AI Readiness in Healthcare Education and Practice

AI Executive Advisory Workgroup

Summary Report

The Macon & Brock Virginia Health Sciences Eastern Virginia Medical School and EVMS School of Health Professions at Old Dominion University have conducted a cross-sectional study to evaluate the readiness for adoption of Artificial Intelligence (AI) technologies within our institution. This report summarizes the results and provides the current AI Readiness Index (AIRI).

To evaluate institutional AI Readiness, the AI Executive Advisory Workgroup developed AIRI, a metric based on institutional talent, the implementation of AI applications across domains and internally generated AI tools. AIRI is a useful tool that evaluates institutional readiness and allows longitudinal evaluation and impact of various interventions. To generate AIRI, we conducted a comprehensive survey that was made available to stakeholders across the institution.
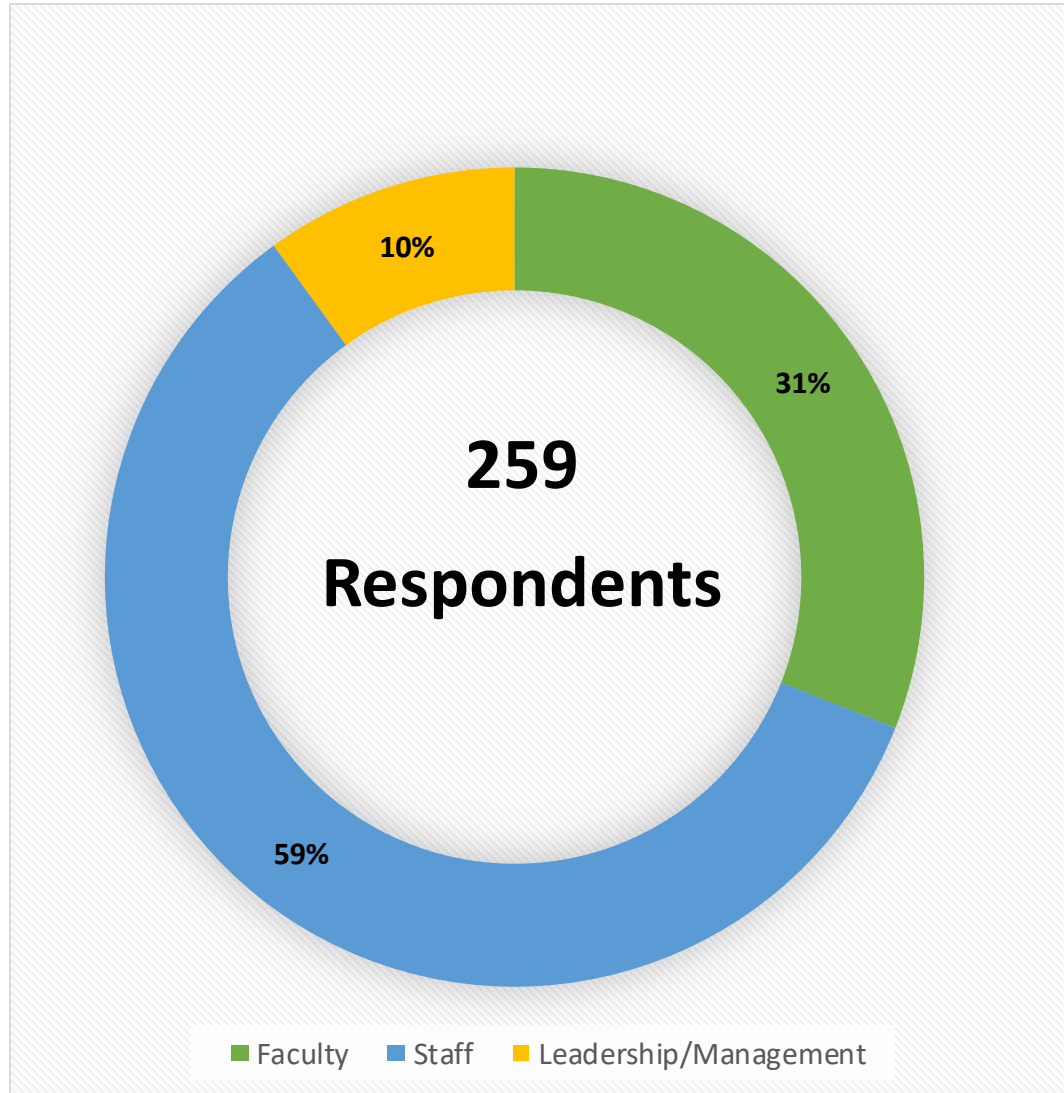The survey was open between April 1-June 14, 2024.

