

# Digital Talent Snapshot in Malaysia

Q2, 2024

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# About MDEC

Malaysia Digital Economy Corporation (MDEC), a government agency under the purview of the Ministry of Digital, was established in 1996 to lead Malaysia's digital economy. Beginning with the implementation of the MSC Malaysia initiative, we have since then catalysed digital transformation and growth all over the nation. By offering greater incentives and governance for growth and re-investment, we aspire to bolster Malaysia's status as the digital hub of ASEAN, opening new doors and driving shared prosperity for all Malaysians.

## 1. LinkedIn Talent Insight (LTI)

*Information was extracted from LinkedIn Talent Insights on 30 June 2024 using filtering of 1,291 digital tech and services related roles identified all industries in Malaysia and the Region.*

*The term 'digital talent' used in this document is defined as talents currently employed and having an active LinkedIn profile, hence, may not be fully reflective on the entire talent ecosystem.*

## 2. MDEC Research

*MDEC research and tracking of digital job vacancies across 5 job portals – LinkedIn, Jobstreet, MauKerja, MYFutureJobs and Foundit (previously known as Monster); Limitations to the availability of data filters that is accessible publicly on their respective job portals; Extraction as of 30 June 2024*

## 3. A Study of the Demand for TVET Workforce in Cybersecurity Field, 2023 by CSM

*The study concludes that there is a growing demand for a skilled TVET workforce in the cybersecurity field. As cybersecurity threats increase, industries are seeking qualified professionals with technical skills, making TVET graduates vital to filling this gap. The study highlights the importance of providing targeted training and opportunities to meet the rising demand in this critical sector.*

# Digital Talent Landscape, 2<sup>nd</sup> Quarter 2024

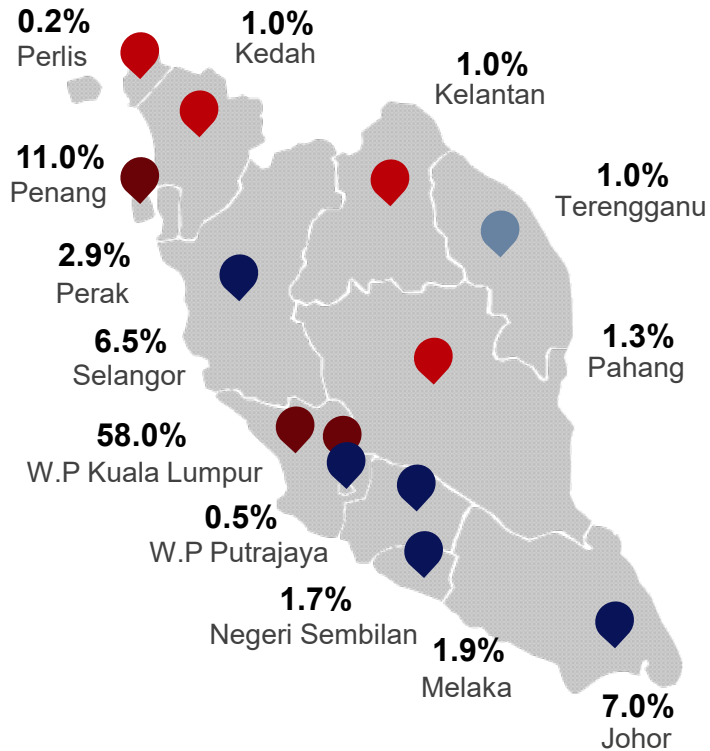
## ~Key Insights

1. Malaysia currently has 350,150 digital talents on LinkedIn, marking a 4.47% growth from Q1 2024.
2. There has been a significant increase from 42,835 in Q1 to 80,719 in Q2, 2024 for digital job vacancies in across job platforms like LinkedIn, Jobstreet, MYFutureJobs, MauKerja, and Foundit.
3. The demand far exceeds supply for digital talent particularly in Cybersecurity and Artificial Intelligence (AI).
4. Hiring demand of digital talents remains low in Terengganu and W.P Labuan.
5. 50% of industries with very high demand for digital talents are from non-tech sectors.

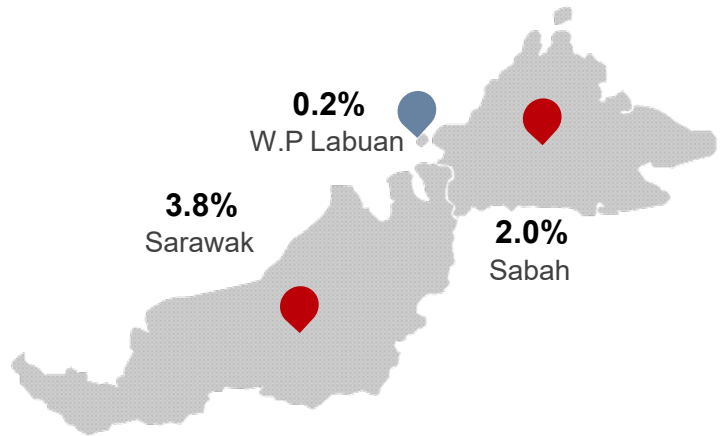
6. Manufacturing industries are witnessing significant digital talent growth, reflecting a shift towards Industry 4.0 (4IR), where automation, data analytics, and IoT integration are becoming essential.
7. Data Engineer and Back End Developer are the 2 fastest growing job titles in Malaysia.
8. The fastest-growing skills reflect a strong focus on Doctrine (PHP), Artificial Intelligence and Computer Science highlighting a regional trend towards advanced programming, AI, and data-driven expertise
9. Common skills in-demand across Asia are Software Development and Information Technology.

