

# The Best Jobs for Millennials



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### Introduction

Millennials confront steep challenges as they start their careers. Through the economic recovery, young adults (aged 18 to 34) have consistently faced unemployment rates much higher than the population at large. In July 2015, for instance, the young adult unemployment rate was over 40 percent higher than the national unemployment rate – 7.5 percent versus 5.3 percent, respectively.<sup>1</sup> While this represents a significant improvement since the peak of the Great Recession, recent research by Young Invincibles found that the jobs that the plurality of young adults find are in lower-wage sectors like retail or hospitality that offer fewer opportunities for professional growth.<sup>2</sup>

With these trends in mind, we set out to define the “Best Jobs for Millennials” that might set today’s young people up for economic success. We analyzed over 400 occupations by their salaries, projected future growth, and access for young adults, and found that:

- The best occupation for young adults is as **physician’s assistants**, with **actuaries** in second and a tie for third between **statisticians** and **biomedical engineers**.
- Thirteen of the top 25 jobs are in STEM (science, technology, engineering and math) fields, and an additional five jobs are in medical fields.
- **A gender gap exists for Millennials’ best job prospects:** about 15 of the top 25 (and four of the top five) professions currently employ more men than women, despite the importance of postsecondary education for these jobs and there being almost three million more young women (aged 18 to 34) with postsecondary education than men.<sup>3</sup>

### Background

This fall, nearly three million new students will be entering our nation’s college classrooms,<sup>4</sup> most of them Millennials.<sup>5</sup> These students are overwhelmingly heading to college seeking economic security, better jobs, and wages that will provide stability in their financial lives. In the aftermath of the Great Recession, young adults value these economic incentives more and more. One 2010 survey found 80 percent of high school seniors saw better job opportunities as the primary reason to go to college.<sup>6</sup> In 2012, another survey of freshmen found 88 percent felt the same way.<sup>7</sup> While young people do name social impact and work-life balance as important factors in their careers,<sup>8</sup> the proportion of college students placing better employment outcomes and more pay as primary motivators for a college education is presently around 90 percent.<sup>9</sup>

These students are right to place their trust in higher education, as each additional level of education

attainment significantly increases one's likelihood of employment as well as one's salary.<sup>10</sup> But with the average student borrower taking out \$28,400<sup>11</sup> in student loans and default rates hovering around 13.7 percent,<sup>12</sup> the types of occupations graduates pursue and the incomes they earn will help determine whether that education was worth their investment.

So what are the best jobs for Millennials?

To answer this, Young Invincibles set out to evaluate occupations through multiple criteria. High pay is an important consideration, but so is access. Not all high paying jobs are accessible immediately to a young Millennial starting his or her career (for instance, a CEO of a major corporation). For this reason, we removed from contention the top 10 percent of jobs projected to be the most selective in the future.

Furthermore, the dual forces of technological innovation and a globalized economy are disrupting the workforce, erasing jobs in formerly stable industries like finance and banking, law, and transportation, while at the same time creating new jobs in social media, the sharing economy, and information technology. While it's unclear whether these will produce a total net gain or net loss of jobs in the future,<sup>13</sup> the Bureau of Labor Statistics does project which jobs are expected to grow in coming years. This projection is estimated as a percent change, which uses the current number of workers in that occupation as a baseline. This means that occupations with lower baselines can achieve a higher projected growth rate with a smaller increase in employment than occupations with a larger base number of employees experiencing the same nominal growth. In other words - some of these fields may be growing quickly, but may have offered fewer job openings to begin with. As mentioned above, our minimum threshold for the total number of jobs helps to control for this possibility.

Finally, we recognize that occupations carry many more quantitative and qualitative characteristics than the ones we employed in this analysis. For instance, young people value work-life balance, sometimes even more than salary and benefits. Young adults also prioritize collaborative and creative approaches to work, use of latest technology, and work contributing to positive social change, all aspects of jobs not taken into account here<sup>14</sup> - partially because there is no good method to measure those aspects of a job in a standardized, objective manner.

