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Affirmative action in Japanese higher education: A critical examination of DEI implementation

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ABSTRACT

This study examines the implementation of affirmative action policies in Japanese higher education institutions under the banner of diversity, equity, and inclusion (DEI). Through a mixed-methods approach combining secondary data analysis and policy review, we investigate how DEI initiatives in Japan's relatively racially homogeneous society have been interpreted and applied, focusing primarily on gender-based policies. Our findings reveal that diversity efforts in Japanese higher education are predominantly centered on increasing female representation, particularly in STEM fields. This narrow focus persists despite statistical evidence suggesting that men are underrepresented in higher education overall and that other factors such as economic background and regional origin may be more significant barriers to educational access. We argue that this gender-centric approach to DEI in Japan stems from selective interpretations of international DEI practices, particularly those from Western countries, without sufficient adaptation to Japan's unique social context. This has led to policies such as female-only quotas in university admissions and faculty hiring, potentially creating new forms of discrimination. The study highlights the need for a more comprehensive and evidence-based approach to DEI in Japanese higher education, calling for greater attention to socioeconomic status and geographical location. It further underscores the importance of rigorous policy evaluation to ensure that DEI initiatives achieve their intended goals without perpetuating new inequalities. Overall, this research contributes to the broader discourse on DEI in non-Western, racially homogeneous contexts and stresses the necessity of adapting global DEI principles to local conditions while preserving the fundamental aim of promoting genuine inclusivity and equal opportunity.

1. Introduction

The concept of "Diversity, Equity, and Inclusion" (DEI) has been actively promoted and rapidly spread, primarily in American higher education institutions (Goad & Chartwell, 2022). Affirmative action in university admissions and hiring, implemented to achieve diversity, has sparked numerous legal debates and social policy discussions, leading to specific judicial decisions. The 2023 U.S. Supreme Court decision in "Students for Fair Admissions, Inc. v. President and Fellows of Harvard College" provided an important conclusion to this DEI debate (Students for Fair Admissions, Inc. v. President and Fellows of Harvard College, 2023). Specifically, it concluded that race-based affirmative action in university admissions is not permissible. While this judicial decision directly affects only race-conscious affirmative action in university admissions, it is suggested that it may indirectly impact other affirmative action and DEI initiatives in general. Since the judicial decision, complaints and lawsuits challenging the legality of DEI programs and initiatives have increased (Monea, 2023; Pham et al., 2023; Schwarzschild & Heriot, 2024). As of July 2024, multiple states have moved to restrict or completely ban DEI initiatives, and DEI-related research output has rapidly decreased (Goad, 2024). Regarding the impact of this judicial decision on American society, Will Hild, executive director of the conservative group Consumers' Research, commented, "will put the wind in the sails of groups like ours, who want to get the woke, racially based hiring and promotion schemes out of corporate America," indicating a significant societal impact (Mark & Tan, 2023). However, in contrast to the active discussions, numerous research findings, and judicial decisions on DEI in the United States, there is a country where DEI is being newly promoted in higher education institutions. That country is Japan. Affirmative action in Japanese higher education institutions, while having some precedents, began to be actively promoted in connection with the promotion of women's participation from the mid-2010s. This is related to Japan being a racially homogeneous society. As a result, the history of active implementation is relatively short,

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and the focus of discussion is on gender rather than race. This suggests that comparative studies on DEI initiatives between Japan and Western countries with different social environments may be challenging. While extensive research on affirmative action underpinned by DEI has been conducted—both supportive and critical—scholars have noted that much of it centers on a limited number of countries, such as the United States (Gisselquist et al., 2023). In light of this academic backdrop, it is of considerable scholarly significance to elucidate, through both qualitative and quantitative investigations, how higher education institutions in Japan—existing within a racially homogeneous society—have reinterpreted the concept of DEI, originally developed in the United States, and whom they designate as the intended beneficiaries of these initiatives. It should be noted that although affirmative action encompasses various forms, including scholarship programs, this study specifically focuses on its application in university admissions and faculty recruitment.

This study aims to analyze the characteristics of affirmative action within Japan, a racially homogeneous society. By clarifying the future prospects of DEI initiatives in Japan, it also aims to offer insights into how DEI might be reinterpreted and which groups are designated as its beneficiaries in other racially homogeneous societies. To this end, the study first elucidates the origins and scope of DEI in Japan, as well as the specific affirmative action measures implemented under its banner. It then undertakes a critical comparative examination, drawing on examples and research findings from the United States and the European Union, to understand Japan's distinctive features.

That said, previous research providing a critical analysis of the scope of Japanese DEI initiatives and the affirmative action measures associated with them is extremely limited. Consequently, this study remains exploratory, serving primarily to identify fundamental issues and preliminary hypotheses that should be addressed in greater detail through future, more focused investigations.

2. Literature review

2.1. The origin and scope of "DEI" in Japan

By around 2015, the notion of DEI began to gain prominence in Japanese higher education policy. At that time, however, the focus was not explicitly on all three elements of DEI, but rather on "diversity" alone. According to the Ministry of Education, Culture, Sports, Science and Technology (MEXT), the momentum for promoting diversity within higher education institutions was prompted by the 2015 enactment of the "Act on Promotion of Women's Participation and Advancement in the Workplace." In reality, however, the roots of this movement extend further back (Ministry of Education, Culture, Sports, Science and Technology, 2022a).

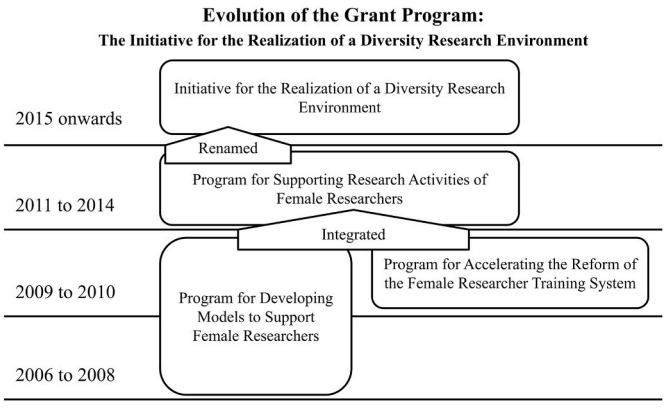

Fig. 1. The evolution of the grant program for the development of science and technology personnel: The initiative for the realization of a diversity research environment.

As shown in Fig. 1, one of MEXT's representative diversity promotion projects under the Science and Technology Human Resource Development Subsidy Project, the "Initiative for the Realization of a Diversity Research Environment," officially commenced in 2015, yet it has predecessors dating back to 2006: the "Program for Supporting Research Activities of Female Researchers," the "Program for Developing Models to Support Female Researchers," and the "Program for Accelerating the Reform of the Female Researcher Training System." The continuity of these projects is suggested by the fact that the "Initiative for the Realization of a Diversity Research Environment" is referred to in policy documents as the "Initiative for the Realization of a Diversity Research Environment (Former Program for Supporting Research Activities of Female Researchers)," and that on the website, all four initiatives are treated as a single program. In other words, the concept of diversity in Japan's higher education policy directly inherits the legacy of supporting women (Japan Science and Technology Agency, 2024; Ministry of Education, Culture, Sports, Science and Technology, 2024).