# Digital Talents in Malaysia

**350,150** digital talents in Malaysia are on LinkedIn.



### Hiring Demand of Digital Talents



Percentage of Digital Talents in Malaysia

Top Locations	Professionals
Kuala Lumpur	179,630
George Town, Penang	33,611
Johor Bahru	17,707
Subang Jaya, Selangor	6,703
Cyberjaya, Selangor	6,642

### Hidden Gem Locations!



# Companies with Highest Digital Talent Growth

## Fastest Growing Job Titles (YoY)

### Malaysia

1. Data Engineer (+8%)
2. Back End Developer (+7%)
3. Junior Software Engineer (+7%)
4. Data Science (+7%)
5. Full Stack Engineer (+7%)
6. Data Specialist (+6%)
7. Senior Business Analyst (+5%)
8. Application Specialist (+4%)
9. Data Analyst (+4%)
10. Design Engineer (+3%)

### Southeast Asia

1. Data Engineer (+5%)
2. Senior Analyst (+3%)
3. Application Engineer (+2%)
4. Junior Software Engineer (+2%)
5. DevOps Engineer (+2%)
6. Digital Specialist (+1%)
7. Solution Architect (+1%)
8. Data Scientist (+1%)
9. Business Analyst (+1%)
10. Chief Technology Officer (+1%)

The growth in **Data-related** and **Software Development** roles reflects the industry's focus on data management, analysis, and application development, with a steady but diversified demand for technical and leadership skills.

Companies like **ByteDance**, **Canva** and **Shopee**, along with freelance opportunities, are experiencing significant growth, indicating a strong regional demand for flexible work arrangements and innovative tech industry roles.

## Companies with Highest Digital Talent Growth (YoY)

### Malaysia

1. Freelance (Self-employed) (+29%)
2. EY (+23%)
3. Shopee (+21%)
4. Freelancer.com (+21%)
5. Prasarana Malaysia Berhad (+21%)
6. Inari Technology Sdn Bhd (+18%)
7. MoneyLion (+18%)
8. Celestica (+18%)
9. ams OSRAM (+17%)
10. Grab (+17%)

### Southeast Asia

1. ByteDance (+54%)
2. Canva (+40%)
3. TikTok (+38%)
4. Freelance (Self-employed) (+32%)
5. PT Pertamina (Persero) (+28%)
6. PLDT (+22%)
7. Freelancer.com (+22%)
8. Shell (+21%)
9. Pekerja Lepas (+17%)
10. PT Bank Negara Indonesia (Persero) Tbk (+17%)

# Fastest Growing Skills vs. Skills In-Demand

## Fastest Growing Skills (YoY)

### Malaysia

1. Doctrine (PHP) (+175%)
2. Operations (+122%)
3. Business Requirements (+107%)
4. Events (+100%)
5. Artificial Intelligence (AI) (+84%)
6. Learning (+75%)
7. Application Development (+55%)
8. Computer Science (+52%)
9. User Acceptance Testing (+43%)
10. Microsoft Azure (+43%)

### Southeast Asia

1. Doctrine (PHP) (+97%)
2. Artificial Intelligence (AI) (+85%)
3. Learning (+73%)
4. Operations (+67%)
5. Computer Science (+67%)
6. Events (+64%)
7. Full-Stack Development (+50%)
8. Data Visualization (+45%)
9. Data Management (+43%)
10. Analytical Skills (+42%)

The fastest-growing skills reflect a strong focus on **Doctrine (PHP)**, **Artificial Intelligence** and **Computer Science** highlighting a regional trend towards advanced programming, AI, and data-driven expertise.

There is a strong emphasis on **Software Development** and **Information Technology**, with both regions highlighting the importance of skills in **Graphic Design**, **SQL**, **Adobe Photoshop** and **JavaScript**.