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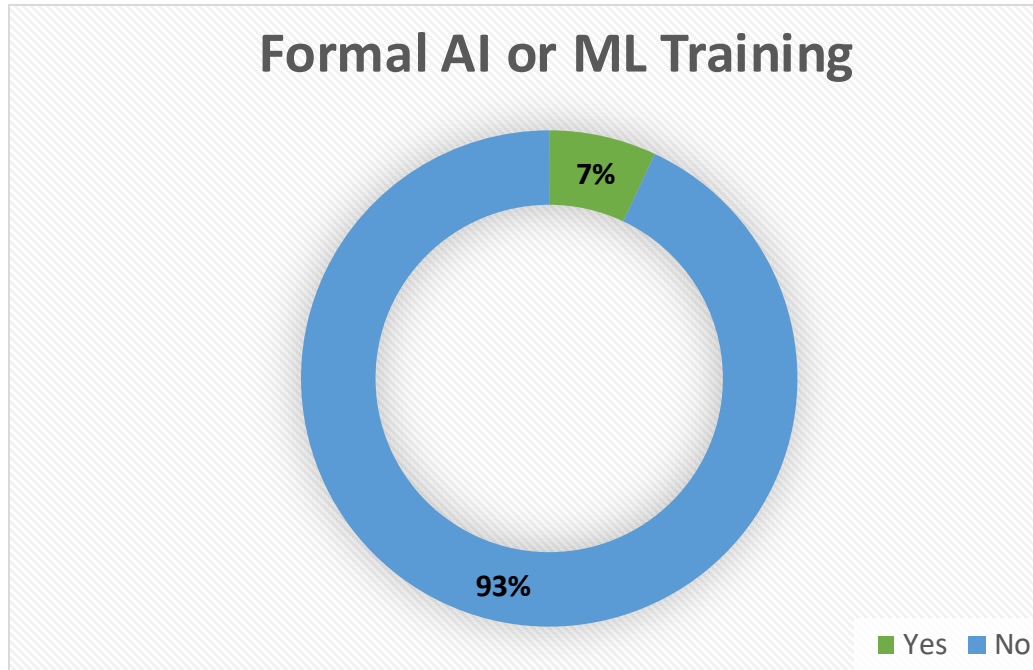
Survey data summary

Participants Role

Survey data is based on 259 participants representing various roles within the institution.

- **Staff**: 59%

- **Faculty**: 31%

- **Leadership/Management**: 10%

Formal Training & Self-Rated Expertise

Formal AI or ML Training

7%

93%

Yes No

Only **7% of the staff** have undergone formal AI training

Self-Rated Expertise

3%

26%

71%

Beginner Intermediate Advanced
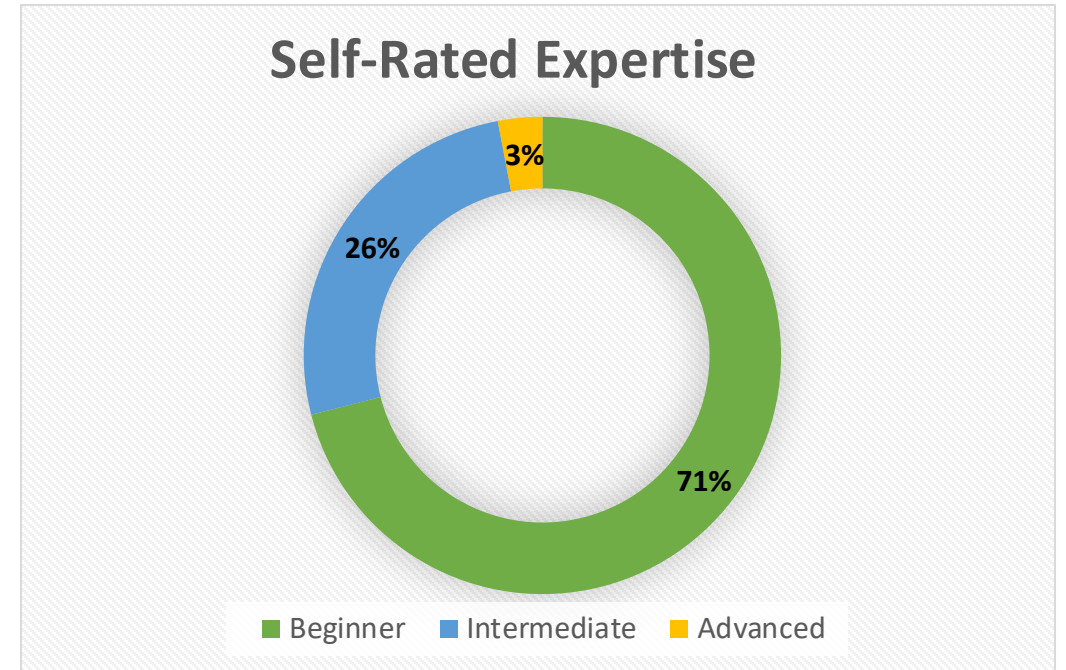
Self-rated expertise indicates that **71% of respondents are at beginner level**

