

BRIDGING EDUCATION AND CAREER

Essential Skills for Psychology PhDs

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Based on a collaborative project by the Council of Graduate Schools and the American Psychological Association, this info-brief is one of a series that examines psychology doctoral graduates' program experiences and career outcomes.

KEY TAKE-AWAYS

- Analytical thinking was rated as the most important skill for psychology PhDs to successfully perform their jobs.
 - Other important skills or attributes included adaptability/flexibility, dependability, persistence, and stress tolerance.
- Across different work sectors, skills and attributes were rated differently.
 - In educational settings, persistence and integrity were also rated as the most important skills and attributes in addition to analytical thinking.
 - For jobs beyond educational settings, adaptability/flexibility and dependability were rated as the most important skills and attributes aside from analytical thinking.

According to the National Science Foundation's National Survey of College Graduates, in 2017, there were approximately 187,000 psychology doctoral or professional degree holders in the workforce.¹ About 35% worked in educational settings, 55% worked in private settings, and 10% worked in government settings.² Despite the fact that they work in a variety of settings, 97% believed their jobs are related to psychology. How well did their psychology training prepare them for the job? How did they apply skills learned to the workforce? What career paths did they take?

Findings

In the PhD Career Pathways survey distributed by the Council of Graduate Schools and its partner institutions, psychology PhD graduates were asked to rate how important different attributes and skills are in successfully performing

¹ American Psychological Association. (2018). Careers in Psychology. [Interactive Data Tool]. <https://www.apa.org/workforce/data-tools/careers-psychology>

² Educational settings include research university, master's/regional university, liberal arts college, community or two-year college, college or university system, and preschool, elementary, middle, secondary school or school system. Private settings include non-profit and for-profit organizations. Government settings include US federal (including military), state, or local government, as well as non-US government. These work sectors are mutually exclusive categories.

their jobs.³ Psychology graduates rated “analytical thinking” as one of the most important skills in order to successfully perform their jobs. About 91% of those working in educational settings and 89% of those in jobs beyond educational settings reported analytical thinking as being “very important” or “extremely important” to successfully perform their jobs. Other important skills or attributes included persistence, adaptability/flexibility, dependability, integrity, and stress tolerance. These findings were similar to graduates in other STEM fields.⁴

FIGURE 1

TOP SKILLS/ATTRIBUTES BY WORK SECTOR

RANKING BY WORK SECTOR	EDUCATIONAL SETTINGS	GOVERNMENT SETTINGS	FOR-PROFIT SETTINGS	NON-PROFIT SETTINGS
1	Analytical Thinking	Analytical Thinking	Dependability	Dependability
2	Persistence	Adaptability/ Flexibility	Analytical Thinking	Analytical Thinking
3	Integrity	Stress Tolerance	Adaptability/ Flexibility	Integrity
4	Initiative	Integrity	Cooperation	Adaptability/ Flexibility
5	Achievement/ Effort	Dependability	Attention to Detail	Initiative

Skills and attributes were rated very differently across the different work sectors

- Analytical thinking was the only skill/attribute that ranked highly across all work sectors. It was the top ranked skill/attribute for both educational settings and government settings. It was the second highest for both for-profit and non-profit settings.
- Dependability was top ranked by both for-profit and non-profit settings, and fifth ranked in government settings. However, it was not ranked in the top five in educational settings.
- Adaptability/Flexibility was ranked highly in all work sectors except educational settings.
- Integrity was ranked highly in all work sectors except for-profit settings.
- Initiative was ranked highly in both educational settings and non-profit settings.
- Persistence and achievement/effort only occurred in educational settings.
- Stress tolerance only appeared in government settings.
- Cooperation and attention to detail only occurred in for-profit settings.

