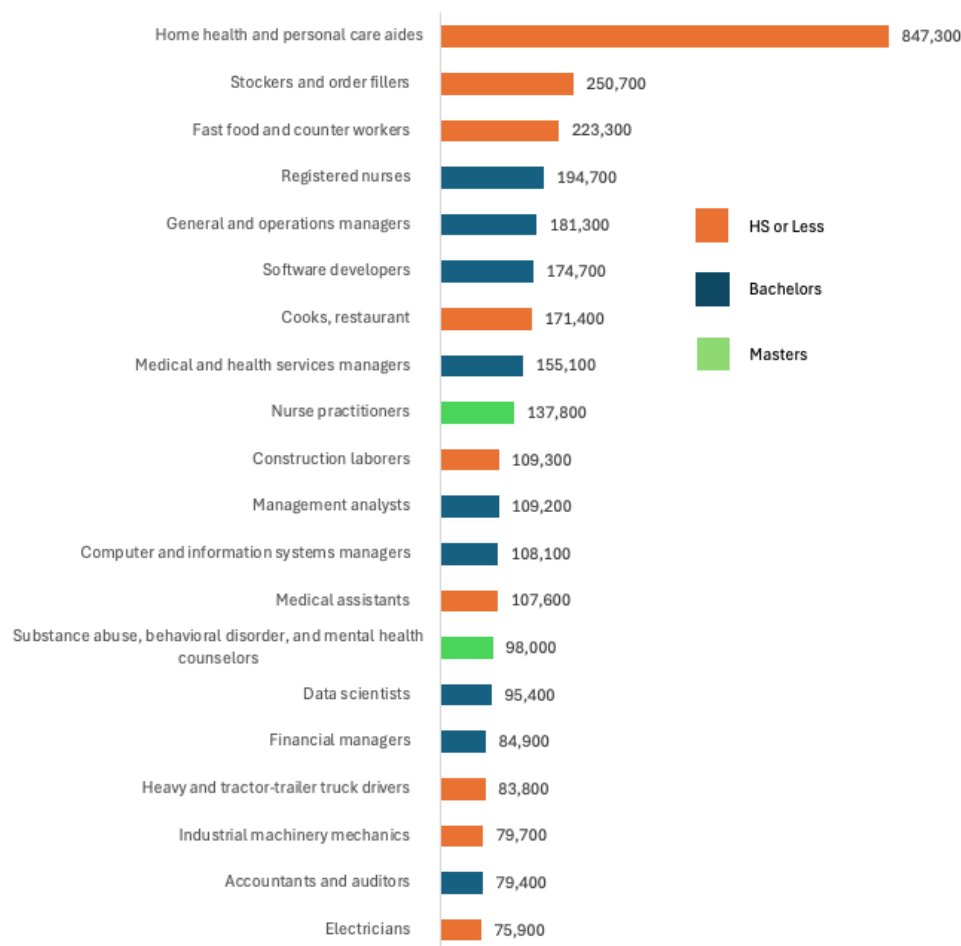


Occupational Projections 2035

The U.S. Bureau of Labor Statistics (BLS) Occupational Projections are long-term forecasts of employment demand that estimate how occupations are expected to change over a 10-year period. They are produced as part of the U.S. Bureau of Labor Statistics Employment Projections Program, which develops national labor market forecasts for the U.S. economy. This edition of EPICenter looks the nexus of education and employment between 2025 and 2035.

Exhibit 1. Top 20 highest projected occupational growth (number of jobs), 2025-35



THIS ISSUE

Occupational Projections 2025-2035

Technology and AI in particular are having a massive impact on current and future jobs in America, let alone the world. This issue of EPICenter uses new data from the U.S. Bureau of Labor Statistics to look at the growth—both positive and negative—in occupations over the decade between 2025 and 2035.

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Introduction

This edition of EPICenter examines the U.S. Bureau of Labor Statistics’ occupational projections for 2025-2035 and explores what they reveal about the evolving relationship between education, skills, and workforce demand. The report argues that the American labor market is increasingly divided between occupations that require advanced knowledge and specialized training and those characterized by routine tasks that are becoming more vulnerable to automation and artificial intelligence.

