AMERICAN INNOVATORS:

AMERICA'S NEXT TECH

UPGRADE







Our nation's future economic success, growth, and competitiveness depends on a thriving and innovative technology sector. Every company is a tech company and data-driven innovation is the foundation of businesses across the country.

The Chamber Technology Engagement Center (C_TEC) tells the story of technology's role in our economy and advocates for rational policy solutions that drive economic growth, spur innovation, and create jobs.

The U.S. Chamber of Commerce is the world's largest business federation representing the interests of more than 3 million businesses of all sizes, sectors, and regions, as well as state and local chambers and industry associations.

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EXECUTIVE SUMMARY

Technology is changing how we connect to each other, solving complex challenges with data, and making transportation safer. Technology is expanding—not replacing—opportunities for Americans to work, granting them flexibility via new work models in the gig economy, expanding the job pool through the creation of data centers, and helping workers train and develop new skills. America's technology sector accounts for 6.5% of total U.S. GDP, directly employs 5.9 million works and indirectly supports 33.8 million jobs. As more traditional companies embrace technologies and become technology companies themselves, they too will enable economic and job growth. In order for the U.S. to reap the benefits of the 21st century technology workforce, the U.S. Chamber's Technology Engagement Center ("C_TEC") believes that policymakers must 1) embrace innovative and flexible work structures to power the gig economy; 2) modernize the nation's immigration laws; 3) partner with the private sector to upskill America's workforce; and 4) encourage the deployment of data centers.



^{1.} Michael Turner, et al., *Data Flows, Technology & the Need for National Privacy Legislation*, at 11–12 (July 11, 2019) *available at https://americaninnovators.com/wp-content/uploads/2019/07/CTEC DataPrivacyReport v5-DIGITAL.pdf.*

ENABLING THE GROWTH OF THE GIG ECONOMY

In the past decade, modern day gig economy platforms have exploded in popularity for consumers and workers and has created novel business models in transportation, package delivery, and grocery and restaurant delivery. While the idea of independent workers has existed for centuries, the modern gig economy, enabled by technologies such as global positioning systems ("GPS") and smartphones, matches workers to consumers and allows the easy provision of on-demand services.

Both consumers and independent workers have significantly benefited from the modern gig economy. Consumers have access new, on-demand services and that makes it easier for them travel and purchase food and goods. Ridesharing through companies such as Lyft and Uber increases the mobility of an individual if they do not own a personal vehicle and if alternative and safe transportation options are lacking. Likewise, the rise of grocery delivery through new entrants such as Instacart enables consumers who are elderly, disabled, or busy parents to seamlessly purchase groceries without needing to navigate a grocery store. Finally, companies such as Doordash, Postmates, and UberEats have empowered consumers to access new restaurants and provide those restaurants with a new base of customers.

The modern gig economy has also been an incredible boon for independent gig workers, primarily due to the incredible amount of flexibility and autonomy offered by these platforms. In fact, 71% of independent workers prefer the flexibility afforded by being an independent contractor compared the benefits of being an employee. Flexibility is essential for workers that are juggling childcare, elderly parents, other jobs, and/or many other responsibilities. Moreover, in challenging economic times, the gig economy can act as a temporary safety net for workers as they seek to upskill or find new, permanent work.



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However, as the gig economy has rapidly grown over the last five years, threats to the success of the gig economy have also multiplied. Most notably is AB-5 in California, codifying the California Supreme Court's decision in *Dynamex v. Superior Court*, which established a restrictive version of the ABC test to determine whether a worker is an employee or independent contractor.³ Under AB-5, more than 2 million workers were

^{2.} Global Strategy Group "Independent Contractor Classification Survey Findings" (Aug. 2020). Available at https://assets.morningconsult.com/wp-uploads/2020/08/23134151/Global-Strategy-Group-Memo-Inde-pendent-Contractor-Attitudes-on-Classification-08.19.20.pdf.

