

Cleveland Tech Industry Growth Trends: An Analysis (2020-2024)

Made with Robots and Soul by ProKofa Solutions, LLP

1. Executive Summary

The Cleveland tech ecosystem demonstrated a generally positive growth trajectory between 2020 and 2024. Several sectors, including Artificial Intelligence (AI) and cloud services, experienced substantial expansion, aligning with national and global trends. The aerospace industry also showed promising indicators of growth, leveraging the region's established presence and Ohio's broader role in the sector. Conversely, the childcare industry faced significant challenges, marked by declining enrollment and workforce shortages. While specific local growth data for every industry is not uniformly available, the analysis of various reports and news indicates a dynamic and evolving tech landscape in Cleveland. This report identifies key growth trends and highlights reputable data sources that can be utilized to update a chart illustrating these changes over the past five years.

2. Introduction

This report addresses the need for real-world data to replace simulated information in a chart depicting industry growth trends within Cleveland's technology ecosystem. The user seeks to visualize the growth of ten specific industries – 3D Printing, AI, Aerospace, Assistive Technology, Automotive, Aviation, Banking, Childcare, Cloud Services, and Communications – over the approximate period of 2020 to 2024. The objective is to identify reputable data sources and provide an analysis of the growth trends for each sector within the Cleveland metropolitan area.

3. Overview of the Cleveland Tech Ecosystem (2020-2024)

The Cleveland tech ecosystem exhibited significant positive momentum throughout the 2020-2024 timeframe. Substantial job growth within the technology sector brought positive momentum to the region.¹ Many of these newly hired workers possessed high levels of education. Over several years leading up to this period, Cuyahoga County saw an increase of over 17,000 individuals with Bachelor's and

Graduate Degrees, alongside a near doubling of its software developer population. This growth in software developers even surpassed that of major technology markets like the Bay Area, Denver, and Austin, positioning Cleveland among the top ten markets for this type of expansion.¹ This impressive growth in a critical tech occupation suggests a strong underlying strength in the ecosystem as it entered the 2020s.

Further evidence of this positive trend comes from a study indicating that Cleveland's high-tech sector was growing at a rate of 9.1 percent over the previous year.² This growth rate significantly outpaced the US average employment growth rate of 2.6 percent, positioning the Cleveland-Elyria-Mentor metro region as one of the top 20 fastest-growing tech sectors in the country.² This robust growth demonstrates the dynamism of the local tech economy.

Looking at broader economic indicators, Cleveland ranked seventh in Business Growth among its Midwest peer metro regions during the decade spanning 2020-2023.³ This strong ranking suggests a healthy economic environment that would likely support the expansion of individual technology-focused industries within the region. The Greater Cleveland Partnership's 2024 annual report also highlighted that 2024 was a positive year for the region, with major businesses expanding and research institutions scaling innovation.³ This expansion of established businesses contributes to the overall vitality of the tech ecosystem.

The tech scene in Cleveland experienced major positive developments in 2024.⁴ This continued positive trajectory is further emphasized by reports indicating a booming tech scene with a significant 30% surge in tech employment from 2023 to 2025.⁵ This rapid increase in employment underscores the strong growth experienced in the latter part of the target period. Moreover, Cleveland was recognized as being within the top 10 fastest-growing markets for tech talent in the United States, experiencing over 5% tech job growth since 2018.⁶ This sustained growth over several years highlights the region's increasing attractiveness for tech professionals.

Cleveland's appeal to new college graduates is also noteworthy, being named a Top 10 City and the second-best US city to start a career.⁷ This suggests a continuous influx of young talent, which is crucial for the sustained growth and innovation within the tech ecosystem. The presence of numerous growing tech companies in Cleveland in 2024 further illustrates the vibrancy and expansion of the sector.⁸ The consistent positive mentions of technology sector growth from various sources, including local news and economic reports, strongly indicate an overall upward trend in Cleveland's tech ecosystem between 2020 and 2024. The region's outperformance in software

developer growth compared to major tech hubs suggests a unique and potentially continued strength. Furthermore, Cleveland's improving ranking in business growth indicates favorable economic conditions for tech companies to prosper and expand.

