



# LAUNCHPAD JOBS

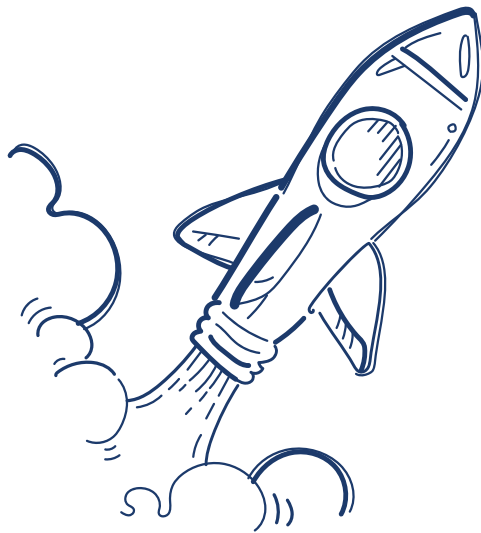
**Achieving Career and Economic  
Success Without a Degree**

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# LAUNCHPAD JOBS

## Achieving Career and Economic Success Without a Degree



### Acknowledgments

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# EXECUTIVE SUMMARY

It's a mantra that's been drilled into every high school student for generations: "Go to college or you'll never amount to anything." But that doesn't have to be how things turn out for those who go straight to work after high school.

**Here's the reality: Almost one in five workers without degrees out-earn the median college graduate annual wage of \$70,000. Indeed, around 2 million nondegree workers are currently pulling in six figures a year.**

These aren't just the exceptions that prove the rule. Numbers that huge make it clear: you don't need a degree to succeed. But it's also true that many who don't attain a degree struggle to get ahead. What can they do to boost their odds?

Unlike the college-bound crowd, those entering the workforce straight out of high school are offered scant help in strategizing about which career to pursue or where different options lead. This isn't a case of purposeful neglect. Even the most well-meaning guidance counselor has little data on career outcomes to draw on and limited experience with routes that don't pass through college. With minimal information, the choices that launch careers are often haphazard. Success without a degree is assumed to be the triumph of individual grit. Or, simply, dumb luck.

This groundbreaking report commissioned by American Student Assistance® and conducted by the Burning Glass Institute shows that those assumptions are mostly based on myths. By tracking the career pathways of millions of nondegree workers, our research zeroes in on what success stories have in common—the pivotal decisions that propel workers into well-paying careers.

**That initial job out of high school is the first crucial choice.** The roles we tend to associate with teenagers—customer-facing gigs in food service, entertainment, and similar sectors—generally

offer entry-level salaries between \$20,000 and \$25,000 a year. But fast-forward two decades and median incomes diverge wildly—by more than \$40,000 annually—based on those first career steppingstones. Amusement and Recreation Attendants and Maids/Housekeepers, for example, start out making about the same. Two decades later, former Maids/Housekeepers only earn, on average, about \$37,000 while their ex-Amusement and Recreation Attendant peers earn more than \$66,000.

**Certain entry-level roles—what we call “Launchpad Jobs”—set workers up for rapid career growth while providing a mix of good pay and benefits, job stability, and promotion potential.** Many of these jobs pay relatively well. But even some low-wage starts can lead to good places. Take Bank Tellers, for example: while their average initial wage is less than \$29,000, those starting out here can, on average, earn upwards of \$54,000 annually within a decade.

These jobs aren't few and far between: Our research finds that, **each year, there are several million entry-level job openings in careers that offer nondegree workers some combination of strong upward mobility, respectable wages, and job security.** What's more, every field has jobs that tend to help fast-track career growth.

The tricky part for young, inexperienced workers is knowing which jobs open up opportunities later, and which do not. To fresh high school graduates sending out job applications, a job as a Payroll and Timekeeping Clerk probably seems little different from one as a general Office Clerk. The former, however, is a Launchpad Job, while the Office Clerk role offers little potential for career advancement.

**The choices students make after landing that first gig are crucial too, even for those in Launchpad Jobs.** We find that those

who play their cards right—for example, by pursuing a technical specialization or entering management—can sometimes triple their earnings within just a decade.

Still, **only about 9.2% of 18-year-old civilian workers are employed in a Launchpad Job**—which means that most will, at some point, need to reroute their professional trajectory to gain more opportunity and financial security.

**Fortunately, there’s a Plan B for these workers. A few dozen “Launchpad Skills” can reset career trajectories and unlock lucrative opportunities.** These include a mix of foundational and technical

skills that workers can gain on-the-job or via postsecondary programs. Nevertheless, while our research shows that a postsecondary education or certificate isn’t a prerequisite to success, a valuable option for young workers who do not initially land a Launchpad Job is to eventually earn a degree or credential.

High school grads without a degree have a real shot at doing fulfilling work and getting paid well for it. The paths to these successful careers are already out there. In mapping the routes that offer the best chances, our goal in this report is to make the journey less haphazard.

## BUSTING THE OPPORTUNITY MYTH

Amidst the debates about student loan forgiveness and the high price of a college education, it is easy to forget that many high school students do not go directly to college, if they go at all. Instead, many move directly into the workforce. Around 39% of high school graduates did not enroll in college immediately after graduation in 2023, according to data from the Bureau of Labor Statistics.<sup>1</sup>

For many of these workers, the initial opportunity landscape feels fairly level. The kinds of jobs most of us see being filled by 18-year-olds typically pay around \$20,000

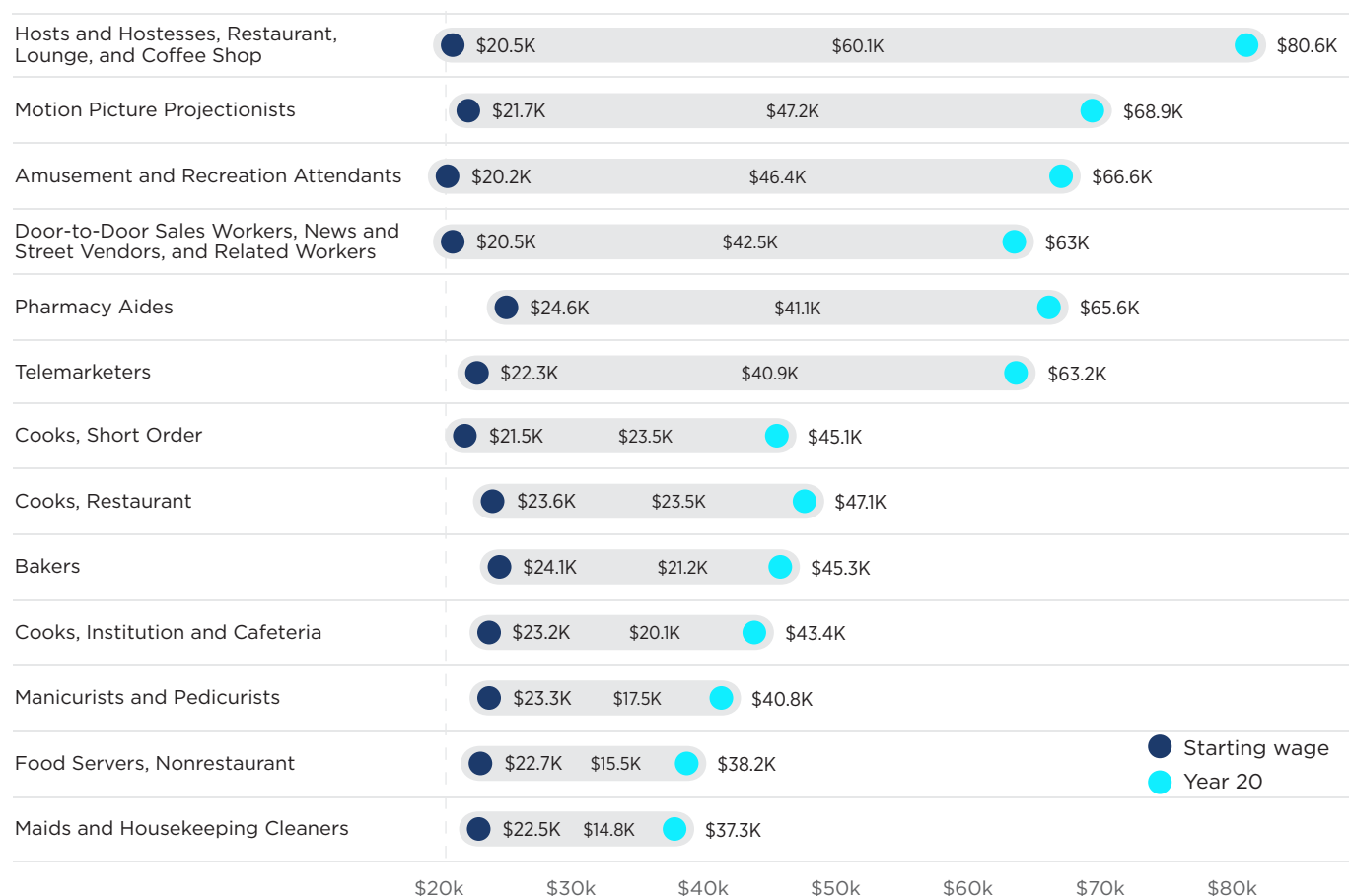
to \$25,000 per year and lean heavily toward customer-service or support jobs in food service and entertainment. But a decade or more on, median incomes for these workers can vary dramatically based on which of these occupations they start off in—even in jobs that seem similar at first glance. For example, someone who starts off as a restaurant Host earns over \$56,000 annually after 15 years, on average—and potentially up to \$76,800—while those whose first job was Food Server in a non-restaurant setting earn much less, despite almost identical starting pay.

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1 Bureau of Labor Statistics, <https://www.bls.gov/news.release/hsgec.t01.htm>

**Figure 1** *Workers Starting in Jobs with Low Wages Tend to Have Very Diverse Incomes Later in Their Careers*

### Wages 20 years after starting in a low-wage job



Source: Burning Glass Institute analysis of OEWS data. Starting estimates based on 10th percentile wages; 20-year estimates based on median wages.

**Yet there is no way for a student to know today that roles that all seem to start from the same place can end up leading to wildly different economic circumstances later.** These millions of young graduates will enter the workforce with the message that the odds of breaking into the middle class are stacked heavily against them. This is thanks to a common refrain that failing to attain a postsecondary degree condemns workers to a life of low earnings and instability—jobs that pay little, have little room for promotion, and tend to let go of workers when the economy sputters.

They deserve to know that the reality is very different. American Community Survey data show that nearly one in five nondegree workers aged 25 to 54 years earn a higher annual wage than half of degree workers in that age range. Indeed, bona fide success stories abound: some 2 million nondegree workers of all ages today earn six-figure salaries.

