

Analyzing E-Learning Platforms

Coursera

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Presented by

Greta Ohanjanyan Anna Khosrovyan



Subject

- Business (3,762)
- Computer Science (2,889)
- Information Technology (2,248)
- Data Science (1,673)

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Language ⓘ

- English (11,003)
- Spanish (6,350)
- French (5,438)
- Arabic (5,368)

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Learning Product

- Guided Projects (1,592)
Build job-relevant skills in under 2 hours with hands-on tutorials.
- Courses (10,668)
Learn from top instructors with graded assignments, videos, and discussion forums.
- Projects (571)
Learn a new tool or skill in an interactive, hands-on environment.
- Specializations (1,309)
Get in-depth knowledge of a subject by completing a series of courses and projects.
- Professional Certificates (185)
Earn career credentials from industry leaders that demonstrate your expertise.



→ New AI skills

**Google Cybersecurity**

Skills you'll gain: Network Security, Python Programming, Linux, Cloud Computing, Audit, Computer Programming, Computer Security...

 Build toward a degree

★ 4.8 · 44K reviews

Beginner · Professional Certificate · 3 - 6 Months



→ New AI skills

**Google Data Analytics**

Skills you'll gain: Data Analysis, R Programming, SQL, Spreadsheet Software, Business Analysis, Business Communication, Data Visualization,...

 Build toward a degree

★ 4.8 · 159K reviews

Beginner · Professional Certificate · 3 - 6 Months



→ New AI skills

**Google Project Management:**

Skills you'll gain: Project Management, Strategy and Operations, Leadership and Management, Communication, Business Communication,...

 Build toward a degree

★ 4.8 · 120K reviews

Beginner · Professional Certificate · 3 - 6 Months



→ New AI skills

**Google Digital Marketing & E-commerce**

Skills you'll gain: Digital Marketing, Marketing, Marketing Management, Media Strategy & Planning, Sales, E-Commerce, Data Analysis,...

Machine Learning Specialization



Multiple educators

Machine Learning

Skills you'll gain: Machine Learning, Machine Learning Algorithms, Applied Machine Learning, Algorithms, Deep Learning, Machine Learning...



→ New AI skills

**Google IT Support**

Skills you'll gain: Computer Networking, Network Analysis, Network Architecture, Networking Hardware, Network Model, Critical...

	Title	Organization		URL	Rating	Metadata	Skills
0	Google Data Analytics	Google		https://www.coursera.org/professional-certificate/google-data-analytics	4.8	Beginner · Professional Certificate · 3 - 6 Mo...	Skills you'll gain: Data Analysis, R Programming, SQL, Google Sheets
1	Google Cybersecurity	Google		https://www.coursera.org/professional-certificate/google-cybersecurity	4.8	Beginner · Professional Certificate · 3 - 6 Mo...	Skills you'll gain: Network Security, Python Programming, Cryptography
2	Google Project Management:	Google		https://www.coursera.org/professional-certificate/google-project-management	4.8	Beginner · Professional Certificate · 3 - 6 Mo...	Skills you'll gain: Project Management, Strategic Thinking, Team Collaboration
3	Google Digital Marketing & E-commerce	Google		https://www.coursera.org/professional-certificate/google-digital-marketing-e-commerce	4.8	Beginner · Professional Certificate · 3 - 6 Mo...	Skills you'll gain: Digital Marketing, Market Research, SEO, E-commerce Strategy
4	Google IT Support	Google		https://www.coursera.org/professional-certificate/google-it-support	4.8	Beginner · Professional Certificate · 3 - 6 Mo...	Skills you'll gain: Computer Networking, Network Troubleshooting, Cloud Computing

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Google Data Analytics Professional Certificate

Get on the fast track to a career in Data Analytics. In this certificate program, you'll learn in-demand skills, and get AI training from Google experts. Learn at your own pace, no degree or experience required.

Instructor: [Google Career Certificates](#) [Top Instructor](#) [+ New AI skills](#)

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Try for Free: Enroll to start your 7-day full access free trial
Financial aid available

2,504,492 already enrolled

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8 course series
Earn a career credential that demonstrates your expertise

4.8 ★
(148,047 reviews)

Beginner level
Recommended experience

Flexible schedule
6 months, 10 hours a week
Learn at your own pace

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What you'll learn

- ✓ Gain an immersive understanding of the practices and processes used by a junior or associate data analyst in their day-to-day job
- ✓ Understand how to clean and organize data for analysis, and complete analysis and calculations using spreadsheets, SQL, and R programming
- ✓ Learn key analytical skills (data cleaning, analysis, & visualization) and tools (spreadsheets, SQL, R programming, Tableau)
- ✓ Learn how to visualize and present data findings in dashboards, presentations and commonly used visualization platforms

Skills you'll gain

Data Analysis Creating case studies Data Visualization Data Cleansing Developing a portfolio Data Collection
Spreadsheet Metadata SQL Data Ethics Data Aggregation Data Calculations R Markdown [View all skills](#)