With these considerations, Young Invincibles analyzed current Bureau of Labor Statistics data to provide a list of the best jobs for Millennials. We built this list using the three major criteria described above: projected occupation growth by 2022, median wage, and "Millennial share" - the percentage of the total jobs in that occupation held by young adults aged 18 to 34. In order to qualify for contention, an occupation had to have above average projected growth, wage, and Millennial share.<sup>15</sup> A ranking was calculated for each variable, and then these scores were averaged to provide an overall ranking.

Below is our ranking:

## The Top 25 Jobs for Millennials

Job Title	Growth by 2022	Median Income	Millennial Share
1 - Physician assistants*	38%	\$90,930	45%
2 - Actuaries	26%	\$93,680	57%
3 (tie) - Statisticians	27%	\$75,560	44%
3 (tie) - Biomedical engineers	27%	\$86,960	43%
5 - Computer and information research scientists	15%	\$102,190	45%
6 - Market research analysts and marketing specialists*	32%	\$60,300	44%
7 - Nuclear engineers	9%	\$104,270	60%
8 - Elevator installers and repairers	25%	\$76,650	41%
9 - Petroleum engineers	26%	\$130,280	35%
10 (tie) - Therapists*	27%	\$70,000	37%
10 (tie) - Dental hygienists*	33%	\$70,210	37%
12 - Logisticians	22%	\$72,780	37%
13 - Financial analysts and advisors	16%	\$71,770	41%
14 - Software developers and programmers	19%	\$87,100	36%
15 - Pharmacists*	15%	\$116,670	35%
16 - Public relations and fundraising managers*	13%	\$95,450	35%
17 (tie) - Public relations specialists*	12%	\$54,170	44%
17 (tie) - Credit analysts	10%	\$61,080	43%
19 - Agents and business managers of artists, performers, and athletes	10%	\$63,370	42%
20 (tie) - Geological and petroleum technicians	15%	\$52,700	40%
20 (tie) - Dietitians and nutritionists*	21%	\$55,240	36%
20 (tie) - Medical scientists*	13%	\$76,080	35%
23 (tie) - Agricultural and food scientists	9%	\$58,610	42%
23 (tie) - Surveyors, cartographers, and photogrammetrists	12%	\$56,530	39%
23 (tie) - Fundraisers*	17%	\$50,680	37%

\* - Indicates that more than 50% of employed population is female.

## **Level of Education and Major**

The BLS lists “typical level of education needed for entry” for many of the four hundred occupations analyzed, and the vast majority of our listed occupations require a postsecondary degree. Overall of the twenty-one occupations for which BLS takes a best estimate at education needed for entry, twenty list a postsecondary degree or credential. However, that guess comes with a number of caveats.

First of all, education is not the only pathway for a given occupation; BLS also looks at on-the-job training and average experience needed. For many job openings, candidates will be evaluated along these three criteria, where a candidate with only an associate’s, but years of valuable experience, might be preferred over a candidate with a higher degree but fewer years of experience.

Moreover, the “education needed for entry” variable relies on the Census Bureau’s American Community Survey, which uses the same occupation codes as BLS. Not only is this data source restricted by the survey sample size, but survey responses include workers at all points in their careers, not just entry, running the risk of inflating the education needed for entry. Furthermore, especially for licensed and credentialed positions, various employers may be subject to different state, local, and internal policies in the level of education needed to fill the occupation.

Clearly, connecting education and the workforce is hampered by a lack of robust data. Understanding which majors or programs are most likely to lead to a career in one of these top fields is straightforward for some but not for others, and no data system comprehensively connects our educational systems to our workforce needs.

