Nondestructive Testing Services in the United States

September 2025

Source: IBISWorld Industry Report – Nondestructive Testing Services in the US (NAICS 541380)

1. Executive Summary

The Nondestructive Testing (NDT) Services industry generated approximately $3.6 billion in revenue in 2025 and employs nearly 18,900 professionals across 1,437 businesses nationwide. Industry profitability remains strong, with average profit margins of approximately 9.2%.

The industry plays a critical role in ensuring the safety, reliability, and regulatory compliance of infrastructure, industrial equipment, pipelines, utilities, aerospace components, and manufacturing systems.

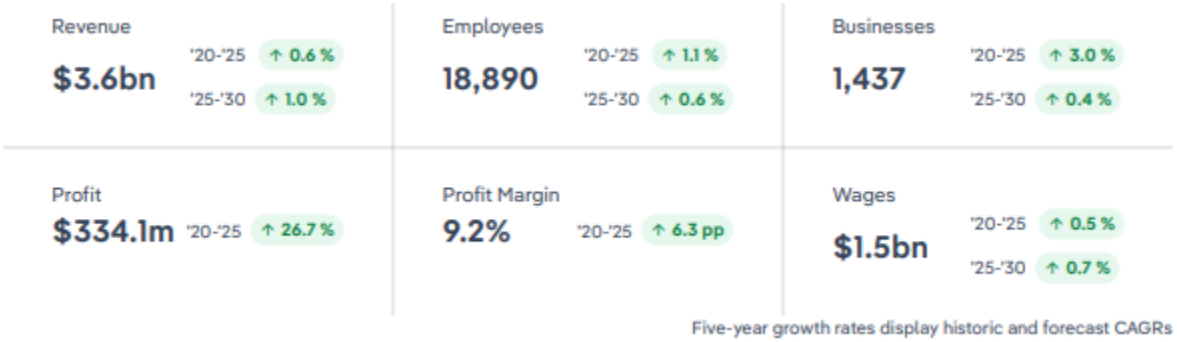
Following pandemic-related volatility and recent interest rate pressures, the industry is positioned for modest long-term growth supported by infrastructure investment, domestic energy expansion, technological innovation, and increasingly stringent regulatory requirements.

Key themes shaping the industry include:

- Growing demand for infrastructure integrity and asset management
- Expansion in oil & gas, aerospace, defense, and utilities sectors
- Increased adoption of automation, robotics, artificial intelligence, and advanced inspection technologies
- Ongoing shortage of highly skilled technicians
- Increasing regulatory and compliance requirements

The industry remains mature but continues to benefit from technological advancement and rising safety standards.

2. Industry Overview



Nondestructive Testing (NDT) services evaluate materials, equipment, structures, and systems without causing damage to the asset being inspected.

Common testing methods include:

- Ultrasonic Testing (UT)
- Radiographic Testing (RT)
- Magnetic Particle Testing (MT)
- Liquid Penetrant Testing (PT)
- Eddy Current Testing (ET)
- Visual Inspection Services
- Advanced Phased Array Ultrasonic Testing (PAUT)

Primary customer sectors include:

- Oil & Gas
- Power Generation & Utilities
- Aerospace & Defense
- Manufacturing
- Construction & Infrastructure
- Government Agencies

3. Industry Size & Structure

At a Glance

Metric	Value
Revenue	$3.6 Billion
Employees	18,890
Businesses	1,437
Profit	$334 Million
Profit Margin	9.2%
Wages	$1.5 Billion

The industry remains fragmented with relatively low concentration levels, creating opportunities for both regional specialists and national service providers.

4. Market Drivers

IBISWorld identifies several external drivers influencing industry demand.

