

Submission
No 44

**INQUIRY INTO IMPACT OF TECHNOLOGICAL AND
OTHER CHANGE ON THE FUTURE OF WORK AND
WORKERS IN NEW SOUTH WALES**

Organisation: Forrester Research Inc

Date Received: 8 March 2021

Future Jobs: Australia's Automation Dividends And Deficits, 2020 To 2030

A Future Of Jobs Series Report

by Sam Higgins, Satish Meena, and J. P. Gownder
February 22, 2021

Why Read This Report

While the advent of AI and robotics will inevitably lead to job losses or automation deficits, these forces will affect different occupations at different times and in different ways. To help you better understand the progress of automation's effect on work, this report defines, quantifies, and ranks 12 personas that encompass nearly 400 occupations tracked by the Australian Bureau of Statistics. CEOs, CIOs, HR leaders, enterprise architects, and government policymakers in the region can use this taxonomy to plan for the very different workforce that will exist in 2030.

Key Takeaways

One In Two Cubicle Jobs Will Be Gone By 2030

Human workers who perform highly structured tasks and mostly work in cubicles — such as coordinators and low-wage administrative and support workers — won't fare well.

Knowledge Diversity, Digital Skills, And Human Empathy Will Protect 110 Occupations

Human-touch workers, cross-domain knowledge workers, digital elites, and teachers and other “explainers” are best positioned for job security.

The Predicted Job Declines Won't Account For All Potential Evacuees

Australia must maintain its leading policies for social entrepreneurship as digital outcasts and mission-based workers exit the traditional workforce in large numbers.

Future Jobs: Australia's Automation Dividends And Deficits, 2020 To 2030

A Future Of Jobs Series Report

by [Sam Higgins](#), [Satish Meena](#), and [J. P. Gownder](#)
with [Michael Barnes](#), [Seles Sebastin](#), and [Bill Nagel](#)
February 22, 2021

Table Of Contents

- 2 [Australia's Job Market Will Shrink By 11% By 2030](#)
[The Structure Of Australia's Labor Market Has Already Contributed To Automation Deficits](#)
- 9 [Automation Will Create 1.7 Million New Jobs In Australia By 2030](#)
[Knowledge Diversity Will Keep 27% of Australian Workers Safe](#)
[The Impact Of Automation Is Coming For Half Of Australian Workers](#)
[Today's Automation Technology Will Eliminate 1 Million Task-Based Cubicle Jobs First](#)
[Six Percent Of Australians Will Seek To Align Personal Values And Lifestyles With Work](#)

Recommendations

- 19 [Focus On EX To Foster A Better Culture For Automation](#)

Related Research Documents

- [The CEO's Guide To The Future Of Work](#)
- [Future Jobs: Plan For The Impact Of Automation On Your Workforce Now](#)
- [Future Jobs: Plan Your Workforce For Automation Dividends And Deficits](#)



Share reports with colleagues.
Enhance your membership with Research Share.

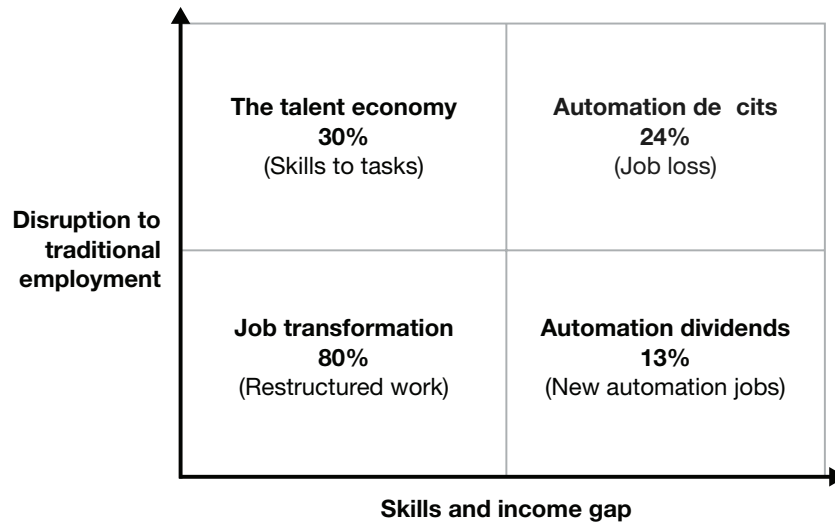
Forrester Research, Inc., 60 Acorn Park Drive, Cambridge, MA 02140 USA
+1 617-613-6000 | Fax: +1 617-613-5000 | [forrester.com](#)

© 2021 Forrester Research, Inc. Opinions reflect judgment at the time and are subject to change. Forrester®, Technographics®, Forrester Wave, TechRadar, and Total Economic Impact are trademarks of Forrester Research, Inc. All other trademarks are the property of their respective companies. Unauthorized copying or distributing is a violation of copyright law. Citations@forrester.com or +1 866-367-7378

Australia's Job Market Will Shrink By 11% By 2030

Automation is radically reshaping work across the globe — but hype clouds the discussion. Alarmists say that half of all jobs will disappear; technologists can't wait for the robots to arrive; policymakers are nervous; and business leaders see opportunity everywhere.¹ In any case, automation will effect real change in how we get things done to make the future of work a reality today. Leaders must plan for the transformation or displacement of human work; by 2030, Australia's overall job market will shrink by 11%, or 1.5 million workers (see Figure 1).² Some jobs will be lost (deficits); others will be created (dividends); still others will transform, with one in three workers moving to the contingent labor force, taking side gigs from marketplaces.³ People unable or unwilling to make the transition will depart the traditional workforce entirely. Accompanying these digital outcasts will be a wave of mission-based evacuees seeking a more values-aligned work life.

FIGURE 1 Four Options Are Emerging For The Future Of Work



Source: Forrester forecasts and Australian Bureau of Statistics

The Structure Of Australia's Labor Market Has Already Contributed To Automation Deficits

Forrester previously analyzed over 800 occupations tracked by the US Bureau of Labor Statistics and grouped them into 12 automation personas sharing common skills and activities.⁴ Automation will affect job categories in each of these personas in a similar manner over time.⁵ For Australia, we grouped 391 occupations into these personas and compared the results with the US to identify the most affected roles (see Figure 2).⁶ We identified the underlying job market differences, finding that:

Future Jobs: Australia's Automation Dividends And Deficits, 2020 To 2030

A Future Of Jobs Series Report

- **Australia's high minimum wage has driven job optimization.** Real wages have remained above average for the past two decades; Australia has the highest hourly minimum wage of all OECD countries.⁷ High minimum wages can discourage companies from excess hiring for some roles and push them to automate where cheap, low-skilled labor is not available.⁸ Australia's consistently high minimum wage means that some categories of low-skilled roles have already felt the impact of automation.
- **The US has a higher proportion of location-based workers affected by automation.** About 21% of the US workforce is location-based workers, compared with 17% in Australia (see Figure 3). Location-based workers include those who depend on a unique physical environment like a retail store. These are typically low-wage jobs in the US, and very likely to be affected by automation. The lower proportion of location-based workers means that the overall automation deficit impact of this cohort will be lower in Australia than in the US.
- **COVID-19 accelerated the decline of location-based jobs.** Pandemic-related disruption increased the percentage of families without an employed person by 11.5% in the 12 months ending in June 2020.⁹ The unemployment rate peaked at 7.5% in July 2020, up from 5.3% in March; we expect it to remain high over the next 12 months due to constrained economic growth. As a result, location-based jobs — the second largest job category in Australia — will decline, not only due to automation but also as a result of slow recovery in sectors like retail, restaurants, and travel.¹⁰

