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Policy-Driven Shifts in Higher Education: Implications for Academic Freedom, Major Choice, and Curriculum Diversity in the United States

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Abstract: Higher education in the United States is closely linked with socioeconomic factors, cultural advancements, and opportunities for social mobility. This study examines the allocation of higher education resources within U.S. policy and the limits of institutional autonomy. By integrating quantitative analysis of funding distributions with qualitative analyses of specific universities, this thesis assesses the differential impacts of policy changes on the equity of resource distribution and the level of educational independence. The unequal distribution of educational funding aggravates the inequalities between the institutions and limits the diversification of educational content and the development of pedagogical methods. Moreover, academic freedom restrictions hinder the ability of educational institutions to respond to the needs of society and thereby affect students' possibilities for self-study and critical thinking skills. Furthermore, the research demonstrates that policies driven by governmental and market forces constrain the autonomy of educational institutions, forcing universities to align with external priorities, which eventually takes away from their academic freedom. Collectively, these factors corrode the spirit of equal opportunity in higher education and undermine the ability of institutions to pursue an independent and diverse educational agenda.

Keywords: Academic Freedom, U.S. Education Policy, Higher Education, Knowledge Crisis, Policy Impact

1. Introduction

Higher education in the United States has conventionally been at the forefront of promoting academic freedom and encouraging diversity, However, it is now under significant challenges as policies increasingly zero in on socioeconomic considerations and national interests. Policies of this nature have changed the priorities in education, most notably through a massive focus on STEM fields, which are deemed to possess immediate economic value. This has resulted in the marginalization of the humanities and basic sciences, which have traditionally been an important part and foundation of a liberal education. A recent study underscores this shift, noting, "The recent history of the humanities in American and European universities is one of neglect. Governments have shifted towards an instrumentalization of education policies, which has included the accelerated expansion and promotion of tertiary education in STEM subjects, partly due to competition with the growing

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economies of Asia[1]. While existing research often praises the economic benefits of such policies in improving university performance, they run counter to the fundamental meaning of education, namely academic freedom and diversity.

This study aims to delve into this underexplored area by examining how these policies influence academic autonomy and proposing strategies to balance these impacts with core educational values. Through a rigorous methodological framework combining literature review, case studies from select universities, and quantitative data analysis, this research offers insights that might help policymakers refine educational strategies to better align with the foundational values of academic freedom, thereby promoting a robust and diverse scholarly environment.

2. Analysis of the Current Situation of Subject Inequality in American Higher Education

In the current blueprint for U.S. higher education, a conspicuous alteration has emerged in the policy direction of research funding. This change primarily supports disciplines that provide immediate economic returns, particularly in STEM fields. Historically, educational resources have been roughly equitably distributed across disciplines. However, given that STEM is directly linked to technological innovation and national economic growth, recent policies have amplified the emphasis on STEM. For instance, a recent analysis highlighted, "The growing focus on STEM education and funding reflects its perceived critical role in driving economic development and maintaining global competitiveness"[2].

This prioritization of funding for S&E fields has broad implications for student major choices. As it supports economically important fields, it completely marginalizes the humanities and basic sciences. These fields, once the cornerstones of a comprehensive education, now require more funding and a higher level of attention. The consequences of this policy-driven funding bias are not just financial; they permeate the quality and scope of scholarship in these underappreciated fields. Underfunding of the humanities and basic sciences reduces students' access to and interest in research, limits academic diversity, and undermines the broader educational implications of advocating for the full range of academic diversity.

In addition, the additional emphasis on science, technology, engineering, and mathematics (STEM) has reshaped curricular standards across institutions while distorting funding allocations. Policies increasingly require standardized curricula that meet the needs of popular industries, often at the expense of academic freedom. Such standardization limits the autonomy of higher educational institution to develop diverse and innovative educational programs, especially in non-STEM fields. As highlighted in a study, "The prioritization of STEM fields in education policies has often led to marginalization of non-STEM disciplines, impacting curriculum diversity and innovation"[3].

The trend towards policy-driven educational frameworks based on economic necessity rather than a balanced academic environment poses significant challenges for the future of education. This calls for a critical assessment and strategic adjustment of current policies to ensure the sustainability of academic freedom and the integrity of educational diversity. As policymakers, educators, and academic researchers, your role in addressing these challenges is critical. keeping awareness of these challenges and being mindful of building a more balanced and equitable education system can promote positive developments to the future of higher education.

3. Analysis of the Impact of Discipline Inequality on American Higher Education

Much of the recent literature has emphasized the evolution of educational policy in the United States and its potential limitations on academic freedom, particularly its impact on students' choice of majors. This study conducts a systematic review of research published over the past five years reveals a troubling trend that potentially influences students' tendency to choose more lucrative and

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“employable” majors over their true interests as a result of educational policies that are tilted toward the demands of a growing market economy. Consequently, it also posts challenges for students unfortunate enough to choose liberal arts preferred majors after graduation.