4. Industry-Specific Growth Trend Analysis

4.1 3D Printing

The 3D printing market demonstrated significant global growth during the 2020-2024 period. In 2023, the global market experienced a substantial 26.8% increase, and projections indicated a Compound Annual Growth Rate (CAGR) of 21%, leading to a market size of \$24.8 billion by the end of 2024.⁹ Another estimate placed the global market size at \$17.5 billion in 2024, with a projected CAGR of 16.4% from 2024 to 2029.¹⁰ While these figures vary slightly, both point to robust global expansion. Within the United States, the 3D printing and rapid prototyping services industry also saw significant growth, with a CAGR of 17.2% over the five years leading to an estimated \$4.3 billion in 2025. This included a notable 19.8% growth in 2024 alone.¹¹ This consistent high growth rate at both the global and national levels suggests that the 3D printing industry in Cleveland likely experienced substantial expansion between 2020 and 2024.

Ohio also demonstrated a commitment to fostering growth in this sector. Governor DeWine announced investments exceeding \$60 million to expand 3D printing capabilities for defense and space applications.¹² The Youngstown Innovation Hub, a recipient of this funding, anticipates creating nearly 500 new jobs by 2029.¹² This state-level initiative, particularly targeting aerospace and defense, could indicate a specific growth area for 3D printing in the Cleveland region, given its established aerospace industry presence. Furthermore, a survey indicated increasing adoption of 3D printing, with 70% of surveyed businesses reporting they printed more parts in 2023 compared to 2022.⁹ The consistent high CAGR figures for the global and US 3D printing markets strongly imply that this industry experienced significant growth between 2020 and 2024, including within the Cleveland ecosystem. The Ohio state-level investment in 3D printing specifically targeting aerospace and defense could indicate a particular growth area for 3D printing in the Cleveland region, given its aerospace presence.

4.2 Artificial Intelligence (AI)

The Artificial Intelligence (AI) industry experienced remarkable global growth during the 2020-2024 period, and this trend appears to have been reflected in Cleveland as

well. OhioX's 2025 State of AI Report expressed optimism about the state's potential in AI, highlighting strengths in startup incubation and responsible AI adoption.¹³ This suggests a developing and active AI ecosystem within Ohio, which includes Cleveland. Global market projections for AI are staggering. One report anticipates the market expanding from \$371.71 billion in 2025 to \$2,407.02 billion by 2032, with a CAGR of 30.6%.¹⁴ Another valued the global market at \$279.22 billion in 2024, projecting a CAGR of 35.9% from 2025 to 2030.¹⁵ A further estimate placed the 2024 global market at \$638.23 billion, with a projected CAGR of 19.20% from 2025 to 2034.¹⁶ These substantial valuations and high growth rates at the global level strongly imply significant growth within Cleveland's AI sector during the 2020-2024 period leading up to these projections.

Local news also points to the increasing prominence of AI in Cleveland. The city's booming tech scene includes the Cleveland Technology Innovation Center, which is focusing on AI.⁵ Venture capital investments in the region topped \$85 million in the fourth quarter of 2024, with AI startups receiving significant funding.⁵ This direct evidence of investment in AI within Cleveland underscores the growth occurring in this sector. Furthermore, a collaboration between the Cleveland Clinic and G42, a global leader in AI, aims to drive AI-powered advancements in healthcare.¹⁷ This significant partnership highlights the growing importance and application of AI within Cleveland's well-established healthcare industry. Global AI statistics further support this growth, with one report projecting a CAGR of 37.3% between 2022 and 2030.¹⁸ The Cleveland Innovation District also exceeded targets in research and educational growth, including a biotech hub at Case Western Reserve University, which could involve AI applications.⁷ The overwhelming evidence from global market reports and local news indicates that the AI industry in Cleveland experienced substantial growth between 2020 and 2024. The local focus on AI in innovation centers and significant partnerships further solidify this trend. The specific mention of healthcare as a key area for AI application in the Cleveland Clinic partnership suggests that the growth of AI in Cleveland might be particularly strong within the healthcare and life sciences sectors, aligning with the region's established strengths.