Future Jobs: Australia's Automation Dividends And Deficits, 2020 To 2030

A Future Of Jobs Series Report

FIGURE 2 Twelve Personas Help Define The Impacts Of Automation

Traditional economy workers	Pro le/de nition	Example	Roles most affected by automation	
Knowledge work	Cross-domain knowledge workers	Workers determine tasks, ideas, priorities, artistic contributions, and goals, with insights and decisions they draw from multiple knowledge domains.	Emergency room physician	<ul style="list-style-type: none"> • Advertising and promotion managers • Construction managers • Market research analysts/marketing specialists • Lawyers • Management analysts
	Single-domain knowledge workers	Workers determine some tasks, priorities, and goals and draw from a single knowledge domain for insights and decisions.	Actuarial	<ul style="list-style-type: none"> • Surveying and mapping technicians • Police and sheriff's patrol officers • HR managers • Financial managers • Computer hardware engineers
	Function-specific knowledge workers	Structured and semistructured tasks (e.g., compiling, categorizing, calculating, auditing, or verifying information) are organized around a discrete function.	Insurance underwriter	<ul style="list-style-type: none"> • Educational, guidance, school, and vocational counselors • Loan officers • Plant and system operators • Compliance officers • Environmental science and protection/health technicians

Future Jobs: Australia's Automation Dividends And Deficits, 2020 To 2030

A Future Of Jobs Series Report

FIGURE 2 Twelve Personas Help Define The Impacts Of Automation (Cont.)

Traditional economy workers	Pro le/de nition	Example	Roles most affected by automation	
Frontline work	Physical workers	Workers perform physical activities that require arms, legs, and moving the body, such as climbing; lifting; walking; stooping; and scaling ladders, scaffolds, or poles.	Factory worker	<ul style="list-style-type: none"> • Heavy and tractor-trailer truck drivers • Septic tank servicers and sewer cleaners • Electricians • Carpenters • Light truck or delivery drivers
	Human-touch workers	Workers perform tasks like personal assistance; medical attention; and emotional support to patients, coworkers, or customers requiring physical contact, often combined with oral communication.	Massage therapist	<ul style="list-style-type: none"> • Registered nurses • Healthcare support workers • Childcare workers • Medical assistants • Hairdressers, hairstylists, and cosmetologists
	Location-based workers	Workers depend on a unique physical environment, e.g., a retail store or secured office building. Physical environments define their jobs.	Retail store clerk	<ul style="list-style-type: none"> • Retail salespersons • Cashiers • Nonrestaurant food servers • Waitstaff • Chefs and head cooks

Future Jobs: Australia's Automation Dividends And Deficits, 2020 To 2030

A Future Of Jobs Series Report

FIGURE 2 Twelve Personas Help Define The Impacts Of Automation (Cont.)

Traditional economy workers	Pro le/de nition	Example	Roles most affected by automation	
Administrative work	Coordinators	Tasks include administrative, staffing, monitoring, or controlling activities, e.g., for managing fleets; spending money; and providing information to supervisors, coworkers, or subordinates.	Fleet manager	<ul style="list-style-type: none"> • Managers • First-line supervisors of office admin staff • Social and community service managers • First-line supervisors of retail sales workers • Transportation, storage, and distribution managers
	Cubicle workers	Workers perform repetitive, structured tasks in back-office and front-office positions, including workers in low-cost economies fulfilling contact center (phone) or BPO (data entry) functions.	Accounts payable administrator	<ul style="list-style-type: none"> • Receptionists and information clerks • Office clerks • Bookkeeping, accounting, and auditing clerks • Accountants and auditors • HR, training, and labor relations specialists
Emerging models of work	Mission-based workers	Workers believe that job satisfaction, work/life harmony, and alignment with their values and needs are important work considerations.	Yoga instructor	

Future Jobs: Australia's Automation Dividends And Deficits, 2020 To 2030

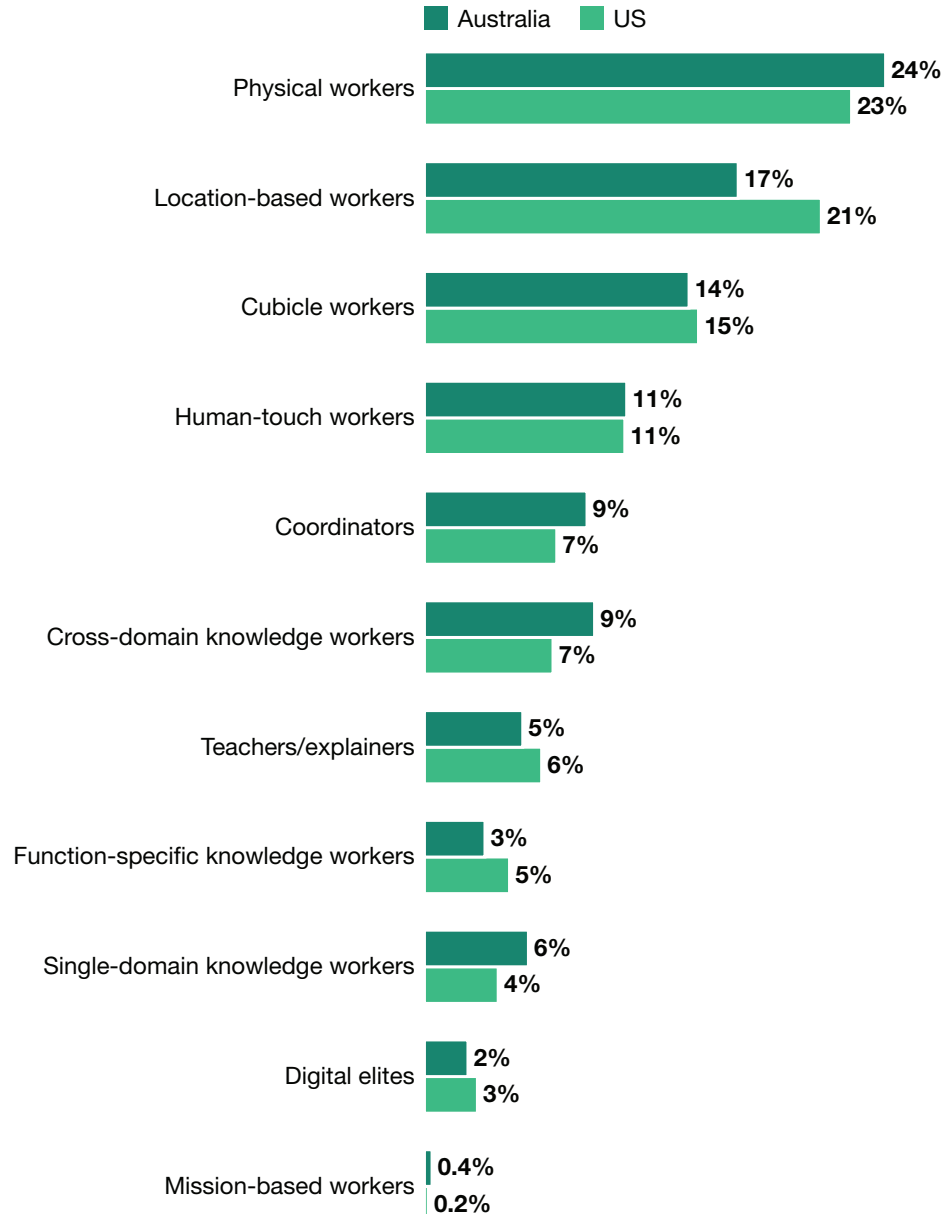
A Future Of Jobs Series Report

FIGURE 2 Twelve Personas Help Define The Impacts Of Automation (Cont.)