This is a product of both where they start and how they rise. In fact, certain starting occupations correlate with high rates of progression into the upper decile of nondegree earners. One in six

people who start out as Inspectors, Testers, or Sorters, one in 10 Flight Attendants, and one in 12 Tellers ultimately join the top 10% of all nondegree earners—largely by moving on to better-paying work. Similarly, many military veterans go on to

have top earning civilian careers, including one in six Command and Control Center Specialists and around one in 12 Infantry. Some construction and extraction occupations also make the list, as do several jobs in maintenance and repair.

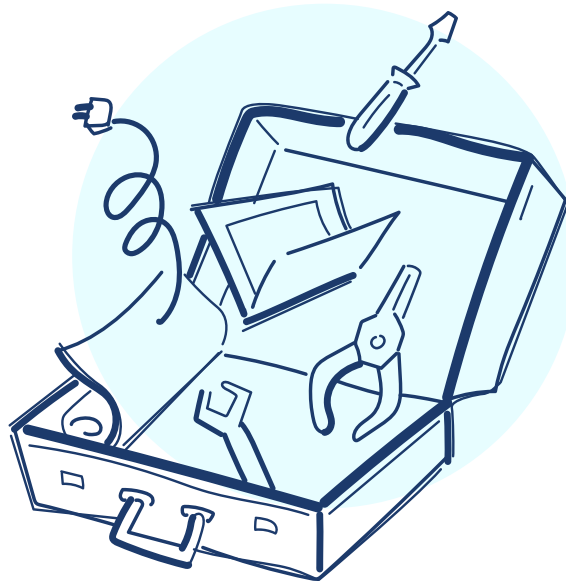
**Table 1** *Entry-Level Jobs with the Largest Share of Nondegree Workers Who Achieve High Earnings<sup>1</sup>*

Starting Occupation	Share who become top 10% of nondegree earners
Inspectors, testers, sorters, samplers, and weighers	17%
Command and control center specialists	17%
Patternmakers, wood	13%
Aircraft launch and recovery specialists	13%
New accounts clerks	12%
Semiconductor processing technicians	10%
Flight attendants	10%
Procurement clerks	9%
Insurance sales agents	9%
Military enlisted tactical operations and air/weapons specialists and crew members, all other	8%
Tellers	8%
Infantry	8%
Rock splitters, quarry	8%
Refractory materials repairers, except brickmasons	8%
Computer network support specialists	8%
Helpers, construction trades, all other	7%
Petroleum pump system operators, refinery operators, and gaugers	7%
Commercial divers	7%
Elevator and escalator installers and repairers	7%
Chemical equipment operators and tenders	7%

Source: Burning Glass Institute analysis. Wage estimates use Glassdoor and OEWS data.

1 The Standard Occupational Classification (SOC) system is a federal statistical standard used by federal agencies to classify workers into occupations.

This “working backwards” analytical approach tells us that high-earning nondegree opportunities can unfold from a diverse array of starting points—many of them quite humble. It also sheds some light on what’s driving these dynamics. Wood patternmakers may, for example, end up becoming high earners because of their creative skills whereas elevator installers may see income rise through collective bargaining. Moreover, young workers who start their careers in the military may learn key leadership skills and technical competencies that position them well for more general success once they enter the civilian workforce.



## CHARTING THE PATH UPWARD: A BRIEF METHODOLOGY

For this report, however, we largely take the opposite approach: starting with the entry-level jobs commonly filled by those without degrees, we chart the onward career steps that tend to proceed from these occupations and follow where they lead.

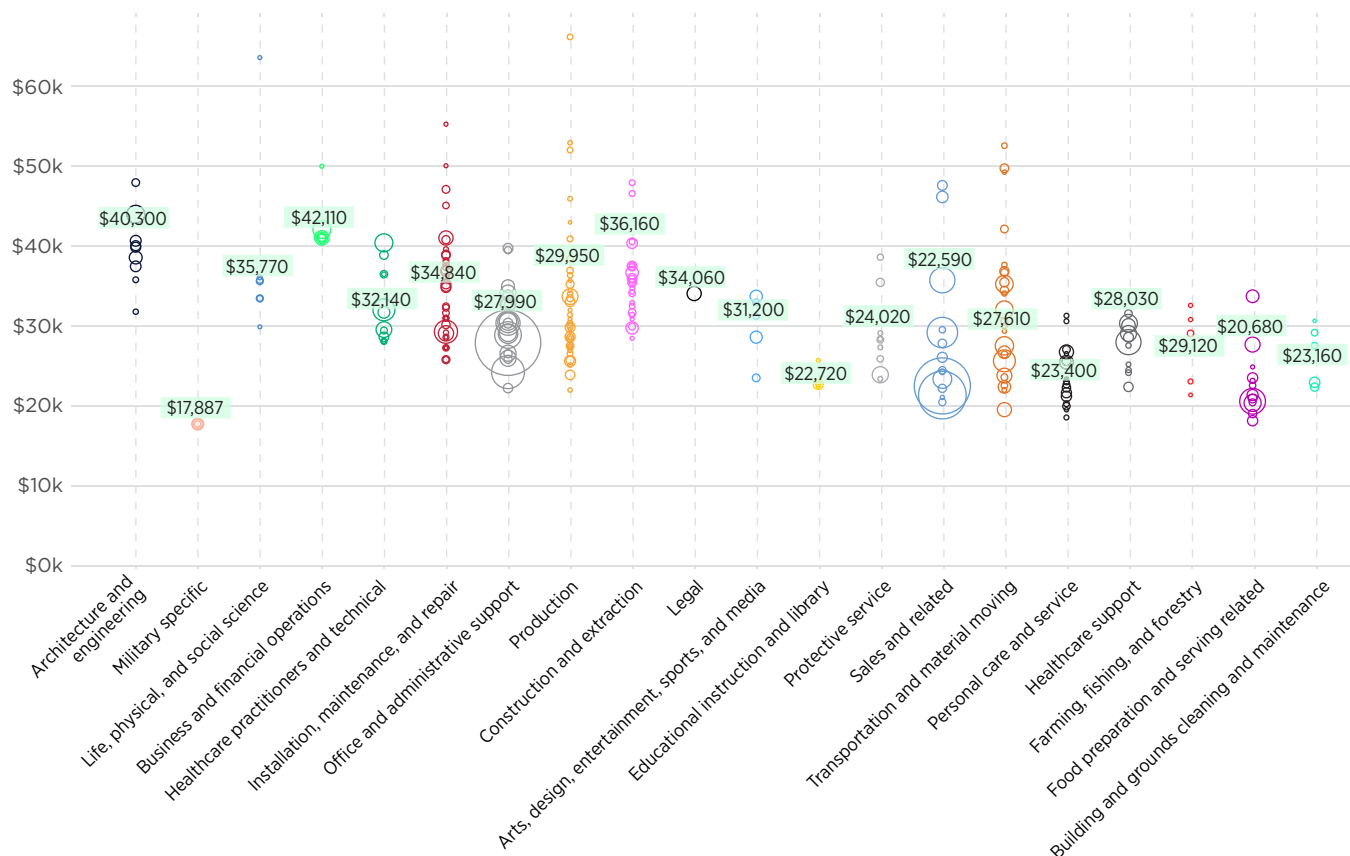
Using a combination of employment profile data and other public datasets, we create several metrics of job quality, including expected wages and health insurance access in current and future jobs, as well as risk of unemployment and exposure to automation and AI. A complete list of the metrics is presented in Table 1. For each metric we create scores that range from 0-100, with 0 being the worst occupation and 100 being the best. To get an occupation’s overall ranking, we then average all the scores for the individual metrics.

# FROM LAUNCH TO ORBIT: THE JOBS THAT PROPEL GOOD CAREERS

Our findings reveal that, as suspected, plenty of good opportunities await young workers without degrees. Each year there are well over 3.5 million entry-level job openings in careers that either offer nondegree workers strong pathways up or solid wages and stability. The chart below shows all entry-level jobs that we evaluated as groupings of broad industry

bubbles along the x-axis. The y-axis represents the median annual wage for each occupation. The dashed lines show the median wage for each industry grouping. While many involve skilled work, the opportunity landscape is surprisingly wide. Indeed, these types of jobs are plentiful—and well distributed across the US economy.

**Figure 2** Initial Salary Ranges Can Be Narrow or Wide Depending on the Occupation Group



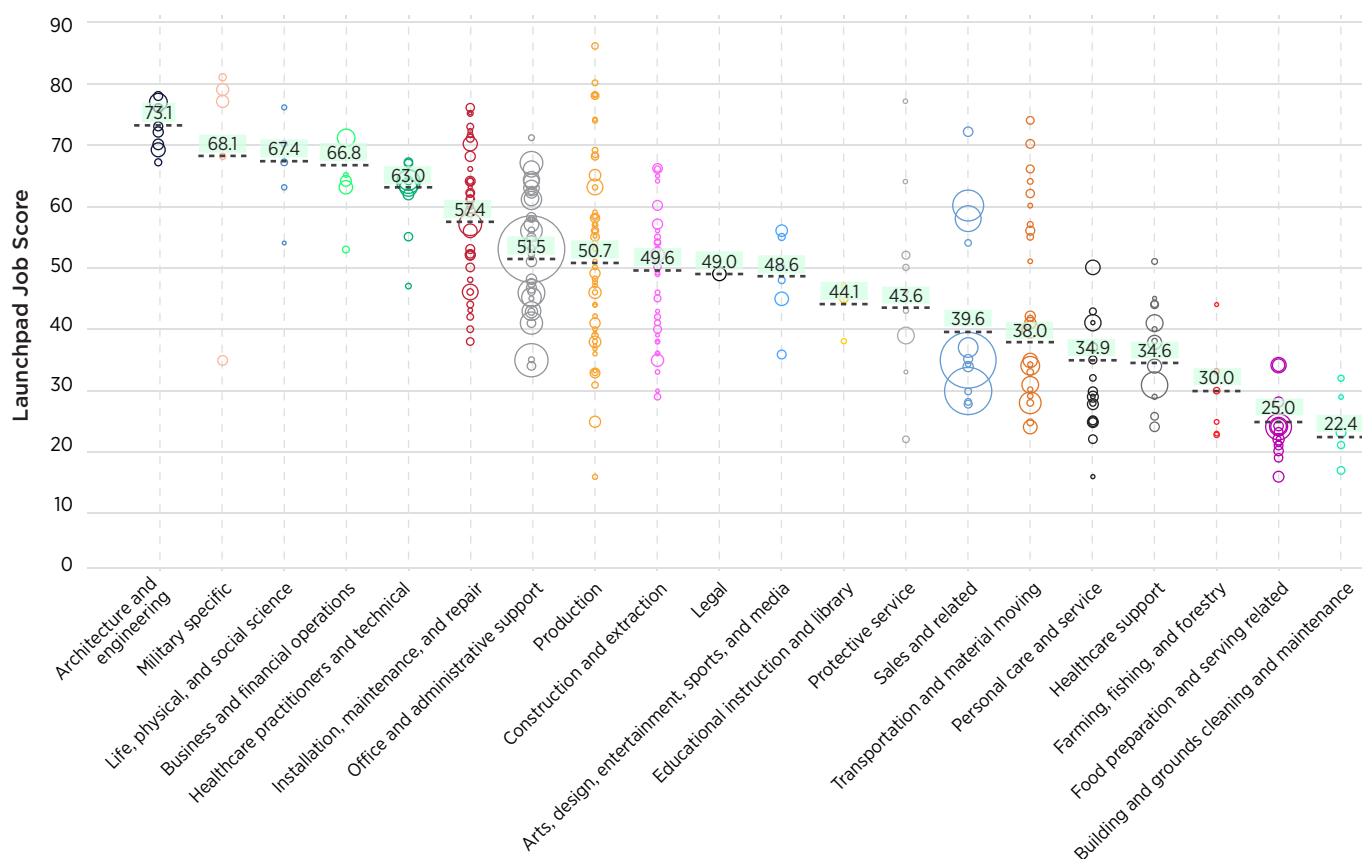
Figures in green are the median starting salary for each occupation group

Source: Burning Glass Institute analysis. Wage estimates use OEWS and IPUMS ACS data.

