Available Online: 18 August 2026 DOI: 10.54254/2753-7102/2026.36148

Choosing a future under uncertainty: major choice and career anxiety among international high-school students in China

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Abstract. This study examines how economic uncertainty, family expectations and intended university majors are associated with future anxiety among international high-school students in China. An exploratory online survey collected 77 valid responses from students at the researcher's school. Descriptive statistics and cross-tabulations were used to compare six intended-field groups. The findings indicate that major choice operates partly as a strategy for managing employment and income risks, although students also value autonomy, personal interest and meaningful work. Anxiety was visible through concerns about technological change, perceived parental expectations, peer comparison and the possibility of achieving an externally successful but unfulfilling life. Undecided students displayed particularly strong uncertainty, but the survey cannot determine whether anxiety causes indecision. The study argues that career anxiety should be understood not only as an individual psychological condition, but also as a response to labor-market change, family investment and competing expectations about a secure and meaningful future.

Keywords: career anxiety, university major choice, economic uncertainty

1. Introduction

On Chinese social media platforms, passive and nostalgic expressions have been circulating widely. Neijuan ("involution"), xiaofei jiangji ("consumption downgrading"), and jingji shangxingqi de mei ("the beauty of an economic upswing") have become familiar features of online discussions. Together, these expressions reflect public concerns about social competition, declining expectations and economic insecurity. As China's economic growth has slowed and its labour market has weakened, many graduates, students and their families have become increasingly concerned about employment and future income [1].

Labour-market pressure has been particularly visible among younger workers. In June 2026, the surveyed unemployment rate among urban 16-to-24-year-olds, excluding students, stood at 14.9 per cent [2]. The changing structure of employment provides further context. A State Council report stated that more than 200 million people were engaged in flexible employment by the end of 2025, while the China Research Centre for New Forms of Employment estimated approximately 280 million in 2025 and projected 320 million in 2026 [3, 4]. Although these estimates may not be directly comparable, they demonstrate the growing importance of

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non-standard employment and raise questions about income predictability, career development and social protection.

Against this background, higher education has increasingly become an intergenerational defensive shield against financial precarity and downward social mobility. Young people may therefore use discipline selection not only to express academic interest but also to manage future risk. Within the researcher's international-school environment, conversations about overseas university applications appeared increasingly focused on employability, income, university rankings and the economic value of different degrees. This raised a sociological question: how does uncertainty in wider society enter students' educational decisions before they begin university or participate fully in the labour market?

Drawing on a survey of 77 international high-school students, this study compares how economic security, family expectations, technological change and meaningful work appear across intended fields of study. It argues that the choice of university major has become an important site through which wider social uncertainty is interpreted and negotiated.

2. Literature review

This literature review approaches youth anxiety about education and future careers not solely as an individual psychological problem, but as a condition shaped by economic uncertainty, family expectations and imagined futures. Beck's concept of the "risk society" provides a starting point. As institutions become less able to guarantee stable employment and social mobility, individuals are increasingly required to anticipate and manage structural risks through personal educational and career decisions [5]. A university major may consequently become protection against unemployment, technological displacement and downward mobility.

Empirical research shows how uncertainty becomes career anxiety. Zhou et al. [6], using 1,919 valid responses from Chinese undergraduates, found that intolerance of uncertainty was positively associated with future career anxiety, with fear of COVID-19 and depression acting as mediators. Sun's [7] survey of 260 Chinese undergraduates similarly associated future anxiety with greater career stress and lower well-being, but also with greater identity exploration. Anxiety may therefore encourage reflection as well as withdrawal. Based on 339 questionnaires from one university in Jiangsu, Tu [8] identified three dimensions of employment anxiety: insufficient employment support, concerns about employment prospects and lack of self-confidence. These studies connect external labour-market insecurity with young people's perceived capacity to respond to it. However, their university samples cannot automatically represent high-school students.

This distinction matters because high-school students encounter employment uncertainty indirectly. They have not yet entered the labour market, but must make educational choices based on predictions about occupations that may change before they graduate.

Economic uncertainty is also mediated through families. Bourdieu and Passeron [9] argue that education contributes to social reproduction by converting family resources into recognised credentials. Brown [10] calls the growing influence of parental resources and preferences "parentocracy". In China, Wang, Chen and Xie's [11] interviews with 18 middle-class parents in Guangzhou illustrate how institutional uncertainty, market-oriented educational strategies and perceived risks of social reproduction can sustain parental anxiety. Yet parental involvement is not uniformly harmful. Zhang et al. [12] show that parental support and interference operate differently through Chinese adolescents' autonomy and career decision-making confidence.

Family influence may therefore provide information and security while also narrowing the range of futures that students regard as acceptable.

Research on meaningful work adds another dimension. Han [13] argues that achievement culture encourages continuous self-optimisation and measures success through performance and visible outcomes, potentially producing exhaustion and alienation. Rosso, Dekas and Wrzesniewski [14] similarly show that meaningful work is constructed through the self, relationships, work contexts and cultural values rather than income alone. Young people may therefore seek economic security and recognition while also fearing a successful but unfulfilling life.

These competing expectations can be understood through Markus and Nurius's [15] concept of "possible selves": people imagine both who they hope to become and who they fear becoming. Vignoli's [16] study of 242 French senior high-school students found that future school and career anxiety was associated with both career indecision and career exploration. Anxiety may hinder commitment but also motivate the comparison of alternatives. Existing research therefore explains several sources of career anxiety, but less is known about how they are experienced by international high-school students in China before university, or how they vary across intended fields. This study addresses that gap.

3. Methodology

This study adopted an exploratory, cross-sectional survey design to investigate how international high-school students understand future economic and career uncertainty, and how these perceptions are associated with their intended university majors. The questionnaire was distributed online among students in the researcher's school, producing 77 valid responses.