Traditional economy workers	Profile/definition	Example	Roles most affected by automation	
Emerging models of work	Teachers/explainers	These workers know how to design curricula, teach, and instruct individuals or groups or can present machine logic and decisions.	Knowledge-based curator	<ul style="list-style-type: none"> • Teachers and instructors • Elementary school teachers, except special education • Secondary school teachers, except special and career/technical education • Post-secondary teachers • Preschool teachers, except special education
	Digital elites	Enterprise architects, software development pros, and ML algorithm specialists use computers and data modeling to process information.	Data scientist	<ul style="list-style-type: none"> • Software and app developers • Network and computer systems administrators • Database admins • Information security analysts, web developers, and computer network architects • Mathematicians
	Digital outcasts	These workers are unable to work effectively with machines or transition due to skills, attitudes, and ambitions.	Finance and accounting clerk	

Future Jobs: Australia's Automation Dividends And Deficits, 2020 To 2030

A Future Of Jobs Series Report

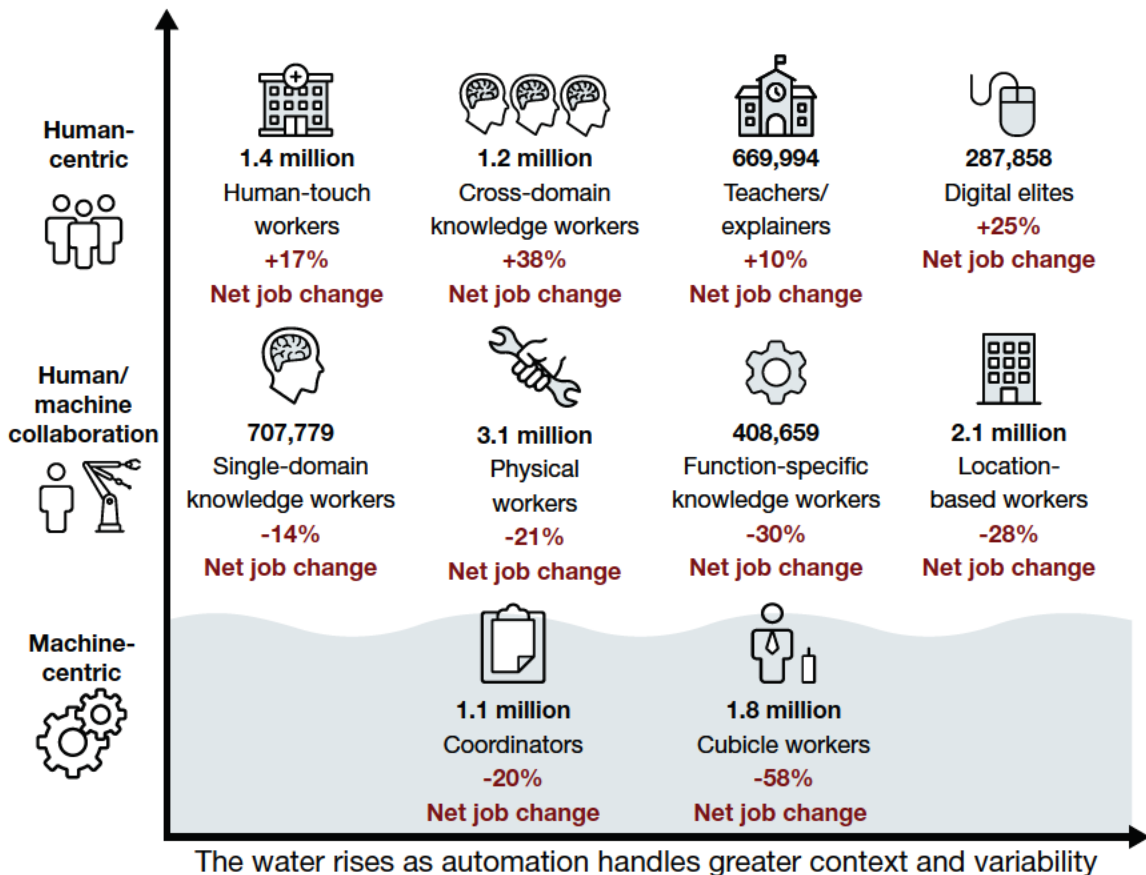
FIGURE 3 Job Distribution By Persona In Australia And The US

Source: US Bureau of Labor Statistics and Australian Bureau of Statistics

Automation Will Create 1.7 Million New Jobs In Australia By 2030

The last policy-driven analysis of the vulnerability of Australia’s job market to automation was done by the Regional Australia Institute in 2018.¹¹ But like many studies in the past five years — including that of the Australian Government’s Office of the Chief Economist — these models focus on the risks of automation deficits and don’t forecast actual job losses or potential demand for new automation-driven positions. As automation improves in context and variability, it takes on more human functions and creates dividends and deficits for each automation persona. As automation gets smarter, the impact increases, rolling in like a slowly rising tide and engulfing some jobs while lifting others (see Figure 4 and see Figure 5).

FIGURE 4 Automation Will Affect Personas At Different Rates



Note: Mission-based workers and digital outcasts are not shown; they are both components of the category of “evacuees” who have exited the typical jobs economy.
 Source: Australian Bureau of Statistics

Future Jobs: Australia's Automation Dividends And Deficits, 2020 To 2030
A Future Of Jobs Series Report

FIGURE 5 The Numbers Of Occupations And Workers Map Into Personas To Experience Job Loss And Gain

Worker automation segments	Number of occupations	Number of Australian workers	Changes in the number of jobs by 2030		
			Automation deficit	Automation dividend	Net change in jobs
Human-touch workers	39	1,367,441	-112,914	338,741	225,827
Cross-domain knowledge workers	44	1,156,611	-147,117	294,234	147,117
Digital elites	9	287,858	-23,511	94,045	70,534
Teachers/explainers	18	669,994	-32,552	97,656	65,104
Location-based workers	38	2,124,505	-645,043	60,572	-584,471
Physical workers	119	3,120,674	-733,582	66,689	-666,893
Single-domain knowledge workers	28	707,779	-115,492	14,436	-101,055
Function-specific knowledge workers	20	408,659	-136,263	15,140	-121,123
Coordinators	34	1,105,160	-246,563	27,396	-219,167
Cubicle workers	41	1,783,386	-1,119,245	92,415	-1,026,830
Mission-based workers ¹	New	50,000		656,206	706,206
Total:			-3,312,282	1,757,531	-1,504,751
Digital outcasts ¹		1,099,258			1,997,803

Source: Australian Bureau of Statistics

1. Mission-based workers and digital outcasts are both components of the category of “evacuees” who have exited the typical jobs economy. These workers will emerge from all 800-plus occupations.