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AI Utilization

AI Utilization Across Domains

14%

26%

20%

40%

Clinical   Educational   Research   Administrative
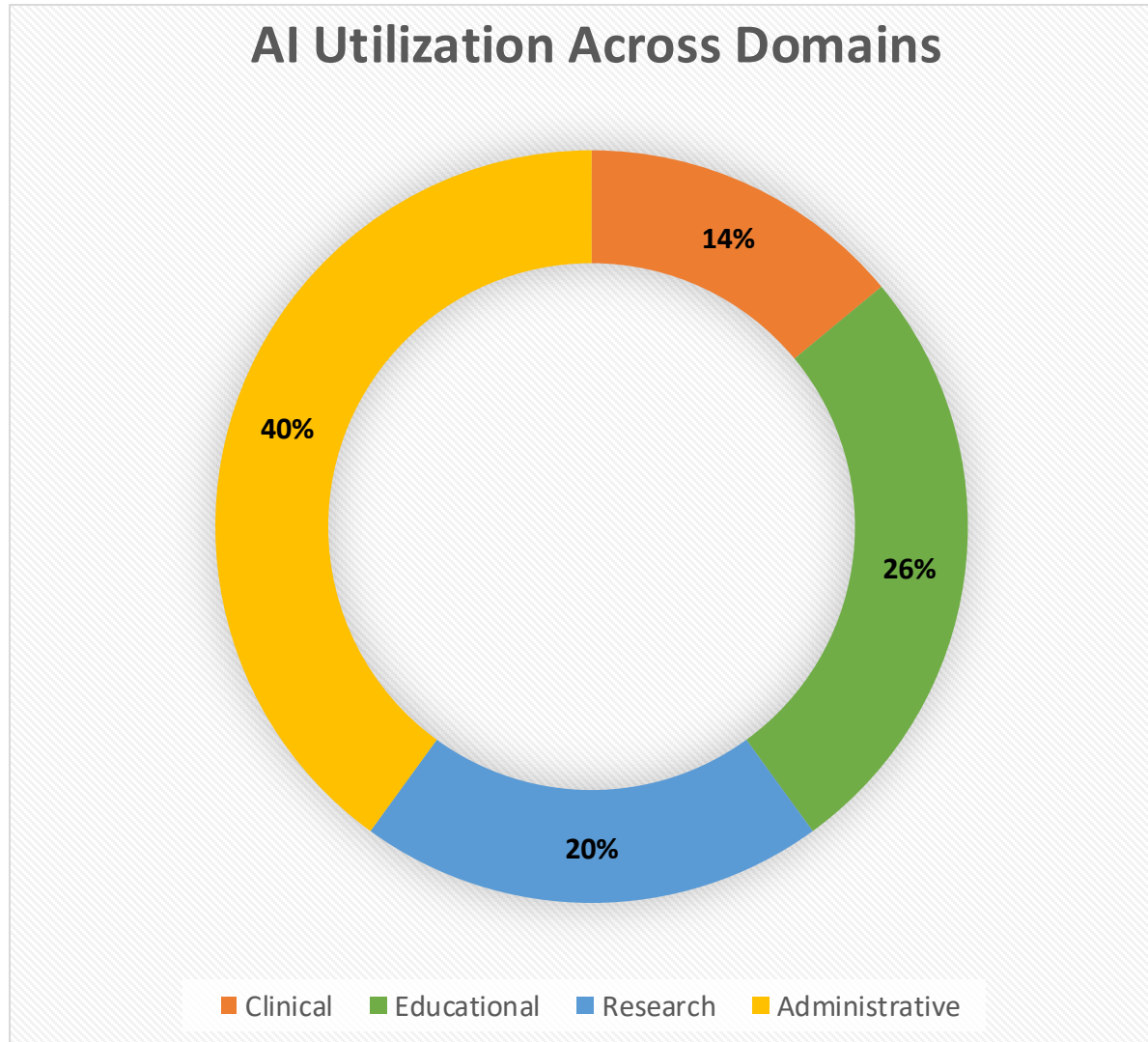
AI utilization is highest for **administrative tasks (40%)**, followed by **educational activities (26%)**, **research (20%)**, and **clinical care (14%)**.