4.3 Aerospace

The aerospace industry in Cleveland, benefiting from a strong regional presence and Ohio's significant role in the national sector, likely experienced steady growth between 2020 and 2024. The Global Aerospace Industry Outlook highlighted the ongoing expansion of the industry, with a 7% increase in combined sales in 2023.¹⁹ Ohio plays a critical role in aerospace and defense, further supporting the growth potential within the state.¹⁹ Northeast Ohio is a major hub for aerospace component design,

engineering, and production, representing a \$2.4 billion cluster and employing over 11,000 people.²⁰ This establishes the significant scale of the aerospace industry in the Cleveland region. Projections for the Aerospace and Aviation sector in Northeast Ohio indicate a substantial 24.5% GDP growth from 2022 to 2030.²¹ This strong forecast suggests a positive trajectory that likely included growth during the 2020-2024 period as well. The aerospace and defense industry also experienced growth in 2024, driven by high demand for air travel.²² While specific growth figures for 2020-2024 were not available in one document²⁰, the overall indicators point towards a positive trend. The combination of a substantial existing aerospace cluster in Northeast Ohio, positive global and national trends, and a strong local GDP growth projection suggests that the aerospace industry in Cleveland likely experienced steady growth between 2020 and 2024. Ohio's position as a top supplier to major aviation manufacturers implies that the growth of the global aviation industry would likely have a direct positive impact on the aerospace sector in the Cleveland region.

4.4 Assistive Technology

The global Assistive Technology market demonstrated consistent growth during the 2020-2024 timeframe, suggesting a similar trend in Cleveland. Estimates for the global market size in 2024 ranged from \$29.16 billion²³ to \$33.25 billion.²⁴ Projections for future growth were also positive, with CAGRs ranging from 4.8% to 10.22%.²³ These figures indicate a healthy global expansion of the industry. While specific local growth data for assistive technology companies in Cleveland between 2020 and 2024 is limited in the provided snippets, the broader global trend suggests a positive trajectory. Axual, a healthtech company in Cleveland, raised significant funding in 2024.⁸ While not exclusively focused on assistive technology, its growth in the healthtech sector could reflect some overlap with the assistive technology market. Additionally, the presence of organizations like Cuyahoga DD with assistive technology lending libraries²⁷ indicates a local focus on supporting individuals with disabilities through technology. The consistent global growth projections for the assistive technology market across multiple reports suggest that this industry likely experienced positive growth in Cleveland between 2020 and 2024, although specific local data is limited in the provided snippets. The presence of organizations like Cuyahoga DD with assistive technology programs indicates a local infrastructure and focus on this sector, which could contribute to its growth within the region.

4.5 Automotive

The automotive industry in Cleveland presents a more complex picture, with significant local presence but less clear growth data for the specific 2020-2024

period. Ohio holds a strong position as a North American automotive powerhouse, particularly in the production of engines and transmissions, and is increasingly focused on electrified mobility.²⁸ Northeast Ohio plays a crucial role in this sector, boasting the third-largest automotive manufacturing workforce in the U.S. and a robust supply chain, especially for companies transitioning to electrification.²⁹ While extensive data on Ohio's automotive industry is available³⁰, specific growth trends for the Cleveland region between 2020 and 2024 are not detailed in the provided snippets. However, national data on automotive parts revenue indicates a positive trend, reaching an all-time high in August 2020 and continuing to grow in 2022, with a projected annual growth of around 2%.³¹ This growth in a key segment of the automotive industry could be indicative of overall activity in the sector. The information suggests a stable and significant presence, with a notable shift towards electric vehicles. Ohio's strong position in traditional automotive manufacturing combined with its growing focus on EV suggests a potential transformation within the Cleveland automotive sector, with growth likely occurring in the EV-related segments.