Details to know



Shareable certificate
Add to your LinkedIn profile



Taught in English
11 languages available

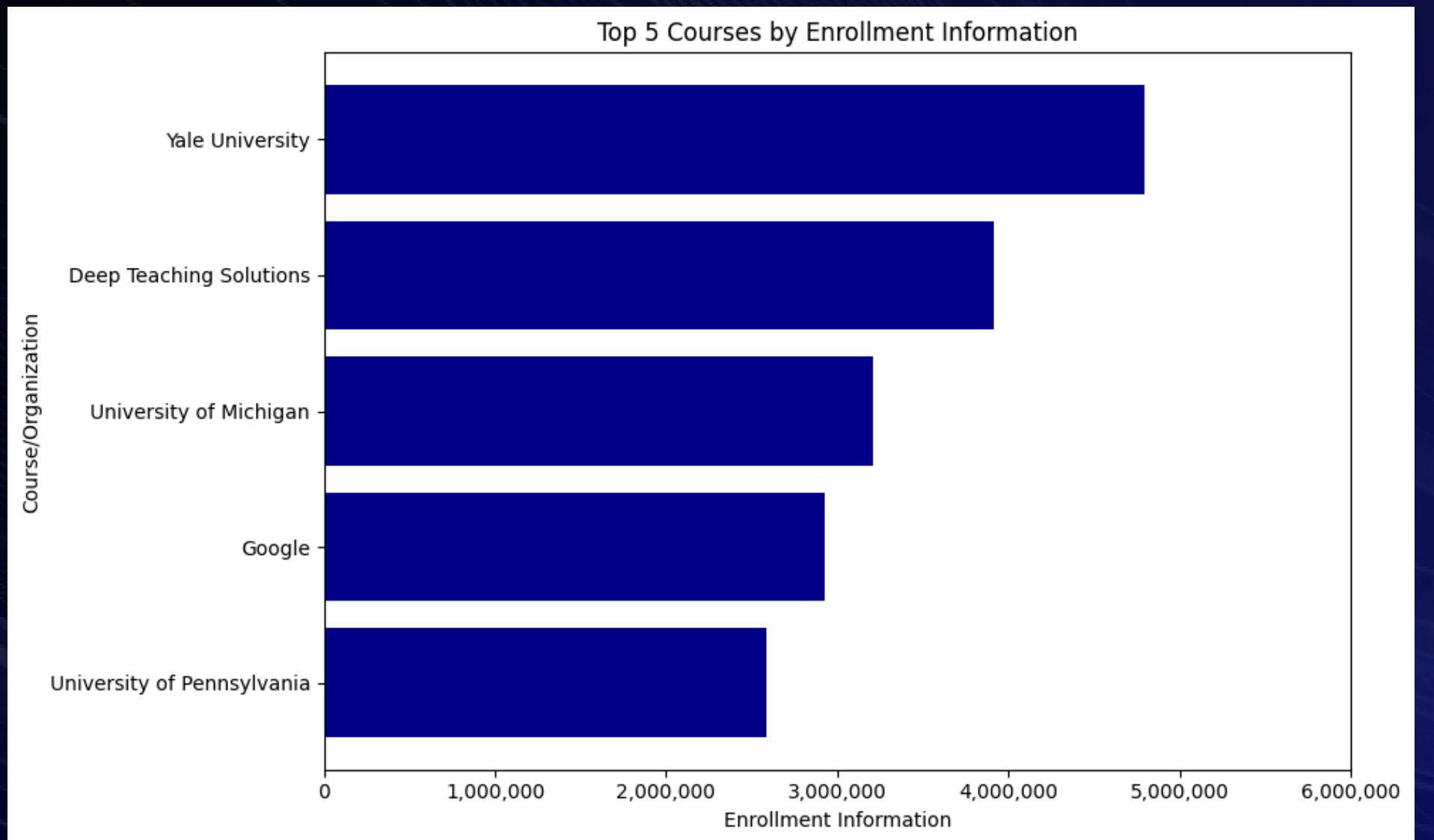
	URL	Languages Available	Enroll Information	Assignments Count	Taught Language
0	https://www.coursera.org/professional-certific...	11 languages available	2,468,706 already enrolled	Not available	Taught in English
1	https://www.coursera.org/professional-certific...	11 languages available	759,433 already enrolled	Not available	Taught in English
2	https://www.coursera.org/professional-certific...	11 languages available	1,807,675 already enrolled	Not available	Taught in English
3	https://www.coursera.org/professional-certific...	11 languages available	831,347 already enrolled	Not available	Taught in English
4	https://www.coursera.org/professional-certific...	11 languages available	1,695,991 already enrolled	Not available	Taught in English

```
print(df.isnull().sum())
```