Knowledge Diversity Will Keep 27% of Australian Workers Safe

Australia's 1.2 million cross-domain knowledge workers, representing 44 occupations, are safe due to the diverse skills their jobs require, such as identifying context and processing highly variable inputs. The need for superior human physical communication abilities and empathy will protect many human-touch workers. Across the human-centric personas, we project that (see Figure 6):

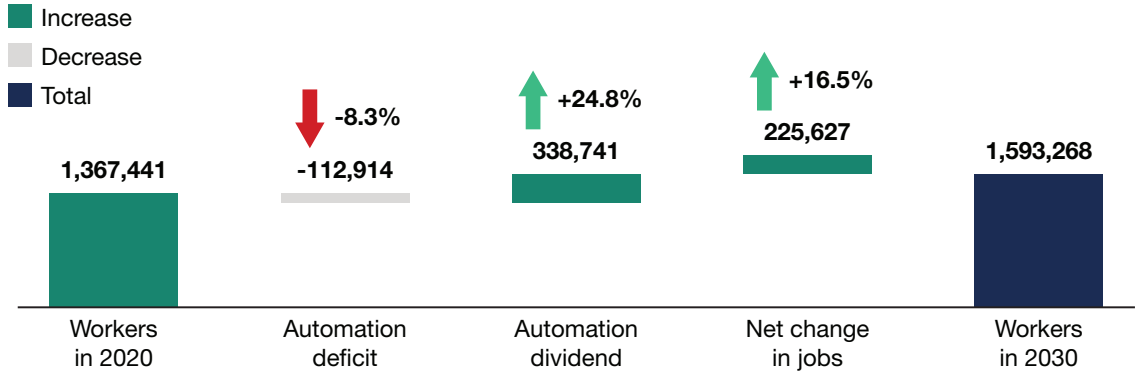
- **Demand for their abilities will boost the ranks of digital elites by 33%.** A shortage of skills to build new digital solutions will fuel massive growth in the few occupations in the digital elite cohort. Demand for tech specialists with skills in big data, process automation, human/machine interaction, robotics engineering, blockchain, and machine learning (ML) will offset the 8% of more traditional technology roles that can be fully automated by 2030.
- **Human-touch workers will benefit from augmentation.** The number and variety of allied health professionals, nurses, therapists, caregivers, and assistants who are the core of these 39 occupations will expand. These jobs require intuition, empathy, touching, and physical and mental agility — all tasks that today's machines are poorly suited for. Instead, human-touch workers will benefit from automation that reduces administrative burden and increases diagnostic accuracy.
- **The biggest transformation will occur in cross-domain knowledge work.** The jobs of nearly 13% of Australia's 1.1 million strategists, advisors, scientists, lawyers, and medical professionals will be automated by 2030. But machines struggle not only to address tasks requiring empathy, but also in making inferences across evolving and shifting information domains. The constant changes in these jobs' information domains makes building a cost-effective machine to replace them unlikely, resulting in net positive growth in this persona.

FIGURE 6 Employment In All Four Groups Of Human-Centric Occupations Will Rise By 2030

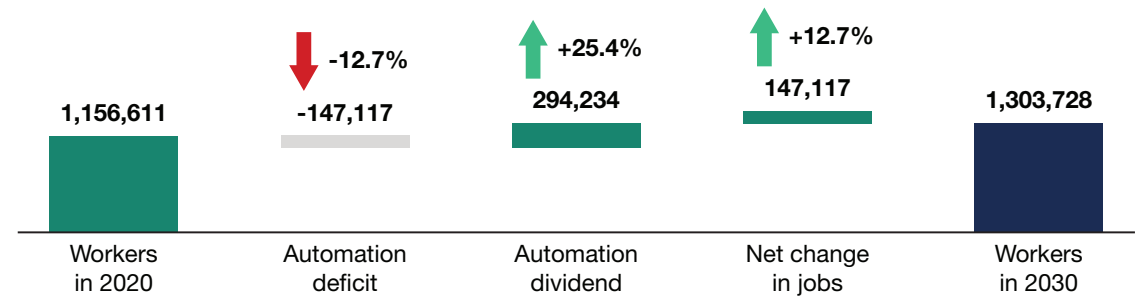
Human-centric occupations

3.5 million jobs; +14.6% net job change

Human-touch workers



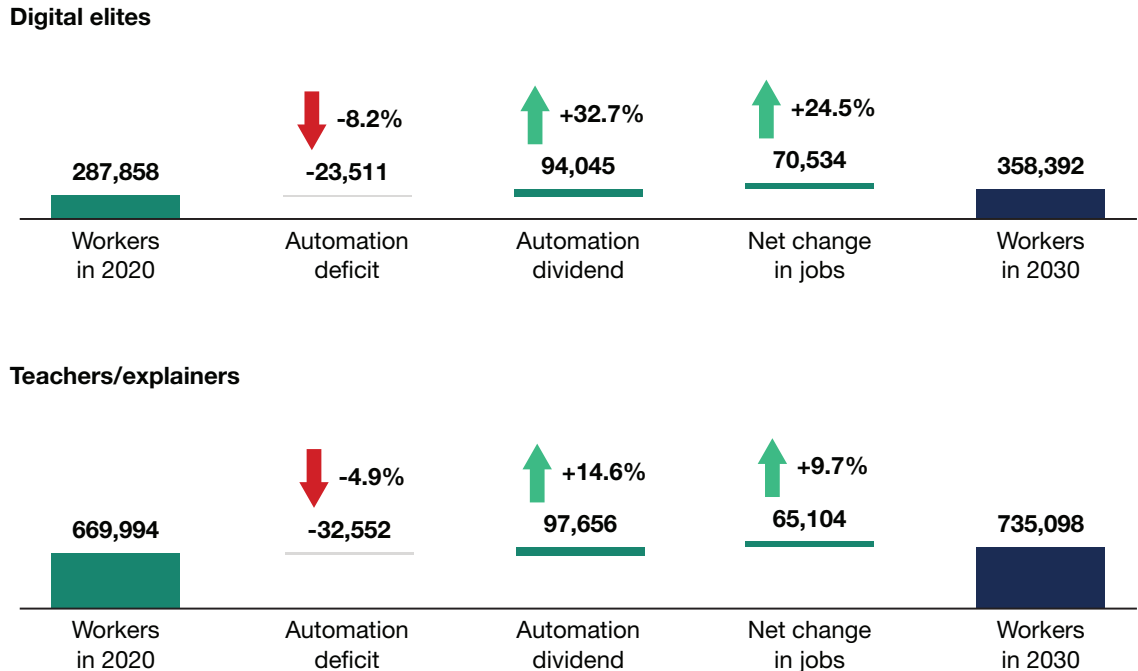
Cross-domain workers



Source: Australian Bureau of Statistics

Future Jobs: Australia's Automation Dividends And Deficits, 2020 To 2030

A Future Of Jobs Series Report

FIGURE 6 Employment In All Four Groups Of Human-Centric Occupations Will Rise By 2030 (Cont.)