## Skills Commonly Advertised in Job Vacancies

### Malaysia

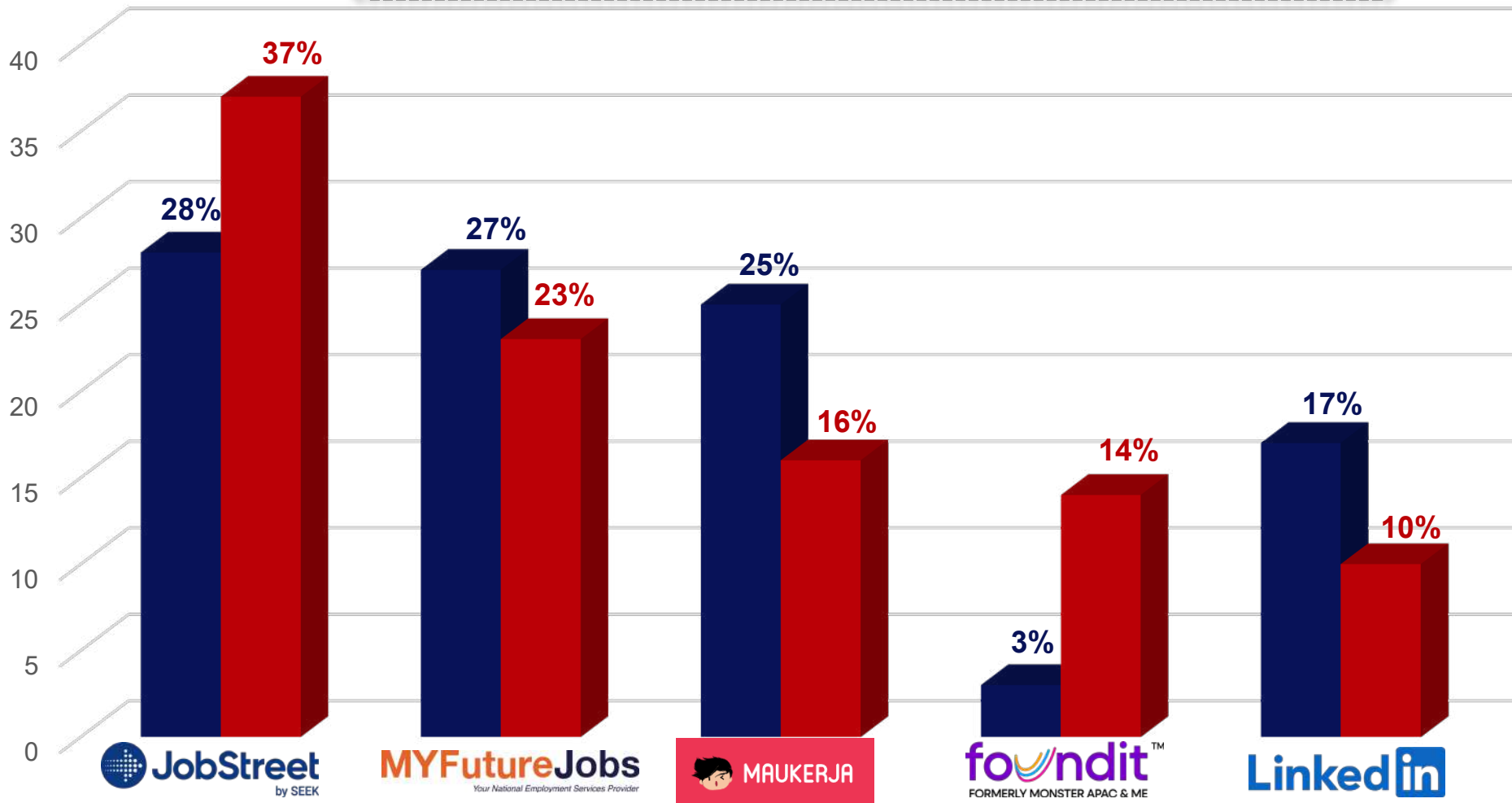
1. Information Technology
2. Software Development
3. Engineering
4. SQL
5. Graphic Design
6. Troubleshooting
7. Technical Support
8. Adobe Photoshop
9. JavaScript
10. Java

### Southeast Asia

1. Software Development
2. Information Technology
3. Graphic Design
4. SQL
5. Engineering
6. JavaScript
7. Adobe Photoshop
8. Technical Support
9. Web Development
10. Data Analysis

# Digital Jobs Vacancies in Malaysia

Total Digital Jobs from April to June 2024: **80,719**



There has been a significant increase from **42,835 in Q1 to 80,719 in Q2, 2024.**

This sharp rise suggests a rapid expansion in the digital job market, reflecting the growing demand for digital skills and the acceleration of digital transformation across industries.