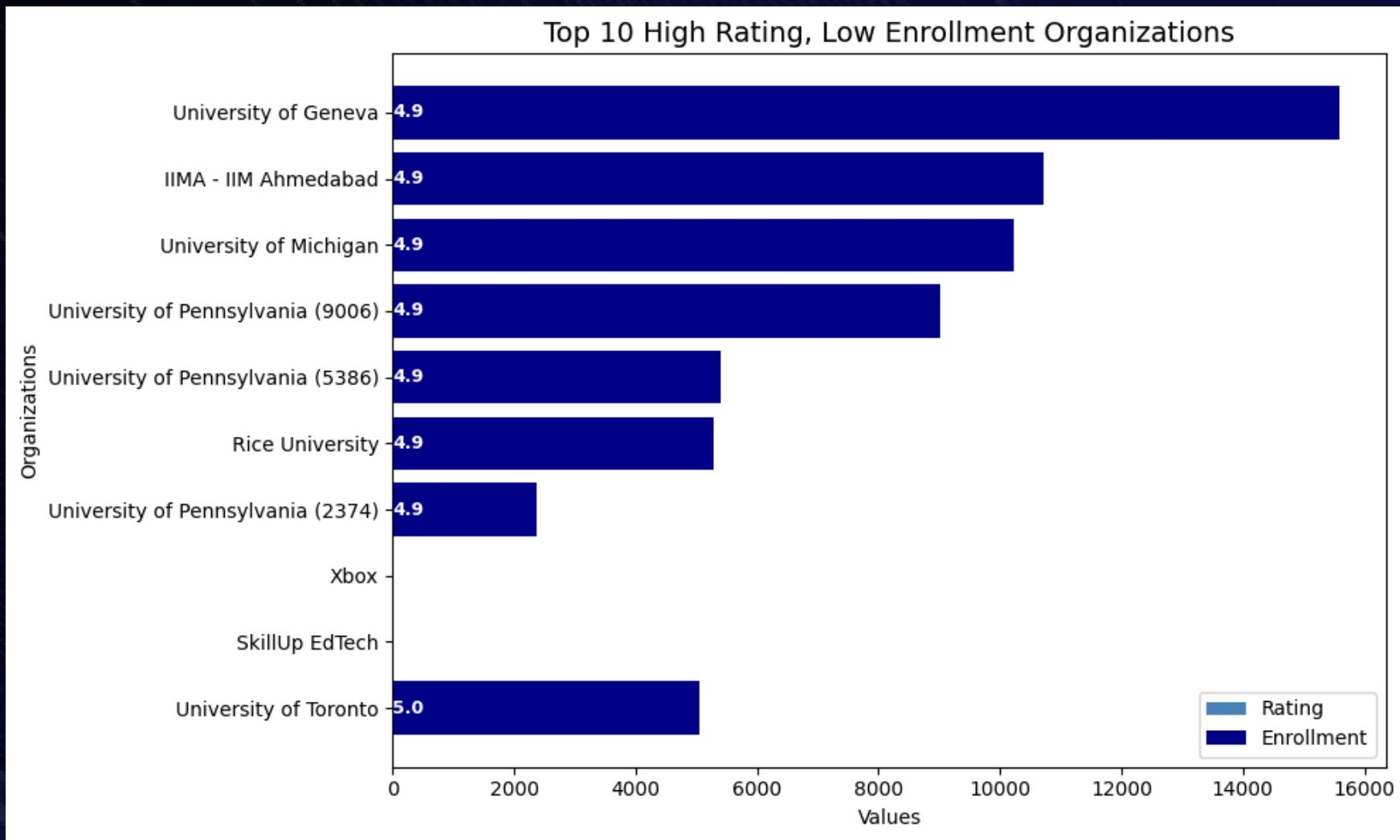
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Organization	0
URL	0
Rating	7
Metadata	0
Skills	127
Languages Available	0
Enroll Information	32
Assignments Count	0
Taught Language	0
	dtype: int64

Title		object
Organization		object
URL		object
Rating		float64
Languages Available		int32
Enroll Information		int32
Taught Language		object
Difficulty		object
Type		object
Duration		object
Data Science Skills Count		int64
Engineering and Programming Skills Count		int64
Mathematical Theory and Problem Solving Skills Count		int64
Skills Count		int64
Quizzes		int32
Assignments		int32
	dtype: object	