What is even more interesting is the evolution of the names of the departments implementing the adopted projects. As shown in Fig. 2, we can compare the names of the implementing departments (not university names) for projects adopted in 2006 and 2023. While it should be noted that there have been slight changes in the content of the projects despite their continuity, it can be generally observed that departments responsible for supporting women have evolved into departments responsible for diversity.

As for the movement in the business world around 2015, the Japan Business Federation, the most influential economic organization in Japan, published a policy brief titled "Towards the Formulation of a Strategy for Developing Science and Technology Human Resources" in 2014. It pointed out that the male ratio was overwhelmingly high in STEM fields and stated that ensuring diversity was important for creating innovative innovation, and that promoting women's participation was necessary for this purpose (Japan Business Federation, 2014). Thus, in Japan, diversity has essentially become a term referring to the promotion of women's participation. Subsequently, its introduction has progressed in response to the setting of targets for the proportion of female researchers in newly hired positions and managerial positions in natural science fields in the 6th Science, Technology, and Innovation Basic Plan and the 5th Basic Plan for Gender Equality. Notably, in the 6th Science, Technology, and Innovation Basic Plan published in 2021, the word "diversity" was mentioned for the first time in the context of supporting female researchers, which had not been mentioned in previous plans (Cabinet Office, 2021).

Following 2020, this Japanese form of "diversity," originally centered on supporting women, came to be referred to as "DEI." Since then, it has been vigorously promoted, drawing on rationales such as "Establishing and advancing DEI has become a pivotal goal for universities worldwide" (Kuwata, 2024).

2.2. Affirmative action in university admissions

Since 2020, the introduction of "female student quotas" (in Japanese "joshi-waku," literally meaning "quotas for girls") has been progressing, mainly in science and engineering faculties in Japan. These quotas refer to university admission selection methods that only female applicants, usually female high school students, can apply for. In many cases, female student quotas can be applied for in addition to regular quotas. While only three universities had introduced female student quotas before the 2020 academic year, 21 universities had introduced them in the 2023 academic year, and 33 universities have introduced them in 2024 (Nakadera, 2024). Female student quotas are expected to increase further, and when Tokyo Institute of Technology (In October 2024, it was renamed the Institute of Science Tokyo due to a merger with Tokyo Medical and Dental University.), the most prestigious science and engineering university in Japan, introduced female student quotas, its

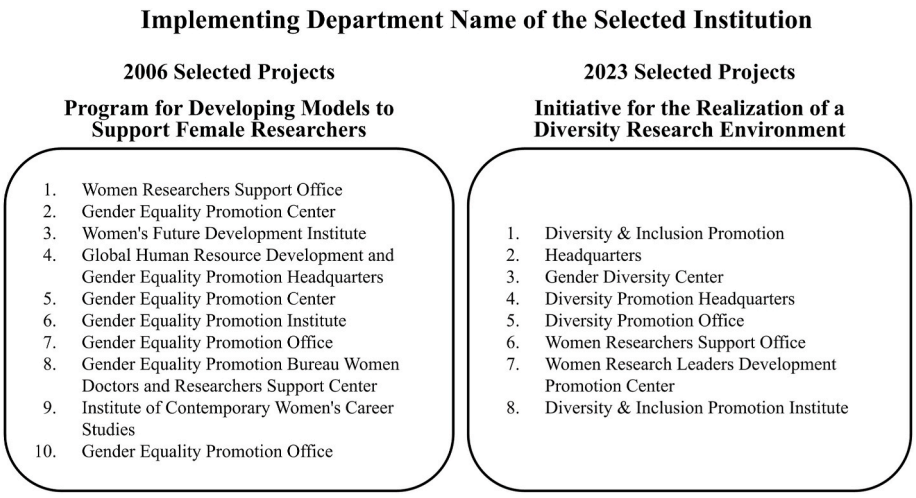

Fig. 2. Evolution of selected department names from 2006 to 2023.

president made a noteworthy statement: "To break the current situation in Japan, where the proportion of female students in higher education institutions is the lowest among OECD countries, it is essential to implement methods specifically aimed at 'increasing the ratio of female students'" (Tokyo Institute of Technology, 2022). Additionally, Kyoto University, the most prestigious comprehensive university in western Japan, stated the reason for introducing female student quotas as follows: "In our university, there are faculties where the ratio of female students is significantly low. We must urgently resolve this imbalance in such faculties. Furthermore, to act as a world-class university, it is essential to promote diversity and inclusion and incorporate diverse perspectives to build a desirable educational environment." (Kyoto University Press, 2024; Kyoto University, 2024). It is also worth noting that many of the universities introducing female student quotas are prestigious schools with high competition rates for admission.

The acceleration of female student quota introduction was triggered by the "Guidelines for Implementation of University Admissions Selection for Academic Year 2023" presented in 2022 after discussions in the "University Admissions Selection Council," established by MEXT and composed of representatives from national, public, and private universities and high school-related organizations. These guidelines list "selection targeting those with diverse backgrounds" as a desirable innovation in admission selection methods (Ministry of Education, Culture, Sports, Science and Technology, 2022a). More specifically, they advocate selection methods that "target those who are recognized as having difficulties in securing educational opportunities due to factors such as family environment, residential area, nationality, gender, etc., or those whom each university considers should be targeted from the perspective of ensuring diversity (for example, girls in STEM fields), and evaluate their effort processes, motivation, sense of purpose, etc."

Among these "selections targeting those with diverse backgrounds," the most commonly implemented and controversial approach is the preferential treatment of women in science and engineering fields. Female student quotas typically impose easier academic tests or no academic tests at all (Obunsha Education Information Center, 2023). In this case, students admitted through female student quotas may struggle with university-level learning due to insufficient academic preparation before university admission. However, the University Admissions Selection Council formulated guidelines affirming affirmative action without sufficient discussion on such issues. The minutes of the University Admissions Selection Council show that the proposal to add "selection targeting those with diverse backgrounds" to the University Admissions Selection Implementation Guidelines was approved without any opinions from the members. According to the minutes of the University Admissions Selection Council, the committee members' opinions on the proposal to add a "selection targeting those with diverse backgrounds" were superficial, and there was no discussion whatsoever regarding the risks of potential discrimination against men, constitutional issues, or international trends. The committee members' opinions on the proposal were limited to the following two points:

> "As you are all aware, current perspectives on gender are very much in flux. In this context, I would like to ask for an explanation and confirmation once again on whether it is appropriate to include examples that limit gender by using words like 'girls' in these admissions guidelines."
>
> "If we increase the quota for female students, since the total enrollment capacity does not change, it would necessitate reallocating seats from the general selection that does not have gender restrictions. In extreme terms, this could lead to a decrease in male students. While this is a decision for the university, I am concerned that implementing this swiftly without a two-year prior notice may be quite challenging."[1]

An official from MEXT stated at the same council that the issue of female student quotas should be addressed based on the fact that the proportion of female students in STEM fields is low. Even in the materials from another MEXT council called the Examination Meeting on the Ideal Way of University Entrance Examinations, which were mentioned as reference materials, the explanations consistently focus on the low number of women in STEM fields (Ministry of Education, Culture, Sports, Science and Technology, 2022b,c).