While starting wages are often a good yardstick for job quality, it's clear that not all Launchpad Jobs pay that well initially. Military-related occupations score high, indicating that they are consistently great career-starters—even though they pay much less than what the median 16-to-19-year-old full-time civilian worker earns annually (\$32,200). Conversely, not all jobs with higher

pay are Launchpad Jobs. For example, many of the occupations falling under Construction and Extraction pay better than the median wage for young workers. However, the chart below—which substitutes each occupation's overall Launchpad Job score along the y-axis—reveals that only around half of those jobs make the cut based on more comprehensive assessment of job quality.

**Figure 3** *Quality of Initial Opportunities Varies Widely within Occupation Groups*



Source: Burning Glass Institute analysis

Not surprisingly, Launchpad Jobs make up a relatively high share of occupations in industries that skew toward technical work, maintenance and manufacturing jobs stand out, such as electrical engineering technicians. Utility-related jobs are also common, including power plant operators. Many military jobs also score high as Launchpad Jobs. It is further evidence of the

value many see in skilled professions as well-paying alternatives to jobs requiring degrees.

However, every field has jobs that tend to help kickstart upward economic mobility. Launchpad Jobs also abound in healthcare, including Paramedics and EMTs, Surgical Technologists, various types of nurses, and Medical Equipment

Repairers. Though white-collar jobs as a cluster score lower overall, a wide array of office-related jobs offer young nondegree workers an opportunity to break into the workforce and begin to develop a range of foundational and technical skills that future roles tend to highly value. These include jobs in sales, finance, and human resources. That said, certain industries tend to have a higher concentration of good jobs. For example, all entry-level jobs for high school graduates in Architecture and Engineering have high Launchpad Job scores.

While what occupation someone chooses matters, it isn't deterministic; outcomes can vary widely

across different employers for the same occupation. Our own research has shown that the top quartile of employers promotes their workers more than twice as fast as others and pay their workers up to 68% more, resulting in hugely disparate outcomes for otherwise similar workers who simply started their careers with different employers.

What matters most in the long run is the potential for career growth for workers fresh out of high school. If there is one thing that all Launchpad Jobs seem to have in common, it is that they are powerful accelerants, putting young workers on a trajectory of economic mobility and professional advancement.

## WHAT MAKES A JOB A LAUNCHPAD JOB?

What constitutes a “good” job can vary greatly from person to person. For this report we define Launchpad Jobs as those having some combination of the following characteristics:

1. higher-than-average starting pay and continued wage premiums 10 years on;
2. a higher likelihood of providing health insurance;
3. high promotion rates (meaning the share of transitions from a first job that are a step up in responsibility or pay);
4. strong pathways to even better opportunities;
5. some level of protection from technological disruption.

The top-ranked Launchpad Jobs also lean heavily toward a mix of skilled professions and health-related and technical roles. And they tend to be in high demand, with hundreds of thousands of new openings each year, in aggregate.

The table below illustrates just how stark the disparities can be across these key aspects of job quality. Occupations scoring in the top quintile of our composite Launchpad score pay 61% more than those in the bottom quintile. Workers in top-scoring occupations are also 46% more likely to have health insurance than those in the bottom quintiles (83% vs. 57%) and have a much lower risk of being displaced by automation.



**Table 2** *What Sets the Best Jobs Apart?***Job quality metrics for the top, median, and bottom tiers by Launchpad Score**

Outcome	Bottom 20%	Middle 20%	Top 20%
Initial wages	\$24,100	\$30,800	\$38,600
Initial health insurance rate	57%	76%	83%
Year 10 wages	\$45,400	\$51,100	\$58,200
Year 10 health insurance rate	71%	77%	81%
Promotion rate	73%	71%	80%
Get postsecondary credential	6.8%	6.9%	9.6%
Union percent	7%	16%	19%
Public sector percent	6%	19%	27%
Unemployment risk (lower better)	5%	4%	4%

Source: Burning Glass Institute analysis. Wage estimates use OEWS and IPUMS ACS data. Health insurance rate, union percent, and public sector percent use IPUMS ACS data. AI risk comes from Felten et al. (2021). Automation risk comes from Frey and Osborne (2013). Unemployment risk comes from IPUMS CPS.

## Good Wages and Benefits

A major component of most Launchpad Jobs is that they pay better than other starting occupations. Entry-level wages in some jobs are nearly 60% higher than the national average. Jobs such as Power Line Installers, Railroad Conductors, and Wind Turbine Service Techs can pay upwards of 80% more than the national average at start.

High wages typically reflect scarcity. To ensure that these roles are still obtainable, Launchpad Jobs also boast rosy outlooks for labor demand. For example, Electricians and HVAC Mechanics already account for over 110,000 annual job postings. As demand for these services

intensifies, Electrician employment is expected to rise 6.4% from 2022 to 2032, while the number of HVAC Mechanics is expected to increase 5.5%, according to Labor Department projections. Demand for industrial machinery mechanics is projected to heat up even more, with their numbers jumping 14.9% over that 10-year period.

Across factors we rank, workers in these top-scoring occupations experience better outcomes, regardless of starting pay. These jobs are 9% more likely to include health insurance than those in the middle quintile and have 13% higher promotion rates.

**Table 3** *Some Launchpad Jobs Offer Great Entry-Level Wages with Thousands of Annual Job Openings Annually*

Occupation title	2022 Employment	2032 Projected employment	2022-2032 Employment change	2022-2032 Employment change (%)	Annual average job openings	Estimated entry-level wages (2022)
<b>Aircraft mechanics and service technicians</b>	140,200	146,200	6,100	4.3%	10,900	\$41,020
<b>Electrical power-line installers and repairers</b>	122,400	125,800	3,500	2.8%	9,700	\$47,070
<b>Millwrights</b>	42,100	43,400	1,300	3.0%	3,500	\$38,940
<b>Mobile heavy equipment mechanics, except engines</b>	169,100	177,600	8,600	5.1%	15,100	\$38,950
<b>Plant and system operators, all other</b>	15,900	15,900	0	-0.2%	1,400	\$37,100
<b>Railroad conductors and yardmasters</b>	34,200	34,600	400	1.1%	2,800	\$49,680
<b>Telecommunications line installers and repairers</b>	112,100	119,600	7,500	6.7%	11,000	\$38,020
<b>Tool and die makers</b>	62,700	57,400	-5,300	-8.5%	5,600	\$38,470
<b>Transportation inspectors</b>	25,700	26,400	700	2.7%	2,400	\$36,770
<b>Wind turbine service technicians</b>	11,200	16,200	5,000	44.9%	1,800	\$45,150
<b>All occupations nationally</b>				<b>2.8%</b>		<b>\$27,340</b>

Source: U.S. Bureau of Labor Statistics (BLS): *Employment Projections: Table 1.2 Employment by detailed occupation, 2022 and projected 2032*; BLS *Occupational Employment and Wage Statistics (OEWS): May 2022 Occupational Employment and Wage Estimates*.

## Job Security

High starting wages are only one aspect of what makes a Launchpad Job—and are not necessarily a decisive factor. Many Launchpad Jobs have somewhat lower initial pay but promise job stability. Those starting out as Cost Estimators, for example, tend to have relatively high initial wages, at just over \$42,000, and outstanding healthcare benefits. However, they have a 55% promotion rate—compared with 75%, on average, for the top 20% of Launchpad Jobs—and have among the highest exposures to AI of that group. Young workers who begin their careers as Emergency Medical Technicians, by contrast, make relatively little off the bat, but have an 83% promotion rate and virtually no concerns about job displacement by AI.



**Table 4** *Highest-Ranking Stable Jobs—Those with Decent Pay, High Retention, and Low Automation Exposure and Unemployment Risk*

Occupation	Overall Launchpad Score
Firefighters	77
Electrical power-line installers and repairers	76
Commercial divers	72
Telecommunications line installers and repairers	71
Captains, mates, and pilots of water vessels	71
Aircraft mechanics and service technicians	70
Millwrights	68
Emergency medical technicians	67
Paramedics	67
Control and valve installers and repairers, except mechanical door	66
Surgical technologists	64
Licensed practical and licensed vocational nurses	64
Health technologists and technicians, all other	64
Medical equipment repairers	64