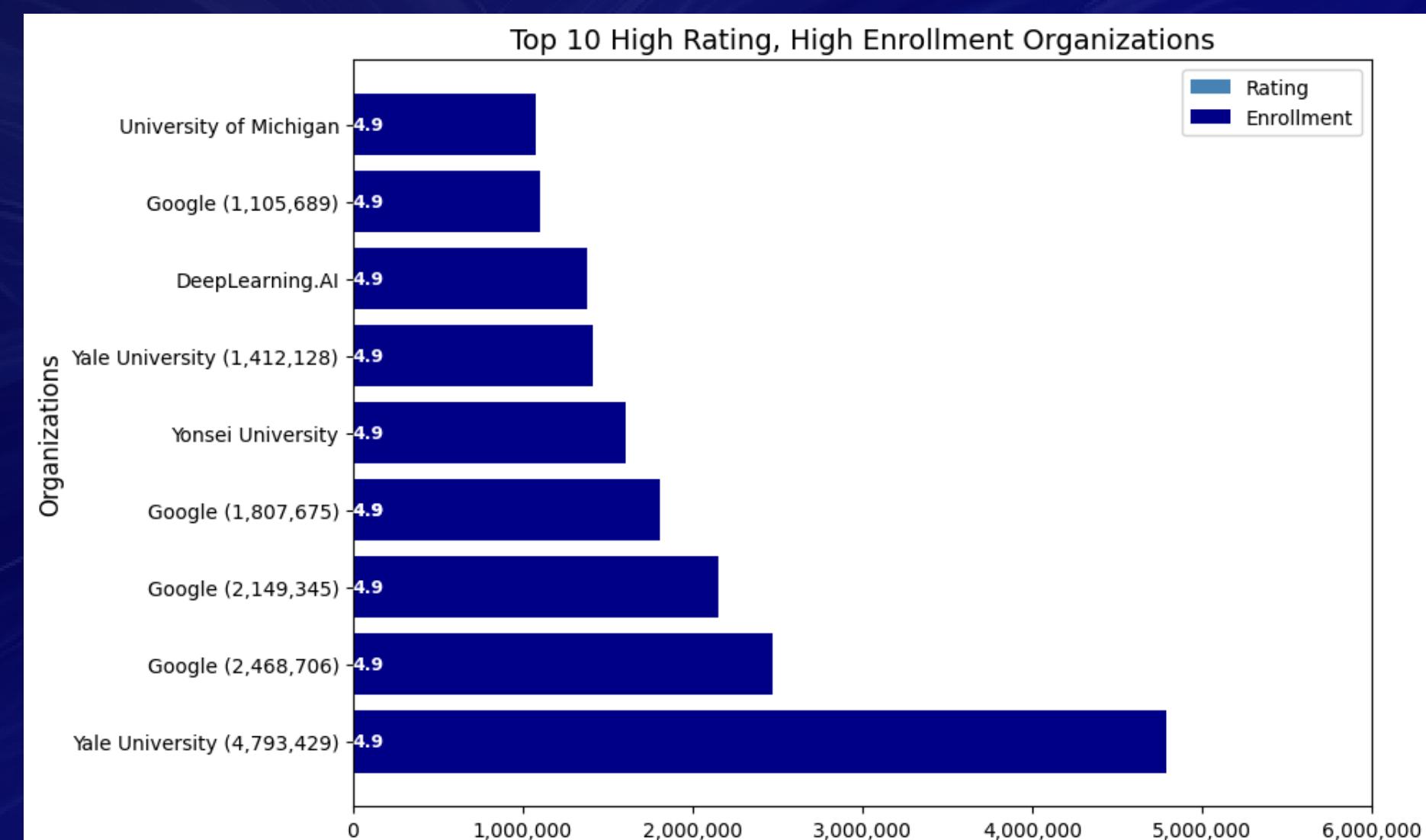
Analysis of Enrollment Numbers and Course Ratings



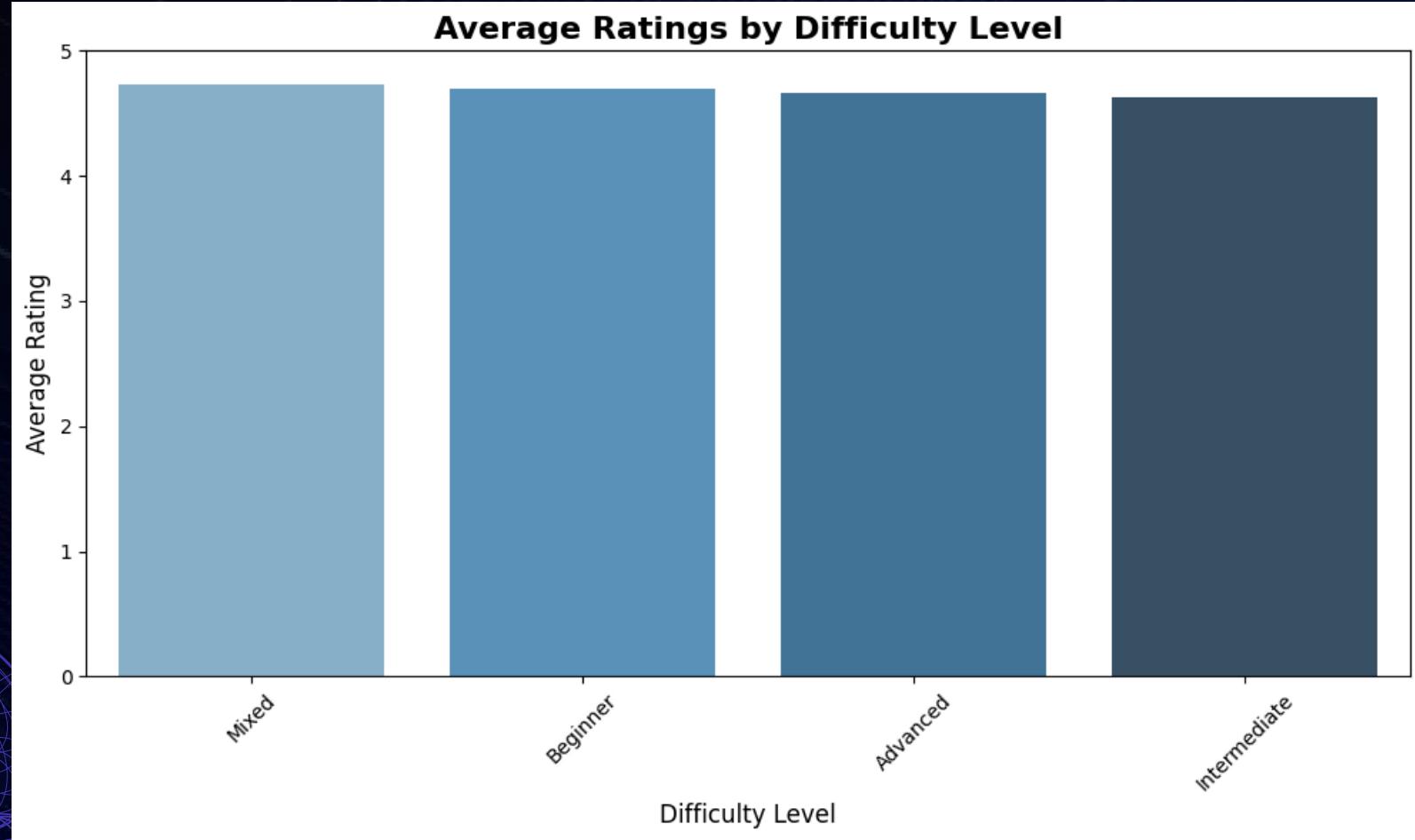
Top 10 High Rating, High Enrollment Organizations