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AI Applications Across Domains

AI Tools Utilized in Clinical Care	Percent (%)
Diagnostic Support Systems	8%
Predictive Analytics	4%
Treatment Recommendation Systems	5%
Patient Monitoring Systems	3%
Robotic Surgery Assistants	2%

AI Tools Utilized in Education	Percent (%)
Adaptive Learning Platforms	8%
Virtual Patients and Simulations	10%
Automated Assessment Tools	6%
Learning Management Systems (LMS) with AI Features	12%
Adaptive Learning Platforms	8%

AI Tools Utilized in Administration	Percent (%)
Resource Optimization Tools	17%
Patient Engagement Platforms	7%
Healthcare Chatbots	7%

AI Tools Utilized in Research	Percent (%)
Data Mining and Analytics Tools	12%
Natural Language Processing (NLP) Tools	5%
Predictive Modeling and Simulation	6%
Genomics and Bioinformatics Tools	4%

Institutional Support

Institutional Support for AI Initiatives
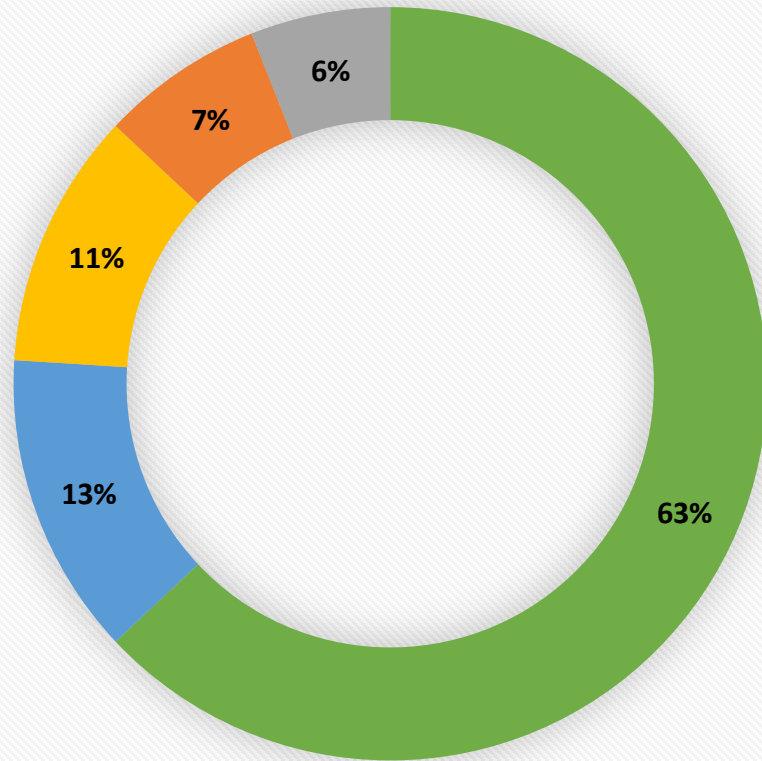
- Neutral: 63%
- Supported: 13%
- Unsupported: 11%
- Very supported: 7%
- Very unsupported: 6%

Most respondents are **neutral (63%) towards AI initiatives**, while **13% receive active support**, and **17% feel unsupported** (11% unsupported, 6% very unsupported)