Source: Australian Bureau of Statistics

The Impact Of Automation Is Coming For Half Of Australian Workers

Physical work, location-based work, and single-domain and function-specific knowledge work often involve less variable conditions and require less understanding of context than cross-domain or human-centric occupations. Due to their narrower scope, these jobs are more likely to be augmented by automation in the short term, a transformation accelerated by increasing digital and physical convergence and the rise in hybrid customer experiences as a result of measures taken to mitigate the spread of COVID-19.¹² For these personas facing near-term human/machine collaboration we predict that (see Figure 7):

- **Location-based workers, not those in physical jobs, are most at risk in the near term.** The number of people employed in the nearly 120 occupations centering on physical work continues to rise. While collaborative robots can amplify a workers' physical capabilities, farmers, factory workers, and construction workers are safer than it might seem. In contrast, location-based workers in retail, hospitality, and tourism who depend on a unique but stable physical environment are likely to have automation embedded into their surroundings. This human/machine collaboration across such a large range of related occupations will have a material impact: 21% of physical jobs and 28% of location-based jobs will disappear by 2030.

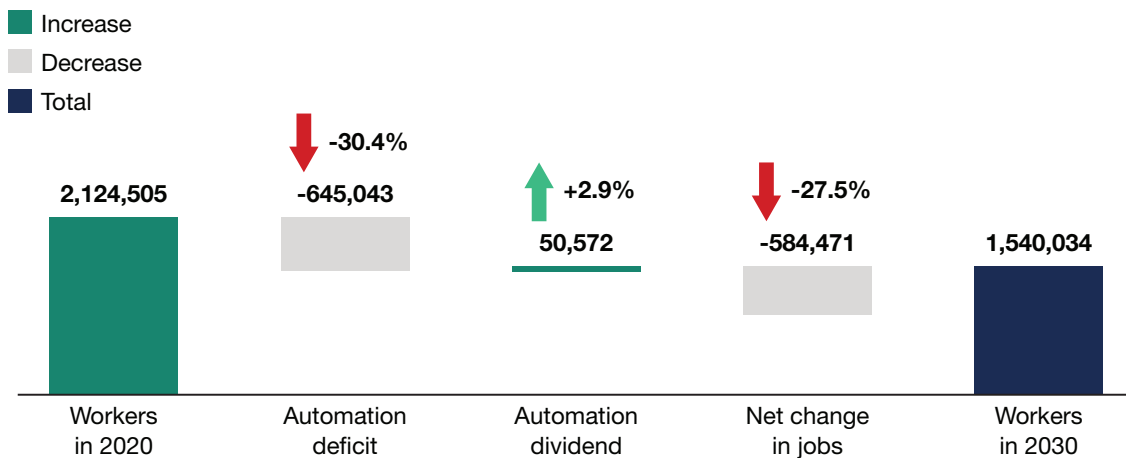
Future Jobs: Australia's Automation Dividends And Deficits, 2020 To 2030

A Future Of Jobs Series Report

- Function-specific workers are also at risk.** The tech industry is already targeting jobs that primarily involve making decisions based on a deep but narrow set of knowledge. Solving problems by making connections between known, constrained, updated, and repeatable variables is a task easily conquered by developers armed with the latest cloud-based AI/ML services. The function-specific workers in compliance, risk, and assessment across banking, insurance and production-oriented industries will be hardest hit; these 20 occupations will see a net reduction of almost 30% of jobs. In contrast, single-domain occupations such as chemical, civil, mechanical, and electrical engineering will benefit from collaboration with machines in the medium term, reducing the deficit to 14%.

FIGURE 7 Employment In Occupations Involving Human/Machine Collaboration Will Fall By Nearly 25%**Machine and human collaboration occupations**

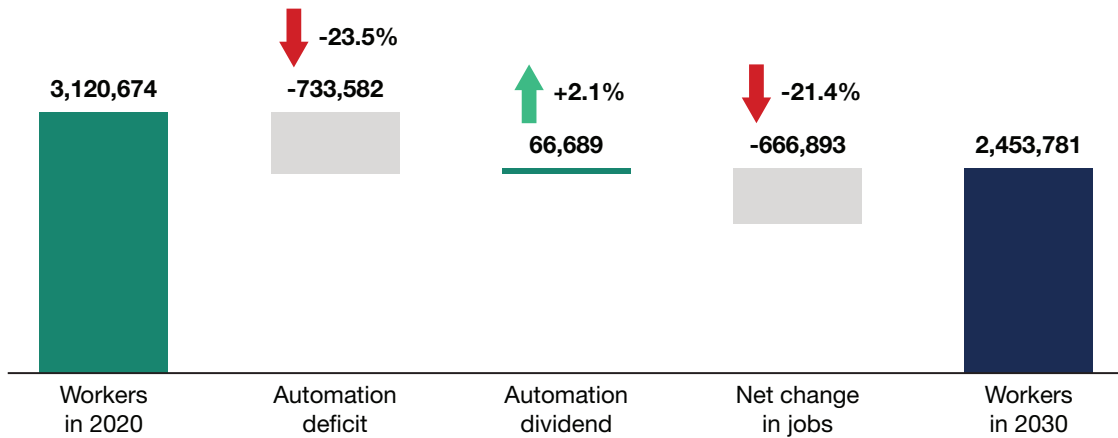
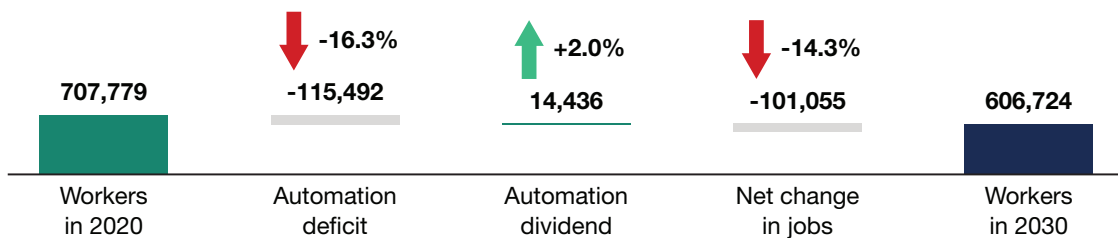
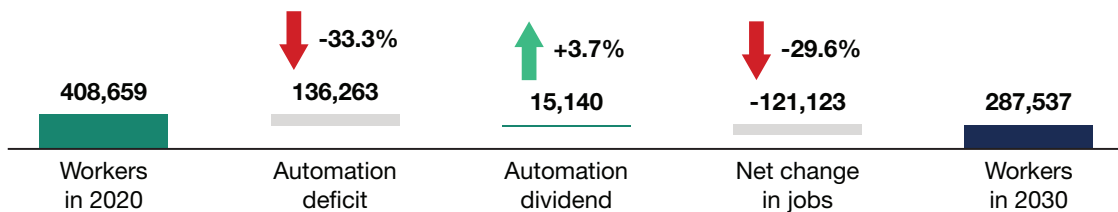
6.4 million jobs; -23.2% net job change

Location-based workers

Source: Australian Bureau of Statistics

Future Jobs: Australia's Automation Dividends And Deficits, 2020 To 2030

A Future Of Jobs Series Report

FIGURE 7 Employment In Occupations Involving Human/Machine Collaboration Will Fall By Nearly 25% (Cont.)**Physical workers****Single-domain knowledge workers****Function-specific knowledge workers**

Source: Australian Bureau of Statistics

Today's Automation Technology Will Eliminate 1 Million Task-Based Cubicle Jobs First

The pandemic shifted the psychology of automation overnight. Gone were the aspirational multiyear AI-driven transformations, replaced by practical recession-fighting tactics using general-purpose solutions like robotic process automation (RPA), text analytics, and supervised ML algorithms.¹³ Cubicle workers and coordinators are prime targets for these solutions, as their jobs largely consist of repetitive tasks and have narrow contexts that a machine can easily understand. Our analysis indicates that (see Figure 8):