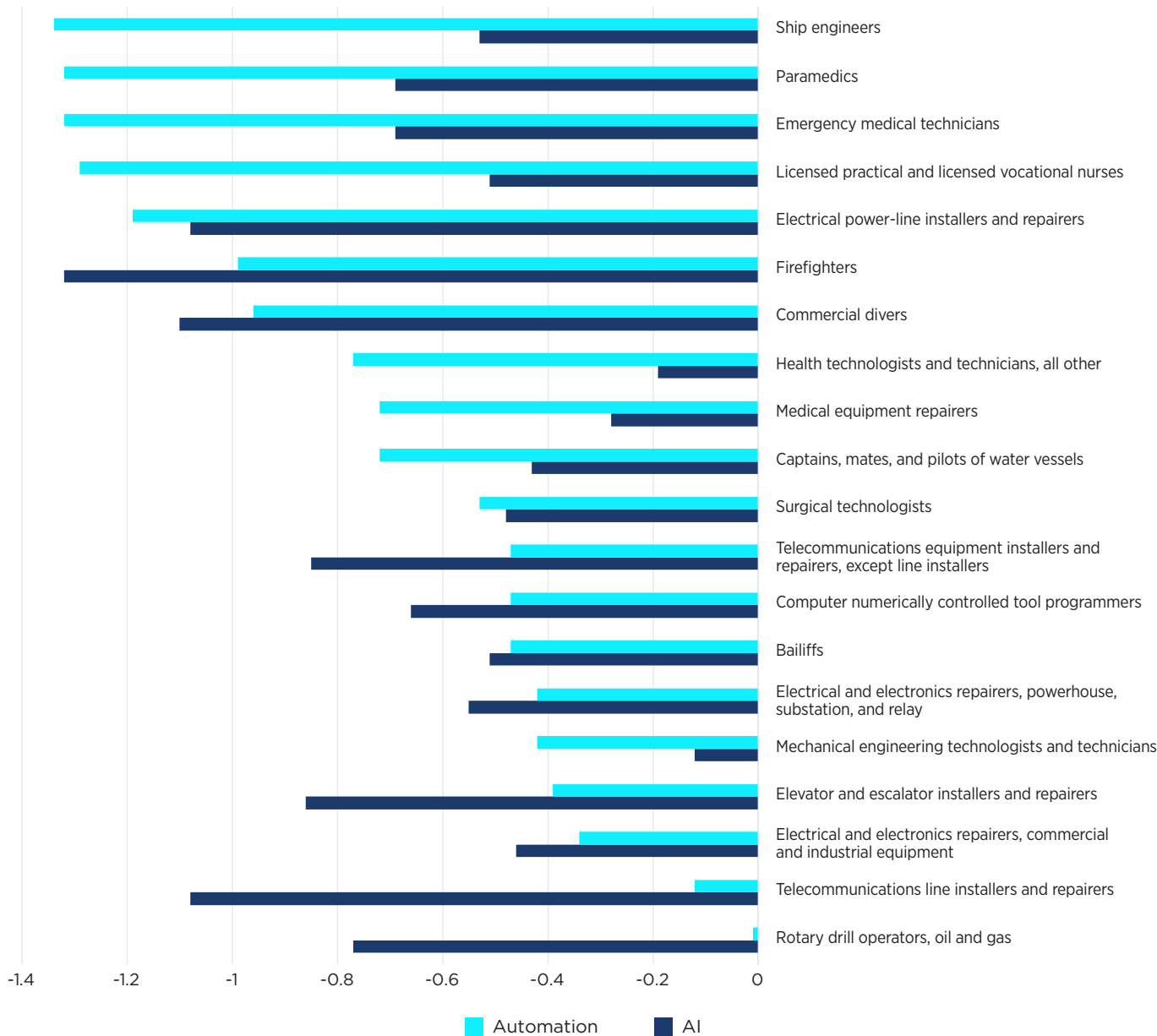
Source: Burning Glass Institute analysis.

Launchpad Jobs tend to have a lower risk of eventually being displaced by AI or other forms of automation, and tend to have relatively low unemployment rates. For many of these jobs—Electrical Power Installers, for example—their low exposure to automation is because they’re

more hands-on, requiring physical/manual skills. Others involve interaction with the physical world, including Fish and Game Wardens, pilots of water vessels, Firefighters, and Commercial Divers. Others, such as Bailiffs and an array of nursing roles, hinge on in-person interaction.

**Figure 4** *Many Top Roles Are Also at Lower Risk of Being Automated Away by AI*

**Exposure to AI and other types of automation (a lower score denotes a lower exposure)**



Source: Burning Glass Institute analysis. AI risk comes from Felten et al. (2021). Automation risk comes from Frey and Osborne (2013).

## Increased Opportunity

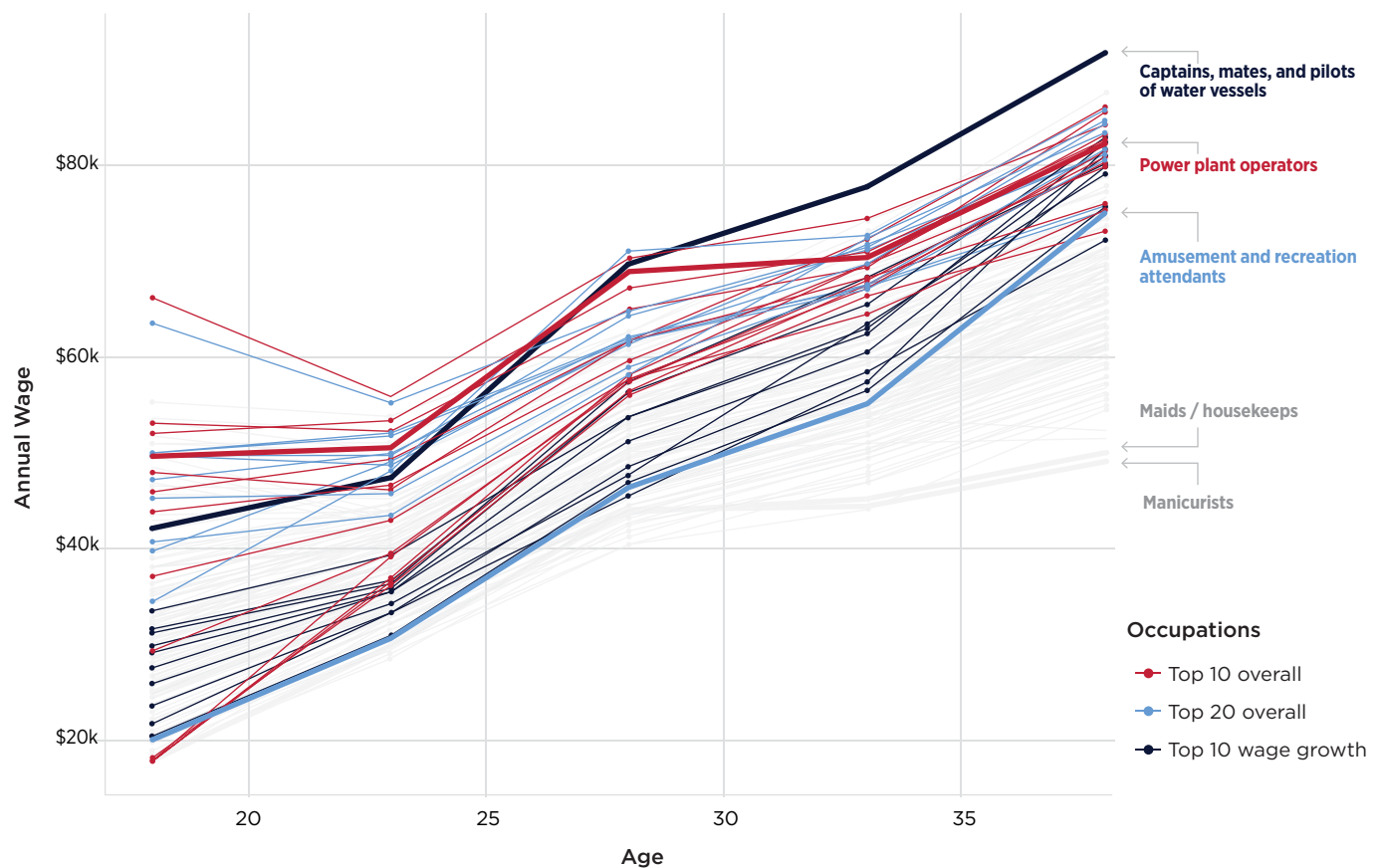
These jobs also create more options to move up. Entry-level Launchpad Jobs have rates of promotion that are 10% higher than those of bottom quintile jobs (80% vs. 73%). Young workers starting in these types of roles see wages nearly double by the time they're 40.

In some cases, the steep upward career trajectory from a Launchpad Job outweighs its low starting salary. For example, young workers who enlist as Infantry make roughly \$20,000 a year, though

they also benefit from great healthcare and retirement opportunities. Our analysis finds that one in five move into some form of military leadership within 10 years, a role that can pay between \$73,000 and \$94,000 a year.

Again, few jobs rank at the top for all dimensions. But Launchpad Jobs offset deficits in some aspects of job quality with particularly high scores in the other factors.

**Figure 5** Wage Growth Trends for Non-Degree Workers: Some Jobs Are Earnings Propellants



Source: Burning Glass Institute analysis. Wage estimates use OEWS and IPUMS ACS data.

# AFTER THE LAUNCH: REACHING ESCAPE VELOCITY

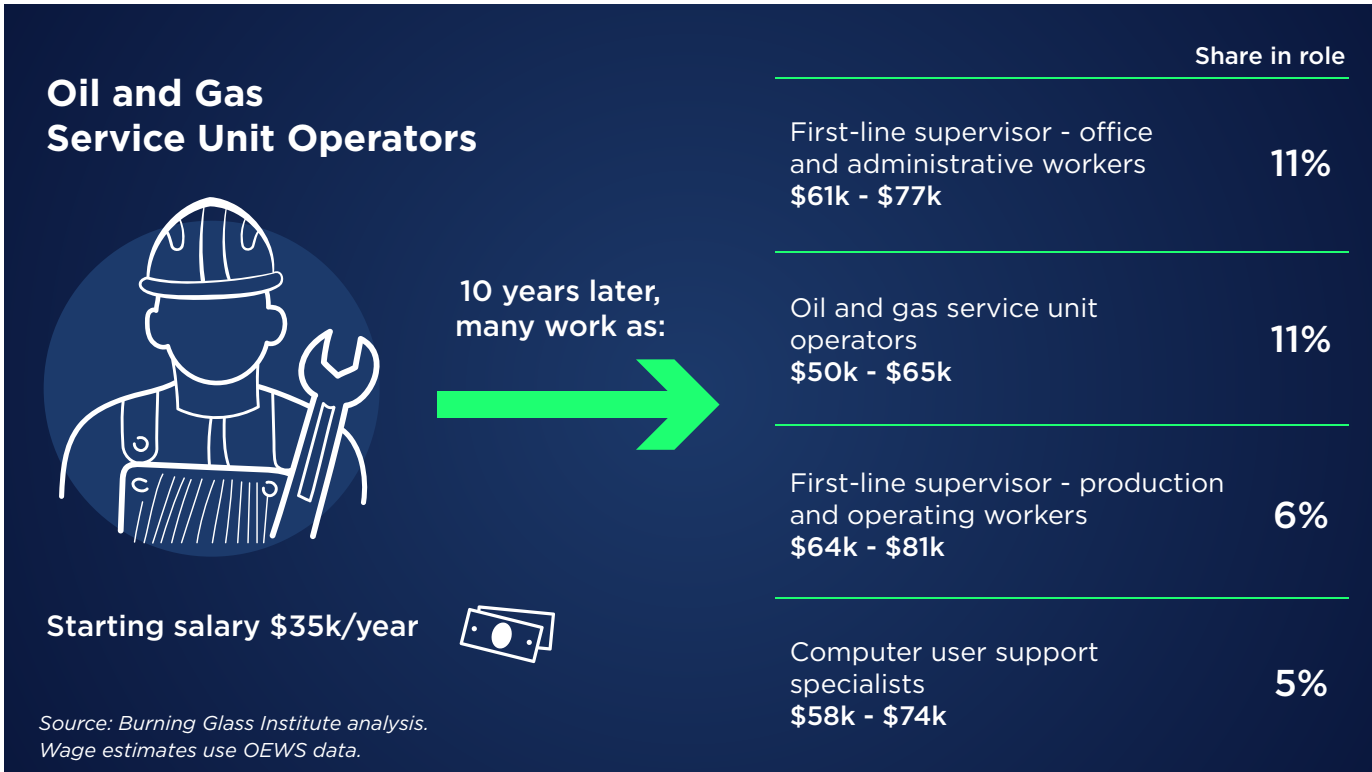
Landing a great nondegree job is an important start, but it doesn't guarantee continued upward success. Even among those who start in a Launchpad Job, outcomes can vary substantially. Workers in the 80<sup>th</sup> percentile of the top Launchpad Jobs make 22% more than those in the 20<sup>th</sup> percentile five years later. There are several moves that consistently help workers land in the upper pay bracket.