The disadvantages for students admitted through affirmative action have been extensively discussed in countries that have previously implemented such policies. A representative argument is that mismatches in academic levels occur, leading to poor academic performance or dropouts (Massey & Mooney, 2007; Onuoha, 2018). To prepare for such disadvantages, in the United States, there is a system where students admitted through affirmative action can change their major if they perform poorly in their initial major, but in Japan, such rescue systems are lacking due to the rapid spread of DEI initiatives in a short period (Oliveira et al., 2022). There is also concern about how women can be protected against the possible stigma, reproach, or loss of

[1] In Japan's university entrance examination system, it is stipulated that when changes in the selection of entrants could significantly affect the preparation of applicants, they should be announced and made public approximately two years in advance. A council member has pointed out that the sudden inclusion of "selection targeting those with diverse backgrounds" in the implementation guidelines for the next academic year may violate this rule.

self-confidence when they have been appointed to a position due to an institution's need to demonstrate gender diversity (Deichmann, 2023; Yokoyama et al., 2024). In Japan, it has been pointed out that affirmative action itself may promote stigma and pressure that "one was chosen despite lacking ability, solely because of belonging to a specific group," and explicitly imposing easier academic tests or exempting them is likely to further promote such stigma and pressure (Kuroiwa, 2021). This suggests that in Japan, the introduction of affirmative action in higher education institutions and the promotion of DEI itself have become objectives without sufficient verification of past cases. Furthermore, beyond claims about the importance of diversity, there is insufficient scientific basis for setting quotas based specifically on gender. Many implementing universities make tautological claims that female student quotas are necessary to correct the low ratio of female students in science and engineering fields and to realize diversity (e.g., The University of Electro-Communications, 2023; Tokyo Institute of Technology, 2022).

The introduction of female student quotas under the name of DEI is sometimes a voluntary initiative by universities based on MEXT guidelines, but there is also an aspect of encouraging universities to act through financial incentives such as subsidies and grants. For example, the National Institution for Academic Degrees and Quality Enhancement of Higher Education, a government public corporation, states in its review policy for the "University Function Enhancement Support Project," which provides funding necessary for establishing faculties in growth fields such as digital and green technologies, that efforts to secure female students (increase in the number of applicants) will be an evaluation point (National Institution for Academic Degrees and Quality Enhancement of Higher Education, 2023). The fact that many of the adopted university projects have declared the establishment of female student quotas indicates that this evaluation item is functioning to promote DEI (National Institution for Academic Degrees and Quality Enhancement of Higher Education, 2024).

Moreover, female student quotas are sometimes implemented "stealthily." Such stealth female student quotas are in place at many prestigious universities in Japan. A cram school teacher even remarked, "Especially in STEM fields, it's completely easier for women to be accepted. It's a common understanding in the (preparatory school) industry that there are (non-public) adjustments" (Kunitake, 2024). According to the Kunitake (2024), Doshisha University represents one example that vividly illustrates this trend. While many universities do not disclose the number of applicants and successful candidates by gender, looking at the gender-specific entrance examination data for the comprehensive selection of the Faculty of Culture and Information Science at Doshisha University, a prestigious institution in western Japan, as shown in Table 1, reveals that the acceptance rate for males is statistically significantly lower (Doshisha University, 2024). The student recruitment guidelines do not mention any affirmative action measures such as setting upper limits on the number of successful candidates by gender or adjusting exam scores, and from the 2024 academic year onward, the number of applicants and successful candidates by gender has no longer been publicly released.

Manipulating successful candidates based on gender or other reasons in ways not indicated in the student recruitment guidelines is undoubtedly an unfair practice. For example, when it was revealed in 2018 that multiple medical universities, including Tokyo Medical University, had reduced the scores of female applicants and suppressed the number of female successful candidates, there was severe criticism from administrative agencies, and universities that had disadvantaged women and others were forced to respond. However, as of 2024, no policy documents, major media, or academic papers critically examining stealth female student quotas could be found. This suggests that stealth female student quotas may be left in a state of "tacit understanding."

These DEI initiatives in Japan, which emphasize gender, can be considered unique compared to countries with racial diversity such as the United States. In particular, setting "quotas" as an initiative to ensure diversity in higher education institutions is extremely unusual. According to a survey conducted by the Pew Research Center in 2022, only 4% of Americans believe that gender should be a major factor in college admissions (Major 4%, Minor 14%, Not a factor 82%). This is much lower than the percentage of people who think high school grades should be a major factor (Major 61%, Minor 32%, Not a factor 7%), and lower than the percentage who think race or ethnicity should be a major factor (Major 7%, Minor 19%, Not a factor 74%) (Gómez, 2022). It should be noted that there are no court cases (including those related to single-sex education) in Japanese courts where the discriminatory nature of gender-based affirmative action has been questioned (Noda, 2017).

However, as previously mentioned, promoters of DEI initiatives in Japan cite the fact that such efforts are being pursued in "countries around the world," beginning with the United States, as their foundation. With regard to "quotas" in higher education institutions, let us consult classic judicial decisions in the United States. In Regents of the University of California v. Bakke (1978), it was acknowledged that minority status could serve as one factor in selecting university applicants, yet it was also indicated that maintaining specific minority quotas was contrary to the Equal Protection Clause. Furthermore, in Mississippi University for Women v. Hogan (1982), the ruling held that for gender-based classifications to be valid, the proponent of such discrimination bears the burden of demonstrating "exceedingly persuasive justification."

Taken together, these decisions, handed down in the United States (where DEI itself originated; Anderson, 2004, pp. 217–274), make it evident that the use of quota-based affirmative action constitutes unlawful discrimination under U.S. law. Similarly, in the EU, while affirmative action using scholarships and similar measures is permitted to some extent, the prevailing view is that direct quota-based systems in university admissions selection are illegal (Martin Barradas, 2011). Nonetheless, it appears that promoters of DEI in Japan may be selectively and arbitrarily choosing and expanding the notion of "countries around the world," thereby constructing so-called "global examples" that, in reality, do not exist (Kunitake, 2025).

2.3. Affirmative action in university faculty recruitment

Next, we introduce "women-only recruitment" for faculty positions in Japanese higher education institutions. Unlike female student quotas, which are recommended in the form of guidelines, women-only recruitment corresponds to affirmative action explicitly permitted by

Table 1
Statistics of Comprehensive Selection Exam Results for Doshisha University's Faculty of Culture and Information Science. Data based on *Doshisha University* (2024).