Across the economy, the strongest employment growth is projected in healthcare, technology, and other knowledge-intensive fields where workers are expected to apply complex analytical, technical, and interpersonal skills. Occupations such as nurse practitioners, data scientists, physician assistants, and medical and health services managers are among the fastest-growing and highest-paying careers, reflecting the growing value of postsecondary education and professional credentials. At the same time, some of the largest numerical job increases will occur in occupations requiring less formal education, particularly home health and personal care aides, highlighting the impact of demographic change and an aging population on future workforce needs.

A central theme herein is that education remains one of the strongest predictors of occupational opportunity, but that opportunity can be achieved through multiple pathways. While advanced degrees are increasingly associated with high-growth, high-wage professions, skilled trades and technical occupations continue to provide viable routes to economic mobility through apprenticeships, certifications, and workforce training. Conversely, many clerical, administrative, and routine support occupations are projected to decline as businesses adopt AI-enabled technologies, automation, and digital workflows.

Ultimately, this presents a forward-looking analysis of how education systems, workforce development organizations, and policy-makers can better align training and credentialing pathways with labor market demand. The findings suggest that workers who de-

velop specialized expertise, technical competencies, and adaptable skills will be best positioned to succeed in the labor market of 2035, while those employed in routine and easily automated occupations may face increasing employment challenges.

Education as a Key Driver of Occupational Growth

educational attainment increasingly serves as a dividing line between occupations experiencing robust expansion and those facing contraction. Many of the fastest-growing occupations require at least a bachelor’s degree, and often a master’s or professional degree. For example, Nurse Practitioners are projected to grow by 41.0 percent, Data Scientists by 34.6 percent, Computer and Information Research Scientists by 21.8 percent, and Physician Assistants by 21.1 percent. Each of these occupations requires substantial postsecondary education and specialized training, and each offers salaries well above the national median.

This pattern reflects a broader shift toward a knowledge-intensive economy in which employers increasingly seek workers capable of interpreting information, solving complex problems, managing systems, and applying specialized expertise rather than performing routine functions. The connection between educational attainment and labor market outcomes is particularly evident in occupations associated with data analytics, healthcare delivery, information technology, engineering, and management.

Of course, the education driver theory doesn’t tell the complete story, as the occupations with the largest number of jobs added by 2035 contain several that require either limited or no postsecondary education. For instance, home health care will grow by almost a million jobs (847,300) followed by fast food and counter workers (223,300) and stockers and order fillers (250,700). Thus, it is a mixed bag of education versus workforce growth in the U.S.

Exhibit 2. Top 10 highest projected occupational growth (percent), 2025-35

Occupation	Projected Growth (%)	Projected Growth (#)	Typical Education	Median Wage
Nurse Practitioners	41.0%	137,800	Master's Degree	\$132,300
Solar Photovoltaic Installers	36.5%	11,300	High school diploma or equivalent	\$53,140
Data Scientists	34.6%	95,400	Bachelor's degree	\$120,230
Wind Turbine Service Technicians	29.5%	3,500	Postsecondary nondegree award	\$64,120
Medical and Health Services Managers	24.2%	155,100	Bachelor's degree	\$123,860
Physical Therapist Assistants	23.0%	26,200	Associate's degree	\$68,380
Psychiatric Technicians	22.3%	36,000	Postsecondary nondegree award	\$45,130
Computer and Information Research Scientists	21.8%	8,400	Master's degree	\$140,300
Occupational Therapy Assistants	21.5%	11,200	Associate's degree	\$72,300
Ophthalmic Medical Technicians	21.4%	15,500	Postsecondary nondegree award	\$45,570

The Education-Healthcare Growth Nexus

The healthcare workforce presents perhaps the strongest example of the relationship between educational attainment and labor market opportunity. Unlike many sectors where higher educational requirements do not always translate directly into workforce demand, healthcare demonstrates a remarkably consistent pattern: occupations requiring greater specialization and professional preparation generally experience both stronger growth rates and higher earnings.

The most striking example is the Nurse Practitioner profession. Requiring graduate education, professional licensure, and advanced clinical training, nurse practitioners are projected to grow by 41 percent, making them among the fastest-growing occupations in the entire economy. Similar trends are evident among Physician Assistants, Occupational Therapists, and other advanced-practice healthcare professionals. These occupations are expanding because they help address physician shortages, increasing healthcare utilization, and growing demand for preventive and chronic disease management.