Positive Drivers

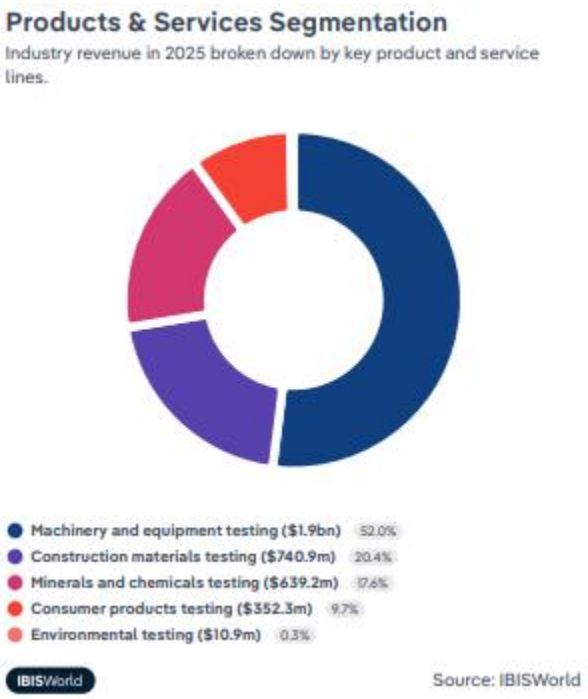
- Industrial Production Index
- Value of Utilities Construction
- Corporate Profitability
- Infrastructure Investment
- Energy Production Activity

Negative Drivers

- Prime Rate
- Higher Borrowing Costs
- Reduced Capital Investment

Demand for NDT services generally increases when businesses invest in new facilities, pipelines, manufacturing equipment, utility infrastructure, and industrial expansion projects.

5. Products & Services Mix



Machinery & Equipment Testing

52.0% of Industry Revenue

The largest segment within the industry. These services are critical for energy, aerospace, manufacturing, and industrial facilities that require inspection of high-value equipment and assets.

Construction Materials Testing

20.4% of Industry Revenue

Supports infrastructure and commercial construction projects through quality assurance, code compliance, and material performance testing.

Minerals & Chemical Testing

17.6% of Industry Revenue

Provides inspection and validation services for industrial processing facilities, chemical plants, and related operations.

Consumer Product Testing

9.7% of Industry Revenue

Supports manufacturers with product quality verification and safety testing requirements.

Environmental Testing

0.3% of Industry Revenue

A smaller niche segment focused on environmental compliance and specialized testing applications.

6. Performance Trends

Pandemic Disruption (2020)

The industry experienced significant disruption during the COVID-19 pandemic as industrial activity slowed and capital projects were delayed. Demand from energy, manufacturing, and infrastructure customers declined substantially.

Recovery Period (2021–2024)

As economic activity recovered, demand improved across most end markets. Rising corporate profits, increased industrial production, and strong energy prices supported industry growth.

The aerospace and defense sectors also increased investment in advanced testing technologies and quality assurance programs.

Current Environment (2025)

Revenue growth remains modest but stable.

Key characteristics include:

- Continued investment in infrastructure and utilities
- Strong energy sector demand
- Growing regulatory requirements
- Skilled labor shortages
- Increased technology adoption

Overall industry revenue has increased at a compound annual growth rate of approximately 0.6% over the past five years.

7. Competitive Landscape

The industry exhibits:

- Low market concentration
- Moderate competition
- High barriers to entry
- Significant certification requirements
- High levels of innovation

Success is largely driven by:

- Technical expertise
- Workforce quality
- Geographic coverage
- Regulatory knowledge
- Investment in advanced inspection technologies

Industry consolidation continues as larger providers acquire regional operators to expand capabilities and geographic reach.

8. Cost Structure Overview

Labor

Labor represents the industry's largest operating expense due to the need for highly trained and certified inspectors.

Technicians often require extensive certifications, ongoing training, and specialized expertise in multiple inspection methods.