4.6 Aviation

The aviation industry in Cleveland experienced a notable recovery and growth, particularly in the latter part of the 2020-2024 period. Cleveland Hopkins International Airport (CLE) reported serving over 10 million passengers in 2024, marking a 3% increase compared to 2023 and reaching pre-pandemic levels for the first time since 2019.³² This significant milestone indicates a strong rebound in passenger traffic. National trends also reflect this recovery, with US commercial airline operations showing a strong rebound between 2020 and 2022 after a substantial decline in 2020 due to the pandemic.³³ Monthly data for Cleveland Hopkins Airport into early 2025 reveals fluctuations but generally positive year-over-year changes in early 2025 compared to 2024.³⁴ Global forecasts for the commercial aircraft market also point to continued growth, with a projected CAGR of 6.49% from 2025 to 2030.³⁵ The data from Cleveland Hopkins Airport clearly shows a significant recovery in passenger traffic, especially in 2024, reaching pre-pandemic levels. This suggests a strong growth trend in aviation within the Cleveland region in the latter part of the 2020-2024 period after the initial pandemic impact. The national recovery in commercial airline operations provides context for the local recovery at Cleveland Hopkins, indicating that the trends observed in Cleveland are part of a broader industry-wide rebound.

4.7 Banking

The banking industry in Cleveland, as part of the broader Ohio commercial banking sector, appears to have faced a less positive growth trend between 2020 and 2024. Projections for the Commercial Banking industry in Ohio indicate an annualized decline over the five years leading up to 2025.³⁶ This suggests a contraction in the sector during the target period. Cleveland's economic landscape prior to the pandemic showed weak employment and demographic trends, with a lag in employment recovery as of March 2023.³⁷ This somewhat challenging economic backdrop likely influenced the banking sector. The banking turmoil experienced in 2023³⁸ could have further impacted the growth trajectory in the latter part of the period. While Ohio's overall economic conditions showed moderate growth in early 2024³⁹, the specific forecast for the banking industry points to a decline. The projection of decline in Ohio's commercial banking industry suggests that the banking sector in Cleveland likely did not experience significant growth between 2020 and 2024. The weak employment recovery in Cleveland further supports a potentially challenging environment for banking growth. The banking turmoil of 2023 indicates a period of instability that could have impacted the growth trajectory of the banking sector in Cleveland and Ohio during the latter part of the target period.

4.8 Childcare

The childcare industry in Cleveland, mirroring the challenges faced across Ohio, likely experienced significant difficulties and did not exhibit growth between 2020 and 2024. Ohio's childcare sector was described as being in a crisis in 2025, with the third-lowest eligibility for publicly funded childcare in the country and a substantial drop in the number of children benefiting from this funding between 2019 and 2023.⁴⁰ The number of childcare workers in Ohio also saw a significant decrease between 2017 and 2023, with a notable decline between 2019 and 2020.⁴⁰ High turnover rates among childcare workers were also a significant issue, with many leaving the labor force entirely.⁴² Furthermore, a high percentage of Ohioans reside in childcare deserts, indicating limited access to care.⁴⁰ A study focusing on Greater Cleveland highlighted the significant economic impact of inadequate childcare, with substantial income losses for parents and productivity losses for businesses.⁴⁵ The overwhelming evidence across multiple sources indicates that the childcare industry in Cleveland and Ohio faced significant challenges and likely did not experience growth between 2020 and 2024. Key issues include declining enrollment, workforce shortages, high turnover, and unaffordability. The economic losses attributed to inadequate childcare in Greater Cleveland demonstrate the broader negative impact of a shrinking or

stagnant childcare sector on the region's economy.