As mentioned, the largest absolute employment growth occurs among Home Health and Personal Care Aides that requires substantially less formal education than most clinical professions, yet it is projected to add more than 847,000 positions. This growth reflects demographic change rather than credentialing requirements. As the population ages and more care shifts into community and home-based settings, demand for low-cost, direct-care workers continues to expand rapidly.

Consequently, healthcare growth is occurring through two distinct workforce pipelines (see Exhibit 3):

Exhibit 3. Two pipeline scenarios

Pipeline 1: High-Education, High-Wage Clinical Careers	
Occupation Group	Typical Education
Nurse Practitioners	Master's Degree
Physician Assistants	Master's Degree
Occupational Therapists	Master's Degree
Physical Therapists	Doctoral Degree
Health Services Managers	Bachelor's/Master's Degree
Advanced Practice Nurses	Graduate Degree

Pipeline 2: Direct Care and Healthcare Support Occupations	
Occupation Group	Typical Education
Nurse Practitioners	Master's Degree
Physician Assistants	Master's Degree
Occupational Therapists	Master's Degree
Physical Therapists	Doctoral Degree
Health Services Managers	Bachelor's/Master's Degree
Advanced Practice Nurses	Graduate Degree

Pipeline 1: High-Education, High-Wage Clinical Careers. These occupations have strong growth rates, high earnings, and substantial educational requirements. These careers represent some of the strongest educational returns in the labor market, combining high demand, high wages, and strong long-term employment prospects.

Pipeline 2: Direct Care and Healthcare Support Occupations. These occupations generally require certificates, short-term training, or associate degrees. These positions often serve as entry points into healthcare careers and provide opportunities for stackable credentials and upward mobility.

Healthcare: The Strongest Education-to-Employment Pipeline

No sector demonstrates the relationship between education and workforce growth more clearly than healthcare. The projections indicate substantial growth throughout the healthcare workforce, ranging from occupations that require short-term training to highly specialized advanced-practice professions. However, the strongest growth rates and highest wages consistently appear among occupations requiring graduate education.

Exhibit 4. Healthcare occupations with the highest occupational growth (number of jobs), 2025-2035

Occupation	Projected Growth (#)	Typical Education Level	Median Wage
Home Health & Personal Care Aides	847,300	No Formal Credential / Short-Term Training	\$35,880
Registered Nurses	194,700	Bachelor's Degree	\$97,550
Medical & Health Services Managers	155,100	Bachelor's or Master's Degree	\$123,860
Nurse Practitioners	137,800	Master's Degree	\$132,300
Medical Assistants	107,600	Postsecondary Certificate	\$45,690
Physician Assistants	35,700	Master's Degree	\$135,880
Health Information Technologists & Medical Registrars	6,700	Associate Degree	\$68,020
Occupational Therapists	25,200	Master's Degree	\$100,330

Nurse Practitioners are projected to add nearly 138,000 jobs while growing by 41 percent, while Medical & Health Services Managers are expected to increase by more than 155,000 positions and grow by 24.2 percent. Other rapidly growing occupations include Registered Nurses (194,700 jobs at 5.6 percent), Substance abuse/behavior disorders/mental health counselors (98,000 jobs at 18.4 percent). Most require master’s degrees, doctoral preparation, or professional credentials.

The healthcare sector also illustrates how educational investments translate into earnings. Many of these occupations command salaries exceeding \$100,000 annually, with physicians and specialists often earning substantially more. Consequently, healthcare represents one of the clearest examples of a strong return on educational attainment.

At the same time, healthcare growth extends beyond highly educated practitioners. Occupations such as Home health and personal care aides are projected to have an increase of 847,300 jobs, an increase of 18.1 percent. These jobs, however, are not based on postsecondary credentials as most individuals with a high school diploma can work in these areas with short-term, on-the-job training.