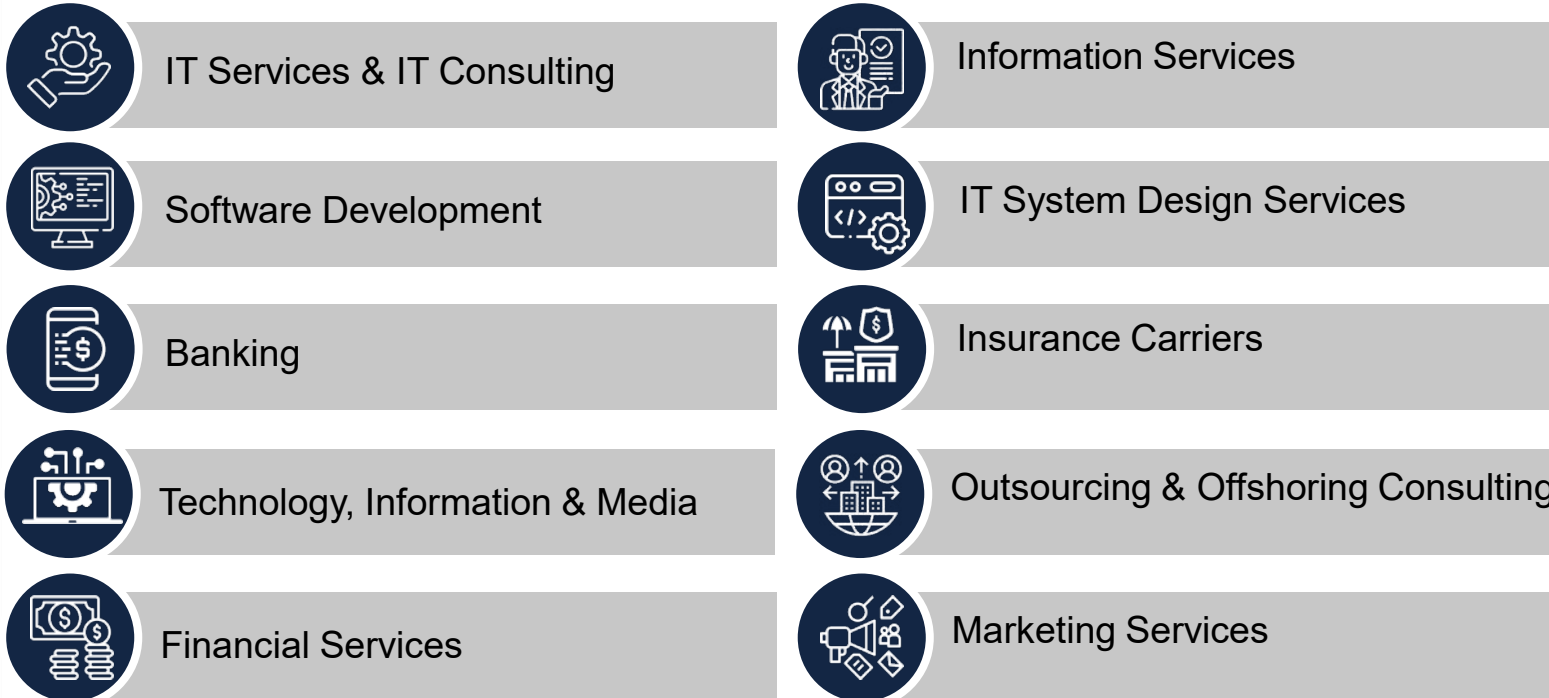
■ Q1, 2024

■ Q2, 2024



# Demand for Digital Talents Across All Industries

## Industries with Very High Demand for Digital Talents



## Industries with Highest Digital Talent Growth (YoY):

1. IT Systems Design (+429%)
2. Measuring and Control Instrument Manufacturing (+242%)
3. Engineering Services (+194%)
4. Computer Hardware Manufacturing (+47%)
5. Entertainment Providers (+46%)
6. Environmental Services (+35%)
7. Human Resources Services (+32%)
8. Food & Beverage Services (+26%)
9. Industrial Machinery Manufacturing (+25%)
10. Manufacturing (+24%)

**IT Systems Design** has seen a remarkable **429% growth**, emphasizing a strong demand for digital skills in system design and architecture due to the increasing need for digital transformation and tailored IT solutions. Additionally, **Manufacturing** industries are witnessing significant digital talent growth, reflecting a shift towards Industry 4.0 (4IR), where automation, data analytics, and IoT integration are becoming essential.

# IHLs Producing Malaysia's Digital Workforce (PDTI)

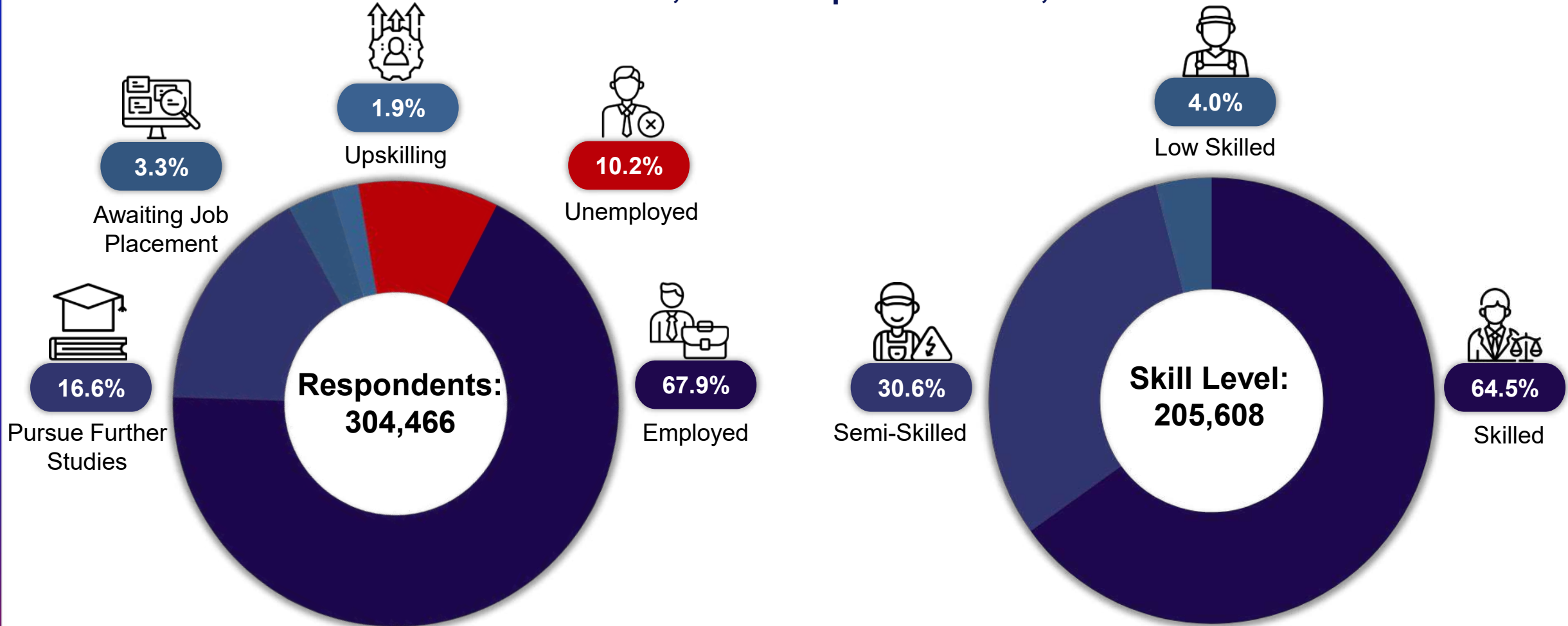