Freeman and Tytler report that "The prioritization of STEM education by policymakers to boost national economic competitiveness has significantly increased enrollments in STEM programs, often overshadowing the humanities"[4]. This compelling evidence demonstrates how policy direction prioritizes certain disciplines over others, directly influencing students' choice of major by aligning educational funding and support with labor market needs. This phenomenon has not only taken root in the U.S. but has also spread globally, with STEM majors often exhibiting a sense of superiority over their counterparts in the humanities.

Callender and Melis further support this by noting "Financial concerns play a significant role in shaping students choice of higher education institution and fields of study’. These decisions are often guided by strategies to minimize costs and maximize returns, influenced by systemic narratives of financial stability."[5] This statement emphasizes the practical considerations that students must weigh to choose a major due to the economic framing of the value of education by policymakers rather than based on where their interests and talents lie. These studies demonstrate the urgency and importance of educational policy reform that encourages policies to consider broader academic freedom and support for all fields of specialization. Striking a balance between socio-economic and educational diversity is critical to maintaining the integrity of higher education as a place for personal and professional growth.

At the same time, the impact of policies on the allocation of funds and the design of programs in U.S. higher education has become an important focus of scholarly research. Comparative analyses of public and private universities provide insight into the different ways in which these policies have impacted different institutions, as well as their concequences for academic freedom and program structure.

A case study found that "The decline in state funding for higher education has disproportionately impacted the humanities and social sciences, reducing available courses and faculty positions”[6]. This evidence illustrates how policy-formed budget constraints limit the diversity of educational programs, prompting institutions to prioritize more fiscally sustainable programs. Conversely, an article notes that "Private funding sources, including endowments and donations, enable institutions to sustain a breadth of academic programs despite financial constraints"[7]. This contrast suggests that private funding can withstand policy-induced financial pressures, leading to greater autonomy in curriculum design. These case studies reflect the wide-ranging impact of biased educational policies on academic structures and the need to improve policies to ensure that individual higher education institutions balance educational funding and curricular freedom.

The increasing allocation of U.S. educational funds towards STEM subjects—Science, Technology, Engineering, and Mathematics—is driven by pivotal changes in policy aimed at enhancing economic competitiveness. By analyzing quantitative data on funding distribution, the specific ramifications of these policy alterations on the equity of resource allocation and the autonomy of educational practices can be appraised. A study titled "Research and Trends in STEM Education: A Systematic Analysis of Publicly Funded Projects”[8] offers empirical data to address this issue. As shown in Figure 1 that this research identifies 127 projects funded by the U.S. Department of Education’s Institute of Education Sciences (IES) from 2003 to 2019, with a focus on STEM education. The analysis reveals a significant increase in funding for STEM-related projects, indicating a policy-driven emphasis on these fields.

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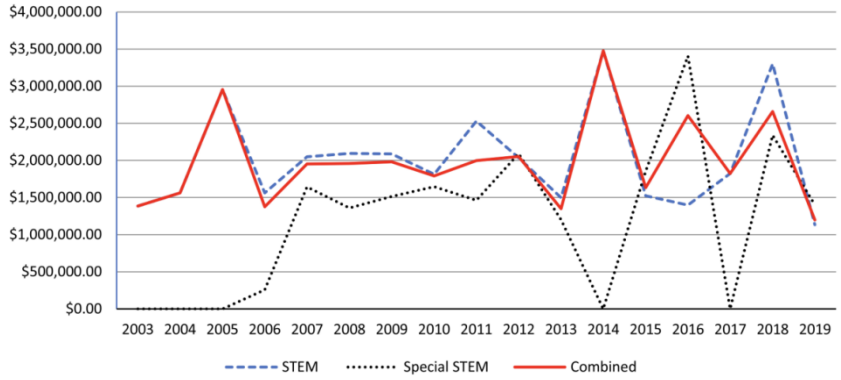

Figure 1: The trend of average funding amount per project funded each year in STEM education research

The study titled "Research and Trends in STEM Education: A Systematic Analysis of Publicly Funded Programs" includes a chart detailing the changes over time in STEM education projects funded by the Institute of Education Sciences (IES). Located on page 5 of the research, the chart demonstrates a significant increase in the number of funded STEM projects, especially after 2010, reflecting a strategic policy shift towards enhancing STEM education. This trend indicates that funding agencies prioritize STEM subjects, which may influence universities to adjust their curricula accordingly to secure financial support.