Exhibit 5. Healthcare occupations with the highest projected occupational growth (percent), 2025-35

Occupation	Projected Growth (%)	Typical Education Level	Median Wage
Nurse Practitioners	41.0%	Master's Degree	\$132,300
Physical Therapist Assistants	23.0%	Associate Degree	\$68,380
Psychiatric Technicians	22.3%	Postsecondary Certificate	\$45,130
Ophthalmic Medical Technicians	21.4%	Postsecondary Certificate	\$45,570
Physician Assistants	21.1%	Master's Degree	\$135,880
Health Information Technologists & Medical Registrars	15.9%	Associate Degree	\$68,020
Occupational Therapists	14.8%	Master's Degree	\$100,330
Medical Assistants	12.9%	Postsecondary Certificate	\$45,690
Registered Nurses	6.2%	Bachelor's Degree	\$97,550
Medical and Health Services Managers	24.2%	Bachelor's/ Master's Degree	\$123,860

Technology Occupations and the Rise of Analytical Skills

Technology-related occupations provide another compelling example of the growing importance of advanced education and specialized knowledge. The strongest projected growth occurs not among routine programming positions but among occupations associated with data, research, systems architecture, cybersecurity, and strategic technology management.

Data scientists are expected to grow by 34.6 percent (95,400 jobs), wind turbine service technicians by 29.5 percent (3,500 jobs), and information security analysts by 21 percent (40,600 jobs). These occupations generally require bachelor's or master's degrees and emphasize analytical reasoning, data interpretation, research ca-

pability, and systems thinking.

Interestingly, the projections suggest that not all technology occupations are benefiting equally. Computer programmers are projected to decline by 7.3 percent (8,100 jobs). This divergence suggests that the labor market increasingly rewards workers who can design, analyze, and manage complex digital environments rather than perform more routine coding or support functions. Computer programming is being heavily penetrated by AI.

The technology sector therefore illustrates a critical higher education challenge: demand is shifting toward occupations requiring advanced analytical, mathematical, and problem-solving competencies rather than merely technical familiarity.

Exhibit 6. Technology occupations with the highest projected occupational growth (percent), 2025-35

Occupation	Projected Growth (#)	Typical Education Level	Median Wage
Data Scientists	34.6%	Bachelor's Degree	\$120,230
Information Security Analysts	21.0%	Bachelor's degree	\$129,180
Computer & Information Research Scientists	21.8%	Master's Degree	\$140,300
Computer & Information Systems Managers	15.8%	Bachelor's Degree	\$175,140
Software Developers	10.2%	Bachelor's Degree	\$135,980
Computer Systems Analysts	7.9%	Bachelor's Degree	\$105,850
Database Architects	9.4%	Bachelor's Degree	\$139,500
Operations Research Analysts	11.9%	Bachelor's Degree	\$88,940

Skilled Trades: Alternative Pathways to Economic Mobility

The projections also challenge the assumption that strong labor market outcomes always require advanced academic degrees. Several skilled trades demonstrate robust growth despite requiring only a high school diploma, postsecondary certificate, apprenticeship, or technical training.

Occupations such as Heating, Air Conditioning, and Refrigeration Mechanics and Installers (10.9 percent; 48,200 jobs; \$61,010) and Plumbers, Pipefitters, and Steamfitters (6.8 percent; 34,500 jobs; \$63,800) show positive growth and strong earnings potential. In many cases, wages approach or exceed those of occupations requiring bachelor's degrees.

The educational pathway for these occupations is distinct. Rather than pursuing traditional academic credentials, workers acquire

expertise through apprenticeships, technical colleges, industry certifications, and structured on-the-job learning. These occupations underscore the continued importance of career and technical education pathways within the broader educational ecosystem.

Declining Occupations and the Automation Effect

The occupations experiencing the most severe declines tell a different educational story. Many of these positions involve routine information processing, transactional tasks, or predictable clerical work that can increasingly be automated through software, artificial intelligence, and digital workflows. The occupations most vulnerable to automation, digitization, artificial intelligence, self-service technologies, and workflow software share several common characteristics:

- High levels of routine, repetitive work
- Rules-based processing
- Transaction-based customer interactions
- Data entry and information management functions
- Administrative support activities

These occupations generally require a high school diploma or less and are concentrated in what economists often call “routine cognitive” and “routine administrative” work. Their projected declines suggest that technological substitution is increasingly affecting white-collar support occupations in the same manner that industrial automation affected manufacturing occupations in earlier decades.

The most severe percentage declines are projected among occupations whose primary function is processing, routing, or entering information. Word Processors and Typists are projected to decline by 34.4%, losing approximately 13,900 jobs, representing the steepest percentage decline in the group. This reflects the rapid adoption of AI-assisted writing platforms, speech-to-text technologies, automated document creation systems, and collaborative cloud-based applications that have reduced the need for dedicated typing and document preparation roles.