AY	Applicants		First Stage Accepted		Final Accepted		Final Competition Rate	
	Male	Female	Male	Female	Male	Female	Male	Female
2020	39	40	13	22	3	13	13	3.1
2021	43	42	8	29	3	13	14.3	3.2
2022	25	38	9	27	3	16	8.3	2.4
2023	22	36	10	24	4	16	5.5	2.3
2024	Without gender-specific data							

the Equal Employment Opportunity Law. The discussion on whether it is permissible to set quotas for promoting women's participation can be seen in the "Report of the Positive Action Study Group" published by the Cabinet Office in 2005 (Cabinet Office, 2005). However, this is only permitted by individual laws, and of course, as of 2024, critical discussions from social policy perspectives like this study and critical discussions from the perspective of unconstitutionality continue.

(Special Provisions Concerning Measures for Female Workers)

Article 8 : The provisions of the preceding three paragraphs do not preclude employers from taking measures in connection with female workers for the purpose of improving circumstances that impede equal opportunity and treatment between men and women in employment

The aforementioned Tokyo Institute of Technology, as of June 2023, had all faculty recruitment limited to women (Business Journal Editorial Department, 2023). Looking at all universities in Japan, at least 67 recruitments at the assistant professor level and above were limited to women, and women-only recruitment is spreading to fields other than science and engineering, such as faculty recruitment in economics departments (As of the end of August 2024). Considering "women-priority" recruitment where women are prioritized if evaluations are equal, the scope of influence becomes even larger. Including these recruitments suggests that a considerable portion of Japanese higher education is affected by DEI-oriented hiring practices. However, it is difficult to accurately grasp the extent of women-priority recruitment as it is sometimes defined in internal university recruitment guidelines rather than at the recruitment unit level. A concrete example of this trend can also be seen in the National Institute of Technology (KOSEN), a network of public higher education institutions in Japan specializing in engineering education. There are 51 national KOSEN schools across Japan, and as of July 31, 2024, out of a total of 63 job openings from these institutions, 2 were women-only and 51 were women-priority. These examples demonstrate that gender-focused diversity practices are widely adopted at various levels of Japanese higher education, from prestigious universities to specialized technical institutions. These measures also have an organic connection with female student quotas, and some argue that increasing these quotas will lead to a greater number of female researchers in STEM fields (Utsumi & Kyoya, 2011).

3. Methods

This study employs a mixed methods approach, centered primarily on secondary data analysis. According to McKim (2017), mixed methods research—incorporating both quantitative and qualitative methods—has been reported to enhance the overall quality of research. A review of the literature indicates that the range of affirmative action measures implemented as DEI initiatives in Japan is narrowly confined to women, and has been carried out in a markedly radical manner. To analyze this policy, consider future directions for DEI, and propose potential courses of action, the study aims to verify, as of 2024, the validity of these DEI initiatives, which are limited to supporting women.

First, based on the insights gleaned from the literature review, this study establishes a secondary data analysis framework. As noted above, affirmative action in Japan has been promoted as part of government policy. female student quotas were promoted when they were explicitly stipulated by the University Admissions Selection Council, an entity under the MEXT composed of representatives from national, public, and private universities and high school organizations. Meanwhile, women-only hiring practices have been legitimized by law and through public funding. The fact that geographical and economic backgrounds are not taken into account in admissions or hiring decisions underscores the need to examine the validity of existing policies that focus solely on gender.

Against this backdrop, the data for secondary data analysis in this study are limited to official statistical surveys and government reports. In addition to citing the low percentage of women advancing to STEM fields, advocates of women-only quotas and other affirmative action measures sometimes assert that men "receive invisible preferential treatment" (often described in Japanese as "geta wo haku," an idiomatic expression literally meaning "to add an extra amount to the original quantity so that the total appears larger than it really is," implying an artificial boost) (Kyoto University Press, 2024). However, the specific nature of this alleged preferential treatment and the evidence for it remain unclear, as no concrete examples have been provided to substantiate the claim. It is therefore necessary to investigate whether the only factor hindering advancement to STEM is indeed the female gender. Should evidence emerge that factors other than gender exert an influence on STEM advancement equal to or greater than that of gender, or that individuals other than women face even greater disadvantages in overall higher education progression—whether STEM or otherwise—this would call into question the policy rationale for implementing affirmative action solely for women in STEM fields.

4. Results

4.1. Post-graduation paths of high school graduates by gender

First, to investigate the post-graduation paths of high school graduates by gender, we utilized data from the "Basic School Survey" published by MEXT. This survey is conducted annually based on the Statistics Act, with the aim of investigating basic matters related to schools and obtaining basic materials for school education administration. It is a complete enumeration survey that has been conducted every year since 1948. Referring to the database on post-graduation status surveys from the Basic School Survey, we created scatter plots related to destinations by gender. Fig. 3, visualize the post-high school paths from multiple categories. These figures show scatter plots of percentages by gender for the national average and the 47 prefectures representing Japan's administrative units. Notably, as the Basic School Survey is complete enumeration, no statistical tests were performed.

Fig. 3 depicts the relationships between the advancement rates for men and women (Rate A and Rate B) and employment rates (Rate C) by prefecture. In terms of advancement to higher education institutions (Rate A and Rate B), women consistently outperformed men. Specifically, the average Rate A for women exceeded that for men by 3.88 percentage points, and Rate B (which encompasses a broader range of educational pathways) showed an even more pronounced gap of 11.94 points in favor of women. These results indicate that the gender gap in educational advancement leans toward women.

Moreover, substantial regional disparities were evident in these rates. For Rate A, the gap between the minimum and maximum values across prefectures was 31 points for men (41–72) and 25 points for women (49–74). For Rate B, the gap ranged from 28 points for men (54–82) to 17 points for women (71–89). Similarly, Rate C showed a gap of 28 points for men (6–34) and 18 points for women (3–21). These data clearly reveal marked differences in educational opportunities across regions, suggesting the possibility of higher volatility in men's career path choices.

According to the statistical analysis illustrated in Fig. 3, women are more likely to pursue higher education, whereas men are more likely to enter the workforce directly after high school without continuing their education. Although women remain underrepresented in STEM fields, men actually constitute a minority across higher education institutions as a whole, regardless of academic discipline, and the advancement rate among men in rural areas is particularly low. This reality cannot be overlooked when considering how best to implement affirmative action measures aimed at achieving DEI.

