model

2 Source: Oliver Wyman Global Commercial Air Transport Fleet Forecast

sets are in the right place at the right time when needed.

Tomorrow's maintenance technicians need to be tech-savvy diagnosticians – something that was not imaginable a few decades ago. The MRO survey of executives identified three emerging technologies vital for the next generation of mechanics, including composite material repair and manufacture (62 percent); collection and reporting of data for advanced analytics, big data, and predictive maintenance (51 percent); and the newest avionics and electrical systems.

Sixty-four percent of the surveyed executives state their companies expect to hire mechanics over the next three years to expand the

workforce; another 23 percent say they will hire simply to maintain their numbers. Thirteen percent are planning for their number of maintenance technicians to decline, either through attrition or layoffs. Seventy-two percent of those surveyed expect the search for qualified candidates to get much harder.

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