Similarly, Telephone Operators (-27.6%) and Switchboard Operators (-26.0%) are becoming increasingly obsolete as organizations adopt integrated communications platforms, automated call-routing systems, and digital customer service channels. Together, these occupations illustrate how technology has replaced many traditional communication management functions once performed manually.

Exhibit 7. Occupations Most Susceptible to Automation and AI, 2025-35

Occupation	Projected Growth (%)	Projected Growth (#)	Typical Education Requirement	Why Vulnerable?
Word Processors and Typists	-34.4%	-13,900	High School Diploma	Automated document creation, speech-to-text, AI-assisted writing
Telephone Operators	-27.6%	-1,000	High School Diploma	Automated call routing and digital communications
Switchboard Operators	-26.0%	-9,200	High School Diploma	Unified communications systems and automated reception
Data Entry Keyers	-25.5%	-33,600	High School Diploma	Optical character recognition, AI extraction, automated data processing
Telemarketers	-21.4%	-13,000	High School Diploma	Digital marketing, automated outreach, AI-based customer engagement
Office Clerks, General	-6	-156,200	High School Diploma	Workflow automation and cloud-based business systems
Customer Service Representatives	-5.3	-141,800	High School Diploma	Chatbots, virtual agents, AI customer support
Secretaries and Administrative Assistants	-6	-114,100	High School Diploma	Scheduling software, AI assistants, automated administrative workflows
Bookkeeping, Accounting, and Auditing Clerks	-5.6	-85,600	Postsecondary/Associate or High School	Automated accounting platforms and ERP systems
Shipping, Receiving and Inventory Clerks	-7.6	-62,800	High School Diploma	Warehouse management systems and automated inventory tracking
File Clerks	-15.8	-12,000	High School Diploma	Electronic document management systems
Payroll and Timekeeping Clerks	-15.9	-25,400	High School Diploma	Automated payroll software
Order Clerks	-17.5	-13,800	High School Diploma	E-commerce ordering systems and automated fulfillment

One of the most significant examples of automation’s impact is found among Data Entry Keyers, which are projected to decline by 25.5%, resulting in a loss of approximately 33,600 jobs. Advances in optical character recognition (OCR), intelligent document processing, machine learning, and AI-driven data extraction increasingly allow organizations to capture and process information without human intervention.

Exhibit 7 also shows substantial declines among customer-facing administrative occupations. Telemarketers are projected to decline by 21.4%, reflecting the shift toward digital advertising, automated marketing campaigns, customer relationship management systems, and AI-powered sales outreach tools.

Implications for Education and Workforce Development

Taken together, these projections reveal a workforce increasingly characterized by educational stratification. Growth is concentrated in occupations requiring either advanced degrees and specialized expertise or technical credentials connected to high-demand skilled trades. Meanwhile, occupations requiring limited education and centered on routine tasks are projected to experience slower growth or outright decline.

For educational institutions, workforce agencies, and policymakers, the implications are clear. Future labor market demand is likely to be concentrated in three broad areas:

- Healthcare and human services, where educational attainment directly translates into occupational growth and earnings.
- Technology and data-driven occupations, where analytical skills, digital literacy, and advanced credentials are becoming increasingly important.

- Skilled trades and technical careers, where shorter-term credentials, apprenticeships, and industry certifications provide viable pathways to high-demand employment.

Ultimately, the projections suggest that education remains one of the strongest predictors of occupational opportunity. Whether through advanced degrees, professional credentials, or technical training, workers who acquire specialized knowledge and adaptable skills are positioned to benefit most from the labor market of 2035, while those in routine and easily automated occupations face growing employment risk.

Revised Policy-Oriented Analysis: Education, Occupational Growth, and Workforce Demand, 2025-2035

The occupational projections showcased in this report suggest that the next decade of workforce development will be shaped less by overall job growth than by the educational requirements associated with that growth. The data indicate a clear bifurcation in the labor market. Occupations requiring advanced education, specialized credentials, or technical expertise are projected to experience the strongest employment expansion and highest wages, while occupations characterized by routine administrative, clerical, and transactional tasks face stagnation or decline.