^{3.} A.B. 5, 2019-2020 Reg. Session. (Ca. 2019).

initially reclassified as employees, which impacted occupations ranging from musical artists to freelance journalists. Amendments to AB-5 have scaled back the law in regards to some occupations, but it will still have the potential to adversely impact the gig economy. The law could lead to reduced opportunities for gig workers and higher costs and limited service for consumers once it becomes fully enforced. Recently, there was been an uptick in interest to include an AB-5 style ABC test in federal statute through several bills, most notably the Protecting Right to Organize ("PRO") Act (H.R. 2474/S. 1306), the Worker Flexibility and Small Business Protection Act (H.R. 8375/S. 4738). Act, which would impose an anti-gig worker laws across the entire country.

RECOMMENDATIONS

Policymakers should take the following actions to protect the gig economy and provide certainty for workers and consumers:

- Enact legislation that provides targeted liability protections to gig companies that provide personal protective equipment, financial benefits, and other benefits to workers on their platform to mitigate the effects of the COVID-19 pandemic so that gig workers who receive this assistance can retain flexibility as independent contractors.
- Enact legislation that creates an opt-in program to enable gig companies to provide a suite of benefits for gig workers while ensuring that those workers can maintain their flexibility and autonomy as independent contractors.
- Oppose any legislation or regulation, such as the PRO Act (H.R. 2474/S. 1306) or the Worker Flexibility and Small Business Protection Act (H.R. 8375/S. 4738), that would apply a AB–5–type ABC test on the gig economy.

^{4.} Protecting the Right to Organize Act, H.R. 2474/S. 1306, 116th Cong. (2019); Worker Flexibility and Small Business Protection Act, H.R. 8375/S. 4738, 116th Cong. (2020).

UPSKILLING & RESKILLING TO REMAIN COMPETITIVE

In order for the nation to remain competitive in an ever–changing business environment, it will become necessary for workers to be prepared for changing roles and developing new skills. A study by the U.S. Chamber of Commerce Foundation found that just prior to the pandemic, there are 0.88 American workers available for each job opening, and 28 states had more open jobs than available workers to fill them.⁵

To bridge the skills gap, the Chamber has proposed three solutions that do not require governmental policy changes and are led by the private sector: 1) increase upskilling initiatives for current employees; 2) develop educational programs in the business community to strengthen talent pipelines, and 3) improve alignment between educational program curricula and the skills needed in the marketplace.

^{5.} U.S. Chamber of Commerce Foundation, "Hiring in the Modern Talent Marketplace" (2020), available at https://www.uschamberfoundation.org/sites/default/files/2020 USCCF ModernTalentMarketplaceHiring. pdf

^{6.} Suzanne Clark, "Closing the Skills Gap" Above the Fold (Aug. 14, 2020) available at https://www.uscham-ber.com/series/above-the-fold/closing-the-skills-gap

UPSKILLING WITH TALENT PIPELINE MANAGEMENT⁷

In today's labor market, long-term talent strategies are often over-shadowed by the critical short-term needs of today and tomorrow. While immediate hiring needs are often the most pressing issues for human resources departments, strategies like the U.S. Chamber of Commerce's Talent Pipeline Management® ("TPM") can help businesses solve common pain points—unfilled job openings, exorbitant training and onboarding costs, and attrition—and talent gaps collaboratively. TPM® provides businesses the tools and structure for a future–forward approach to long-term, sustainable hiring practices that avoid an ongoing, singular focus on triaging immediate needs.

TPM employer collaboratives⁸ give businesses an opportunity to communicate with a coordinated, regional industry voice to send clear signals to education and training partners about what skills are required for critical positions,⁹ both for new and current workers.



- 7. U.S. Chamber of Commerce Foundation and Talent Pipeline Academy "Upskilling with Talent Pipeline Management," (January 2020) (excerpts taken) available at https://www.uschamberfoundation.org/sites/de-fault/files/2020USCCF TPMUpskillReport.pdf.
- 8. Strategy 1, Organize Employer Collaboratives, TPM Academy *available at* https://tpmacademy.uscham-berfoundation.org/wp-content/uploads/2019/10/Center-for-Education-and-Workforce-TPM Strategy1_FINAL.pdf.
- 9. Strategy 3, Communicate Competency and Credential Requirements, TPM Academy available at https://tomacademy.uschamberfoundation.org/wp-content/uploads/2019/10/Center-for-Education-and-Workforce-TPM_Strategy3_FINAL.pdf.