## **STEM**

Among these top occupations, jobs requiring a background in STEM (Science, Technology, Engineering, and Mathematics) are heavily represented. Indeed, thirteen of the top twenty-five positions are STEM occupations, with another five in health care related fields (often requiring an educational background in the sciences). Together, these eighteen occupations make up almost three quarters of the list – something worth considering for a Millennial who is about to choose her or his college major. The concentration of STEM occupations on this list is unsurprising because the demand for STEM competent employees is growing at far greater rates than overall employment, driving up wages.<sup>16</sup> Furthermore, the health care industry is the only major industry sector employing large numbers of Millennials that has seen its median wages increase in the past decade, which makes its prevalence on the list no surprise.<sup>17</sup>

## Pathways Through Apprenticeships

One notable outlier on the list is “Elevator Installer and Repairer,” a job that requires no postsecondary education, but is highly in demand, offering significant growth and a competitive salary. While no degree is required for this occupation, the Bureau of Labor Statistics notes that employees holding these jobs typically have to go through an apprenticeship to be considered, which highlights the importance and potential of the Registered Apprenticeship (RA) program as an option for young adults seeking a productive career without attending college. Other occupations typically requiring an apprenticeship generally involve construction, such as “Structural Iron & Steel Workers”, “Carpenters”, and “Electricians.” The good news is that the Department of Labor is planning to disburse \$100 million to expand apprenticeships in high-skilled, high-growth industries like healthcare, biotechnology, information technology and advanced manufacturing, so we can expect to see other occupations requiring apprenticeships to appear on “Best Jobs” lists in the future.<sup>18</sup>

## Gender

Finally, fifteen out of the top twenty-five occupations currently employ more men than women, and out of the top five occupations, four employ more men than women. With such a large portion of our list occupied by STEM occupations, this gender disparity aligns with previous research identifying gender gaps in both STEM choice of major and occupation. Indeed, 13.5 million women between the ages of 18 to 34 have completed a postsecondary degree, almost three million more than young men, but only about 25 percent of employed STEM degree holders are women and only one in five STEM degree holders working in STEM jobs are women.<sup>19,20</sup>

However, for a number of these jobs – including physician’s assistants, dental hygienists, and dietitians – more than 70 percent of current employees are presently women.<sup>21</sup> Some others are close to parity, such as statisticians and agents and business managers of artists.

## Top Jobs by Education Level

Beyond this Top 25 Occupations list, we also determined the top three occupations by required education:<sup>22</sup>

### Top 3 Jobs for Millennials Without a High School Diploma

Job Title	Growth by 2022	Median Income	Millennial Share
1 (tie) - Roustabouts, oil and gas	19%	\$34,130	73%
1 (tie) - Sailors and marine oilers	16%	\$38,190	56%
3 - Roofers	11%	\$35,290	51%

### Top 3 Jobs for Millennials With a High School Diploma/GED

Job Title	Growth by 2022	Median Income	Millennial Share
1 - Elevator installers and repairers	25%	\$76,650	41%
2 - Reinforcing iron and rebar workers	23%	\$45,910	78%
3 - Sales representatives, services, all other	16%	\$50,850	36%

### Top 3 Jobs for Millennials With an Associate's Degree

Job Title	Growth by 2022	Median Income	Millennial Share
1 - Dental hygienists*	33%	\$70,210	37%
2 - (tie) Geological and petroleum technicians	15%	\$52,700	40%
2 - (tie) Registered nurses*	19%	\$65,470	30%

\* - Indicates that more than 50% of employed population is female.

### Top 3 Jobs for Millennials With a Bachelor's Degree

Job Title	Growth by 2022	Median Income	Millennial Share
1 - Actuaries	26%	\$93,680	57%
2 (tie) - Biomedical engineers	27%	\$86,960	43%
2 (tie) - Petroleum engineers	26%	\$130,280	35%

While most of these occupations appear in the Top 25, it is worth noting that the top jobs requiring an Associate's degree or Bachelor's degree are all in the STEM or health care fields. Also, the second place job for High School graduates after elevator repair is iron reinforcing and rebar work – another apprenticeship-based position offering high growth and a competitive wage.

### Conclusions

Together, these occupations represent some of the best career options for Millennials. While a ranking such as this is meant to be helpful for young adults, it by no means captures the real outcomes of students taking different courses of study from different institutions. Incomes vary in either direction of the estimated medians, and growth projections are BLS' best prediction of the future, a task rife with methodological pitfalls.