For policymakers, this finding is particularly significant because it suggests that workforce outcomes are increasingly linked not simply to educational attainment itself, but to the alignment of education and training pathways with emerging labor market demand. The fastest-growing occupations consistently fall into sectors where specialized knowledge, analytical capability, regulatory expertise, human services, and technical proficiency are difficult to automate. These include healthcare, information technology, engineering, advanced management, and certain skilled trades.

Exhibit 8. Education Level and Occupational Growth Relationship, 2025-2035

Occupation	Projected Growth (%)	Projected Growth (#)	Typical Education Requirement
Doctoral/Professional Degree	Physicians, Health Specialties Faculty, Clinical Psychologists	5%-18%	\$100,000-\$500,000+
Master's Degree	Nurse Practitioners, Physician Assistants, Speech-Language Pathologists, Occupational Therapists	15%-41%	\$67,000-\$135,000+
Bachelor's Degree	Data Scientists, Software Developers, Information Security Analysts, Financial Managers, Management Analysts	7%-35%	\$80,000-\$175,000+
Associate Degree	Diagnostic Medical Sonographers, Physical Therapist Assistants, Dental Hygienists	8%-23%	\$68,000-\$98,000
Postsecondary Certificate/Nondegree Award	HVAC Technicians, Medical Assistants, Wind Turbine Technicians	11%-30%	\$45,000-\$65,000+
High School Diploma	Electricians, Commercial Drivers, Industrial Mechanics, Human Services Aides	4%-18%	\$45,000-\$65,000+
No Formal Credential	Fast Food Workers, Home Health Aides, Stockers, Construction Laborers	2%-18%	\$31,000-\$47,000

At the same time, the data demonstrate that growth opportunities remain available through multiple educational pathways. While many high-growth occupations require bachelor's, master's, or professional degrees, several skilled-trade occupations showing strong demand rely primarily on apprenticeships, industry certifications, or technical education. As a result, the workforce challenge is not simply increasing educational attainment but ensuring that learners enter programs that connect directly to occupations with strong labor market value.

As a result, the workforce challenge is not simply increasing educational attainment but ensuring that learners enter programs that connect directly to occupations with strong labor market value.

Policy Implications

Several policy implications emerge from these projections.

1. Expand Healthcare Education Capacity. Healthcare occupations dominate both percentage growth and absolute job creation. Workforce shortages are likely to be most acute among nurse practitioners, physician assistants, therapists, nurses, behavioral health professionals, and healthcare managers. Expanding educational capacity in these disciplines should remain a national priority.

2. Strengthen Data, AI, and Cybersecurity Pipelines. The growth of data scientists, information security analysts, computer systems managers, and other advanced technical occupations suggests increasing demand for quantitative and computational skills. Postsecondary institutions may need to substantially expand programs in analytics, computer science, cybersecurity, data engineering, and related fields.

3. Elevate Career and Technical Education. The data show strong demand for electricians, HVAC technicians, industrial machinery mechanics, construction managers, and logistics professionals. Policymakers should view apprenticeships, technical colleges, and industry certifications as central workforce strategies rather than secondary alternatives to traditional academic pathways.

4. Support Reskilling of Clerical Workers. Many occupations experiencing decline involve office support, bookkeeping, data entry, customer service, and administrative work. Reskilling programs targeting digital literacy, project management, healthcare support, logistics, and information technology could reduce displacement and improve workforce resilience.

5. Align Funding with Occupational Demand. Perhaps the most important finding is that occupational demand increasingly reflects the intersection of education and specialization. Workforce investments that merely increase educational attainment without considering occupational demand may produce weaker returns. Stronger alignment between educational programs and projected labor market needs could improve both economic mobility and workforce competitiveness.

Conclusion

The projections suggest that the workforce of 2035 will reward both advanced academic preparation and specialized technical training, while increasingly reducing opportunities in routine clerical and transactional occupations. The most successful workforce policies will therefore be those that connect educational attainment directly to high-growth occupational pathways, particularly in healthcare, technology, skilled trades, infrastructure, and human services. Rather than viewing education and workforce development as separate systems, the data indicate they are becoming increasingly intertwined, with educational pathways serving as the primary mechanism through which workers gain access to expanding sectors of the economy.

SOURCE: <https://www.bls.gov/ooh/most-new-jobs.htm>



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