



# 3000 by 30: Building Long Island's Aerospace & Defense Workforce

## **3000 by 30: Building New York's Aerospace & Defense Workforce Executive Summary**

Long Island is home to a vibrant aerospace and defense manufacturing ecosystem that continues to produce mission-critical hardware for the nation's air, space, and maritime platforms. This strength, however, depends on a steady pipeline of skilled technical workers; one that is increasingly at risk as the current workforce ages and competition for talent intensifies. 3000 by 30 is a strategic workforce initiative designed to have an ongoing enrollment of 3000 students in college-level aerospace and defense training programs on Long Island by 2030, directly aligned with manufacturing workforce needs. Without targeted workforce investment now, New York risks ceding these high-value manufacturing capabilities to other states competing aggressively for defense and aerospace talent.

There are about 250 companies involved in aerospace and defense manufacturing on Long Island, employing about 25,000 people. Setting an annual growth target of 5% requires that 1250 new employees join the work force each year. Having 3000 students in training at all times in 2-year post-secondary school training programs will result in the matriculation of 1500 candidates ready for the workforce each year. The 3000 by 30 initiative also leverages a 2 year head start by engaging high school juniors in rigorous BOCES type programs tailored to feed the community college programs. It's time for a paradigm shift in how we present BOCES to students, parents, and educators. They can become elite technical academies that cater to the students with specialized aptitudes in innovation, hands-on problem solving, and advanced manufacturing.

Without a clearly defined educational strategy that aligns with workforce demand and forward thinking, New York's public education system risks drifting further from the needs of both its taxpayers and its industries. A system that is intentionally developed to evolve with the demands of sectors like aerospace, advanced manufacturing, and supply chain management will ultimately create exactly the benefits sought by the very communities it is meant to serve, thus maintaining these important industries on Long Island and providing well-paying, reliable, secure careers for new young homeowners ready to settle and invest in these districts. As 20th-century industrialist Henry Ford once said, "The more detailed the plan, the easier the trip." The taxpayers of Long Island and the broader state need a plan because they deserve a return on

their investment in education — one that leads to meaningful careers, strong industry partnerships, and a revitalized regional economy.

Effective workforce development doesn't happen by chance — it must be cultivated through deliberate, well-funded educational pipelines. Without such foresight, we will produce graduates without pathways and employers without talent. Alexander Graham Bell reminded us, "Before anything else, preparation is the key to success." To ensure that public education fulfills its social contract, we must proactively align it with 21st-century industry needs, starting in high school and extending through community college and beyond. We want to grow and train our Long Island youth to remain Long Islanders with bright, secure and well-paying careers and not flee their hometowns for those important opportunities elsewhere. We need to make clear that these are well-paying jobs at entry level, and can grow to be 6-figure careers, highly competitive with many four year college-degreed positions.

The program will be anchored at three colleges and at trade schools on Long Island, which will be funded to develop state-of-the-art training centers. High school outreach, faculty hiring, and industrial partnerships will be key components. The initiative is modeled after Texas A&M's successful '25 by 25' campaign. In order to remain competitive with other states, New York must adopt forward-thinking strategies like those implemented in Texas. In 2020, the Texas A&M '25 by 25' initiative set a bold goal to double the size of their engineering training programs by having an enrollment of 25,000 students by 2025. They exceeded their goal by facilities, and a focus on maintaining quality while expanding access. New York can and must respond with a similarly ambitious and accountable program to develop its own skilled aerospace and defense workforce.

## **Background & Rationale**

From Grumman to Republic Aviation, New York's aerospace legacy has been one of innovation and national pride. While Grumman and Republic are no longer on Long Island, there is still a robust avionics and defense industry here. But without a new generation of machinists, electronics technicians, and manufacturing engineers, that legacy risks being lost permanently.

Today, the defense industry is once again expanding, and federal investment is flowing to rebuild domestic supply chains. Yet our Long Island, New York educational infrastructure is not currently scaled or aligned to take advantage of this opportunity.

### The 3000 by 30 Plan

#### 1. Enrollment Target

- Have an ongoing enrollment of 3,000 students in 2-year post-secondary aerospace and defense-aligned manufacturing programs by 2030 starting in the High School Junior class level.
- Programs include CNC machining, avionics, composite fabrication, electrical assembly, systems integration, and quality assurance.

## 2. Three Anchor Institutions

- Nassau Community College, Suffolk County Community College, and SUNY Farmingdale State College.
- Representing community-college access and associate-degree strength, complemented by applied baccalaureate pathways within SUNY
- Each will focus on a subset of the skills list and commit to annual performance benchmarks.
- Annual reporting and mid-course adjustments will ensure continuous accountability.

## 3. Outreach & Pipeline Development

- Mandatory outreach to at least 50 high schools annually per institution.
- Establish aerospace clubs and maker programs to generate early interest.
- Offer paid summer internships and teacher externships in defense-related industries.

## 4. Long-Term State Commitment

- Dedicated 10-year funding package, including capital improvement grants, faculty recruitment incentives, and student scholarship funding.
- Legislative support for industry partnerships, procurement preference for NYS-trained labor, and curriculum modernization.

## 5. Projected Impact

- Restore New York's status as a top-tier aerospace manufacturing hub.
- Support national defense readiness by building resilient domestic supply chains.
- Deliver thousands of high-wage technical careers to New York residents.

## 6. Public Awareness

- Intention is to keep Long Island aerospace industry on Long Island, and encourage Long Island youth to remain Long Islanders for life
- Dispel the concept that four year college is the only path to a 6-figure income
- Clarify that these jobs pay a lot and can easily support an enviable lifestyle on Long Island, all within a shorter education/training timeframe and without investment in long-term education loans;
- Emphasize that, not only keeping the commercial taxbase is a good thing for the LI economy, but good paying jobs are important for the tax base and the economies of the communities too;
- Reinforce that we risk losing this industry on Long Island to other states that are luring the workforce, in part because, they are home-growing a workforce themselves. Companies move to where they can find employees. Long Island needs to stop this trend in order to prosper.