UPSKILLING AND RESKILLING FOR TODAY'S ECONOMY

A full TPM approach relies not only on improving the pipeline of talent that has yet to walk through the company's door, but also on long-term strategies for backfilling, upskilling, career pathway development, and succession planning. Companies that make upskilling and reskilling a priority will remain competitive as industry adapts to changes in technology, and as competition for talent increases. While businesses should recognize the value of both new employee perspectives and those that are already within their ranks, a company's growth mindset should also be equally reflected in its professional development or personal growth practices.

Organizations like the Chamber Foundation and the Aspen Institute are working with business leaders to expand opportunities for workers and help our communities and economy thrive through intentional incumbent workforce upskilling. And for good reason—investment in upskilling and reskilling produces skilled, successful employees,



increases employee attraction and retention, and can save money otherwise focused on recruitment efforts. Through TPM's focus on building talent supply chains and measuring employer return on investment, ¹⁰ employer collaboratives are improving key metrics like the number of qualified candidates for critical positions, time to full productivity (of new or existing staff), and cost of hire.

A TALENT ATTRACTION AND RETENTION TOOL

From a talent attraction perspective, many job seekers consider professional development opportunities a major selling point when deciding where to work. A Robert Half and Enactus survey of Generation Z workers (born 1990 to 1999) indicated that 91% of respondents saw professional development support as a key factor in their decisions when selecting an employer. Coupling professional development with clear career pathways can produce a loyal, skilled, and motivated team. It can also improve retention. A workforce that feels well prepared for their jobs and experiences company investment in their professional futures is a committed workforce.

THE BOTTOM LINE

Upskilling an incumbent workforce costs money, but it is often less expensive than the aggressive recruitment strategies required for occupations with skills that are in high demand. And unfilled jobs cost both productivity and money. Results from a 2016–2017 Career Builder survey reported that nearly 60% of U.S. employers had job openings

^{10.} Strategy 5, Build Talent Supply Chains, TPM Academy *available at* https://tpmacademy.uschamberfounda-tion.org/wp-content/uploads/2019/10/Center-for-Education-and-Workforce-TPM_Strategy5_FINAL.pdf.

^{11.} Robert Half, "The Secrets of Hiring and Managing Gen Z," available at https://www.roberthalf.com/research-and-insights/workplace-research/the-secrets-to-hiring-and-managing-gen-z.

remain vacant for at least 12 weeks. 12 In this study, HR managers reported incurring average annual costs of more than \$800,000, caused by vacancies.

Backfilling a less senior, entry-level role vacated by an upskilled and promoted internal candidate is often easier than filling roles that require specialized skills and experience with an external candidate. Companies that look internally to fill their pipeline for critical positions are likely to have workers in those roles reach full productivity faster and more efficiently. TPM's strategy that focuses on analyzing talent flows, ¹³ can help businesses discover where their most successful talent is coming from, including analyzing internal talent flows that highlight the training and education experiences which have led incumbent talent to be successful in their jobs.

Furthermore, workers who are already a part of a company's culture and understand its operations have a perspective that—combined with newly hired talent with a fresh perspective—can accelerate productivity and promote effective knowledge transfer.

Through the U.S. Chamber Foundation's TPM web tools, employer collaboratives can measure these key metrics as they work with preferred education and training providers to expand and improve the talent pipeline that possesses the competencies and credentials¹⁴ required to meet business demand.¹⁵

Additionally, companies can take steps internally to provide a variety of opportunities for upskilling through micro-learning, virtual access to training, tuition assistance, and partnerships with key training organizations and education institutions. Often, both federal and state funding support is available to qualified workers and businesses to supplement business investment in efforts to upskill an incumbent workforce.

^{12.} Career Builder, "The Skills Gap is Costing Companies Nearly \$1 Million Annually, According to a New Survey," (April 13, 2017) available at http://press.careerbuilder.com/2017-04-13-The-Skills-Gap-is-Costing-Companies-Nearly-1-Million-Annually-According-to-New-CareerBuilder-Survey.