So what's next? As millions of students walk onto college campuses this fall, they can take this information with them. However, the information is incomplete – knowing the best jobs does not mean knowing the best majors to get those jobs, or even how far to take their studies. Perhaps the most significant limitation of this analysis, particularly as it relates to assisting Millennials planning their education and career, is the lack of connection between postsecondary program and actual outcomes in the workforce. As previously mentioned, we cannot confidently point to which institutions, in what sectors, produce the degrees that lead to these desirable occupations. The level of education needed each occupation relies on high-quality, but limited survey data, rather than an authoritative level of education required or through a comprehensive accounting of the education attainment level for each worker in every occupation. Only an overhaul of our national information systems could provide us with the accurate and reliable information needed to help future young adults to make informed decisions about their education and career.

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**Descriptions for Top 25 Jobs for Millennials**

Job Title	Description
1 - Physician assistants	Physician assistants, also known as PAs, practice medicine on a team under the supervision of physicians and surgeons. They are formally educated to examine patients, diagnose injuries and illnesses, and provide treatment.
2 - Actuaries	Actuaries analyze the financial costs of risk and uncertainty. They use mathematics, statistics, and financial theory to assess the risk that an event will occur and they help businesses and clients develop policies that minimize the cost of that risk. Actuaries' work is essential to the insurance industry.
3 (tie) - Statisticians	Statisticians use statistical methods to collect and analyze data and help solve real-world problems in business, engineering, the sciences, or other fields.
3 (tie) - Biomedical engineers	Biomedical engineers analyze and design solutions to problems in biology and medicine, with the goal of improving the quality and effectiveness of patient care.
5 - Computer and information research scientists	Computer and information research scientists invent and design new approaches to computing technology and find innovative uses for existing technology. They study and solve complex problems in computing for business, medicine, science, and other fields.
6 - Market research analysts and marketing specialists	Market research analysts study market conditions to examine potential sales of a product or service. They help companies understand what products people want, who will buy them, and at what price.
7 - Nuclear engineers	Nuclear engineers research and develop the processes, instruments, and systems used to derive benefits from nuclear energy and radiation. Many of these engineers find industrial and medical uses for radioactive materials—for example, in equipment used in medical diagnosis and treatment.
8 - Elevator installers and repairers	Elevator installers and repairers install, fix, and maintain elevators, escalators, moving walkways, and other lifts.
9 - Petroleum engineers	Petroleum engineers design and develop methods for extracting oil and gas from deposits below the earth's surface. Petroleum engineers also find new ways to extract oil and gas from older wells.
10 (tie) - Therapists	Therapists treat injured, ill, or disabled patients through the therapeutic use of everyday activities. They help these patients develop, recover, and improve the skills needed for daily living and working.
10 (tie) - Dental hygienists	Dental hygienists clean teeth, examine patients for signs of oral diseases such as gingivitis, and provide other preventative dental care. They also educate patients on ways to improve and maintain good oral health.