AI tools Integration

Integration of AI tools in Work Processes

- Not integrated — 53%
- Minimally integrated — 30%
- Somewhat integrated — 12%
- Mostly integrated — 4%
- Fully integrated — 1%
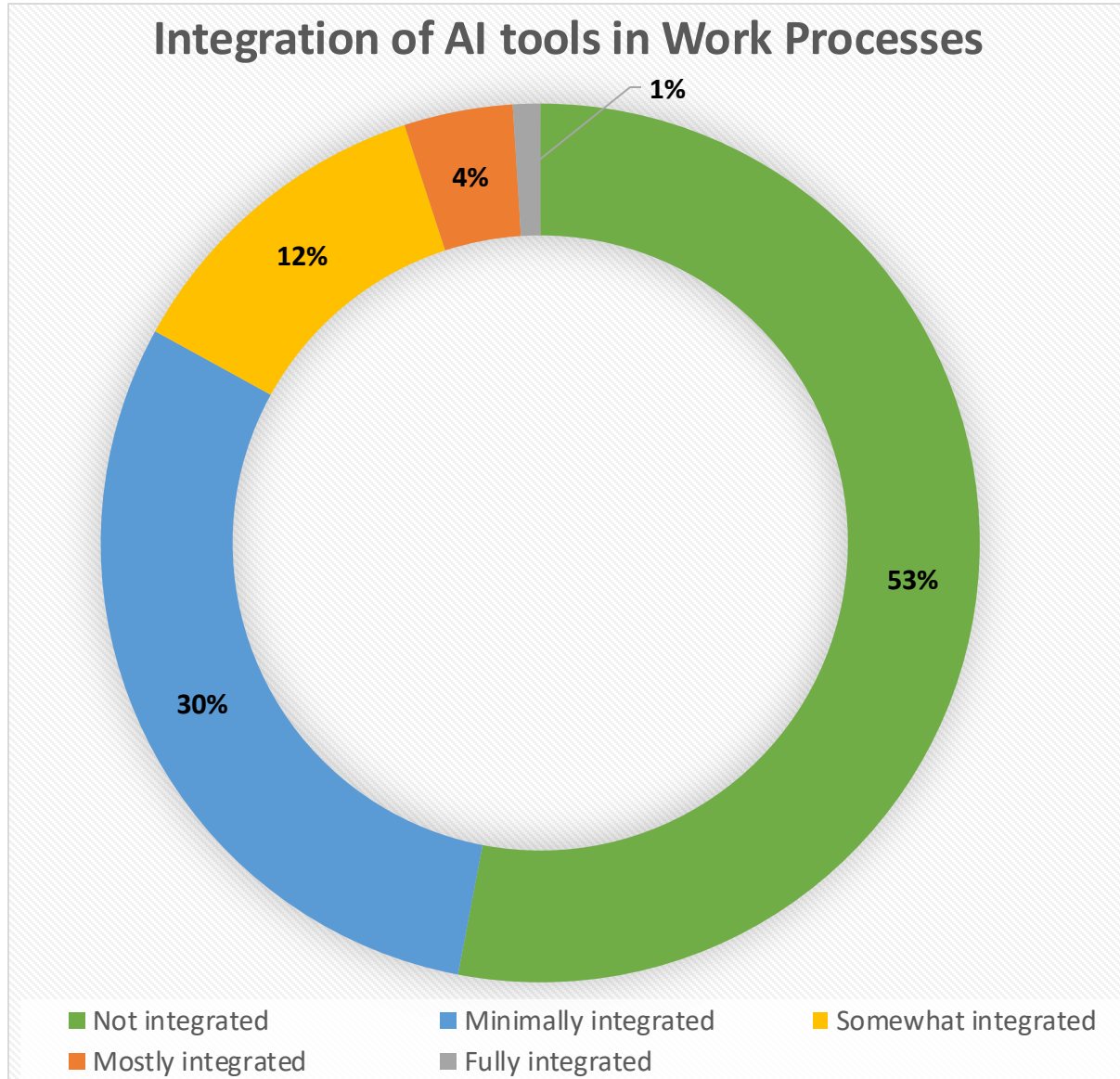
Majority of respondents **report no integration of AI tools** in their work (53%)