4.9 Cloud Services

The cloud services industry in Cleveland, consistent with global trends, experienced substantial growth between 2020 and 2024. Global statistics indicate an exponential expansion of the cloud computing market. The market was projected to surpass \$1 trillion by 2028 and reached \$912.77 billion in 2025, a significant increase from \$156.4 billion in 2020.⁴⁶ Other reports valued the global market at \$676.29 billion in 2024⁴⁷ and \$752.44 billion in 2024⁴⁸, with projected CAGRs ranging from 16.6% to 20.4%. Spending on global cloud infrastructure services was also forecasted to grow by 19% in 2025.⁴⁹ Cloud adoption rates are high, with over 90% of organizations worldwide utilizing cloud services.⁴⁶ Within Cleveland, numerous companies are listed as operating in the cloud sector.⁵¹ This local presence, coupled with the overwhelming global data, strongly suggests that the cloud services industry in Cleveland experienced significant growth during the 2020-2024 period. The overwhelming global data clearly demonstrates that the cloud services industry experienced massive growth between 2020 and 2024. The presence of numerous cloud companies in Cleveland strongly suggests that this global trend was reflected in significant growth within the Cleveland tech ecosystem as well.

4.10 Communications

The communications technology sector in Cleveland showed indicators of positive growth between 2020 and 2024, particularly in the realm of broadband access. The Wireless Telecommunications Carriers industry in Ohio was projected to grow to \$5.3 billion by 2025.⁵³ DigitalC, a community-based internet service provider in Cleveland, reported strong growth in the first quarter of 2025, with a significant increase in households connected and expanded network coverage.⁵⁴ This demonstrates a direct expansion of broadband internet services within the city. The Ohio Tech Hub Initiative's \$50 million investment aims to boost Cleveland's tech infrastructure, which would likely include advancements in communications technology.⁵ Team NEO also emphasizes the integration of technology, including communications, across various industries in Northeast Ohio.⁵⁶ The projected growth in Ohio's wireless telecommunications industry and the significant expansion of DigitalC's broadband internet services in Cleveland strongly suggest a positive growth trend in the communications technology sector in Cleveland between 2020 and 2024, particularly in the area of broadband access. The Ohio Tech Hub Initiative's investment in tech infrastructure further supports the likelihood of growth in the communications technology industry in Cleveland, as infrastructure development is a key enabler of

growth in this sector.

5. Reputable Data Sources and Data Availability

The research has identified several reputable data sources that can provide information for populating the chart:

- **3D Printing:** MarketsandMarkets ¹⁰, Grandview Research ¹¹, Protolabs Network Trend Report ⁹, 3D Printing Industry.¹² *Data available: Global and US market size, growth rates (CAGR), adoption trends.*
- **Artificial Intelligence (AI):** MarketsandMarkets ¹⁴, Grandview Research ¹⁵, Precedence Research ¹⁶, OhioX State of AI Report ¹³, local news articles (e.g., about Cleveland Clinic ¹⁷ and AI startups ⁵), Exploding Topics.¹⁸ *Data available: Global market size, projected growth rates, local initiatives and partnerships, adoption statistics.*
- **Aerospace:** Team NEO reports ²⁰, Ohio Aerospace Institute ¹⁹, Deloitte Aerospace and Defense Industry Outlook ²², Cleveland Hopkins Airport data for cargo.³⁴ *Data available: Regional economic impact, employment figures, potential GDP growth projections, cargo volume as an indicator.*
- **Assistive Technology:** MarketsandMarkets ²⁴, Global Growth Insights ²³, Coherent Market Insights.²⁶ *Data available: Global market size, projected growth rates, segmentation by type.*
- **Automotive:** Team NEO reports ²⁹, JobsOhio Automotive Industry data ²⁸, US Bureau of Economic Analysis data on automotive parts ³¹, Auto Innovate.³⁰ *Data available: Regional workforce size, focus on EV, national data on parts revenue, broader Ohio automotive statistics.*
- **Aviation:** Cleveland Hopkins International Airport (CLE) passenger and cargo statistics ³², FAA Economic Impact Report ³³, Mordor Intelligence.³⁵ *Data available: Local passenger and cargo volumes, national recovery trends, global commercial aircraft market analysis.*
- **Banking:** IBISWorld industry reports for Ohio ³⁶, Cleveland Fed publications ³⁸, Hoffleugh Cleveland Market Reports.³⁷ *Data available: Projected revenue decline in Ohio, general economic conditions in Cleveland.*
- **Childcare:** Policy Matters Ohio reports ⁴⁰, Cleveland Fed research on childcare ⁴², Early Matters NEO reports ⁴⁵, Ohio Department of Job and Family Services.⁶³ *Data available: Enrollment numbers, workforce size, turnover rates, cost data, economic impact of childcare challenges in Cleveland.*
- **Cloud Services:** MarketsandMarkets ⁴⁷, Grandview Research ⁴⁸, Canalys ⁴⁹, Gartner ⁴⁶, O'Reilly Cloud Adoption Report ⁴⁶, listings of Cleveland cloud companies ⁵¹, CloudZero ⁴⁶, Fortune Business Insights ⁴⁷, Cloud Institute ⁶⁴, Edge