Figure 2 categorizes funding projects by STEM disciplines. The data reveals that projects in mathematics and science education receive the majority of funding, while technology and engineering receive comparatively less. This distribution highlights the prioritized areas within STEM, which can directly influence the curricular designs of educational institutions. These funding patterns have significant implications for academic freedom and educational autonomy. Universities might be compelled to modify their courses to align with funding opportunities, potentially at the expense of non-STEM disciplines. This shift might give rise to a constriction of academic programs, thereby reducing the diversity of knowledge and limiting students' educational choices.

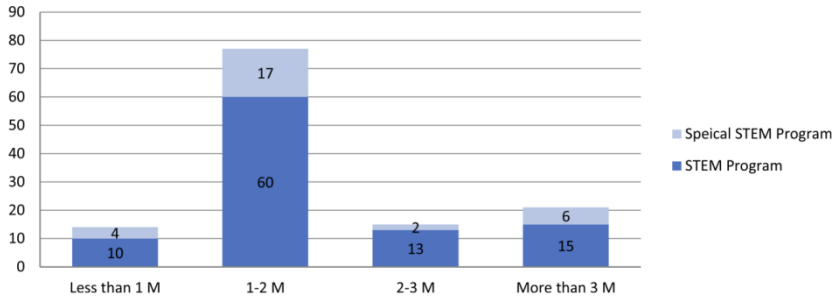

Figure 2: The number of projects in terms of total funding amount categories

Case studies of individual universities further illustrate this impact. For instance, some institutions have reallocated resources to STEM projects, resulting in reduced support for the humanities. Faculty in underfunded disciplines may face challenges in securing research grants, leading to a decrease in academic output and a decline in academic freedom. Moreover, the emphasis on STEM education could influence faculty hiring practices, with universities prioritizing STEM positions to align with funding priorities. This approach could marginalize scholars in the humanities and social sciences, further weakening educational autonomy and the richness of academic discourse.

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4. Conclusion

Driven by the competitive pressures of today's economy, American higher education has witnessed an increasing emphasis on STEM disciplines, resulting in the reshaping of the academic landscape to the detriment of the humanities and basic sciences. As detailed in recent research, this shift has not only marginalized non-STEM disciplines but also threatened fundamental principles of academic freedom and diversity.

As funding increasingly flows to fields that are perceived as economically profitable, universities find themselves forced to adjust their curriculum to meet funding criteria, often excluding the liberal arts and basic sciences. This has exerted a profound impact on both the diversity and depth of educational offerings and higher education's broader mission of fostering critical thinking and diverse intellectual engagement. Furthermore, the focus on STEM has influenced hiring practices that prioritize STEM faculty over humanities faculty, which can diminish the richness of academic discourse and undermine educational autonomy. These developments necessitate a critical reassessment of current educational policies to ensure that they maintain the integrity and diversity of academic offerings and promote a balanced educational environment that truly supports all disciplines.

References

[1] *Gornall, A., & Bhattacharyya, S. (2022). Digital Humanities Inside Out: Developing a Digital Humanities Curriculum for Computer Scientists in Singapore. Digit. Humanit. Q., 16.*

[2] *Li, Y., Wang, K., Xiao, Y., Froyd, J. E., & Nite, S. B. (2020). Research and trends in STEM education: a systematic analysis of publicly funded projects. International Journal of STEM Education, 7, 1-17.*

[3] *Takeuchi, M. A., Sengupta, P., Shanahan, M. C., Adams, J. D., & Hachem, M. (2020). Transdisciplinarity in STEM education: a critical review. Studies in Science Education, 56(2), 213–253. https://doi.org/10.1080/03057267.2020.1755802.*

[4] *Freeman, B., Marginson, S., & Tytler, R. (2019). An international view of STEM education. STEM Education 2.0. https://doi.org/10.1163/9789004405400_019.*

[5] *Callender, C., & Melis, G. (2022). The privilege of choice: How prospective college students 'financial concerns influence their choice of higher education institution and subject of study in England. The Journal of Higher Education, 93(4), 477–501. https://doi.org/10.1080/00221546.2021.1996169.*

[6] *Rosinger, K., Kelchen, R., Baker, D. J., Ortagus, J. C., & Lingo, M. D. (2022). State higher education funding during COVID-19: Lessons from prior recessions and implications for equity. AERA Open, 8(1). https://doi.org/10.1177/23328584221091277.*

[7] *Foroozesh, M., Giguette, M., Morgan, K., & Johanson, K. (2018). Building infrastructure leading to diversity program at Xavier University of Louisiana, Project Pathways. EDULEARN proceedings, 2018, 9940–9944. https://doi.org/10.21125/EDULEARN.2018.2398.*

[8] *Li, Y., & Xiao, Y. (2020). Research and Trends in STEM Education: A Systematic Analysis of Publicly Funded Projects. International Journal of STEM Education, 7(17). https://stemeducationjournal.springeropen.com/articles/10.1186/s40594-020-00213-8*