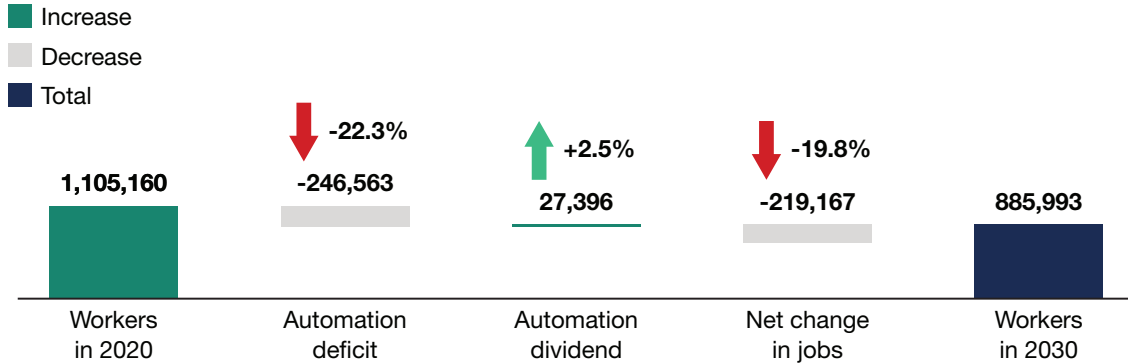
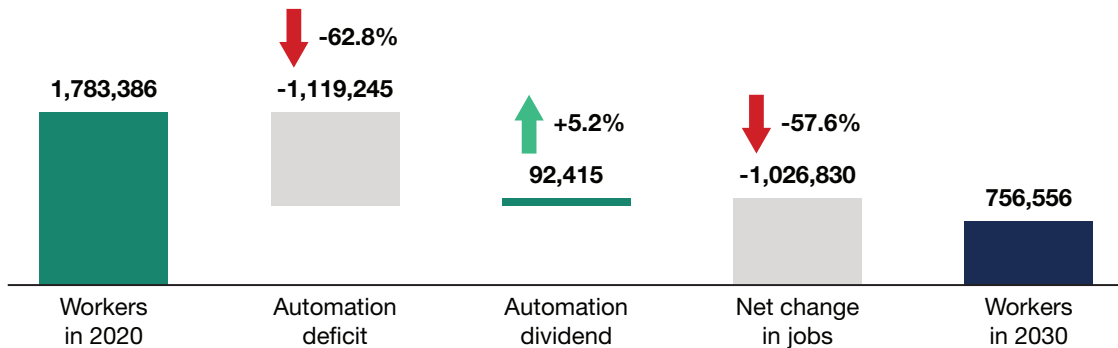
- **Coordinators in middle management will face questions about their value.** In Australia, 34 occupations focus on managing the tasks and efforts of others with the help of email, phones, and spreadsheets. But resource scheduling and performance monitoring are increasingly the domain of algorithms, causing this group to shrink by 22% by 2030. The need for people leaders to act as communicators and facilitators of organizational change will remain, but individuals with these skills are unlikely to be found in the ranks of Australia's 1.1 million command and control line managers.
- **Half of all cubicle worker jobs will disappear by 2030.** Administrative and support jobs in finance, accounting, and procurement — a total of 41 diverse occupations — are often structured, repetitive, and require no physical agility. This makes them ideally suited to automation; the small dividend of 5% in this group will be completely overwhelmed by the 63% of jobs lost to automation.

Future Jobs: Australia's Automation Dividends And Deficits, 2020 To 2030

A Future Of Jobs Series Report

FIGURE 8 Australia Will Lose Nearly Half Of Its Machine-Centric Occupations By 2030**Machine-centric occupations**

2.9 million jobs; -43.1% net job change

Coordinators**Cubicle workers**

Source: Australian Bureau of Statistics

Six Percent Of Australians Will Seek To Align Personal Values And Lifestyles With Work

In a 2019 Thomson Reuters Foundation poll of the world's top 45 economies, Australia ranked second in support for social entrepreneurship.¹⁴ Founders of social enterprises tell a common story of seeking purpose beyond traditional work. Maddy Jones and Gali Butcher used their experience and skill in social media, digital marketing communications, and events to create the insights-driven company The Good Box.¹⁵ But mission-based workers looking to find work/life harmony are not the only workers

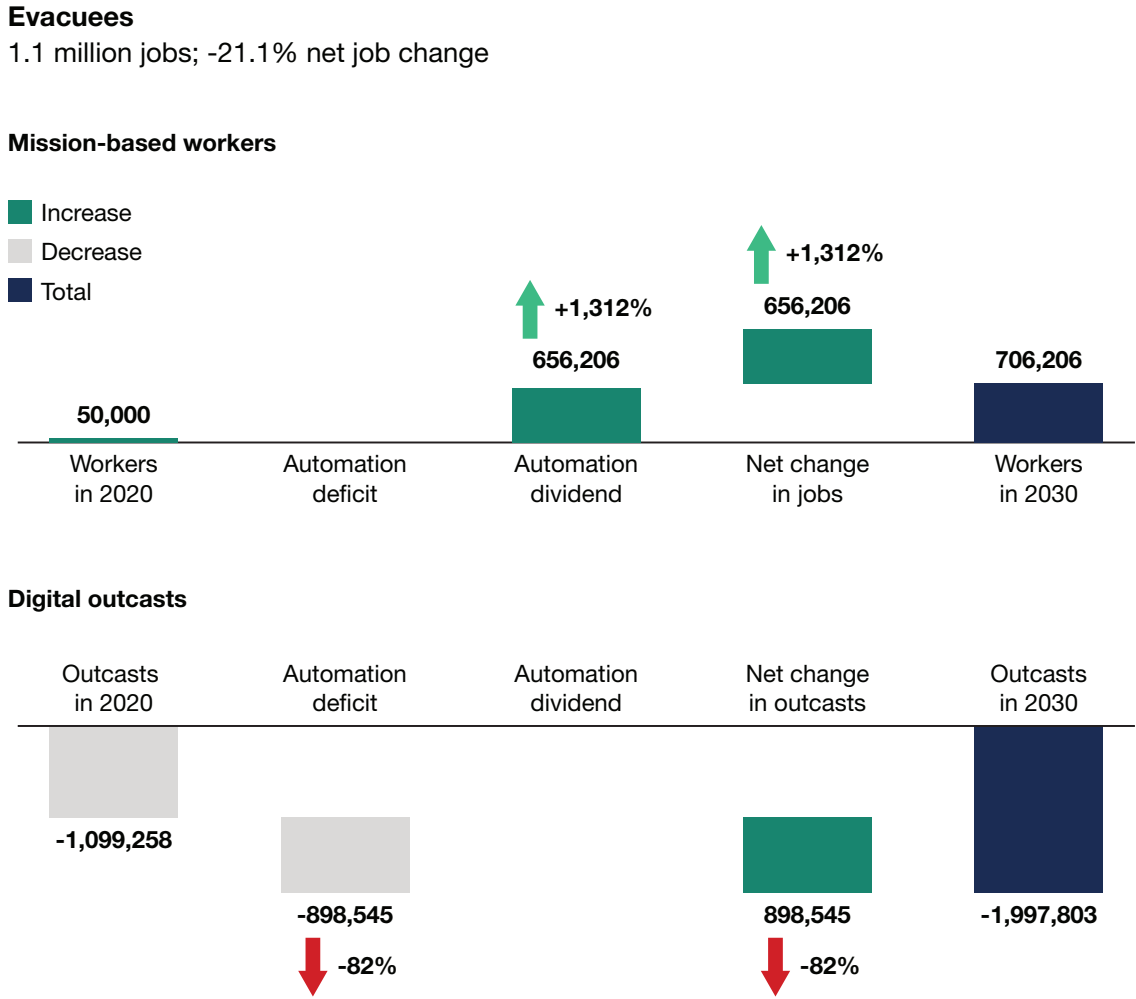
Future Jobs: Australia's Automation Dividends And Deficits, 2020 To 2030

