



Email Newsletter

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Eagle I.O's- What's in a Name? I/O as a STEM

What does STEM stand for?

- **Science:** I/O psychology, biology, environmental sciences, chemistry, physicals, medicine
- **Technology:** computer science, industrial design, information technology
- **Engineering:** aerospace engineering, biomedical engineering, electrical engineering
- **Math:** applied mathematics, data science, statistics

*"This transition ensures that the rigorous, scientific contributions of I-O psychology in creating effective organizations are now appropriately recognized."
- Dia Chatterjee, PhD*



What was added?

The 22 new fields of study are bioenergy, general forestry, forest resources production and management, human-centered technology design, cloud computing, anthrozoology, climate science, earth systems science, economics and computer science, environmental geosciences, geobiology, geography and environmental studies, mathematical economics, atmospheric and oceanic science, general data science, general data analytics, business analytics, data visualization, financial analytics, other data analytics, industrial and organizational psychology, and social sciences research and quantitative methods [1], [2].

What is a STEM field?

STEM is a broad term used to group together these academic disciplines. This term is typically used to address an educational policy or curriculum choices in schools. There is no universal agreement on which disciplines are included in STEM; in particular, whether or not the science in STEM includes social sciences, such as psychology, sociology, economics, and political science.

In the United States, these are typically included by organizations such as the National Science Foundation (NSF). The NSF deals with all matters concerning science and new discoveries in science as it affects development, research, innovations, the Department of Labor's O*Net online database for job seekers, and the Department of Homeland Security.

What does it mean for I/O to be named a STEM field?

A several-year-long effort came to fruition last month when the United States Department of Homeland Security (DHS) added Industrial and Organizational Psychology to the STEM Optional Practical Training (OPT) program [1].

I-O psychology was one of 22 programs added to enhance the contributions of nonimmigrant students studying in STEM fields and support the growth of the U.S. economy and innovation [1], [2].

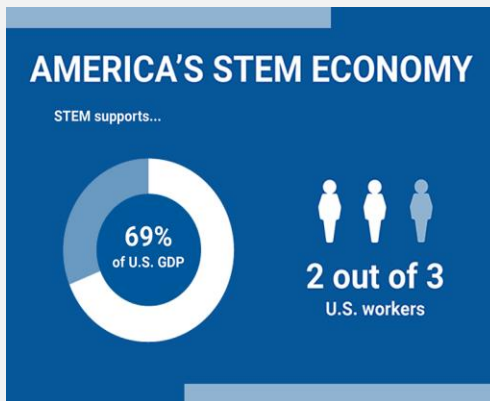
This designation will positively impact how the field markets itself and will allow graduate students and faculty to compete for STEM-related funding opportunities and collaborations. Furthermore, F-1 visa students earning bachelor's, master's, or doctoral degrees can remain in the United States for up to 36 months after degree attainment to work in their field of study as a STEM major [1], [2].

Below are some popular STEM grants I/O students and faculty now qualify for:

- Society for Science [STEM research grants](#)
- [National Science Foundation](#)
- Templeton Foundation [Science and the Big Questions](#)
- U.S. Department of Education [STEM Grants](#)
- National Center for Education Research [STEM Education](#)

There is no single pathway or pipeline in STEM education. While the pathways may vary and be difficult to describe in detail, there are nonetheless ingredients for success in STEM that can be discussed, principally: [6].

1. The acquisition of knowledge, skills, and habits of mind
2. Opportunities to put these into practice
3. A developing sense of competence, confidence, and progress
4. Motivation to be in and self-identification with the field
5. Information about stages, requirements, and opportunities



Will this impact the I/O job market?

As we approach the end of 2022 with a multi-year global health crisis in the form of the COVID-19 pandemic finally showing signs of abatement, it is an appropriate time to ask what the new label of being a STEM field will mean for I/O psychologists and our job market.

I/O as a STEM

So far, there hasn't been any publicly available data or shared insights on how being named a STEM field impacts the job market for a particular field of study, but it has been shown to increase enrolment numbers within colleges and universities for the discipline [3].

Benefits of Being a STEM

Are there potential benefits to being named a STEM field? Yes! Some immediate benefits are the ability to apply for STEM-specific grants and funding, as discussed above. Additionally, the declaration of being a STEM field will provide additional visibility to I/O psychology as a field. For students, typically, a STEM degree will improve your chances of being employable, increase your earning potential, and teach you valuable skills that are useful in many different fields [4], [5]. In other words, if you study industrial-organizational psychology, you'll not only learn about human behavior, but you'll also learn how we function in a work environment – and how to improve that functionality. The skills you learn can also be applied to a wide range of workplaces [4], [5].

Job Market for STEM Fields

Overall, the outlook overall for STEM fields is excellent. Between 2005 and 2015, STEM employment grew by nearly 25% – over five times more than non-STEM employment over the same period [3]. Throughout the 2020s, the U.S. Bureau of Labor Statistics projects that more than 1,000,000 STEM jobs will have been added, representing nearly 11% growth compared to less than 8% for all other industries [3].

STEM is Key:

STEM powers the U.S. economy. Sixty-seven percent of U.S. jobs and 69% of the nation's GDP (gross domestic product) are supported by STEM, with direct STEM jobs accounting for 33% of the economy [6].



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