^{13.} Strategy 4, Analyze Talent Flows, TPM Academy *available at* https://tpmacademy.uschamberfoundation.org/wp-content/uploads/2019/10/Center-for-Education-and-Workforce-TPM_Strategy4_FINAL.pdf.

^{14.} Supra n. 8.

^{15.} Strategy 2, Engage in Demand Planning, TPM Academy *available at* https://tpmacademy.uschamberfoun-dation.org/wp-content/uploads/2019/10/Center-for-Education-and-Workforce-TPM Strategy 2 FINAL.pdf.

As the economy changes, business cultures that support life-long learning to upskill and reskill the workforce will be those that remain competitive and relevant. This challenge is best met through long-term, coordinated pipeline development strategies that put business in the driver's seat. TPM provides businesses a structured process for collective talent solutions that improve both internal and external talent pipelines.

THE TECHNOLOGY INDUSTRY RESPONDS

Technology companies are stepping up during this critical time to ensure that America's workforce is prepared for the 21st century digital economy. Policymakers must adopt a robust strategy that brings together the talents of the nation's leading companies. Tech companies, for example, have developed both software and programmatic training to bridge the skills gap necessary to power a tech-driven economy.

- IBM founded in 2020, Open Pathways for Technology Early College High School ("OPEN P-TECH"), an online resource which will help Americans develop technical knowledge, aimed at those 14 to 20 but freely available to all.¹⁶
- Infosys established six Technology and Innovations Centers in Indiana, North Carolina, Connecticut, Rhode Island, Texas, and Arizona. Part of its programming to upskills the workforce is its Reskill and Restart program, which is designed to recruit and train employees. Reskill and Restart is a free online platform that connects employees, trainers, and potential employers and employs curated job-specific skills training.

^{16.} Kathryn Moody, "How IBM aims to bridge the upskilling gap," HR Dive (March 31, 2020) available at https://www.hrdive.com/news/ibm-bridge-the-digital-upskilling-gap-p-tech/575155/.

^{17.} Reskill and Restart, Infosys, available at https://www.infosys.com/reskillrestart-america.html

- Microsoft plans to help 25 million people acquire new digital skills through data to identify in-demand jobs, the provision of free access to learning paths, and low-cost certifications and free job-seeking tools.¹⁸
- Salesforce has pledged to train 500,000 Americans to get credentials in their software to prepare them for the work of the future. Salesforce's Pathfinder program, for example, is a four-month joint workforce training program to assist in certifying administrators and developers.¹⁹
- SAP during the COVID-19 pandemic has offered organizations free access to its Content Stream by Skill Soft, an online training resource.²⁰

REFORMING OUR NATION'S IMMIGRATION LAWS TO ENCOURAGE ECONOMIC GROWTH AND JOB CREATION

America's technological leadership in the new digital economy requires that American businesses have access to the best talent in the world to work, innovate, and create new technological products and services here in the United States. The nation that is the best at attracting global talent will be the one to lead in emerging technologies like

^{18.} Brad Smith, "Microsoft launches initiative to help 25 million people worldwide acquire the digital skills needed in a COVID-19 economy," Microsoft (June 30, 2020) available at https://blogs.microsoft.com/blog/2020/06/30/microsoft-launches-initiative-to-help-25-million-people-worldwide-acquire-the-digital-skills-needed-in-a-covid-19-economy/.

^{19.} Salesforce Pledges to Train 500,000 Americans for the Jobs of Today and Tomorrow, Salesforce *available* at https://www.salesforce.com/news/press-releases/2019/05/16/salesforce-pledges-to-train-500000-americans-for-the-jobs-of-today-and-tomorrow/

^{20.} Lara Albert, "A Wake-Up Call for Upskilling and Reskilling Your Workforce," SAP News Center (April 20, 2020), available at https://news.sap.com/2020/04/sap-content-stream-trial-upskill-reskill-workforce/

The nation that is the best at attracting global talent will be the one to lead in emerging technologies like artificial intelligence, 5G, internet of things, and transportation.