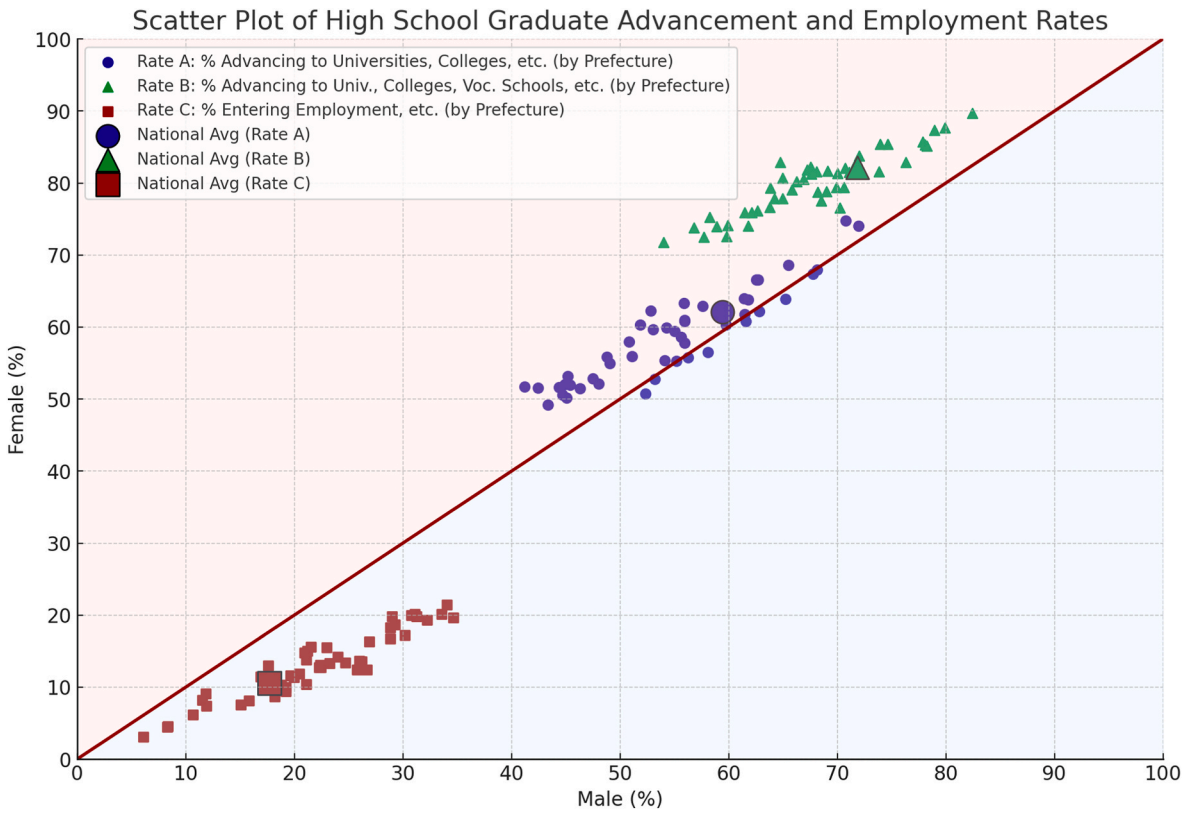

Fig. 3. Scatter Plot of High School Graduate Advancement/Employment.[2] Data based on Ministry of Education, Culture, Sports, Science and Technology, 2023.

[2] "Universities, etc." refers to universities (Daigaku) and junior colleges (Tanki Daigaku) (both including Correspondence courses), "Universities, Vocational Schools, etc." refers to universities (Daigaku), junior colleges (Tanki Daigaku) (both including Correspondence courses), and postsecondary courses (Senmon Katei), and "Employment, etc." refers to self-employed individuals, workers with indefinite-term employment, and those with employment contracts of one year or more and equivalent to full-time work; the classification is based on MEXT's "Basic School Survey."

4.2. Presence or Absence of career path interference due to gender

Next, to investigate whether women encounter barriers stemming from environmental factors, we refer to the "Survey Report on the Project to Promote Learning that Enables Diverse Choices," which was commissioned by the Cabinet Office in 2018. In this survey project, a questionnaire asked respondents whether they had ever experienced interference with their career paths based on gender. Specifically, the question was stated as follows: "When you were a child, were you restricted or encouraged by your parents or family regarding your studies, future career path, or occupation for reasons such as 'because you're a boy' or 'because you're a girl'?" This question addressed four dimensions—(1) studies, (2) advancement to high school, university, or other institutions, (3) the occupation one aspired to in the future, and (4) future marriage or family plans. However, for the purposes of the present study, we focused on (2), namely advancement to high school, university, etc. The results of our secondary data analysis based on this survey are presented in Fig. 4.

A total of 6000 respondents answered this question, with each gender and age group comprising 750 individuals. To determine whether there were statistically significant differences in distribution (i.e., "frequently told," "sometimes told," "rarely told," "never told") by gender within each age group, a chi-square test of independence was conducted at a significance level of $p < 0.05$. Although the exact number of respondents was not disclosed, percentages rounded to one decimal place were provided, and the number of respondents was back calculated from these percentages (acknowledging minor rounding errors at the second decimal place).

The results revealed that for those in their twenties, a statistically significant difference emerged between men and women ($\chi^2(3) = 17.78$, $p = 0.00049$), suggesting that gender may affect the degree of interference experienced. In contrast, for respondents in their thirties ($\chi^2(3) = 7.14$, $p = 0.0674$), forties ($\chi^2(3) = 0.73$, $p = 0.8671$), and fifties ($\chi^2(3) = 4.57$, $p = 0.2057$), no statistically significant differences were observed at $\alpha = 0.05$. These findings indicate that men in their twenties may have experienced substantially more gender-based interference in their career paths than women of the same age group.

4.3. The impact of factors other than gender on post-graduation paths

In the above-mentioned secondary data analysis, concerns emerged regarding the rationale for implementing affirmative action as a DEI measure limited to gender, suggesting that more comprehensive DEI initiatives may be needed. Next, drawing on findings from the Basic School Survey (Hamanaka, 2024), we explore the extent to which factors other than gender affect students' post-high school pathways.

We refer to the "Research Study on Higher Education Advancement Trends of High School Students," jointly conducted by the Student and International Student Affairs Division of the Higher Education Bureau at MEXT and the Higher Education Research Department of the National