³ PsyD degree holders were not included in the survey. Respondents were asked “How important are each of the following attributes/skills in successfully performing your work in this job?”: not important, somewhat important, important, very important, and extremely important. The following attributes/skills were rated: achievement/effort, adaptability/flexibility, analytical thinking, attention to detail, concern for others, cooperation, dependability, independence, initiative, innovation, integrity, leadership, persistence, resilience, rigor, risk-taking, self-control, social orientation, and stress tolerance. Findings of this info-brief are based on those skills identified as “very important” and “extremely important”.

⁴ Okahana, H., Zhou, E., & Kinoshita, T. (2019). CGS Research in Brief: Closing Gaps in our Knowledge of PhD Career Pathways: How Well Did a STEM PhD Train Degree Recipients for Their Careers? <https://cgsnet.org/cgs-research-brief-closing-gaps-our-knowledge-phd-career-pathways-how-well-did-stem-phd-train-degree?nl=>

Conclusion and Discussion: How to help psychology graduates achieve their career goals?

Results from this analysis show that psychology programs prepare graduates to perform well in various job settings. Graduates report using a wide variety of skills across all work sectors. It is important to teach students how to identify these skills and market themselves effectively and strategically.

- Encourage students to develop a [diverse set of essential skills](#)⁵ such as analytical thinking, adaptability/flexibility, and stress tolerance, and recognize that they are widely applicable to jobs within and beyond education or practice settings.
- Help students identify the different skills, attributes, and expertise valued in different jobs and settings, and build a skill set for the career path of their choosing. Provide concrete examples of language describing essential skills, especially for jobs outside academia. Teach students how to market their skills effectively and strategically in their job searching process.
- Increase professional development opportunities to help students understand how skills learned can be applied to jobs. Invite mid- or late-career alumni working in different work environments to share their experience and provide more resources and guidance to students to support the transition from degree to career. Engage with and foster partnerships with current and prospective employers to provide more professional development opportunities such as internships.
- Utilize resources to identify skills that are valued in job markets. [APA's Job Advertisements in Psychology](#) data tool is a useful resource that describes the characteristics of job advertisements in psychology, including trends, geographic distribution, and qualifications. APA offers resources to help programs and trainees learn more about career pathways and jobs on its [Individual Development Plan \(IDP\)](#) resource portal and its [How Did you Get that Job?](#) webinar series.

About the Data

All data in the analysis were collected through the Council of Graduate Schools' (CGS) PhD Career Pathways Project (2017 and 2018 survey cycles), supported by grants from The Andrew W. Mellon Foundation (grant number 31600612) and the National Science Foundation (grant number 1661272). Any opinions, findings, and conclusions or recommendations expressed in this brief do not necessarily reflect the views of the funders, nor do they constitute official policy of the APA.

The survey was distributed to PhD degree recipients and asked questions pertaining to their program experience and career outcomes. Each participating university administered the survey and shared the survey data with CGS. CGS produced aggregated data for APA to analyze the program experience and career outcomes of psychology graduates.

The analysis was based on a combined sample of psychology graduates, which consisted of 426 individuals from 33 institutions from the 2017 survey cycle, and 585 individuals from 40 institutions from the 2018 survey cycle. As the survey was distributed to PhD degree recipients only, PsyD degree holders were not included in this analysis.

⁵ EMSI. (2020). Resilient Skills. <https://www.economicmodeling.com/resilient-skills/>

For more information on the psychology education pipeline and workforce, visit www.apa.org/workforce
For more information on the PhD Career Pathways Project, visit cgsnet.org/understanding-career-pathways

Recommended Citations

American Psychological Association. (2021). Bridging education and career: Psychology training prepares PhD graduates for careers in a variety of settings. <https://www.apa.org/workforce/publications/psycpathways/training-preparation.pdf>

American Psychological Association. (2021). Bridging education and career: Essential skills for psychology PhDs. <https://www.apa.org/workforce/publications/psycpathways/essential-skills.pdf>

American Psychological Association. (2021). Bridging education and career: Non-linear career pathways in psychology. <https://www.apa.org/workforce/publications/psycpathways/non-linear-career.pdf>



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