## Pathways into Management

Our analysis suggests that the transition into managerial and supervisory roles is one of the strongest patterns of upward mobility for young workers without degrees. It is arguably the most significant gateway to continued economic mobility.

Examples are easy to find. Within 10 years, almost one in five workers starting out as Oil and Gas Unit Operators has moved on into a supervisory job that can pay two to three times more than their starting wage—and around 50% more than experienced colleagues who don't make the move into management. This dynamic shows up in other sectors, too. For example, around 13% of workers whose first job was Millwright go on to become first-line supervisors, with wages up to 50% higher than their initial pay. About 14% of workers whose first job was as an Insurance Appraiser make the leap into management, while 8% of workers who were initially Customer Service Representatives eventually move on into supervisory roles.

**Figure 6** *Paths to Advancement for Oil and Gas Service Unit Operators*



## Providing Stability

Launchpad Jobs tend to lead to a range of promising next steps. In many cases, this can mean creating opportunity to move up across different occupations. Others, however, offer stable employment and room to grow within the occupation itself. For example, young nondegree workers who started out as Metal Fabricators are more likely than similar workers in other positions to have remained in that same

job a decade later, possibly because their wages can increase by up to 75%.

Finally, workers starting out in some Launchpad Jobs are more likely to earn a degree over time. As we explore later in this report, acquiring a degree or a certificate through further education can provide a decisive boost to a worker's prospects for increased earnings and opportunity.

## LAUNCHPAD SKILLS: THE MOTORS OF ECONOMIC MOBILITY

Our research shows there is clear potential for greater upward mobility. And yet, while achieving greater economic mobility is certainly possible, the chances of it happening depend in large measure on subsequent job choices that are fragile. This is true even among the top Launchpad Jobs. For 39 of those occupations, the 25th percentile of workers is still making less five years into their careers than the median starting salary.

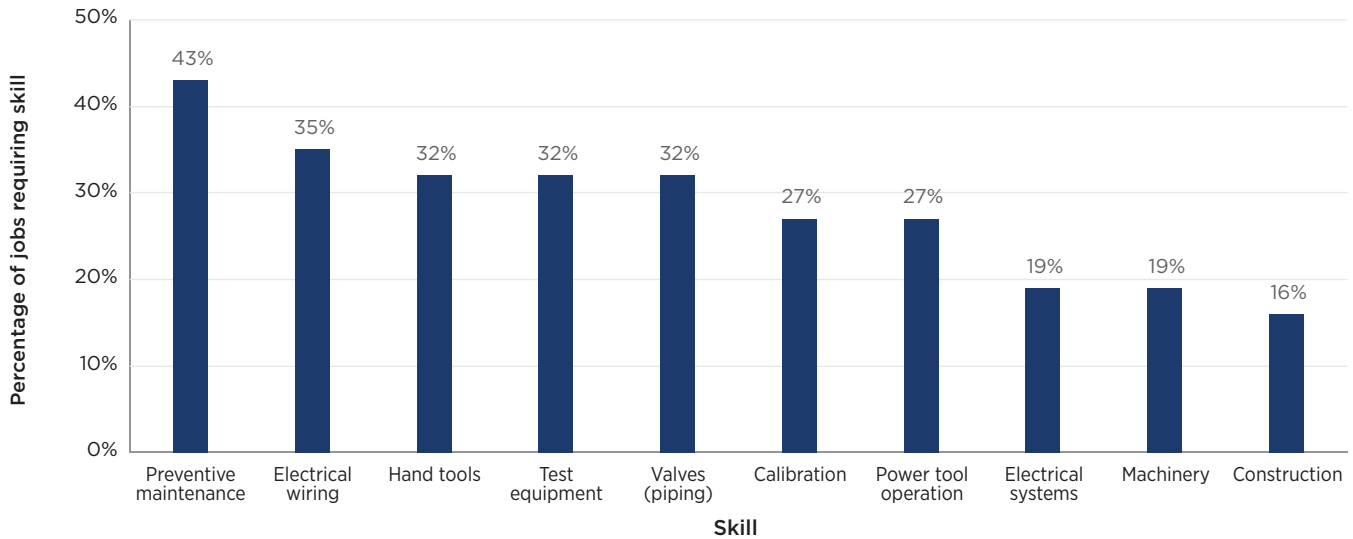
For all workers without a degree, what helps set them apart from peers is the skills they acquire—and, as such, they are an especially critical part of the upward mobility equation. Even at the entry level, workers need certain skills to land many Launchpad Jobs, underscoring the importance of students receiving good guidance early so that they can acquire needed skills before they hit the market. On top of this, not all skills are created equal. As in every job, some skills tend to command higher pay and some skills are more valuable to unlocking onward opportunity than

others. Looking across the top Launchpad jobs we identified in this project, many employers have strong preferences for hiring workers adept with maintenance, machinery, electrical systems, testing equipment and in construction.



**Figure 7** *A Relatively Small Portfolio of Core Technical Skills Holds the Keys to Many Launchpad Roles*

**Most frequent technical skills across Launchpad Jobs**



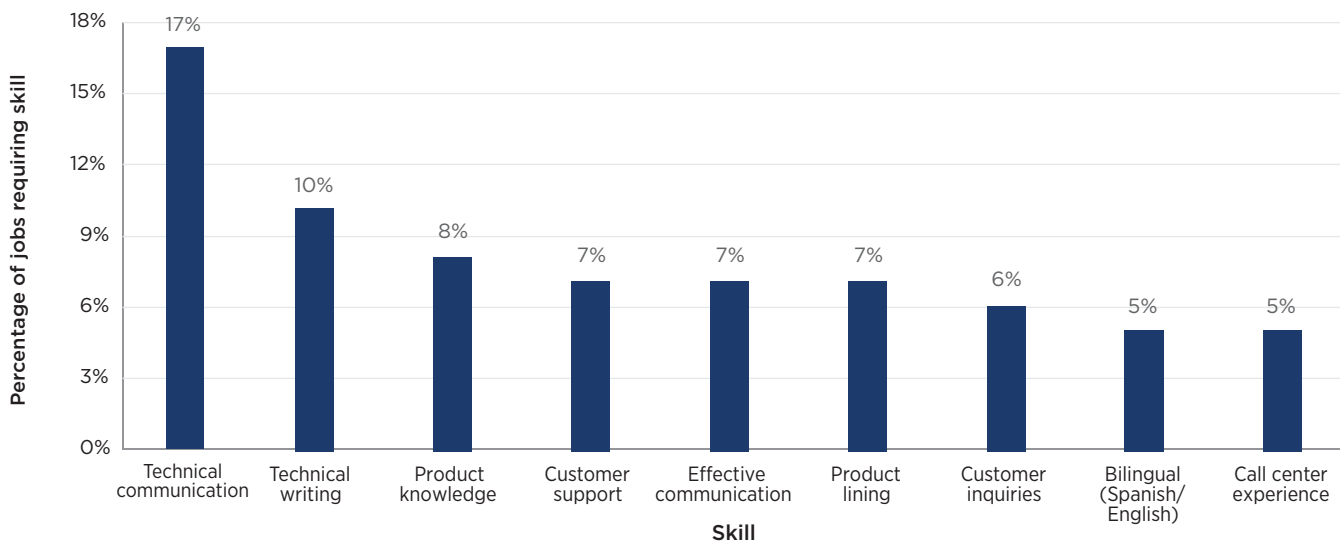
Source: Burning Glass Institute analysis of Lightcast job postings data

Beyond these core technical skills, our analysis of job postings for Launchpad Jobs shows that employers strongly value a narrow range of foundational, or durable, skills that have value across both industries and occupations. In

general, though, skillsets that combine the two skill types are the best fuel for propelling young workers without a degree into jobs with good pay, benefits, and options for mobility.

**Figure 8** *Launchpad Roles Value Not Only Technical Skills but Also Foundational Skills Like Communications and Customer Service*

**Most frequent foundational skills across Launchpad Jobs**



Source: Burning Glass Institute analysis of Lightcast job postings data

For lots of young workers, simply having the right skills may not always be enough. They may still struggle to be noticed by employers or be unsure of how to highlight their own capabilities. Whereas college graduates are primed to promote their degrees and competencies through LinkedIn profiles and resumes, those entering the workforce from high school typically do not get training and guidance on how to articulate their skills in ways that employers understand. This is perhaps particularly true for foundational skills, which tend to be less concretely defined than most technical skills and may not necessarily be seen by young workers as packageable or sell-able without guidance.

Nevertheless, nondegree workers can accumulate an array of valuable skills through entry-level roles without necessarily recognizing the importance of those skills for future career advancement. Just as importantly, they also need to be equipped to evaluate which entry-level jobs set them up best to accrue the skills that will enable them to advance.

For example, to young workers sending out job applications it may be difficult to distinguish between the roles of Payroll Clerk and general Office Clerks. And yet, these two positions have surprisingly little overlap in the top skills they require. What is more, while Payroll Clerk is a top-scoring Launchpad Job with solid beginning wages and a promising career trajectory, the Office Clerk role has both low initial wages and limited potential for career progression. Mastering various payroll, benefits, and HR systems skills positions workers for a promising

career trajectory. By contrast, the office management-related skills needed for Office Clerk positions are too generic to clear a path to higher pay and promotions.

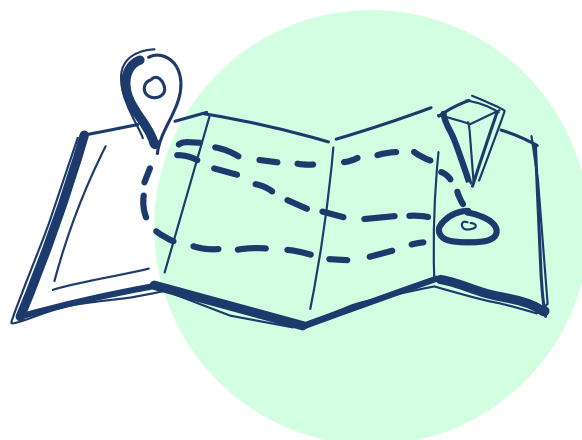
**For example, to young workers sending out job applications it may be difficult to distinguish between the roles of Payroll Clerk and general Office Clerks. And yet, these two positions have surprisingly little overlap in the top skills they require.**

**Knowing which skills a job demands, which skills you possess, and how to articulate them to employers are each equally important to landing a great job.**

Yet, for many young workers, this simple information gap is the difference between

getting on the ladder and getting stuck.