Perceived AI Impact on Work Efficiency

Perceived Impact of AI on Work Efficiency

1%
4%
8%
48%
39%

Neutral impact
Positive impact
Highly positive impact
Negative impact
Highly negative impact
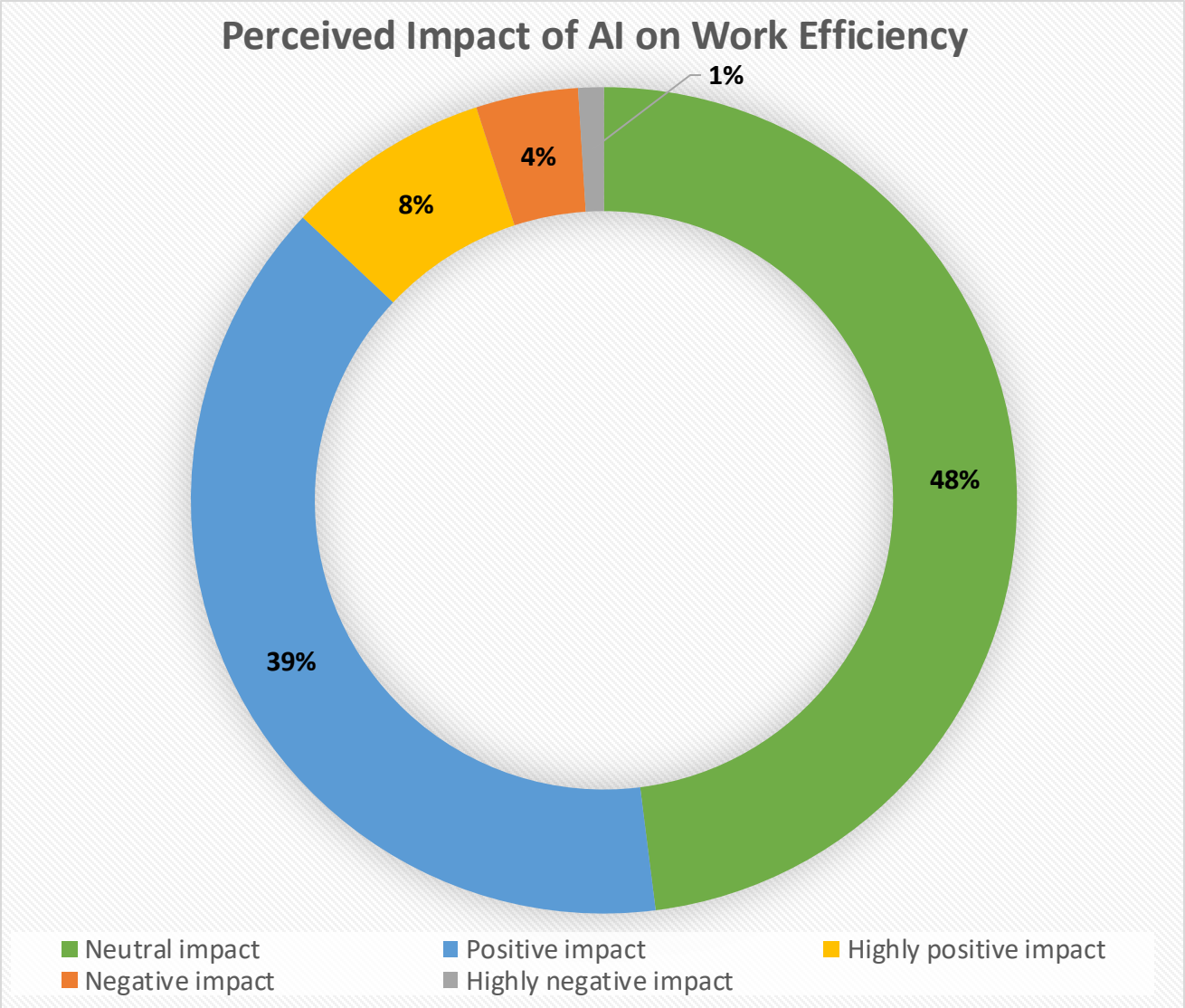
Most respondents report that they anticipate a **positive or a neutral impact (87%)** while only **5% report a negative** or highly negative impact on their work.

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Perceived Institutional Readiness

Institution Preparedness to Scale AI (1-3 years)

31% Somewhat prepared
28% I do not know
17% Not very prepared
14% Prepared
6% Not prepared at all
4% Very prepared