Top 10 High Rating, Low Enrollment Organizations

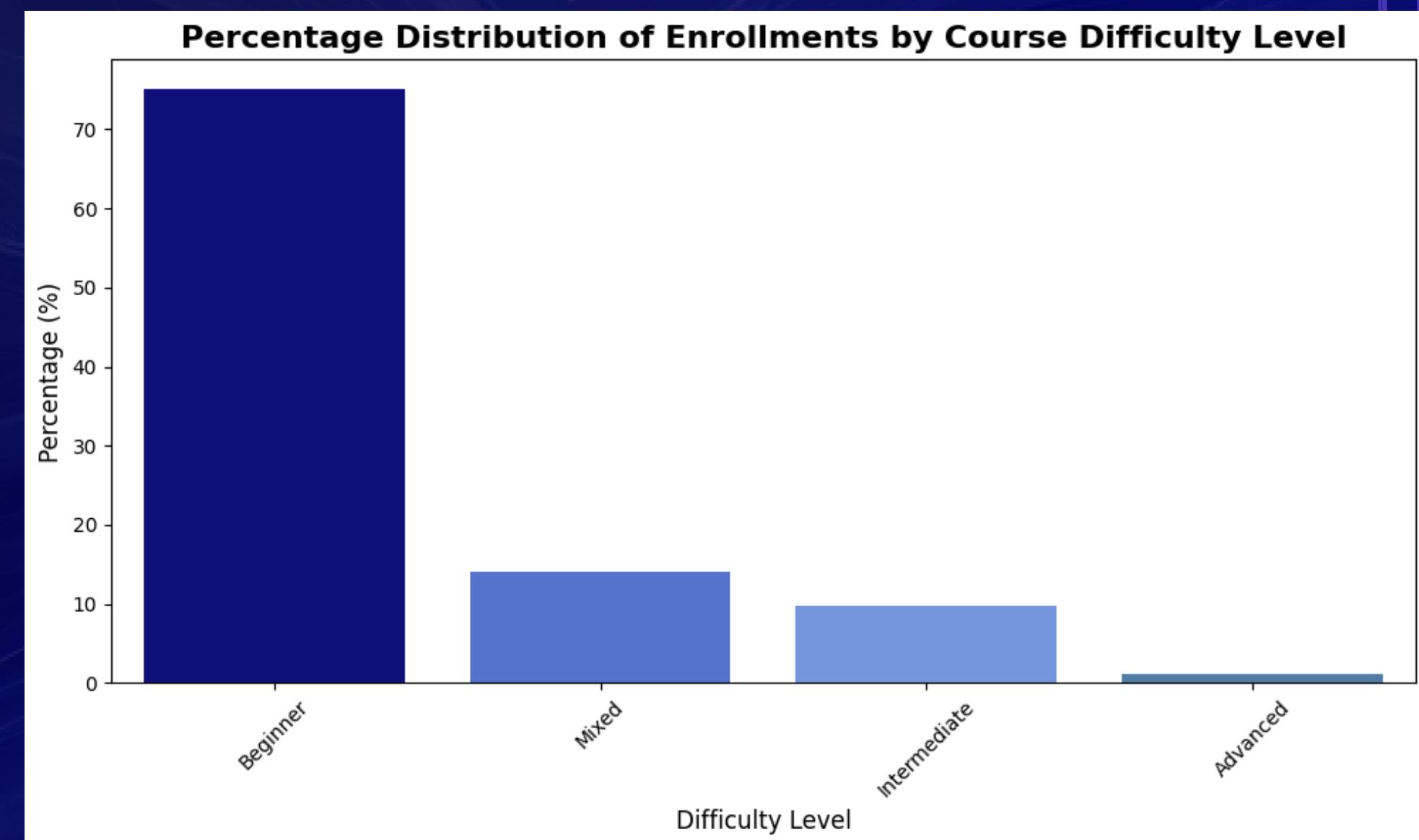


Average Ratings by Difficulty Level