How young workers can obtain critical foundational and technical skills varies. Many high-value skills can be acquired on the job or on the side. For example, Electrical Power-Line Installers and Repairers who learn how to work with Capacitors—knowledge which can be accrued on the job—command a 145% wage premium. Sales Representatives working in industrial and scientific fields can earn 113% more by learning enough about solar on the side to ready them to step into better-paying solar sales jobs.



# REROUTING AND REBOOTING: LAUNCHING FROM A LOWER STARTING POINT

Not every young worker lands on their feet on the first try and unfortunately, many jobs that attract young nondegree workers today fail to create opportunity. For example, more than one in ten 18-year-olds with no postsecondary education initially find work as Customer Service Representatives—a job with a mediocre Launchpad score that by most standards doesn’t tend to unlock much additional opportunity. Similarly, we find that roles like Automotive Mechanic and Team Assemblers employ sizeable shares of 18-year-olds but also have middling scores on our rubric for offering a clear path towards greater opportunities.

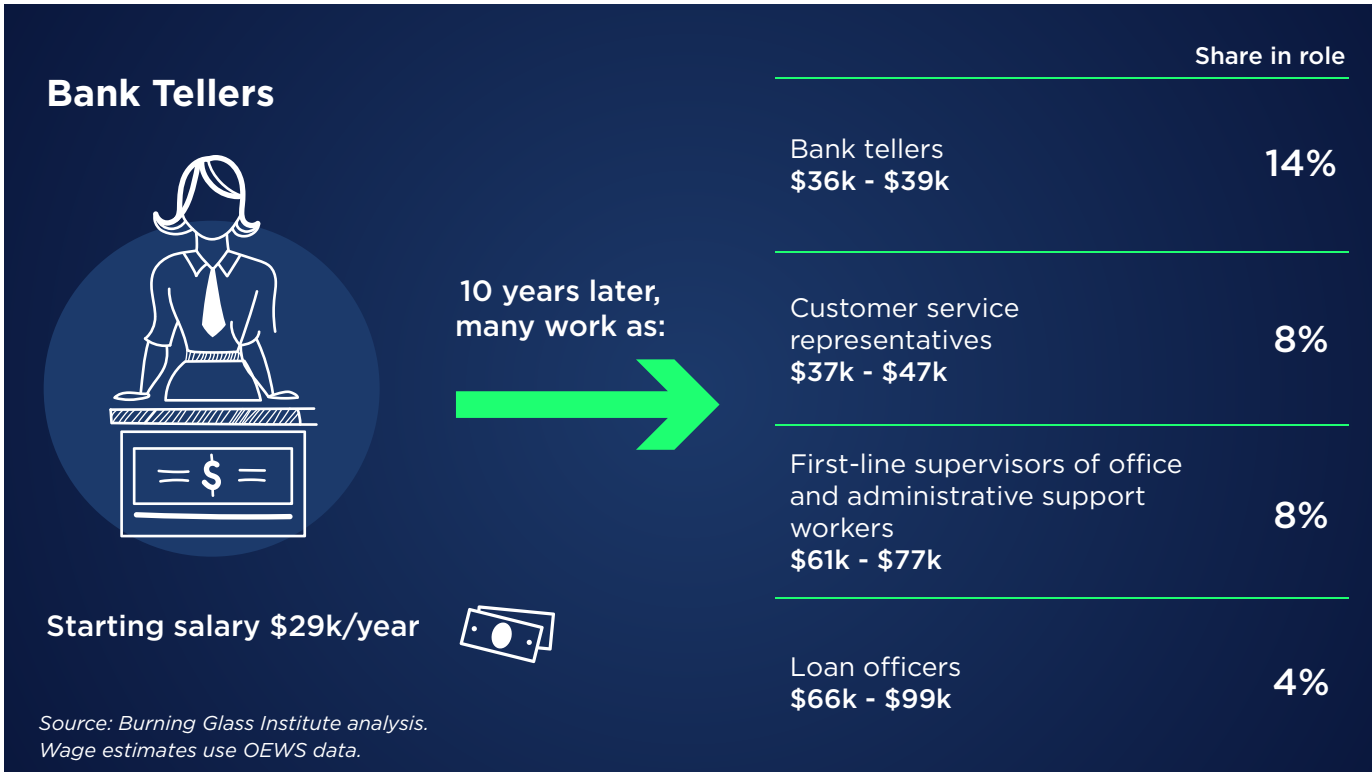
Finding and obtaining a Launchpad Job can do much to set young workers without degrees up for years of workforce success. But missing out on the

first try can be more of a detour than a dead-end. Those who wind up in jobs with low wages or limited opportunity can still go on to build successful work lives, if they make the right onward transitions.

## Rerouting

Workers starting in some lower-wage jobs can still see wages double or more by pivoting into other occupations where their accumulated skills and experience naturally translate. For example, in our research, we found that nearly one in eight nondegree workers starting out as Bank Tellers had, within 10 years, moved into the role of Loan Officer or advanced into supervisory positions, earning anywhere from two to three times more than what they started at.

**Figure 9** *Paths to Advancement for Bank Tellers*



Here again, the ability to advance into a managerial or supervisory level position can offer substantial upward mobility—particularly for those initially in low-wage jobs. For those starting out as bank tellers, moving into a first-line supervisory role means potentially earning twice as much. While many Telemarketers, for instance, move on to other low-wage customer service and sales roles, one-third of them also make their way to more supervisory roles and, a decade on, are earning up to 80% more than their colleagues who remained in telemarketing or moved into customer service.

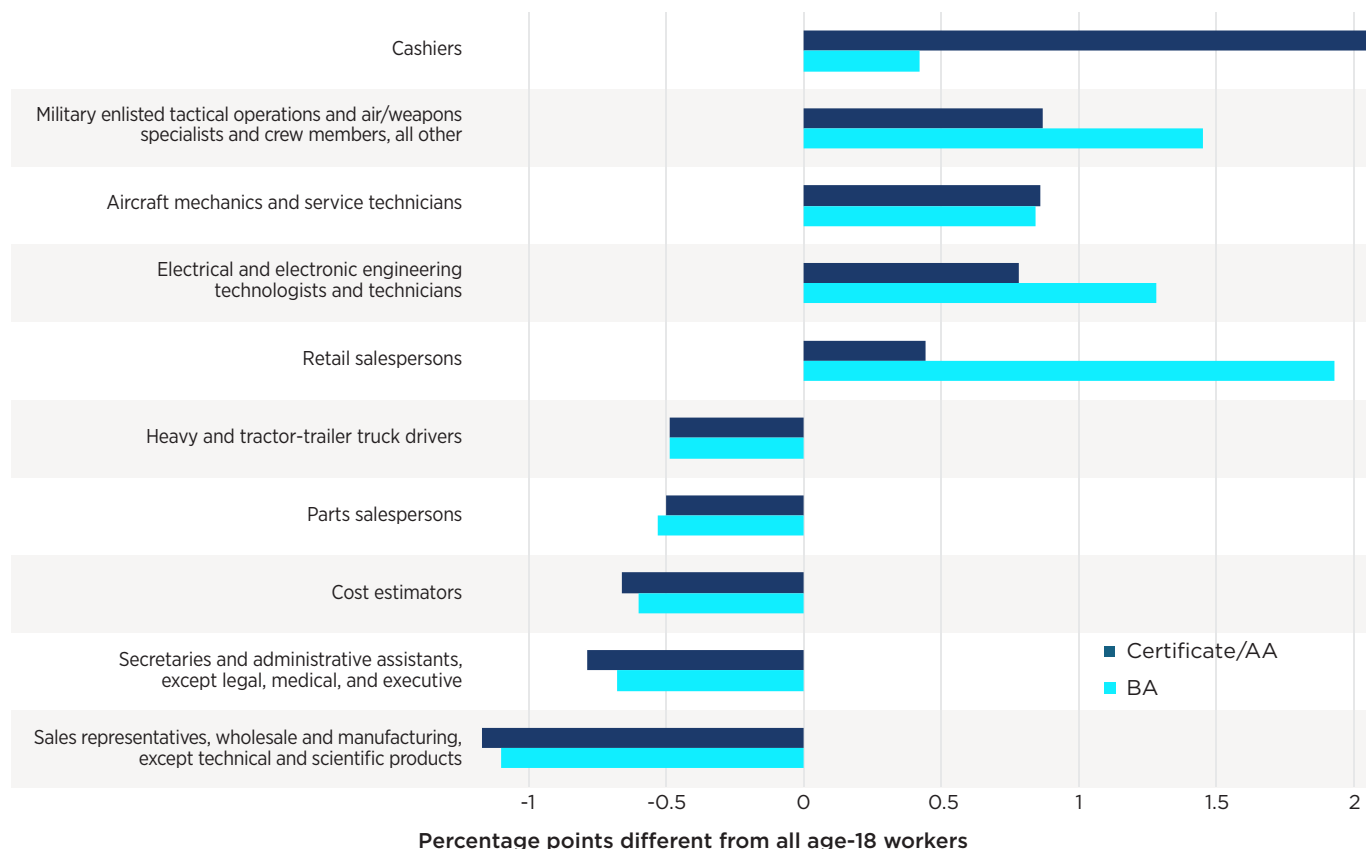
## Rebooting

Another key way for young workers who do not initially land a Launchpad Job to build opportunity

and advancement is by returning to school and earning a degree, certification, or other alternative credential. While our research shows that a degree isn't a prerequisite to success, completing one—even if further down the road—can still be a strong motor of mobility. In fact, of workers who haven't returned to school within five years of high school graduation, around 8% eventually go on to complete some level of postsecondary training.

Some jobs are far more likely than others to set young workers up to eventually earn a degree. For example, as Figure 10 below shows, 18-year-olds who start as cashiers are more likely than other 18-year-old workers to eventually go on and earn a postsecondary certificate or associate's degree. Similarly, those who take a first job in retail sales are more likely to go on and eventually earn a bachelor's degree.