Delta.⁵⁰ *Data available: Global market size and growth rates, adoption statistics, local company presence as an indicator.*

- **Communications:** IBISWorld industry reports for Ohio's wireless telecommunications carriers ⁵³, DigitalC reports and news releases ⁵⁴, Ohio Tech Hub Initiative information ⁵, Greater Cleveland Partnership ³, PwC.⁶⁷ *Data available: Projected growth in Ohio's wireless sector, local broadband expansion metrics.*

6. Recommendations for Chart Population

To populate the multi-line chart, consider the following recommendations based on data availability and the nature of each industry:

- For **3D Printing**, utilizing the global or US CAGR data from MarketsandMarkets or Protolabs Network Trend Report could provide a strong indication of growth. For instance, plotting the estimated market size or year-over-year growth rate could be effective.
- For **AI**, the high global CAGR projections from various market research firms (MarketsandMarkets, Grandview Research, Precedence Research) can serve as a proxy for Cleveland's growth. Supplement this with local data points, such as the venture capital investment in AI startups mentioned in news reports.
- For **Aerospace**, leveraging the projected GDP growth for the Aerospace and Aviation sector in Northeast Ohio from Team NEO would be valuable. Alternatively, plotting the cargo volume data from Cleveland Hopkins Airport could indicate activity levels.
- For **Assistive Technology**, using the global CAGR data from reports by MarketsandMarkets, Global Growth Insights, or Coherent Market Insights would be the most feasible approach given the limited local data in the snippets.
- For **Automotive**, while direct growth figures are lacking, plotting the national trend in automotive parts revenue from the US Bureau of Economic Analysis could provide some insight into the sector's performance. Highlighting the shift towards EV based on information from Team NEO and JobsOhio could also be a narrative element.
- For **Aviation**, the passenger statistics from Cleveland Hopkins International Airport offer direct local data. Plotting the annual passenger volume from 2020 to 2024 would clearly illustrate the recovery and growth.
- For **Banking**, given the projected revenue decline in Ohio's commercial banking sector from IBISWorld, the chart could reflect this negative trend. If specific year-over-year decline rates are available, those could be plotted.
- For **Childcare**, plotting the decline in publicly funded childcare enrollment in Ohio (from Policy Matters Ohio reports) or the decrease in the number of childcare

workers could visually represent the challenges faced by this industry.

- For **Cloud Services**, using the global market size and projected growth rates (CAGR) from major research firms like Gartner, MarketsandMarkets, or Grandview Research would be suitable. The exponential growth trend should be clearly visible.
- For **Communications**, plotting the increase in households connected by DigitalC in Cleveland over the years could illustrate the growth in broadband access. If available, the projected growth rate for Ohio's wireless telecommunications industry from IBISWorld could also be used.

The following tables summarize the identified growth trends and potential data points for chart population:

Table 1: Summary of Identified Growth Trends and Data Sources (2020-2024)

Industry	Overall Growth Trend	Key Data Sources Identified
3D Printing	Positive	MarketsandMarkets ¹⁰ , Grandview Research ¹¹ , Protolabs Network Trend Report ⁹ , 3D Printing Industry ¹²
AI	Strong Positive	MarketsandMarkets ¹⁴ , Grandview Research ¹⁵ , Precedence Research ¹⁶ , OhioX State of AI Report ¹³ , Local News ⁵ , Exploding Topics ¹⁸
Aerospace	Steady Growth	Team NEO ²⁰ , Ohio Aerospace Institute ¹⁹ , Deloitte ²² , Cleveland Hopkins Airport ³⁴
Assistive Technology	Positive	MarketsandMarkets ²⁴ , Global Growth Insights ²³ , Coherent Market Insights ²⁶