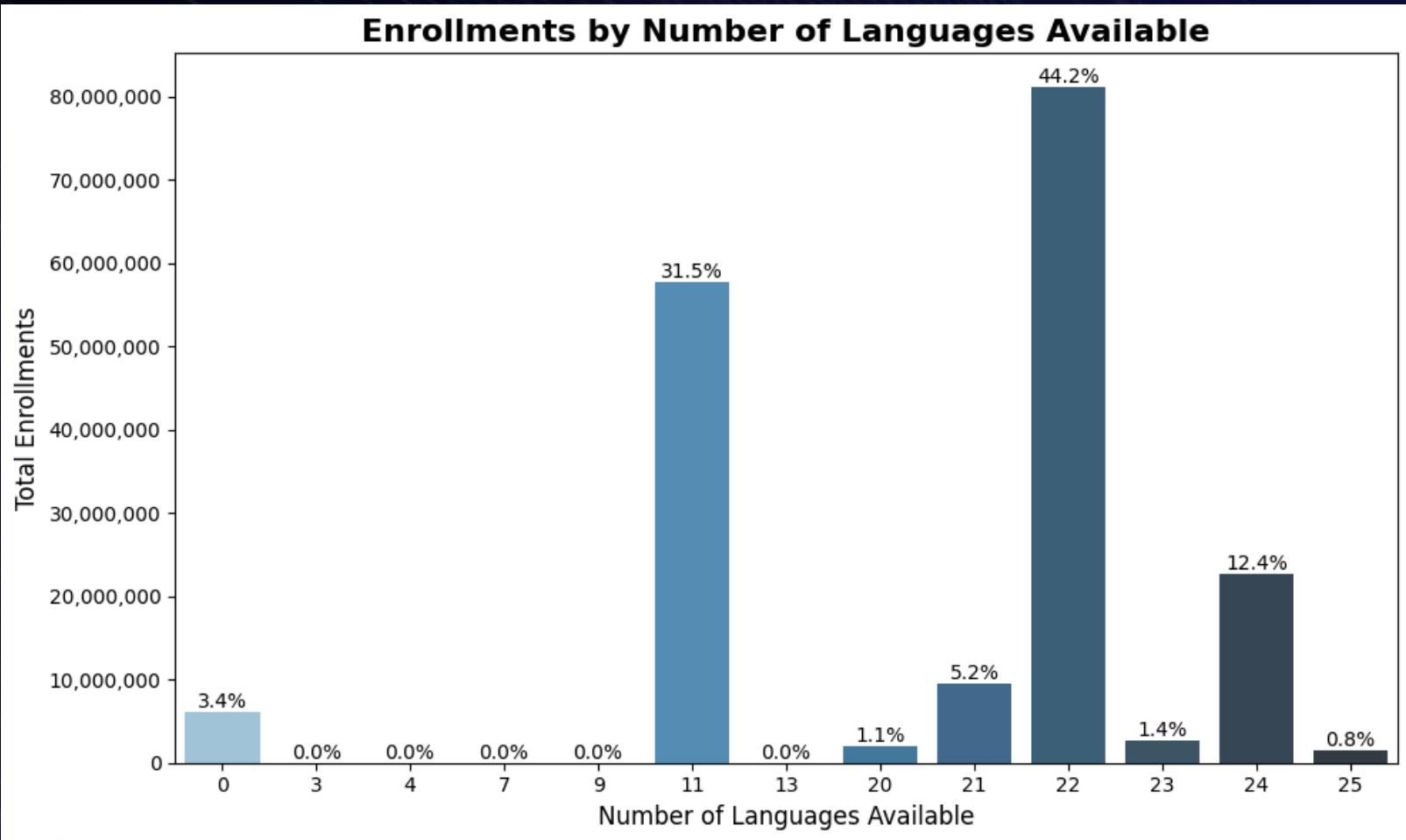


**Percentage Distribution of Enrollments
by Course Difficulty Level**

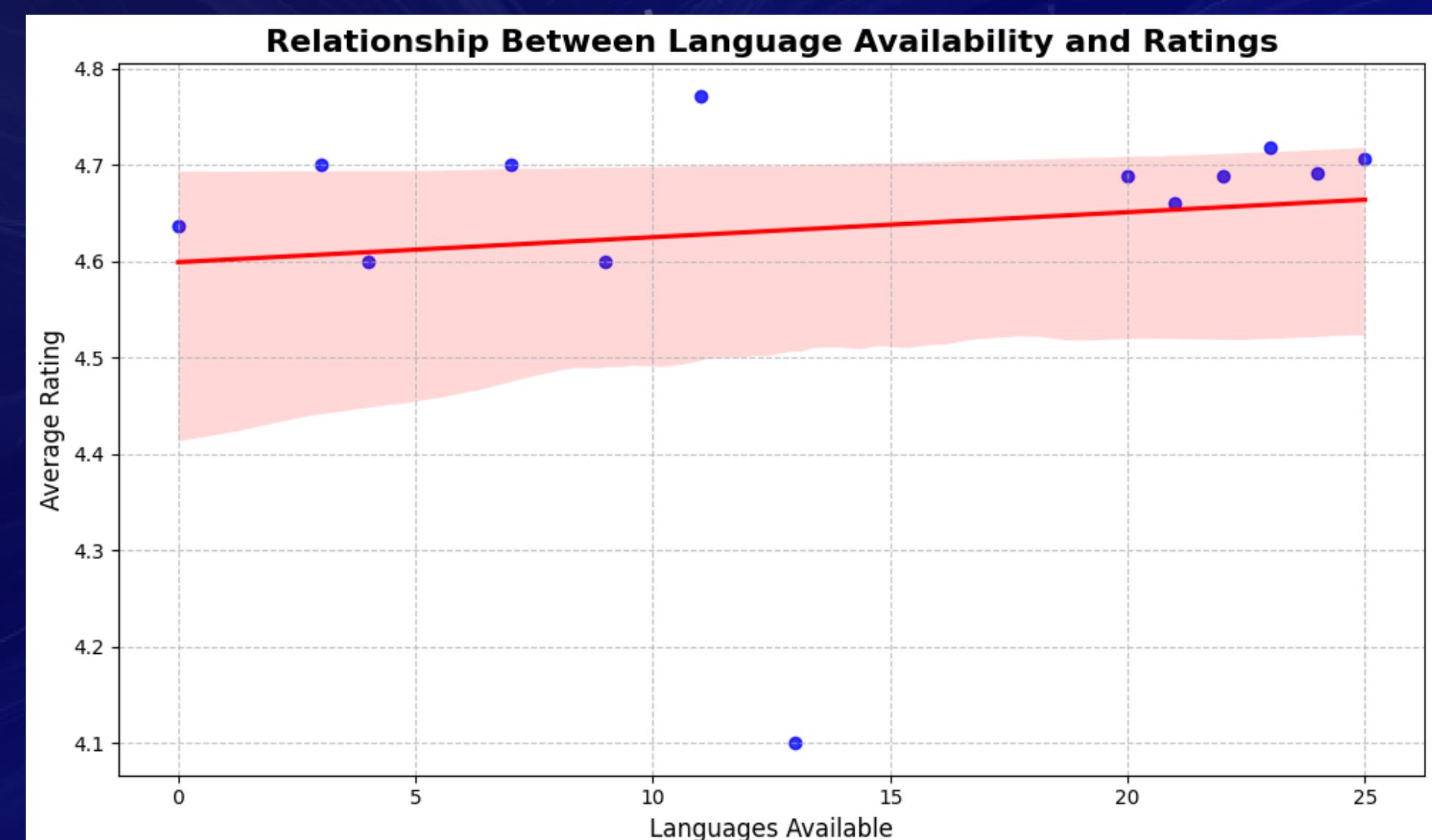