**Figure 10** 18-Year-Old Workers in Some Entry-Level Jobs Are More Likely to Eventually Complete a Degree (Bachelor's or Associate's)

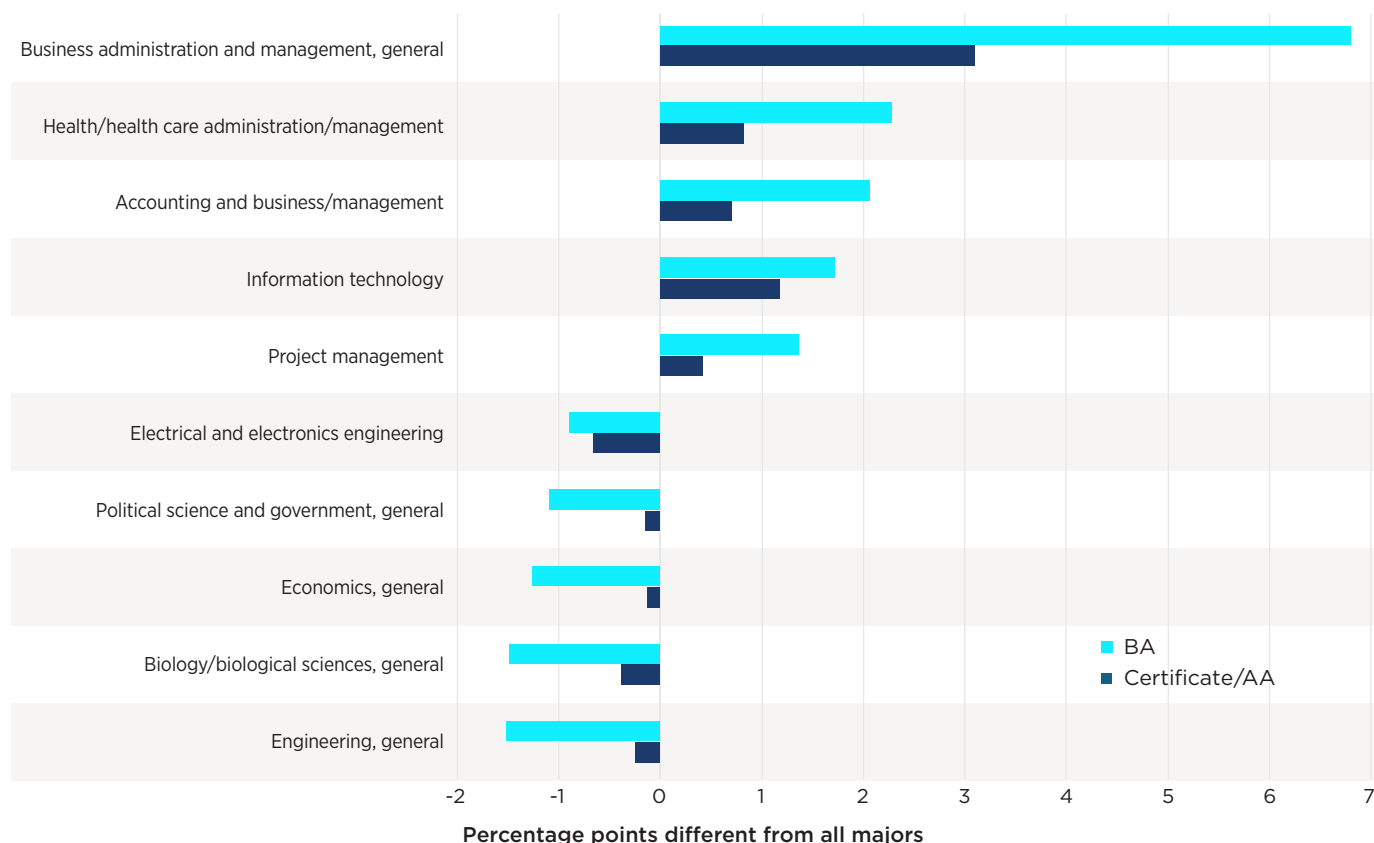


Source: Burning Glass Institute analysis

It is not clear whether these wide differences result more often from the good training and strong benefits that some occupations offer—or, conversely, from a lack of opportunity to progress that makes a degree seem like the only way up. Either way, those who do go on to earn a degree or other credential later tend to develop a clearer sense of purpose, leading to different academic choices than those who pursue a degree

immediately after high school. In our analysis, we found that these “returners” are more likely than their traditional classmates to pursue degrees in business or other applied fields—reflecting the priority placed on career advancement. Going back to school puts other workers on the path to more supervisory roles or to other well-compensated fields like nursing or tech.

**Figure 11** *Those Who Go on to Earn a Degree Often Enroll in Applied Programs, With a Particular Preference for Business and Management Concentrations*



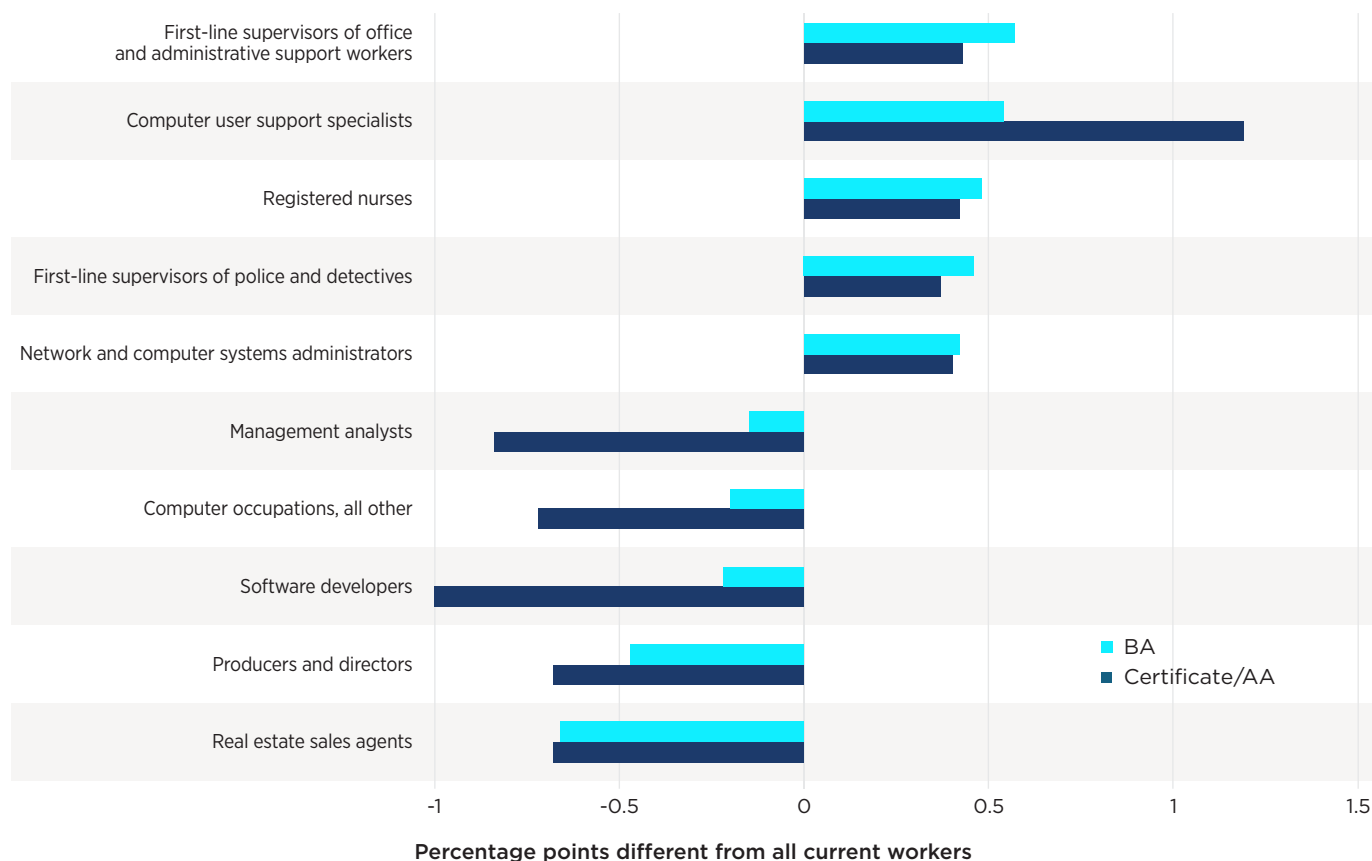
Source: Burning Glass Institute analysis

**It's worth noting that for many young workers, a bachelor's degree isn't the only promising option.**

Associates degrees and shorter certification

programs can also unlock desirable paths forward, particularly in nursing, management, and especially computer support roles.

**Figure 12** *A Bachelor's Isn't the Only Option: Shorter Programs Can Help Launch Workers in Computing, Supervisory, Nursing and Computing Roles*



Source: Burning Glass Institute analysis

# CONCLUSION

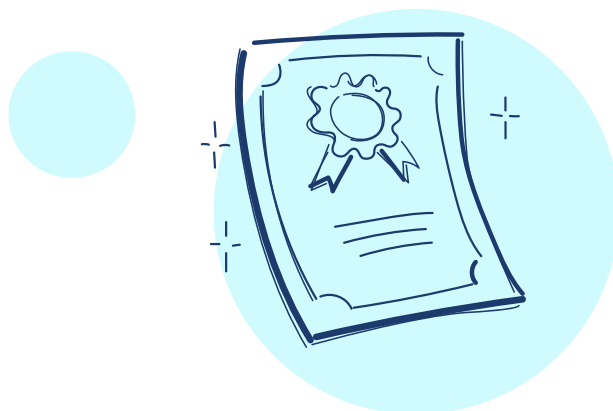
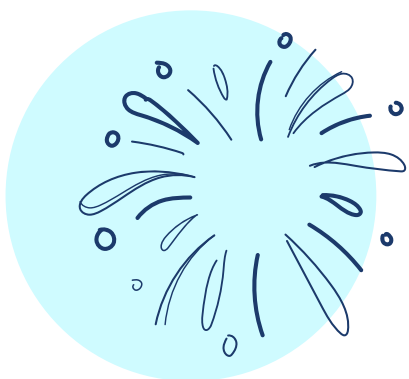
A wealth of stable, well-paying jobs with good benefits and low automation risk across a range of fields awaits young workers without degrees. Navigating this landscape requires the kind of rich, informed career advice that college-bound students routinely receive, but that those who head directly into the workforce today simply lack. Absent good guidance and trusted advice, those workers are too often making extraordinarily consequential life decisions based on deceptively attractive starting hourly wages, and often incorrect perceptions about the opportunity that lay ahead.

Providing high school learners with access to the caliber of information and guidance that they deserve is essential for their long-term success and economic security. They need insights into the qualifications and skills required for various professions, information on vocational training programs, apprenticeships, and other nondegree pathways. Crucially, they must be able to visualize the set of career trajectories stemming from any given entry-level job—not just the starting salaries, but the long-term earnings potential. And especially given the breakneck pace of technological change, ensuring the timeliness of this information is also paramount.