artificial intelligence, 5G, internet of things, and transportation. In order for the U.S. to maintain its position as a global leader in technology, our nation needs to modernize its archaic immigration system to meet the needs of the 21st century economy. The U.S. Chamber of Commerce has been, and will continue to be, a leader in promoting common–sense immigration policies for the country. The Chamber's immigration reform priorities include the following:

- Seeking legislation that will increase the annual quotas on employment-based visas, as well as instituting other reforms to employment-based visa programs that provide employers with the ability to meet their workforce needs in a timely manner.
- Thwarting administrative actions that unlawfully restrict employers from hiring or continuing to employ their legal immigrant and nonimmigrant workers and supporting regulatory and administrative policies that allow American businesses to satisfy their critical labor needs.
- Enacting much-needed improvements to our nation's border security efforts.

Protecting DREAMers and Temporary Protected Status ("TPS") recipients from losing their work authorization in the country and providing them with the legislative solution that allows them to obtain lawful status, so they can continue building their lives in America.

ENCOURAGING AMERICA'S DATA FACTORIES

Data centers are the 21st century digital economy's newest factory. Data centers are facilities that house computers that store and process data, anchor our nation's economic growth, bolster job creation, and enable globally competitive innovations. Data centers are critical to all businesses because they enable email and file sharing, productivity applications, customer relationship management, enterprise resource planning, create capacity for data analytics like artificial intelligence and machine learning, and enable network virtualization.²¹ Data centers are either directly operated by a company, managed by a third party, service multiple companies, or operate cloud computing.²²

^{21.} What is a Data Center, Cisco *available* at https://www.cisco.com/c/en/us/solutions/data-center-virtual-ization/what-is-a-data-center.html.

^{22.} Id.

Data centers will continue to have a massive economic impact on the U.S. economy, even during the COVID-19 pandemic. It has been projected that capital expenditures on data centers over the next five years will amount to \$200 million.²³ In 2017, C_TEC commissioned a study on the impacts of data centers to the economy and workforce. Summarizing the benefits that an individual data center provides, the report found that:²⁴

[w]hile being built, a typical data center employs 1,688 local workers, provides \$77.7 million in wages for those workers, produces \$234.5 million in output along the local economy's supply chain, and generates \$9.9 million in revenue for state and local governments. Every year thereafter, the same data enter supports 157 local jobs paying \$7.8 million in wages, injecting \$32.5 million into the local economy, and generating \$1.1 million in revenue to state and local governments.



Data centers also provide other indirect external benefits to communities such as modernized roads, power lines, water, and sewage systems. These benefits in turn encourage the addition of new data centers.²⁵

^{23.} Mike Robuck, "Report: Despite COVID-19 disruption in 2020, data centers capex poised to hit more than \$200B over next fives years," Fierce Telecom (July 24, 2020) available at https://www.fiercetelecom.com/telecom/report-despite-covid-19-disruption-2020-data-center-capex-poised-to-hit-more-than-200b-over.

^{24.} Nam D. Pham, *Data Centers: Jobs and Opportunities in Communities Nationwide* at 2 (June 15, 2017) available at https://americaninnovators.com/wp-content/uploads/2019/07/ctec_datacenterrpt_lowres.
pdf.

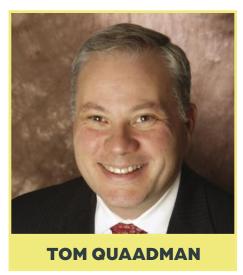
^{25.} Id.



CONCLUSION

America's technology sector relies on nimble, upskilled, and adaptable workforce to grow and continue to provide opportunities for millions of Americans. Technology can also enable new business models and products, such as the gig economy and data centers. Enabling flexible work structures, such as the gig economy, updating our nation's immigration laws, and strengthening public-private partnerships to upskill the workforce should be key priorities embraced by policymakers.

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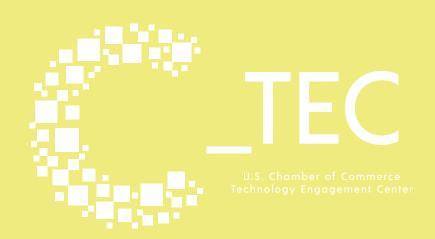


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