A Future Of Jobs Series Report

whose future automation will change. Workers in heavily affected personas who lack the aptitude or attitude to shift to working with machines will also leave the traditional job market.¹⁶ In Australia, we expect that (see Figure 9):

- **Mission-based workers will become a significant new labor force.** We predict that Australia will boast more than 700,000 mission-based workers by 2030. Whether they're made redundant or discouraged by advancing automation, these individuals will adopt personal-centered, rather than work-centered, lives through charities, social enterprises, and health and well-being services. This new sector will require ongoing support to maximize the local and global opportunities its target markets represent.
- **Over 1 million workers may be left stranded beyond the next digital divide.** Without “constructive ambition” — an eagerness to learn and the emotional adaptability to perform as conditions evolve — there is a risk that some people will simply be unable to make the necessary transition. Policymakers and employers must learn how to minimize the number of digital outcasts by learning how to measure the ability of individuals and organizations to adapt to, collaborate with, trust, and generate business results from automated entities, including software like RPA, AI, physical robotics, and related systems.

FIGURE 9 The Rise In Mission-Based Workers Won't Be Enough To Offset The Jobs Lost By Digital Outcasts



Source: Australian Bureau of Statistics

Recommendations

Focus On EX To Foster A Better Culture For Automation

Automation was on a slow and predictable path to alter the workplace. But COVID-19 and the ensuing recession have accelerated the trends of remote working, use of contingent labor, and hollowing out of midlevel and lower-level jobs.¹⁷ In Australia, 37% of data and analytics decision-makers say that their firm is currently implementing automation technologies or plans to do so in the next 12 months.¹⁸ But these firms now face the challenge of heightened fear and panic resulting from the pandemic. Moreover, 34% say that some of their biggest challenges in adopting automation technologies relate to

Future Jobs: Australia's Automation Dividends And Deficits, 2020 To 2030

A Future Of Jobs Series Report

culture and change management.¹⁹ Australian enterprises need to ramp up their employee experience efforts and rethink retention and career management strategies to sustain the talent economy. CIOs and their enterprises need to:

- **Prepare, plan, and execute a plan specific to the organization's context.** The impact of automation will depend on what industry you operate in and who your customer is. While Australia has been losing manufacturing jobs since 2003 — more than 93,000 in 2015 alone — jobs in healthcare have increased by 50%. Be clear on where you will start and make sure to always connect back to business metrics. When Commonwealth Bank of Australia started its automation journey, it developed an automation and robotics center to act as the central capability for bank operations and make it easier to coordinate efforts.²⁰
- **Build a comprehensive change management plan.** Proactive leadership to manage the transition to a “new steady state” is key; without it, your grand plans can meet resistance, lack senior support, or lose momentum before they even start. Eliminating some workers and transitioning others into new roles requires support, transparency, and key stakeholders to be in charge. Without proper support, increased job churn could cause Australia's unemployment rate to rise by 2.5 percentage points.²¹
- **Help employees work *with* automation.** Australia's cubicle workers will experience the biggest deficit, with roles like receptionists, office clerks, accountants, and auditors most at risk. For change management to be effective, execs and senior leaders need to reflect on their leadership abilities. Forrester's Robotics Quotient (RQ) helps leaders understand how to change their strategies to become more flexible, transparent, and influential and drive results. Invest in functions that will help you improve, like learning and development, center of excellence, and change management capabilities oriented toward helping employees work side by side with robots.²²
- **Rethink how you retain and manage workers.** The workforce will be a mix of full-time employees and people with no formal ties to a company. Workers will move across roles and organizational boundaries more freely than ever. By 2030, Millennials will comprise 40% of the workforce; they need challenging tasks to stay engaged and want to perform meaningful work that contributes to more than just business profitability.²³ Reinvent your management and motivation models to accommodate changing organizational structures and demographic waves. Enterprise cultures and systems today are locked into an “owned talent” mentality and aren't prepared for this shift. Mission-based workers, digital elites, and outcasts must also be part of a new conversation.
- **Identify reskilling and upskilling opportunities quickly.** Many firms have taken a beating from COVID-19, experiencing job losses, restructuring, or new budget constraints. Some have instituted complete hiring freezes, even as others use the time to scale up rapidly.²⁴ Whatever kind of organization yours is, it's important to first review the talent you have and understand whether you're making the best use of it. The number of cubicle workers is expected to fall by 63% by 2030. While much of this will be uncontrollable, many employees have skills that can still help the

business. Someone who previously did a manual job is a subject-matter expert who can act as a botmaster, handling exceptions and teaching a team of bots to get better. Look for these bright spots and take the time now to help develop agile, innovative skill sets.

- **Benchmark your organization using RQ.** When your organization deploys AI, automation, or physical robotics to replace human labor, the amount of money you spend on technology and the vendor you choose to work with aren't the only considerations. Most of these efforts rise or fall on sociological and organizational fundamentals. Forrester's RQ model helps you look at the people (employees), leadership, and organizational fundamentals to invest in along this journey.²⁵ RQ links to employee experience, too — ensuring that the humans left behind can thrive and contribute.

Engage With An Analyst

Gain greater confidence in your decisions by working with Forrester thought leaders to apply our research to your specific business and technology initiatives.

Analyst Inquiry

To help you put research into practice, connect with an analyst to discuss your questions in a 30-minute phone session — or opt for a response via email.

[Learn more.](#)

Analyst Advisory

Translate research into action by working with an analyst on a specific engagement in the form of custom strategy sessions, workshops, or speeches.

[Learn more.](#)

Webinar

Join our online sessions on the latest research affecting your business. Each call includes analyst Q&A and slides and is available on-demand.

[Learn more.](#)



Forrester's research apps for iOS and Android.

Stay ahead of your competition no matter where you are.