With this analysis, that data exists; the challenge, now, lies in effectively delivering it to young workers who need it most. To help bridge that gap, we offer the following recommendations:

- **Increase access to real-world work-based learning experiences starting in high school:**

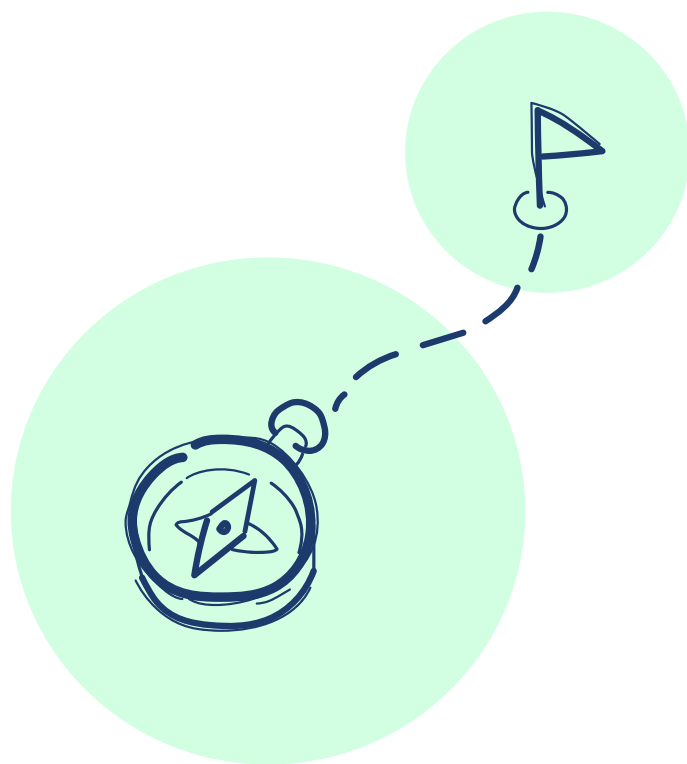
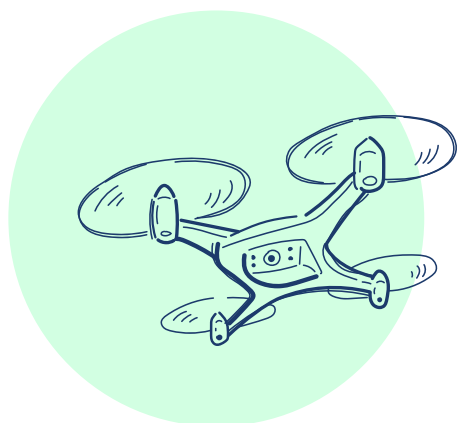
Young people need opportunities to learn through work and gain real-world experience before they graduate from high school. Moreover, in an era where many industries are facing severe talent shortages and organizations are looking to diversify their workforce, providing increased access to work-based learning opportunities can pay dividends in the future. In fact, a 2023 ASA survey of 500 U.S. employers revealed that 86% of respondents said that high school internship programs strengthen the industry pipeline as a whole and 81% said they fill the employment pipeline with culturally diverse candidates.



- **Provide CTE integration with academic institutions:** Many good Launchpad Jobs require some skill training. Career and technical education (CTE) programs have strong track records at providing high school students with the education they need to pursue certain careers. Extending these CTE programs into traditional secondary education institutions would enable many high school students who are not in college preparatory courses to more readily pursue additional CTE-style training and credentialing that aligns with their academic preparation and career ambitions.

- **Deliver a wider array of self-directed tools and consumer-friendly insights:** Young learners not yet on a career path need resources they can tap at their convenience, leveraging familiar technologies to explore available opportunities and understand how those jobs might eventually fold together into careers. Learners would also benefit from timely, high-quality data on prospective employers. A key finding from the Burning Glass Institute’s American Opportunity Index project is that employers have an outsize influence on the career trajectories of their employees in terms of promotion, pay, and retention.
- **Invest in career—not just college—guidance:** High school students shouldn’t have to choose between college guidance and no guidance at all. Both college-bound students as well as high schoolers heading straight into the workforce benefit from counseling and access to trusted data sources that can help deliver the kind of guidance and insight needed to make educated choices about that critical first job and subsequent career steps. This challenge merits a multi-prong strategy. Like young learners themselves, counselors need access to data tools and professional

development opportunities that can boost the value that expert guidance is capable of delivering. Moreover, there needs to be a broader mindset shift within states and school districts to expand the definition of education “success” beyond how many high school seniors matriculate at 4-year higher education institutions. Additional indicators like the shares of graduates pursuing alternative pathways or directly obtaining high-quality Launchpad opportunities would be both fairer and more reflective of the 21<sup>st</sup> century education-to-workforce pipeline.



# METHODOLOGY

## HOW WE SELECTED WHICH JOBS TO INCLUDE IN OUR ANALYSIS

For jobs to qualify as roles that could reasonably be classified as potential Launchpad opportunities for nondegree workers, we first filtered jobs based on whether they satisfied at least one of the following two conditions:

1. At least 20% of workers currently in this occupation needed to have a high school diploma or less of education, **as measured by the Bureau of Labor Statistics**.<sup>1</sup>
2. The job requires a “Postsecondary nondegree award” **according to the BLS** and at least 30% of workers in this occupation have “Some college, no degree” or less education.

We then filtered out occupations that represented less than 0.03% of 18-year-olds in our data to ensure that we had enough observations to conduct high-quality analysis.

## LONG-RUN OCCUPATION TRANSITIONS

Our metrics look at workers’ long-run employment outcomes depending on their starting occupation. Starting at a worker’s first job,<sup>2</sup> we follow workers to their occupation 1-, 5-, 10-, 15-, and 20-years later. We use reported occupation in multiple ways. First, we use it to show the potential paths that workers can take and their relative likelihood. Second, we used it to estimate wages and access to employer sponsored health insurance. Estimated wages come from the **Occupational Employment and Wage Statistics (OEWS)** survey run by the US government. We use occupational wage percentiles to roughly match the wage profile of workers in the American Community Survey (ACS) by age and occupation.<sup>3 4 5</sup> Estimated access to employer health insurance comes from the ACS by occupation. For each year,

we estimate the current occupational wages and access to health insurance of workers by their initial job. Finally, we use the BGI employment profile data to estimate the share of nondegree workers in the top 10% of wage earners. We find workers whose current job is one of these occupations and find their original occupation.

One downside of our employment profile data is that it does not characterize “management” and “first-line supervisor” occupations very well. Because workers self-report their job titles, many workers in oversight occupations simply put “manager” or similar terminology as their job. In SOC codes, “management” occupations are generally reserved for high level positions within companies. Instead, many of these workers are in “first-line supervisor” occupations. The ACS deals with similar problems (about 40% of ACS managers are the generic “Managers, All Other” and these workers earn significantly less than similarly coded workers in the OEWS). Because moving to supervisory/management roles is so important for advancement for these workers, we have attempted to estimate them by creating a “Management, All” occupation category, which combines all workers matched to management occupations. To estimate wages for these occupations, we used median ACS wage estimates by age for “Managers, All Other.”

## SHORT-RUN OCCUPATION TRANSITIONS

Our metrics also look at short-run employment outcomes related to promotion and transitions to unemployment and non-employment. To measure promotion outcomes, we use our profile data. We look at a worker’s first and second job. If a worker’s second job is at the same company as their first job or is in an occupation with a wage estimate 10% higher than their first job, then

we assume they are promoted. We measure the share of workers who are promoted and, conditional on getting a promotion, how long it takes to be promoted on average.

To look at unemployment/non-employment metrics, we use Current Population Survey (CPS) data.<sup>6</sup> We look at workers aged 18-20 with a high school degree. For each occupation, we look at the monthly percent of workers who transition to unemployment and (separately) the percent of workers who transition out of the labor force. To calculate resistance to business cycle fluctuations, we also use CPS data to estimate the share of workers in each occupation who were unemployed during the Great Recession.

## **EDUCATION**

Our metrics look at education decisions workers make further on in their careers. Specifically, we use our profile data to find workers who return to school and earn a credential. We look at the share of workers who return to community colleges to earn an associate degree or a credential and we (separately) look at workers who return to four-year universities to earn a bachelor's degree.

## **AI AND AUTOMATION EXPOSURE**

Our metrics consider workers' exposure to AI and automation. Our AI exposure metrics come from Felten et al. 2021, which measures occupational exposure to AI technologies such as large language models. Our automation exposure metrics come from Frey and Osborne (2013), which measures occupational exposure to automation technologies such as robotics.

## **SKILLS**

Our metrics evaluate the value of workers' skills. Our profiles data allows workers to list the skills they possess. We use Lightcast postings data to estimate the value of these skills in terms of the wages they earn above and beyond occupation, education, and experience requirements. The value of skills is estimated at the SOC-4 level. For each worker, we look at the value of their skills in their current job. We then take average skill value by age-18 occupation.

**Table 1**

Outcome	Data set(s)
Age 18 average estimated wage	Profiles, OEWS, IPUMS ACS
Age 19 average estimated wage	Profiles, OEWS, IPUMS ACS
Age 23 average estimated wage	Profiles, OEWS, IPUMS ACS
Age 28 average estimated wage	Profiles, OEWS, IPUMS ACS
Age 33 average estimated wage	Profiles, OEWS, IPUMS ACS
Age 38 average estimated wage	Profiles, OEWS, IPUMS ACS
Age 18 employer health insurance	Profiles, IPUMS ACS
Age 19 employer health insurance	Profiles, IPUMS ACS
Age 23 employer health insurance	Profiles, IPUMS ACS
Age 28 employer health insurance	Profiles, IPUMS ACS
Age 33 employer health insurance	Profiles, IPUMS ACS
Age 38 employer health insurance	Profiles, IPUMS ACS
Percent ending up in top-10 wage occupations	Profiles, IPUMS ACS
Promotion rate	Profiles, OEWS
Average months to promotion	Profiles, OEWS
Monthly exit to unemployment rate	IPUMS CPS
Monthly exit to nonemployment rate	IPUMS CPS
Average unemployment rate during great recession	IPUMS CPS
Percent achieving certificate/associate degree	Profiles
Percent achieving bachelor's degree	Profiles
Exposure to AI	Profiles, Felten, et al. (2021)
Exposure to automation	Profiles, Frey and Osborne (2013)
Skill premia	Profiles, Lightcast job postings

## Endnotes

- 1 We use this threshold to ensure that workers have a reasonable expectation of being able to work in this job. When looking at occupation after age 18, we lower the share HS threshold by 1 percentage point each year.
- 2 We do not observe worker age in our data. We assume that the first year a worker lists a job is the year they turn 18.
- 3 American Community Survey (ACS) data comes from **IPUMS**.
- 4 We use the following wage estimates: year 0 (age 18), 10<sup>th</sup> percentile; year 1 (age 19), 10<sup>th</sup> percentile; year 5 (age 23) 25<sup>th</sup> percentile; year 10 (age 28), the minimum of median and mean wages; year 15 (age 33), the minimum of median and mean wages; year 20 (age 38), the maximum of median and mean wages. If we list a wage range, then we use these wage estimates for the lower bounds and the following wage estimates for the upper bounds: year 0 (age 18), 25<sup>th</sup> percentile; year 1 (age 19), 25<sup>th</sup> percentile; year 5 (age 23) median wage; year 10 (age 28), 75<sup>th</sup> percentile; year 15 (age 33), 75<sup>th</sup> percentile; year 20 (age 38), 75<sup>th</sup> percentile.
- 5 The two exceptions are management occupations (see below) and military occupations (which are not listed in the OEWS). In both cases, we used estimates based on ACS median wage estimates by age (with the upper bound being 75<sup>th</sup> percentile wages).
- 6 Current Population Survey (CPS) data comes from **IPUMS**.