Legend:
- Somewhat prepared
- I do not know
- Not very prepared
- Prepared
- Not prepared at all
- Very prepared
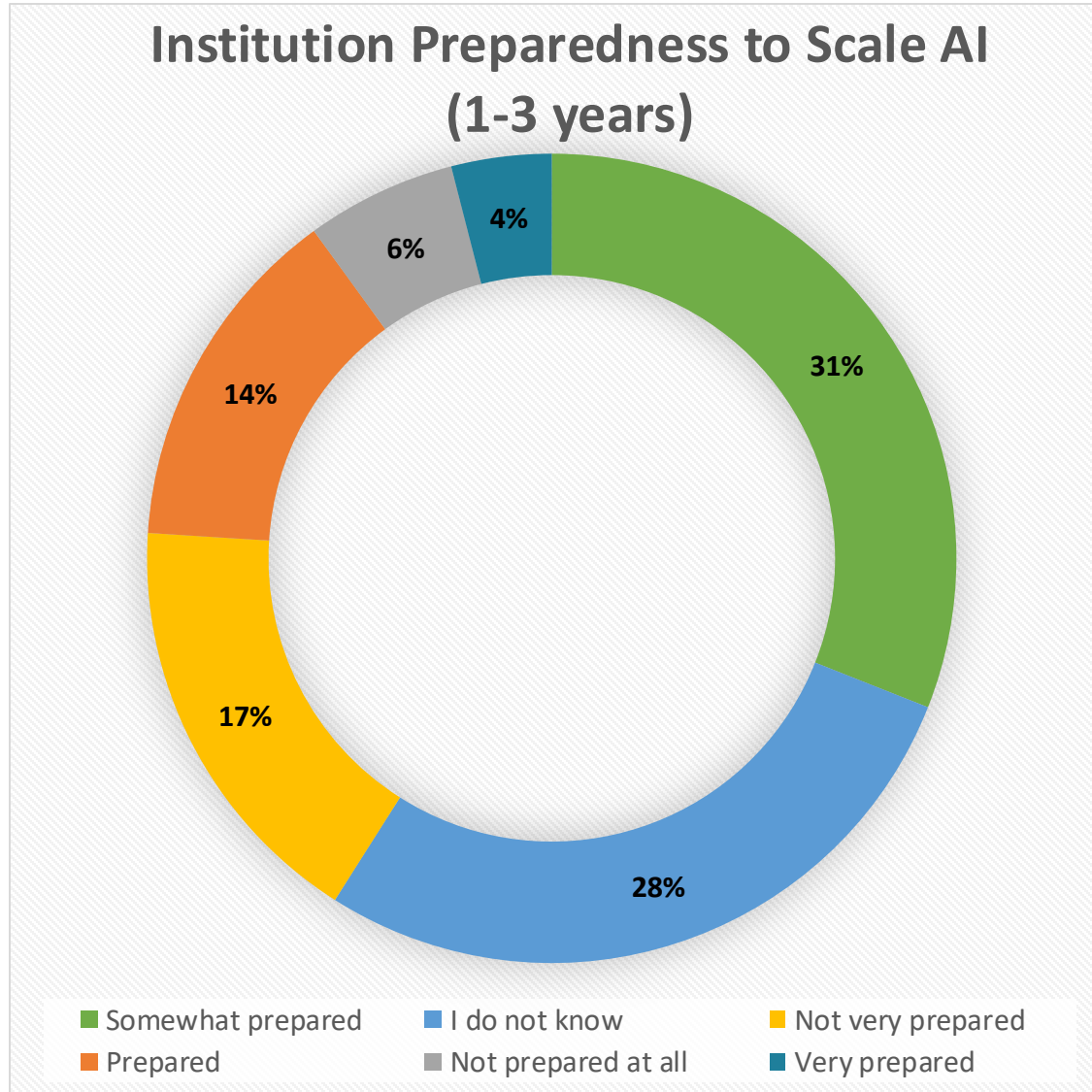
Most respondents' perception is that institution is "somewhat prepared" to scale AI in the next 1-3 years (31%) or are unsure (28%). 18% think that institution is prepared or very prepared, while 23% believe that institution is not prepared.

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Challenges and Barriers
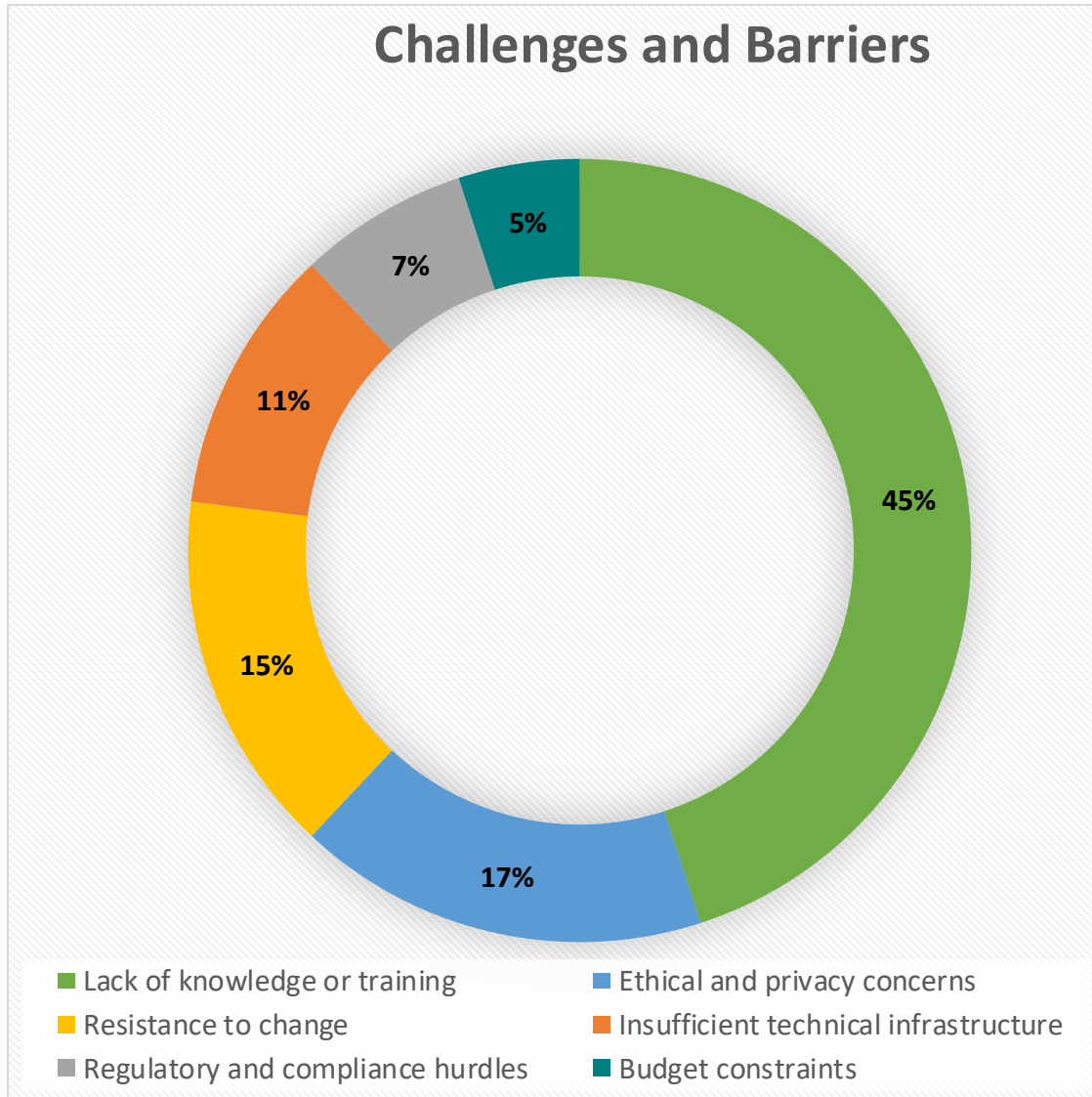
Majority of respondents (45%) identify lack of training as the major barrier to adoption. Next frequent responses include ethical concerns and resistance to change. Other obstacles (23%) include insufficient technical infrastructure, regulatory and compliance hurdles, and budget constraints