Technology & Equipment

Companies continue investing in:

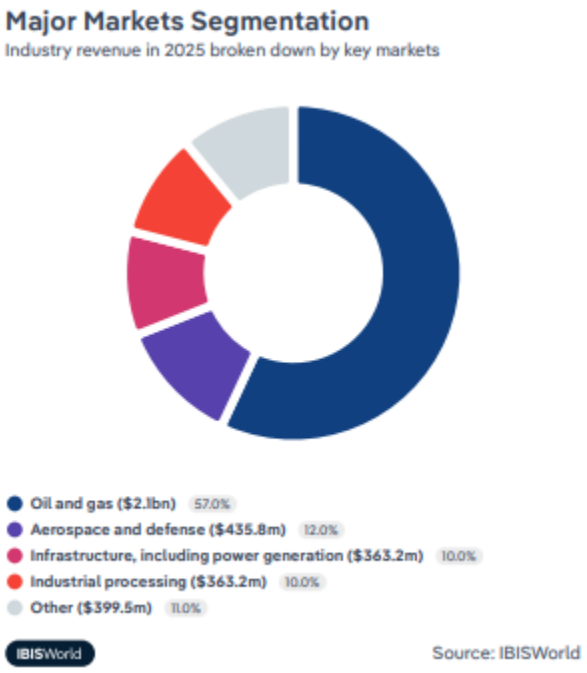
- Digital radiography systems
- Phased-array ultrasonic equipment
- Inspection robotics
- Data collection platforms
- Artificial intelligence applications

Technology investment is becoming increasingly important for maintaining competitiveness and improving inspection efficiency.

Training & Certification

Ongoing certification requirements remain critical for maintaining compliance, service quality, and competitive positioning.

9. Innovation & Industry Trends



Automation & Robotics

Providers are increasingly deploying robotic inspection systems to improve efficiency, reduce inspection times, and address workforce shortages.

Artificial Intelligence

AI and machine learning technologies are improving defect detection, inspection accuracy, predictive maintenance capabilities, and reporting efficiency.

Infrastructure Modernization

Aging infrastructure continues to drive inspection demand across utilities, transportation systems, industrial facilities, and public infrastructure.

Sustainability Initiatives

Environmental regulations and sustainability initiatives are creating new opportunities for inspection providers as asset owners seek to extend equipment life and improve operational efficiency.

10. Industry Life Cycle

IBISWorld classifies the industry as **Mature**, characterized by:

- Stable long-term demand
- Strong regulatory oversight
- Moderate revenue volatility
- High innovation levels
- Ongoing consolidation activity

While mature, technological advancement continues to create opportunities for growth and market differentiation.

11. Five-Year Outlook (2025–2030)

Industry revenue is projected to grow approximately 1.0% annually, reaching roughly $3.8 billion by 2030.

Key growth drivers include:

- Domestic energy expansion
- Continued industrial investment
- Infrastructure replacement projects
- Aerospace and defense spending
- Artificial intelligence-enabled inspection technologies
- Increased regulatory compliance requirements

Risks include:

- Economic recession
- Reduced industrial investment
- Higher financing costs
- Skilled labor shortages
- Tariff-related increases in equipment costs

12. Strategic Implications

1. Energy, utilities, and industrial production remain the primary demand drivers.
2. Workforce quality and technical expertise represent the industry's most important competitive advantages.
3. Automation and artificial intelligence adoption will increasingly differentiate market leaders.
4. Regulatory compliance requirements support long-term demand stability.
5. Consolidation opportunities remain available within a fragmented industry structure.
6. Infrastructure modernization and domestic energy development provide significant long-term growth opportunities.

Conclusion

The US Nondestructive Testing Services industry remains a critical component of the nation's industrial, energy, infrastructure, aerospace, and manufacturing sectors.

With approximately $3.6 billion in annual revenue, strong profitability, and increasing technological sophistication, the industry is positioned for steady long-term growth.

Providers that invest in workforce development, advanced inspection technologies, automation, and AI-enabled solutions are likely to capture market share and maintain competitive advantages as safety, compliance, and asset reliability requirements continue to expand.