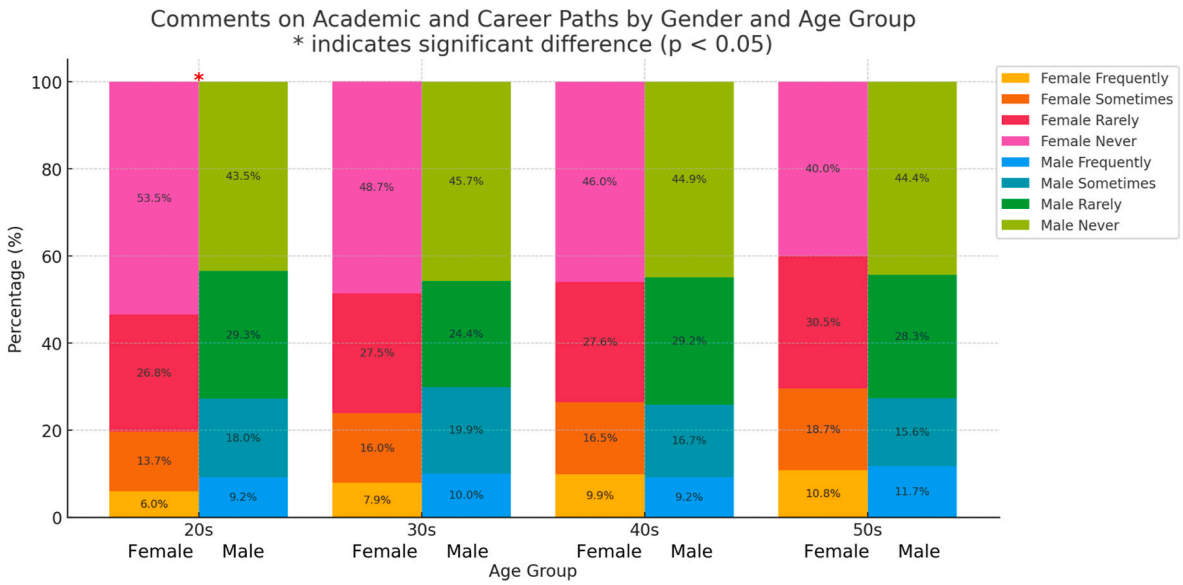

Fig. 4. Incidence of gender-based comments about "academic and career path" during childhood, categorized by respondents' gender and age group. Re-edited data presented by Cabinet Office, 2018

Institute for Educational Policy Research, as well as associated papers. Based on the National Institute for Educational Policy Research project study "High School Students' Advancement Trends in Higher Education (FY2020–FY2022)," Higeta (2024) applied causal inference to show that low-income third-year high school students (in Japan, the final year before university) who wish to pursue higher education are influenced by incentives to minimize their educational expenses, even though financial support systems such as low-interest loans and scholarships are available. Specifically, they follow a decision sequence that excludes "attending a private university while living away from home," choosing from the remaining possible faculties or departments instead. As a result, their options become narrower, which not only lowers their overall advancement rate but also makes it more difficult to choose STEM fields.

Further, some analyses reveal regional differences in advancement rates even after controlling for household income and academic performance. Hozawa (2024) argues that these disparities may largely stem from variations in anticipated costs across regions. According to Kobayashi (2008), combining tuition and living expenses for a student commuting to a private university in a metropolitan area is roughly equivalent to the expenses for a student from a rural area who must live away from home to attend a national public university. Consequently, even if household income and academic performance are identical, students from rural areas likely face a narrower range of advancement options.

Despite these statistical realities, DEI-based measures in Japan overwhelmingly focus on raising women's STEM enrollment rates via affirmative action. By emphasizing an increase in the proportion of women in STEM fields while disregarding the low overall higher education advancement rate among men, Japan's current approach may constitute a selective application of DEI, indicating that there is room for improvement.

5. Discussion

As shown in Figs. 3 and 4, these statistical analyses clearly show that women are more likely to advance to higher education institutions. At the same time, they reveal that men are more likely to go directly into employment after high school graduation without receiving higher education. While women are a minority in STEM fields, when looking at higher education institutions as a whole regardless of field of study, the fact that men are a minority cannot be ignored when considering affirmative action to achieve diversity. Furthermore, this statistical data concisely shows that factors influencing post-graduation paths include not only gender but also geographical conditions. Additionally, Fig. 3, demonstrate that men are more likely than women to experience social interference with their career paths, suggesting that the low proportion of women in STEM fields may be the result of women's own free choices. This can possibly be explained by the gender equality paradox (Stoet & Geary, 2018). This paradox, observed in more gender-equal societies, suggests that as societies become more equal, inherent gender differences in career preferences may become more pronounced rather than diminishing (Herlitz, Hönig, Hedebrant, & Asperholm, 2024). Japan, with its internationally high GDP per capita, is suggested to be a country where the gender equality paradox is particularly evident (Falk & Hermle, 2018). It should also be noted that, according to a survey of children from preschool through high school, households spend nearly the same amount on out-of-school education regardless of whether the child is male or female (Benesse Educational Research and Development Institute, 2009, 2013, 2017).

Despite these statistical facts, as mentioned earlier, career support based on diversity overwhelmingly focuses on increasing women's enrollment rates through affirmative action. Japan's current approach of emphasizing increasing the proportion of women in higher education institutions while ignoring the low rate of men's higher education enrollment may be a selective application of diversity. The above secondary data analysis suggested doubts about the implementation rationale for affirmative action as a diversity initiative limited to gender. Additionally, the "Research Study on Higher Education Advancement Trends of High School Students" strongly indicated the possibility of obstacles to advancement that are not limited to gender.

5.1. Who is the target of "DEI" in Japan

This study revealed that (1) men constitute a minority within higher education institutions as a whole, (2) women experience less interference from parents and family regarding their career paths compared to men, and (3) high school students from low-income households and rural areas tend to avoid advancing into STEM fields due to the considerable burden of tuition and living expenses. In light of these statistical findings, there is a critical need to reevaluate the targets of DEI initiatives in Japan and propose improvements.

Data obtained through the literature review and secondary data analysis indicates that the barriers faced by economically disadvantaged

individuals, students from rural areas, and men with respect to career paths may not be sufficiently considered—or may even be downplayed—by proponents of DEI policies[3]. Not only does the current reality of DEI initiatives in Japan, especially affirmative action, diverge significantly from international efforts, but it also clearly contradicts the original goal of ensuring fair treatment and full participation for groups that are undervalued or continue to face discrimination, suggesting a fundamental flaw in the present DEI framework in Japan.

Furthermore, the distorted landscape of affirmative action in Japan, similar to the situation in the United States, implies that the promotion of DEI is underpinned by an ideological foundation. Previous research has shown that this ideological basis constructs negative value judgments against forms of knowledge, expression, and identity associated with attributes considered "non-minority," such as men (Demerew, 2023; Mac Donald, 2018). The fact that the petition project page opposing the introduction of female student quotas at Tokyo Institute of Technology was closed by Change.org for "hate speech" supports this argument (Change.org, 2022). This dynamic is further evidenced by the manner in which multiple academic societies related to STEM education in Japan have dismissed concerns that female student quotas may discriminate against men, offering only extremely superficial justifications such as "because there are few women with STEM degrees," "because D&I promotion is essential," and "because establishing and advancing DEI has become a pivotal goal for universities worldwide" (Iimura, 2023; Kuwata, 2024; Sato, 2023).