Automotive	Mixed/Transforming	Team NEO ²⁹ , JobsOhio ²⁸ , US BEA ³¹ , Auto Innovate ³⁰
Aviation	Strong Recovery/Growth	Cleveland Hopkins Airport ³² , FAA ³³ , Mordor Intelligence ³⁵
Banking	Negative	IBISWorld ³⁶ , Cleveland Fed ³⁸ , Hoffleigh ³⁷
Childcare	Negative	Policy Matters Ohio ⁴⁰ , Cleveland Fed ⁴² , Early Matters NEO ⁴⁵ , ODJFS ⁶³
Cloud Services	Exponential Growth	MarketsandMarkets ⁴⁷ , Grandview Research ⁴⁸ , Canalys ⁴⁹ , Gartner ⁴⁶ , O'Reilly ⁴⁶ , Cleveland Cloud Companies ⁵¹ , CloudZero ⁴⁶ , Fortune Business Insights ⁴⁷ , Cloud Institute ⁶⁴ , Edge Delta ⁵⁰
Communications	Positive	IBISWorld ⁵³ , DigitalC ⁵⁴ , Ohio Tech Hub Initiative ⁵ , Greater Cleveland Partnership ³ , PwC ⁶⁷

Table 2: Potential Data Points for Chart Population (2020-2024)

Industry	Recommended Metric for Chart	Specific Data Source(s)	Years Covered (within 2020-2024)
3D Printing	Global Market Size (USD Billion) or CAGR (%)	MarketsandMarkets ¹⁰ , Protolabs ⁹	2020-2024 (estimates and projections)
AI	Global Market Size	MarketsandMarkets	2020-2024

	(USD Billion) or CAGR (%)	¹⁴ , Grandview Research ¹⁵ , Precedence Research ¹⁶	(estimates and projections)
Aerospace	Projected GDP Growth (%)	Team NEO ²¹	2022-2024 (part of longer projection)
Assistive Technology	Global Market Size (USD Billion) or CAGR (%)	MarketsandMarkets ²⁴ , Global Growth Insights ²³	2020-2024 (estimates and projections)
Automotive	National Automotive Parts Revenue (USD Billion)	US Bureau of Economic Analysis ³¹	2020-2022
Aviation	Annual Passenger Volume (Millions)	Cleveland Hopkins Airport ³²	2020-2024
Banking	Projected Annualized Revenue Change (%)	IBISWorld ³⁶	2020-2024 (part of longer projection)
Childcare	Change in Publicly Funded Childcare Enrollment (Number of Children)	Policy Matters Ohio ⁴⁰	2019-2023
Cloud Services	Global Market Size (USD Billion) or CAGR (%)	Gartner ⁴⁶ , MarketsandMarkets ⁴⁷ , Grandview Research ⁴⁸	2020-2024 (estimates and projections)
Communications	Number of Households Connected (DigitalC)	DigitalC ⁵⁴	2024 (and Q1 2025)

7. Conclusion

The analysis indicates a generally positive growth trend within Cleveland's tech ecosystem between 2020 and 2024. Sectors like AI and cloud services demonstrated significant expansion, aligning with global patterns. The aerospace and aviation

industries also showed promising growth and recovery, respectively. Conversely, the banking and childcare industries faced challenges, with projections of decline in banking and a documented crisis in childcare. While readily available local growth data varied across the ten industries, the provided research material offers valuable insights and identifies numerous reputable data sources. By utilizing the suggested metrics and data sources, the user should be well-equipped to update their chart and gain a clearer understanding of the industry growth trends within the Cleveland tech ecosystem over the past five years. Further research into specific local reports or direct engagement with local industry organizations may yield more granular data for certain sectors, if required.

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