Average Ratings by Difficulty Level



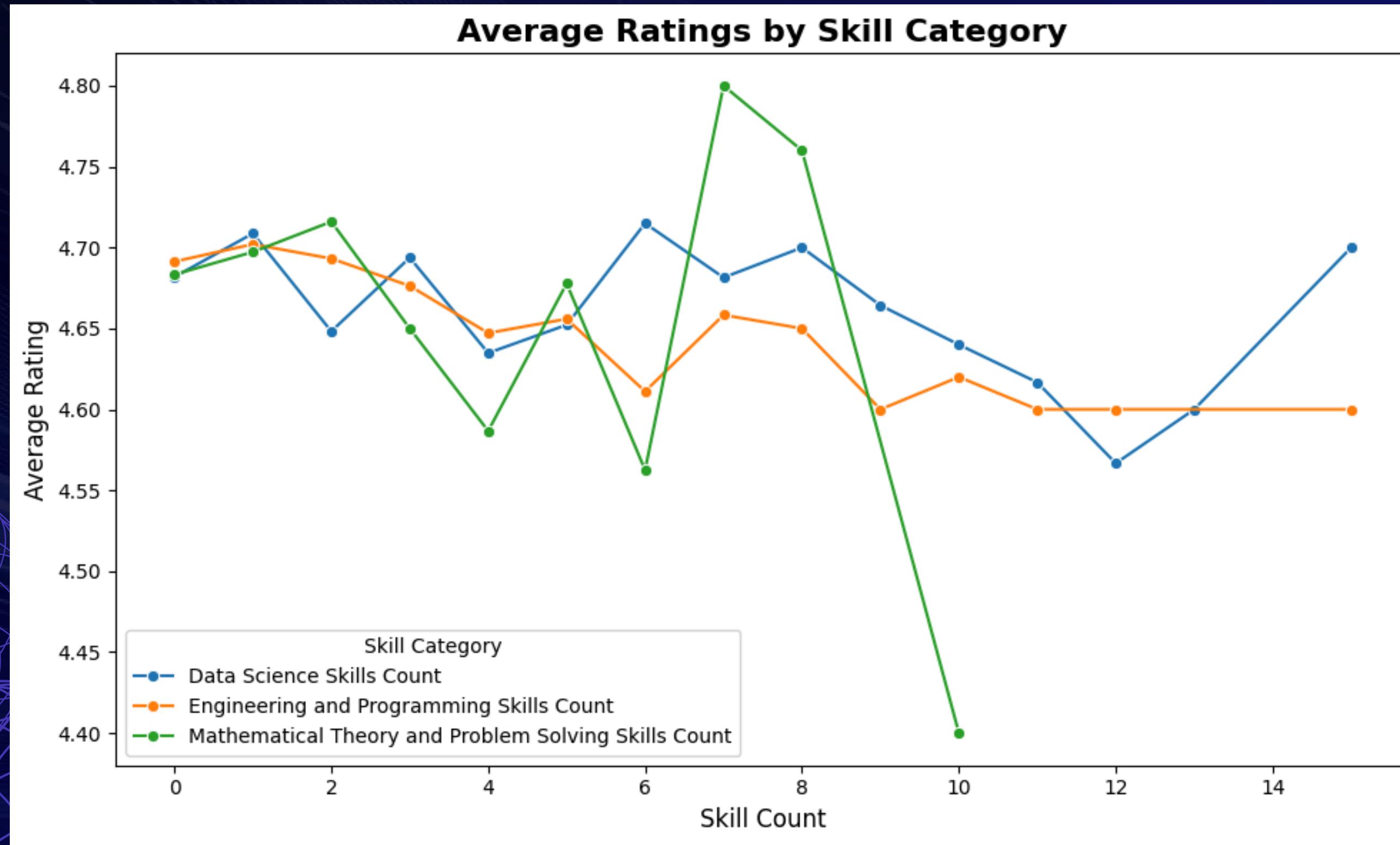
Relationship Between Language Availability and Ratings