1	UNIVERSITI TEKNOLOGI MARA	21,229	7	<b>UniKL</b> UNIVERSITI KUALA LUMPUR	4,101	13	<b>SUNWAY UNIVERSITY</b>	1,574
2	<b>UTM</b> UNIVERSITI TEKNOLOGI MALAYSIA	8,498	8	UNIVERSITI MALAYA	4,043	14	<b>MONASH University</b>	1,312
3	<b>MMU</b> MULTIMEDIA UNIVERSITY	6,150	9	<b>UTHM</b> Universiti Tun Hussein Onn Malaysia	3,275	15	<b>msu</b> management & science university	1,285
4	<b>TARUMT</b> TUNKU ABDUL RAHMAN UNIVERSITY OF MANAGEMENT AND TECHNOLOGY	5,355	10	Universiti Malaysia PAHANG Engineering • Technology • Creativity	2,717	16	<b>HELP University</b> university of achievers	898
5	<b>UTAR</b> UNIVERSITI TUNKU ABDUL RAHMAN	4,289	11	UNIVERSITI KEBANGSAAN MALAYSIA National University of Malaysia	2,011	17	<b>UNIMAS</b> UNIVERSITI MALAYSIA SARAWAK	850
6	<b>A.P.U.</b> ASIA PACIFIC UNIVERSITY OF TECHNOLOGY & INNOVATION	4,117	12	TAYLOR'S UNIVERSITY Wisdom • Integrity • Excellence	1,917	18	<b>POLITEKNIK MALAYSIA</b> UNGKU OMAR	764