12 - Logisticians	Logisticians analyze and coordinate an organization's supply chain—the system that moves a product from supplier to consumer. They manage the entire life cycle of a product, which includes how a product is acquired, distributed, allocated, and delivered.
13 - Financial analysts and advisors	Financial analysts provide guidance to businesses and individuals making investment decisions. They assess the performance of stocks, bonds, and other types of investments.
14 - Software developers and programmers	Software developers are the creative minds behind computer programs. Some develop the applications that allow people to do specific tasks on a computer or other device. Others develop the underlying systems that run the devices or control networks.
15 - Pharmacists	Pharmacists dispense prescription medications to patients and offer expertise in the safe use of prescriptions. They also may provide advice on how to lead a healthy lifestyle, conduct health and wellness screenings, provide immunizations, and oversee the medications given to patients.
16 - Public relations and fundraising managers	Public relations managers plan and direct the creation of material that will maintain or enhance the public image of their employer or client. Fundraising managers coordinate campaigns that bring in donations for their organization.
17 (tie) - Public relations specialists	Public relations specialists create and maintain a favorable public image for the organization they represent. They design media releases to shape public perception of their organization and to increase awareness of its work and goals.
17 (tie) - Credit analysts	Analyze credit data and financial statements of individuals or firms to determine the degree of risk involved in extending credit or lending money. Prepare reports with credit information for use in decisionmaking.
19 - Agents and business managers of artists, performers, and athletes	Represent and promote artists, performers, and athletes in dealings with current or prospective employers. May handle contract negotiations and other business matters for clients.
20 (tie) - Geological and petroleum technicians	Geological and petroleum technicians provide support to scientists and engineers in exploring and extracting natural resources, such as minerals, oil, and natural gas.
20 (tie) - Dietitians and nutritionists	Dietitians and nutritionists are experts in food and nutrition. They advise people on what to eat in order to lead a healthy lifestyle or achieve a specific health-related goal.
20 (tie) - Medical scientists	Medical scientists conduct research aimed at improving overall human health. They often use clinical trials and other investigative methods to reach their findings.
23 (tie) - Agricultural and food scientists	Agricultural and food scientists work to ensure that agricultural establishments are productive and food is safe.

<p>23 (tie) - Surveyors, cartographers, and photogrammetrists</p>	<p>Surveyors make precise measurements to determine property boundaries. They provide data relevant to the shape and contour of the Earth's surface for engineering, mapmaking, and construction projects. Cartographers are mapmakers who use principles of cartographic design to make user-friendly maps. Photogrammetrists are specialized mapmakers who use aerial photographs, satellite images, and light-imaging detection and ranging technology (LIDAR) to build models of the Earth's surface and its features for purposes of creating maps.</p>
<p>23 (tie) - Fundraisers</p>	<p>Fundraisers organize events and campaigns to raise money and other donations for an organization. They may design promotional materials and increase awareness of an organization's work, goals, and financial needs.</p>

### Methodology

For this analysis, Young Invincibles used Bureau of Labor Statistics (BLS) data and projections. In 2012, BLS released employment projections for 2022, across a broad range of occupations.<sup>23</sup> We merged these occupations with the most recent (2014) occupational data, broken down by age.<sup>24</sup>

Three criteria were used to analyze the eligible occupations: growth rate (%), median income, and “Millennial share.” Millennial share is defined as the percentage of each occupation’s present employment held by 16 to 34-year-olds. If a position has above average growth, median income, and millennial share, it was placed in contention for the list. Then, to remove outliers with low total employment, we removed any positions with projected employment values in the bottom ten percent of occupations.<sup>25</sup>

After this, we scored each of the occupations by ranking them across each of the remaining three criteria, providing equal weight to each by averaging the rankings to produce a final score.