Enrollments by Number of Languages Available:



Average Ratings by Skill Category



Logit Regression Results

Dep. Variable:	Enrollment_Dummy	No. Observations:	989					
Model:	Logit	Df Residuals:	975					
Method:	MLE	Df Model:	13					
Date:	Sun, 12 Jan 2025	Pseudo R-squ.:	0.1590					
Time:	14:07:17	Log-Likelihood:	-576.50					
converged:	False	LL-Null:	-685.52					
Covariance Type:	nonrobust	LLR p-value:	2.645e-39					
		coef	std err	z	P> z	[0.025	0.975]	
Intercept		-4.2452	2.239	-1.896	0.058	-8.633	0.143	
C(Difficulty, Treatment(reference="Beginner"))[T.Advanced]		-0.5418	0.466	-1.162	0.245	-1.456	0.372	
C(Difficulty, Treatment(reference="Beginner"))[T.Intermediate]		-0.2146	0.184	-1.164	0.245	-0.576	0.147	
C(Difficulty, Treatment(reference="Beginner"))[T.Mixed]		0.5539	0.313	1.769	0.077	-0.060	1.168	
C(Taught_Language, Treatment(reference="English"))[T.French]		-2.7868	1.078	-2.586	0.010	-4.899	-0.674	
C(Taught_Language, Treatment(reference="English"))[T.Japanese]		-21.1383	2.22e+04	-0.001	0.999	-4.35e+04	4.34e+04	
C(Taught_Language, Treatment(reference="English"))[T.Portuguese (Brazil)]		18.1590	1.07e+04	0.002	0.999	-2.1e+04	2.1e+04	
C(Taught_Language, Treatment(reference="English"))[T.Spanish]		0.3585	0.778	0.461	0.645	-1.166	1.882	
Type[T.Guided Project]		-19.0672	1.07e+04	-0.002	0.999	-2.11e+04	2.1e+04	
Type[T.Professional Certificate]		-1.4111	0.239	-5.913	0.000	-1.879	-0.943	
Type[T.Specialization]		-1.7409	0.172	-10.109	0.000	-2.078	-1.403	
Rating		1.0257	0.474	2.162	0.031	0.096	1.955	
Skills_Count		0.0324	0.008	3.894	0.000	0.016	0.049	
Quizzes		0.0645	0.024	2.670	0.008	0.017	0.112	

Higher Ratings, More Skills, and Quizzes significantly increase enrollment likelihood.

No significant impact compared to "Beginner."

French negatively impacts enrollment; others show instability.

Specializations*have lower enrollment than Professional Certificates.

Marginal Effects

Logit Marginal Effects						
Dep. Variable:	Enrollment_Dummy	dy/dx	std err	z	P> z	[0.025 0.975]
Method:	dydx					
At:	overall					
C(Difficulty, Treatment(reference="Beginner"))[T.Advanced]		-0.1077	0.093	-1.164	0.244	-0.289 0.074
C(Difficulty, Treatment(reference="Beginner"))[T.Intermediate]		-0.0427	0.037	-1.167	0.243	-0.114 0.029
C(Difficulty, Treatment(reference="Beginner"))[T.Mixed]		0.1101	0.062	1.777	0.076	-0.011 0.232
C(Taught_Language, Treatment(reference="English"))[T.French]		-0.5539	0.212	-2.615	0.009	-0.969 -0.139
C(Taught_Language, Treatment(reference="English"))[T.Japanese]		-4.2012	4404.745	-0.001	0.999	-8637.344 8628.941
C(Taught_Language, Treatment(reference="English"))[T.Portuguese (Brazil)]		3.6090	2132.667	0.002	0.999	-4176.342 4183.560
C(Taught_Language, Treatment(reference="English"))[T.Spanish]		0.0712	0.154	0.461	0.645	-0.232 0.374
Type[T.Guided Project]		-3.7895	2132.895	-0.002	0.999	-4184.187 4176.608
Type[T.Professional Certificate]		-0.2805	0.044	-6.358	0.000	-0.367 -0.194
Type[T.Specialization]		-0.3460	0.027	-12.968	0.000	-0.398 -0.294
Rating		0.2038	0.094	2.179	0.029	0.020 0.387
Skills_Count		0.0064	0.002	4.001	0.000	0.003 0.010
Quizzes		0.0128	0.005	2.694	0.007	0.003 0.022

THANK YOU

Presented by

Greta Ohanjanyan Anna Khosrovyan