**Top fields of study:**  
Computer Science, Information Technology, Computational Science, Electrical & Electronic Engineering & Computer Software Engineering

# Malaysian Graduates Employability 2023

Graduates: 342,408

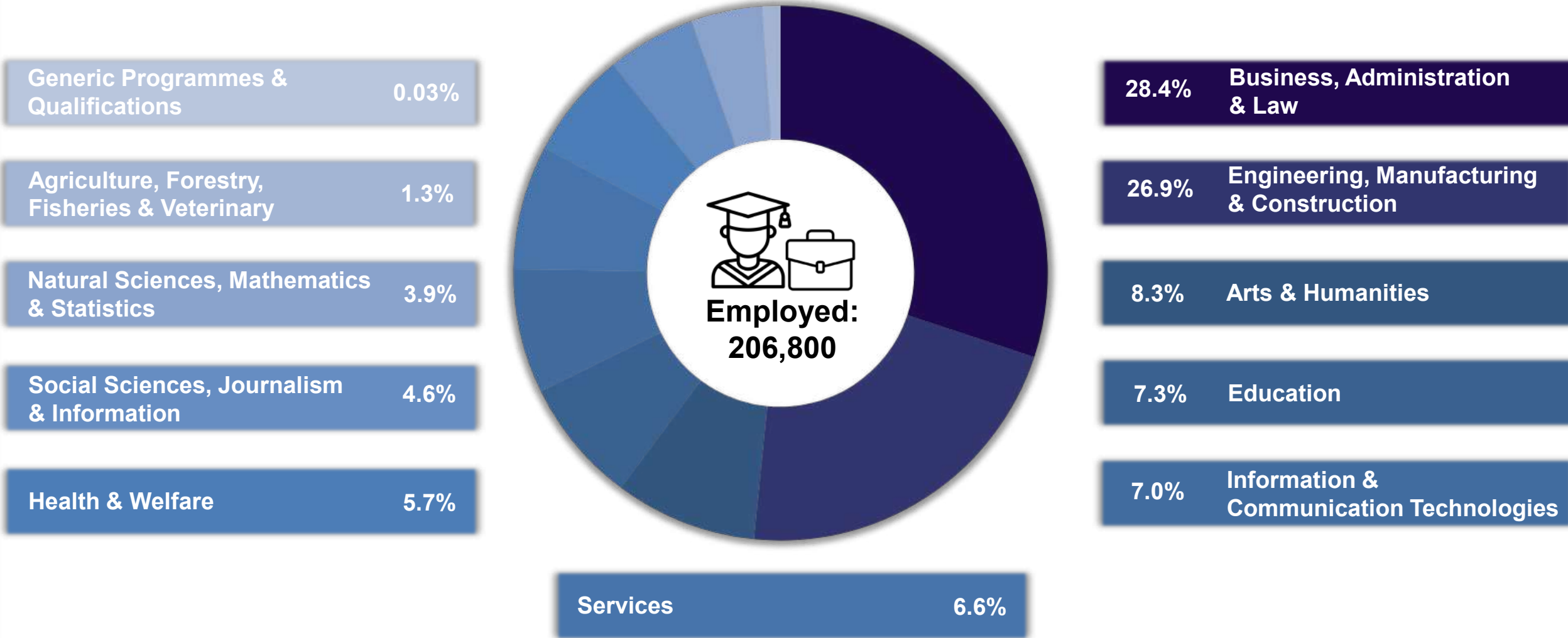
Respondents: 304,466



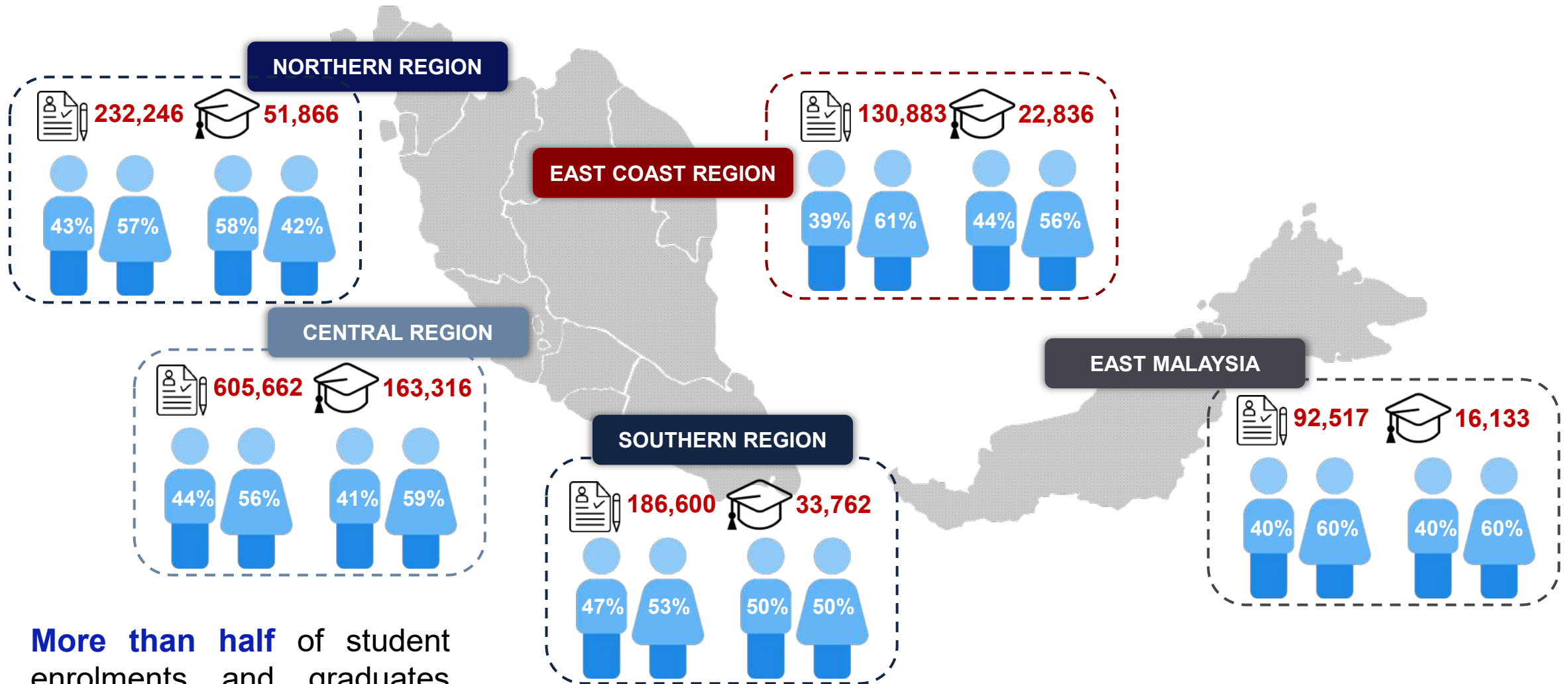
The **GE rate decreased** by **0.4%** to **89.8%** compared to **90.2%** in 2022

\*Excluding the military forces

# Employed Graduates based on Field of Studies, 2023



# Students' Enrolment & Graduates by Region of HEIs

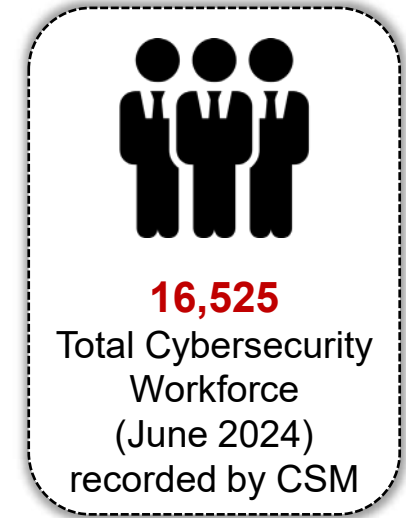


More than half of student enrolments and graduates are from the central region.