The persistence of stealth score manipulation may also be supported by a similar ideological foundation. As mentioned at the beginning, the issue of multiple medical universities, including Tokyo Medical University, reducing the scores of female applicants and suppressing the number of female successful candidates was revealed based on newspaper reports citing "related parties," and specific investigations were conducted (Nikkei, 2018a). Regarding this unfair score manipulation (which could be called stealth male student quotas), the investigation committee of Tokyo Medical University stated in its report that "it had been carried out like an evil 'tradition' for many years," criticizing it as "nothing but discrimination against women" and "an act of betrayal against examinees" (Nikkei, 2018b). Similar criticisms were made in investigations of other medical universities, and universities that had disadvantaged women and others were required to take measures to eliminate unfairness. Applying the same theory, stealth female student quotas are "nothing but discrimination against men" and "an act of betrayal against examinees," and need to be corrected. However, the fact that they are left in a state of "tacit understanding" as of 2024 suggests the possibility that DEI standards are being arbitrarily applied based on ideology. The fact that male applicants are decreasing in the case of Doshisha University shown in Table 1 may not be a coincidence. The author presents a new hypothesis that male high school students who are applicants may be starting to avoid universities that disadvantage men through stealth score manipulation, possibly with advice from cram schools.

Moreover, efforts to increase the proportion of men in fields dominated by women, such as nursing (Male 8.6%) and childcare (Male 4.0%), are significantly fewer compared to efforts to increase women in STEM fields (Ministry of HealthLabour and Welfare, 2023; Welfare and Medical Service Agency, 2019). According to MEXT's "Basic School Survey," the proportion of women among university faculty as of 2022 is 26.7% (Ministry of EducationCultureSportsScience and Technology, 2022b). If diversity is truly important, there should be a greater need to implement affirmative action for men in institutions that train nurses and childcare workers than to implement affirmative action for women in higher education institutions. Particularly in the nursing field, it has been pointed out even within Japan that having both male and female nurses can broaden the range of patient care and potentially lead to improved quality of medical care, and there are reports of invisible prejudice and harassment against male nurses from women (The Nippon Foundation, 2024). These are evidence that in the promotion of DEI, the attribute of being female is emphasized while the attribute of being male is ignored. According to Sailer (2023), the permeation of DEI in STEM fields has been promoted by activists claiming that women and certain identity groups have been systematically excluded. It can be inferred that there are similar structural problems in the promotion of DEI in Japan.

As mentioned in "Affirmative Action in University Admissions," the promotion of DEI is carried out not only through universities' own initiatives but also through policy-led guidance, such as prioritizing DEI status centered on the proportion of women as a review item for university grants. Such policy interventions have led to a distorted outcome, resulting in a bidding war for female researchers in STEM fields (Nikkei, 2024). In Japan, where the difficulty of employment for doctoral degree holders is very serious and doctoral students are forced to look for academic positions overseas for employment, a representative from a regional university stated in a newspaper interview, "Especially in science and engineering fields, every university is short of senior female researchers, and it's becoming a competition to acquire them. Even if we nurture them, excellent human resources are poached" (Lem, 2023; Nikkei, 2024). With few opportunities in private companies, the career prospects for surplus male postdocs remain severely limited.

5.2. *Lack of policy verification*

Careful consideration is necessary regarding which attributes should be the target of affirmative action in admission and recruitment to higher education institutions, which is a zero-sum game. However, as mentioned earlier, Japan's affirmative action is supported by an ideological foundation, and its legitimacy is based on expansive interpretations of cases in countries that have preceded in DEI and the arbitrary selection of only affirmative opinions, with its diversity scope limited to women.

For example, when women join universities or majors where men are the majority, diversity will increase, at least in the realm of gender. There are some previous studies, both positive and negative, on the research and educational benefits of increasing the proportion of women in universities. Positive research examples suggest that an increase in female faculty contributes to improving female students' study abroad rates and academic performance, and that diverse research teams are more likely to produce academic results (Dewidar, Elmestekawy, & Welch, 2022; Griffin, 2020). It is to some extent natural that different elements bring new influences to research and education. What's important in discussing DEI limited to gender is whether this can provide more research and educational effects than other elements, such as students from regional areas or students with economically disadvantaged backgrounds. In this study, we have shown that the basis for facing difficulties, which is the rationale for implementing DEI limited to women's support, contradicts statistical analysis with other relatively comparable groups. The effects of implementation also need to be verified. However, contrary to the radical DEI in Japan, there is insufficient prior research on such discussions. At least in Japanese higher

[3] This does not mean that there are absolutely no DEI initiatives for economically disadvantaged individuals or students from rural backgrounds. Typically, those with financial need are given priority access to scholarships, and there are indeed some scholarships specifically targeting students from rural areas. Here, however, we highlight that, as a DEI measure for women, quotas (an extreme form of affirmative action) are implemented, while no equivalent measures exist for other groups. Japan does have a "regional quota" system in some medical and teacher-training programs, under which applicants must be from certain rural areas or commit to working there after graduation. However, these regional quotas were introduced primarily to address workforce shortages in specific fields and are not, in principle, designed as DEI-based affirmative action measures

education, gender, especially being female, seems to be recognized as a more important element for achieving diversity than being a student from a regional area or being economically disadvantaged. The statements of university presidents who have introduced female student quotas support this claim.

We would like to introduce an interesting European consideration. Deichmann (2023) points out that allocating quotas for researchers with attributes considered underrepresented means allocating restrictive quotas for researchers with attributes considered overrepresented, and suggests that DEI initiatives based on ideological foundations are similar to the theory of Nazi Germany's exclusion of Jewish scientists. In Nazi Germany, Jewish scientists were excluded on the grounds of "removing numerically overrepresented Jewish scientists and restoring justice to non-Jewish students." It is well known that Nazi Germany suffered academic losses in many academic fields due to this exclusion (Deichmann, 2001). Japan's affirmative action, which directly adjusts groups considered overrepresented and underrepresented through quotas, has similarities to the Nazi German approach and may lead to the exclusion of male researchers and academic losses. Research findings showing that the expansion of DEI cluster hiring endangers both academic freedom and the health of academic disciplines reinforce this possibility (Sailer, 2023). In Japan's case, it is particularly concerning as DEI hiring practices target only gender as the subject of diversity.

In the United States, some top higher education institutions used elements such as "adversity scores" to increase student diversity using various indicators without prioritizing race (Belkin, 2019). The adversity score is calculated using 15 factors including the crime rate and poverty level of the student's high school and neighborhood, and parents' educational background. Such comprehensive DEI initiatives make diversity not limited to race but inclusive of geographical and economic factors. Despite the existence of such cases contributing to the realization of more comprehensive DEI in countries that have introduced selection, in Japan, DEI is limited to women's support. Staddon (2023) suggests that as policies based on ideology continue to be institutionalized, the future of other parts of academia, including STEM fields, may be put at risk.