The AI Readiness Index (AIRI)

The AI Readiness Index (AIRI) measures the institution's capability and readiness to use AI technologies, focusing on AI training, expertise, and application across domains

- **AI Readiness Index (AIRI)**: 6.3 out of 40

- **Institutional Talent**: 5.3 out of 20

- **AI Applications Implementation**: 1 out of 10

- **Internally Generated AI Tools**: 0 out of 10

The AI Readiness Index (AIRI) Calculation

Summary of Key Findings

Expertise and Training

The survey revealed that only **7% of respondents have formal training in AI**, indicating a significant opportunity for EVMS to expand its AI training programs. Additionally, many respondents are engaged in self-directed learning, highlighting an intrinsic motivation to develop AI skills within our community.

AI Utilization Across Domains

AI technologies are predominantly used in **administrative tasks (40%)**, **educational applications (26%)**, and **research (20%)**. The **use of AI in clinical settings (14%)** is less prevalent, suggesting potential areas for future expansion and development.

Integration and Institutional Support

Our findings show that **53% of respondents perceive no integration of AI tools** in their daily work processes, with **only 13% feeling supported**. This suggests that while there is foundational interest, substantial work is needed to enhance the institutional support framework for AI technologies.

AI Readiness Index (AIRI)

The AI Readiness Index (AIRI) for EVMS is an initial step to systematically enhance our AI capabilities. Currently **rated as "Somewhat Ready,"** this metric highlights our potential to grow and **highlights imperative training and support needs** to facilitate ML/AI adoption.

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Contact Us

Have questions or want to discuss the findings?

Contact us at: EVMS_AI@EVMS.EDU

We look forward to your insights and collaboration!

Reference: Survey data tables

Institutional Support for AI Initiatives

Support	Percent (%)
Neutral	63%
Supported	13%
Unsupported	11%
Very supported	7%
Very unsupported	6%

Challenges and Barriers

Challenges and Barriers	Percent (%)
Lack of knowledge or training	45%
Ethical and privacy concerns	17%
Resistance to change	15%
Insufficient technical infrastructure	11%
Regulatory and compliance hurdles	7%
Budget constraints	5%

Institution Preparedness to Scale AI (1-3 years)

Preparedness	Percent (%)
Somewhat prepared	31%
I do not know	28%
Not very prepared	17%
Prepared	14%
Not prepared at all	6%
Very prepared	4%

Perceived Impact of AI on Work Efficiency

Perceived Impact	Percent (%)
Neutral impact	48%
Positive impact	39%
Highly positive impact	8%
Negative impact	4%
Highly negative impact	1%

Integration of AI tools in Work Processes

Integration	Percent (%)
Not integrated	53%
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