Enrolment Graduates

# Cybersecurity Workforce Demand

Job Position Level	2023	2024	2025	2026
Senior Security Architecture	11	38	45	52
Analytics Specialist/Security Architecture	16	164	212	259
Specialist/Manager	785	2,569	2,948	3,327
Senior Analyst/Analytics	1117	2,800	3,372	3,945
Analyst/Analytics/Programmer	530	2,397	2,922	3,448
Cumulative Workforce Required by Year	*2,460	*7,967	*9,500	*11,032
Total Workforce Required by Year (Assuming that the total number of companies remains the same over the years)	16,311	21,818	23,351	24,883
<b>Total Workforce Required by Year</b> (Assuming that there is a 12.8% annual increase in new digital company establishments)	<b>18,399</b>	<b>24,611</b>	<b>26,340</b>	<b>28,068</b>



The study forecasts a significant increase in the demand for cybersecurity personnel with a total workforce required by 2026 is **28,068**.

## Forecasted Cybersecurity Workforce Demand from 2023 until 2026

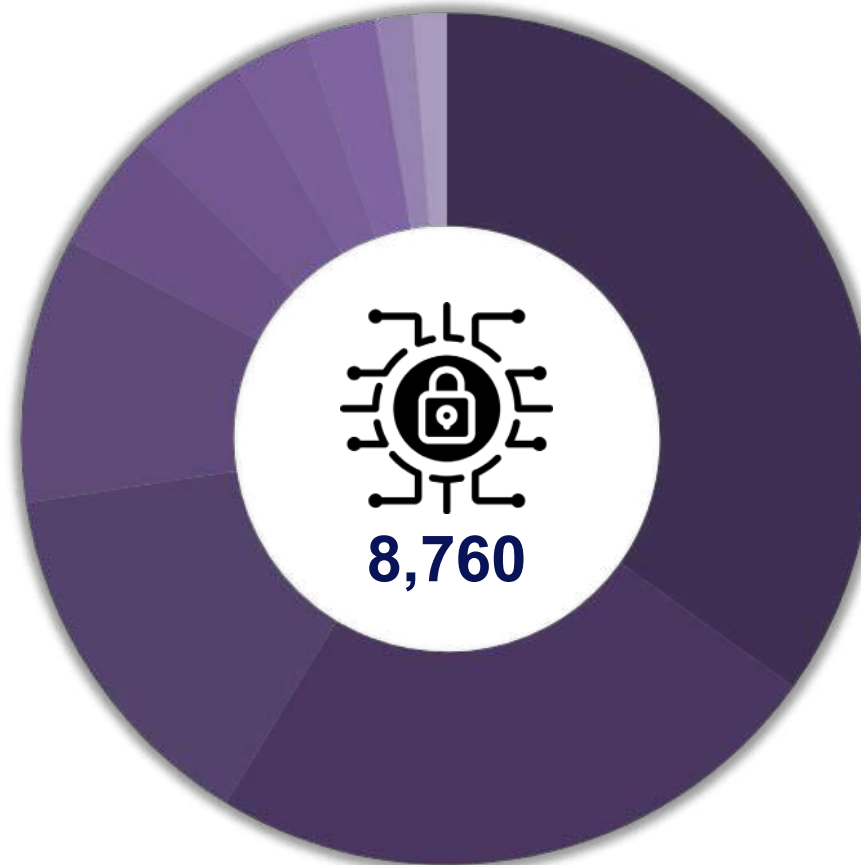
Assumptions:

1. Total number of companies remains the same over the years.
2. 12.8% new digital companies establish yearly.

\*The number will be varied by ±1

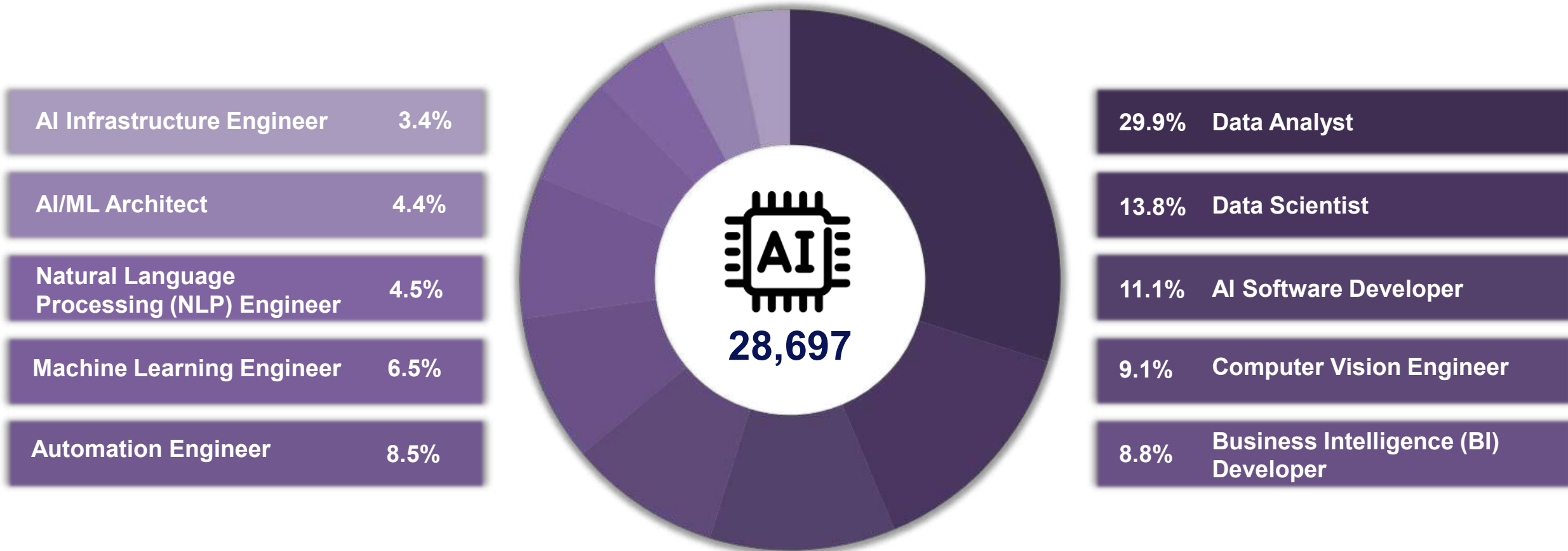
# Cybersecurity Job Opportunities

Incident Response Analyst	1.3%
Security Architect	1.4%
Security Consultant	2.7%
Compliance and Risk Analyst	2.8%
Penetration Tester (Ethical Hacker)	4.5%








34.9%	Cloud Security Engineer
23.8%	Information Security
13.9%	Network Security
10.1%	Cybersecurity
4.6%	Application Security Engineer

# Artificial Intelligence (AI) Job Opportunities



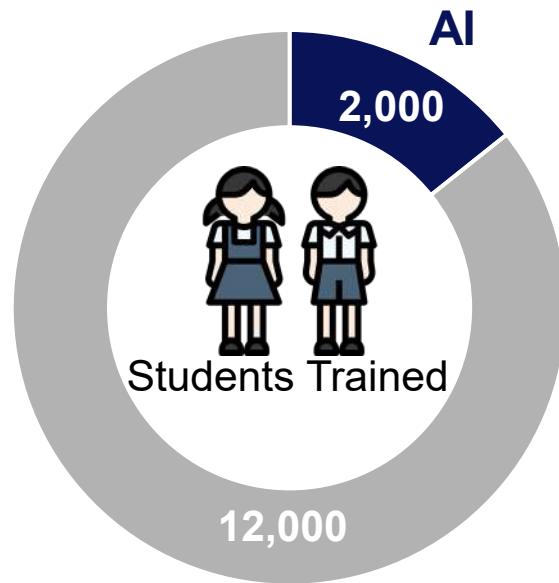


# Job Market Comparison: Cybersecurity vs. AI

	CYBERSECURITY	ARTIFICIAL INTELLIGENCE (AI)
 <b>Roles</b>	Cybersecurity roles are vital due to the rise of digital threats like phishing, malware, and data breaches.	AI-related roles are also expanding, particularly in machine learning, data science, and AI development.
 <b>Highest Demand Positions</b>	Cloud Security Engineer, Information Security and Network Security	Data Analyst, Data Scientists and AI Software Developer
 <b>Monthly Salary Range</b>	Entry Level: RM 4,000 – RM 6,000 Mid-Level: RM 6,000 – RM 9,000 Senior Level: RM 8,000 – RM 17,000	Entry Level: RM 5,000 – RM 9,000 Mid-Level: RM 6,000 – RM 10,000 Senior Level: RM7,000 to RM20,000
 <b>Industry/Sector</b>	Multiple industries from Finance to Manufacturing include MNCs, financial institutions and tech firms, reflecting a growing concern over digital security.	Tend to be more research-intensive and particularly in sectors like Technology, Healthcare, and Finance, reflecting the industry's focus on automation, data analysis, and innovation.
 <b>Skill Requirements</b>	Cybersecurity professionals typically need certifications like CISSP or CEH	Advanced knowledge in programming languages (Python, R) and experience with AI/ML frameworks.

# MDEC Talent Development Initiatives related to Cybersecurity & AI

K-12



Robotics, Coding & Computational Thinking



**106** Cikgu Juara Digital Certified as AI Instructor by Universiti Teknologi Malaysia (UTM)



**BlackBerry**  
Cybersecurity

**40** Students from Digital Ninja attended Cybersecurity Awareness training at the BlackBerry Cybersecurity Center of Excellence (CCoE)

# MDEC Talent Development Initiatives related to Cybersecurity & AI



## TERTIARY



**198** Lecturers Trained & Certified in Cybersecurity



**118** Lecturers Trained & Certified in AI



**1665** Students Participated in AI related Hackathon & Competitions

**11 PDTI Universities with Cybersecurity Courses**

**10 PDTI Universities with AI Courses**

**National AI Faculty**



MDEC as Strategic Partner Malaysia  
1st AI Faculty (UTM)



# MDEC Talent Development Initiatives related to Cybersecurity & AI

## WORKFORCE

**1304** Individuals trained  
\*2020 until June 2024



**1202**  
Cybersecurity



**102**  
Artificial  
Intelligence

**28 Cybersecurity Related Courses**  
**6 AI Related Courses**  
from 191 Courses In MD Workforce Training Directory

## eUSAHAWAN



**5072** Individuals trained in  
eUsahawan AI for Business  
\*since Jan 2024

### Sub-module: eUsahawan AI for Business



Artificial Intelligence for Content Research

Artificial Intelligence for Media Creation



Artificial Intelligence for Copywriting

Artificial Intelligence for Branding



# Thank you

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