## End Notes

1. Young Invincibles, "Millennial Unemployment Rate Falls Slightly and Remains Unchanged Nationally," press release, August 7, 2015, <http://younginvincibles.org/millennial-unemployment-rate-falls-slightly-and-remains-unchanged-nationally/>.
2. Tom Allison and Konrad Mugglestone, "Where Do Young Adults Work?" (Washington, DC: Young Invincibles, 2014), 2-3, <http://younginvincibles.org/wp-content/uploads/2014/12/Where-Do-Young-Adults-Work-12.4.pdf>.
3. Data derived from the U.S. Census Bureau's Current Population Survey, 2014, available at <http://www.census.gov/cps/data/cpstablecreator.html> Includes individuals with some college.
4. National Center for Education Statistics (NCES), "Table 305.10: Total fall enrollment of first-time degree/certificate-seeking students in degree-granting postsecondary institutions, by attendance status, sex of student, and level and control of institution: 1955 through 2024," in, 2014 Digest of Education Statistics, (Washington, DC: 2015), [https://nces.ed.gov/programs/digest/d14/tables/dt14\\_305.10.asp?current=yes](https://nces.ed.gov/programs/digest/d14/tables/dt14_305.10.asp?current=yes).
5. NCES, "Table 303.40: Total fall enrollment in degree-granting postsecondary institutions, by attendance status, sex, and age: Selected years, 1970 through 2023," in 2014 Digest of Education Statistics, (Washington, DC: 2015), [http://nces.ed.gov/programs/digest/d13/tables/dt13\\_303.40.asp](http://nces.ed.gov/programs/digest/d13/tables/dt13_303.40.asp).
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8. Tom Allison and Konrad Mugglestone, "The Future of Millennial Jobs" (Washington, DC: Young Invincibles, 2014), 10, accessed August 18, 2015, <http://younginvincibles.org/wp-content/uploads/2014/12/FUTURE-OF-MILLENNIAL-JOBS-12.9.pdf>.
9. The New America Foundation, "College Decisions Survey: Deciding to Go to College" (Washington, DC: 2015), <http://www.edcentral.org/collegedecisions/>.
10. Rory O'Sullivan, Konrad Mugglestone and Tom Allison, "Closing the Race Gap: Alleviating Young African American Unemployment Through Education" (Washington, DC: Young Invincibles, 2014), 8-10, <http://www.studentimpactproject.org/reports>.
11. The Institute on College Access and Success (TICAS), "Student Debt and the Class of 2013" (Washington, DC: 2014), 1, <http://ticas.org/sites/default/files/legacy/fckfiles/pub/classof2013.pdf>.
12. U.S. Department of Education, "Three-year Official Cohort Default Rates for Schools" (Washington, DC: 2014), <http://www2.ed.gov/offices/OSFAP/defaultmanagement/cdr.html>.
13. Allison and Mugglestone, "The Future of Millennial Jobs," 4.
14. Allison and Mugglestone, "The Future of Millennial Jobs," 10.
15. For degree specific analyses, we calculated distinct scores across the degree level in order to compare a job only against its peers. The main list includes all occupation types, regardless of education level, including occupations that do not have a typical education level specified. It is also interesting to note that these occupations occur in a variety of sectors: private, public, and self-employment. For instance, someone working in the top occupation of physician's assistant could work inside a private physician's practice, at a public health clinic or facility, or could have started their own business.
16. Anthony Carnivale, Nicole Smith and Michelle Melton, "STEM: Science, Technology, Engineering, Mathematics," (Washington, DC: Georgetown Center for Education and the Workforce, 2011), 8-9, <https://cew.georgetown.edu/wp-content/uploads/2014/11/stem-complete.pdf>.
17. Allison and Mugglestone, "Where Do Young Adults Work?", 1.
18. "\$100M in grants to transform apprenticeship for the 21st century by expanding training into new high-skilled, high-growth industries", (Washington, DC: US Department of Labor, 2015), <http://www.dol.gov/opa/media/press/opa/OPA20142233.htm>.
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20. Data derived from the U.S. Census Bureau's Current Population Survey, 2014, available at <http://www.census.gov/cps/data/cpstablecreator.html>.
21. Based on Bureau of Labor Statistics (BLS), "Table 11: Employed persons by detailed occupation, sex, race, and Hispanic or Latino identity," (Washington, DC: 2015), <http://www.bls.gov/cps/cpsaat11.htm>.
22. We omitted Masters and Professional Degrees because individuals with these advanced degrees are specialized and are more likely to find employment and economic success.
23. Relevant data is accessible here: BLS, "Table 1.2: Employment by detailed occupation, 2012 and projected 2022," (Washington, DC: 2013), [http://www.bls.gov/emp/ep\\_table\\_102.htm](http://www.bls.gov/emp/ep_table_102.htm).
24. Relevant data is accessible here: BLS, "Table 11b: Employed persons by detailed occupation and age," (Washington, DC: 2015), <http://www.bls.gov/cps/cpsaat11b.htm>.
25. For example, "Sociologists" originally made the list because they had an extremely high Millennial share. However, with only 2,600 jobs in 2012, it is a very small profession as well - offering very little opportunity for future young graduates.