Even if it becomes clear that women bring more benefits to education and research in higher education institutions than students from remote areas or economically disadvantaged students, whether statistical discrimination is permissible is a separate issue. In the Students for Fair Admissions, Inc. v. President and Fellows of Harvard College case, Harvard College argued that "A farm boy from Idaho can bring something to Harvard College that a Bostonian cannot offer. Similarly, a black student can usually bring something that a white person cannot offer." However, in the Supreme Court decision, Chief Justice John Roberts stated, "Harvard's admissions process rests on the pernicious stereotype that 'a black student can usually bring something that a white person cannot offer'" (Students for Fair Admissions, Inc. v. President and Fellows of Harvard College, 2023). Applying this judgment, the statement by the president of Tokyo Institute of Technology that increasing the proportion of women is essential for the development of science and technology might be said to be based on the "pernicious stereotype" that Chief Justice John Roberts refers to.

One of the characteristics of DEI promoters in Japan can be said to be cherry-picking from the "world" (specifically Western countries) to selectively choose attributes to emphasize and ignore. As mentioned earlier, while DEI promoters use premises such as "establishing and promoting DEI is an important goal for universities worldwide" as a basis for justifying female student quotas, they intentionally remain silent about the judgment in the Students for Fair Admissions v. Harvard case, which could have a significant impact on the social policy legitimacy of DEI, and about the fact that the extreme method of setting quotas is unprecedented internationally. As stated at the beginning, Japan's DEI initiatives are significantly different in nature from those in Western countries, including the United States. Nevertheless, promoters of DEI in Japan may be arbitrarily interpreting cases from Western countries.

Table 2
Which of these groups of people, if any, do you think most experience unequal or unfair treatment in your country today?

	Gen Z men in Japanese	Gen Z women in Japanese	Gen Z men 29-country average	Gen Z women 29-country average
Women	16%	23%	25%	35%
Men	16%	5%	14%	5%
Transgender and/or non-binary people	14%	25%	21%	31%
People with physical disabilities	24%	25%	25%	35%
People from minority ethnic groups	8%	8%	21%	28%
Immigrants	9%	8%	22%	30%
Lesbians, gay men and/or bisexuals	10%	22%	25%	31%
People with mental health conditions	19%	17%	21%	25%
People who are neurodivergent (e.g., with dyslexia, ADHD, autism, etc.)	10%	22%	21%	25%
Senior citizens	3%	–	14%	17%
People of specific religions	1%	2%	15%	15%
Young adults	7%	5%	16%	14%
Not sure	27%	29%	10%	10%
None of these	14%	8%	4%	2%

Survey Institution: Ipsos.
Survey Method: Online survey using the Ipsos Global Advisor survey platform and IndiaBus platform.
Survey Subjects: 21,759 people from 29 countries worldwide.
Note: Only a summary of this survey is publicly available. The data shown in the table was directly provided by Ipsos.

Moreover, it can be said that insufficient verification has been conducted in the Japanese higher education community regarding advancement rates due to economic background and regional disparities, which this study has shown to be at least as important as gender disparities.

Japan's affirmative action provides rich insights into how DEI is interpreted and implemented in countries where race is unlikely to be the subject of affirmative action. As research on affirmative action is particularly biased towards limited countries such as the United States, this study may be particularly useful as an example of the penetration of DEI in non-Western countries. It suggests that DEI initiatives in racially homogeneous countries may surface as heterogeneous affirmative action through an ideological foundation that arbitrarily selects precedents and transcends the statistical facts of the receiving country. The negative impact of introducing social policies from specific countries while ignoring the situation in the receiving country has been discussed in the international community. UN General Assembly Resolution A/RES/76/162 ″Human Rights and Cultural Diversity" emphasizes that each country should "oppose all attempts at cultural homogenization or the imposition of particular social or cultural system models" (United Nations General Assembly, 2021). When diversity-related initiatives are proposed in non-Western countries, it can be said that there is a need to carefully judge whether the "world," "Western countries," and "developed countries" presented as precedents are being used appropriately, to thoroughly check whether only affirmative discussions are being arbitrarily selected and negative discussions are being intentionally excluded, and whether it is possible to introduce them to countries with completely different social situations in the first place.

5.3. *Warning against the Japanese version of DEI*

Building upon the preceding discussions, the author presents several policy concerns regarding the "Japanese version of DEI."

According to the Ipsos Equalities Index 2024, conducted by the polling firm Ipsos, 30% of Generation Z men in Japan feel that the country's efforts toward equality are "going too far." This figure surpasses the 20% among women. The results of the survey item "Which of these groups of people, if any, do you think most experience unequal or unfair treatment in your country today?" are even more intriguing. As shown in Table 2, 16% of Generation Z men in Japan responded that men are the group most subject to unequal or unfair treatment. This is identical to the percentage of respondents who believe that women are the group experiencing the most unequal or unfair treatment. Although this remains a hypothesis requiring further verification, the author posits that DEI initiatives within higher education institutions, restricted solely to supporting women, may be one factor influencing young men's perception that they themselves are receiving unequal or unfair treatment.

In academia in the United States, conservatives who take a skeptical stance towards diversity have been undervalued for decades (Rozado, 2019). In Japan as well, the fact that fragile grounds are used in STEM education-related academic societies, and that the president of Tokyo Institute of Technology is pandering to diversity that promotes internationally unprecedented affirmative action based on ideology, demonstrates a significant lack of academic diversity. This observation provides valuable perspectives in considering the current implementation of diversity policies and affirmative action. It reminds us of the importance of continuously critically examining practices that are often presented as unquestionably correct by higher education institutions.

6. Conclusion

Although this study is exploratory in nature, it has nonetheless clarified that affirmative action measures adopted as DEI initiatives in Japan are disproportionately focused on gender, primarily on supporting women. Moreover, it suggests that groups more likely to be at a statistical disadvantage, including the economically disadvantaged, those from rural areas, and men, have not been sufficiently considered. By highlighting these gaps, the study identifies key issues that warrant further investigation. Furthermore, although DEI-based affirmative action in Japanese higher education institutions originated from measures designed to support women, it has been promoted in a radical manner by selectively citing Western examples of DEI initiatives. Notably, forms of DEI that would be considered unlawful quotas in Western contexts appear to be expansively interpreted and applied in Japan. By limiting the scope of diversity to women without adequate statistical and policy verification, Japan's current approach risks excluding groups that genuinely require greater empowerment, thus deviating from the original ideals of DEI. Given the insufficient critical examination of DEI measures in Japan, additional comparative verification across different groups is necessary. Finally, as DEI initiatives in racially homogeneous societies may tend to be biased toward gender, we conclude that when DEI-related measures are proposed in non-Western, racially homogeneous societies, it is especially important to thoroughly examine statistical evidence and carefully analyze precedent cases.

Ethical statement

Ethical approval is not applicable to this article.

Declaration of the use of AI

The initial draft of this article was written in Japanese. In the process of translating portions of the manuscript into English, the author utilized OpenAI's ChatGPT and Anthropic's Claude. Additionally, OpenAI's ChatGPT was used to suggest modifications to the Python code used for generating Figures. After using this service, the author reviewed and edited the content as needed and take full responsibility for the content of the published article.

Data availability statement

This research does not generate any new data, and all data used are derived from publicly available sources.

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The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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