Future Jobs: Australia's Automation Dividends And Deficits, 2020 To 2030

A Future Of Jobs Series Report

Endnotes

- ¹ A frequently cited 2013 study by two Oxford academics suggested that 47% of all jobs would be lost to automation and AI, although they only considered job losses and didn't specify a time frame. Source: Carl Benedikt Frey and Michael A. Osborne, "The Future Of Employment: How Susceptible Are Jobs To Computerisation?" September 17, 2013 (https://www.oxfordmartin.ox.ac.uk/downloads/academic/The_Future_of_Employment.pdf).
- ² Under pressure from automation, the traditional work environment will push today's workers into four categories. Talent economy and job transformation figures are Forrester estimates; job transformation figures refer to the overall percentages of US jobs to be reworked to integrate machine collaboration. Dividend and deficit projections are derived from Forrester's future-of-work model for Australia. See the Forrester report "[Future Jobs: Plan Your Workforce For Automation Dividends And Deficits.](#)"
- ³ While most observers focus on job losses, Forrester has calculated job losses, job gains, and job transformations from AI and automation since 2015. See the Forrester report "[The Future Of Jobs, 2027: Working Side By Side With Robots.](#)"
- Contingent labor and the talent economy are critical to building an adaptive enterprise, but employee experience must remain a key priority. See the Forrester report "[The Adaptive Workforce Will Drive The Future Of Work.](#)"
- ⁴ See the Forrester report "[Future Jobs: Plan Your Workforce For Automation Dividends And Deficits.](#)"
- ⁵ We used data from Frey and Osborne, O*NET, and the US Bureau of Labor Statistics and mapped over 800 occupations to 12 generic personas. For each persona, we estimated automation potential, created timelines for progression and disruption, and showed estimates for deficits, dividends, and evacuees. See the Forrester report "[Future Jobs: Plan For The Impact Of Automation On Your Workforce Now](#)" and see the Forrester report "[Future Jobs: Plan Your Workforce For Automation Dividends And Deficits.](#)"
- ⁶ We based our Australian forecast on data from Frey and Osborne, the Office of the Chief Economist's interpretation of the effect of Frey and Osborne's data on Australia's labor market, and job statistics for 2008 to 2020 from the Australian Bureau of Statistics. We also considered critical analysis of the Frey and Osborne model published by the Melbourne Institute.
- ⁷ Source: OECD (<https://stats.oecd.org/Index.aspx?DataSetCode=RMW>).
- ⁸ Source: Grace Lordan and David Neumark, "People Versus Machines: The Impact of Minimum Wages on Automatable Jobs," NBER, January 2018 (<https://www.nber.org/papers/w23667>) and "The Effect of Minimum Wage Increases on Wages, Hours Worked and Job Loss," Reserve Bank of Australia, September 20, 2018 (<https://www.rba.gov.au/publications/bulletin/2018/sep/the-effect-of-minimum-wage-increases-on-wages-hours-worked-and-job-loss.html>).
- ⁹ Source: "Rise in jobless families during the COVID period," Australian Bureau of Statistics press release, October 16, 2020 (<https://www.abs.gov.au/media-centre/media-releases/rise-jobless-families-during-covid-period>).
- ¹⁰ There is also the potential that, in overcoming a slow recovery, these same sectors launch additional automation initiatives. For example, QR-code enabled table service has been used to reduce the number of waitstaff while social distancing; this solution could continue post-pandemic, reducing the overall number of location-based workers required.
- ¹¹ Source: "Regional Job Automation Pack," Regional Australia Institute (<http://www.regionalaustralia.org.au/home/regional-job-automation-pack/>).
- ¹² See the Forrester report "[The New, Unstable Normal: How COVID-19 Will Change Business And Technology Forever.](#)"
- ¹³ See the Forrester report "[Your Automation Psychology And Roadmap Just Shifted Gears.](#)"
- ¹⁴ Source: "The best place to be a social entrepreneur 2019," Thompson Reuters Foundation (<https://poll2019.trust.org/>).

Future Jobs: Australia's Automation Dividends And Deficits, 2020 To 2030

A Future Of Jobs Series Report

- ¹⁵ Rather than assume what homeless people need, The Good Box surveys them to identify the exact items they require in a given location or season, resulting in offerings such as The Gals Box or The Good Pet Box. Donors select a box, which is then distributed by partners such as Orange Sky. Orange Sky was the world's first free mobile laundry service for people experiencing homelessness. Founders Nicholas Marchesi and Lucas Patchett were jointly named Young Australians of the Year in 2017. Source: "About Us," The Good Box (<https://www.thegoodbox.com.au/aboutus/>); James Fettes, "Young Australians of the Year see Orange Sky charity boom 12 months on from award," ABC News, January 24, 2017 (<https://www.abc.net.au/news/2017-01-24/young-australians-of-the-year-offer-advice-to-2017-nominees/8208554>); and "Our Story," Orange Sky Australia (<https://orangesky.org.au/our-story/>).
- ¹⁶ See the Forrester report "[RQ 2.0: Assess Your Readiness For Artificial Intelligence, Automation, And Robotics.](#)"
- ¹⁷ See the Forrester report "[Intelligent Automation Will Push Organizations Flat, Wide, And Anxious.](#)"
- ¹⁸ Base: 163 data and analytics decision-makers in Australia. Source: Forrester Analytics Business Technographics® Data And Analytics Survey, 2020.
- ¹⁹ Base: 140 data and analytics decision-makers in Australia who expect their firm to use any automation technology. Source: Forrester Analytics Business Technographics Data And Analytics Survey, 2020.
- ²⁰ Source: Ry Crozier, "CBA builds a centre for bots," ITnews, December 6, 2016 (<https://www.itnews.com.au/news/cba-builds-a-centre-for-bots-443585>).
- ²¹ Source: Charlie Taylor, Jules Carrigan, Hassan Noura, Seckin Ungur, Jasper van Halder, and Gurneet Singh Dandona, "Australia's automation opportunity: Reigniting productivity and inclusive income growth," McKinsey & Company, March 3, 2019 (<https://www.mckinsey.com/featured-insights/future-of-work/australias-automation-opportunity-reigniting-productivity-and-inclusive-income-growth#>).
- ²² See the Forrester report "[RQ 2.0: Assess Your Readiness For Artificial Intelligence, Automation, And Robotics.](#)"
- ²³ Source: "Millennials Hate Bosses, Here's What to Do," MyObjectives, March 30, 2018 (<https://www.myobjectives.com/millennials-hate-bosses-heres-what-to-do>) and "Millennials are not the job-hopping generation everyone thought," Commercial Real Estate, April 16, 2019 (<https://www.commercialrealestate.com.au/news/millennials-are-not-the-job-hopping-generation-everyone-thought-report-29219/>).
- ²⁴ Source: "Hiring for impact: An unparalleled opportunity for Australian businesses," Kingston Human Capital, June 29, 2020 (<https://www.kingstonhumancapital.com.au/tips-and-resources-for-employers/hiring-for-impact-an-unparalleled-opportunity-for-australian-businesses>).
- ²⁵ See the Forrester report "[RQ 2.0: Assess Your Readiness For Artificial Intelligence, Automation, And Robotics.](#)"

We work with business and technology leaders to develop customer-obsessed strategies that drive growth.

PRODUCTS AND SERVICES

- › Core research and tools
- › Data and analytics
- › Peer collaboration
- › Analyst engagement
- › Consulting
- › Events

Forrester's research and insights are tailored to your role and critical business initiatives.

ROLES WE SERVE

Marketing & Strategy Professionals

CMO
B2B Marketing
B2C Marketing
Customer Experience
Customer Insights
eBusiness & Channel Strategy

Technology Management Professionals

- CIO
Application Development & Delivery
Enterprise Architecture
Infrastructure & Operations
Security & Risk
Sourcing & Vendor Management

Technology Industry Professionals

Analyst Relations

CLIENT SUPPORT

For information on hard-copy or electronic reprints, please contact Client Support at +1 866-367-7378, +1 617-613-5730, or clientsupport@forrester.com. We offer quantity discounts and special pricing for academic and nonprofit institutions.