The questionnaire contained five sections and 14 main questions. It examined intended majors and choice factors; perceptions of employment and artificial intelligence; definitions of success and attitudes towards income, repetitive work and meaningfulness; feelings about the future and sources of pressure; and perceived parental anxiety and social influence. Five statements were rated from 1 ("strongly disagree") to 5 ("strongly agree").

Responses were analysed using descriptive statistics and cross-tabulations. Intended majors were organised into six groups: Science, Technology, Engineering, and Mathematics (STEM), Economics and Business, Humanities and Social Sciences, Art and Design, Medical and Health Sciences, and Undecided.

4. Results

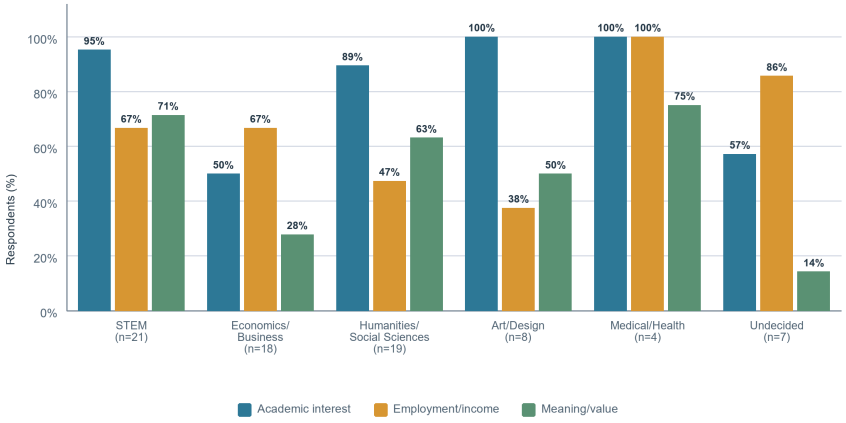

Figure 1. Major-choice priorities by intended field

Note. Respondents could select up to two factors. Source: Author's survey (N = 77).

Figure 1 provides an overview of how the principal major-choice considerations varied across intended fields.

4.1. STEM fields

Students in STEM fields were highly driven by their interests. All Computer Science students and 85.71% of Engineering students selected academic interest as a major-choice factor. Across the combined STEM group, 71.43% also selected meaningful or valuable work. Computer Science students disliked repetitive work, giving an average score of 4.20 out of 5 when asked whether they feared a mechanical and repetitive life more than poverty.

There was an interesting split regarding technology. Only one of the five Computer Science respondents expected employment to become much harder, and this respondent identified AI replacement as the principal reason. Engineering students were more practical, with 57.14% focusing on employment and income. Among Mathematics and Natural Sciences students, 55.56% identified academic grades as their greatest pressure. Nevertheless, four of the nine felt confused about the future and four felt worried or clearly anxious. STEM students therefore did not experience uniformly low anxiety, although Computer Science respondents showed distinctive awareness of AI displacement.

4.2. Economics and business

Economics and Business students showed a practical and defensive approach. Across the whole sample, 62.34% considered employment and income when choosing a major; among Business students, the proportion was 66.67%. In addition, 38.89% preferred a high-income and high-recognition job even if it was repetitive. They produced the lowest average score, 2.33, when asked whether they feared repetition more than poverty, and 50% selected low income as their most unacceptable future.

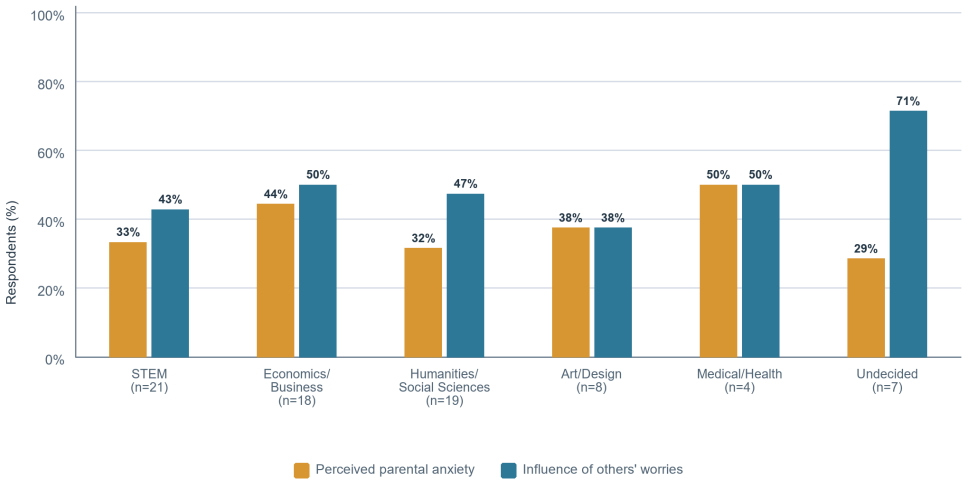

Figure 2. Perceived parental anxiety and the influence of others' worries by intended field

Note. Source: Author's survey (N = 77).

This mindset was connected to perceptions of family expectations. Among Business students, 44.44% perceived their parents as very or quite anxious, with employment, income and university ranking regarded as important parental priorities. However, ten of the 18 respondents defined success through autonomy and

control over their lives. The group therefore showed a tension between financial safety and personal autonomy rather than a simple willingness to accept any well-paid job. As shown in Figure 2, the influence of others' worries was most pronounced among Undecided students (71.43%).

4.3. Humanities and social sciences

Humanities and Social Sciences students faced a sharp conflict between personal values and an uncertain labour market. Academic interest was selected by 89.47%, while 63.16% selected meaningful or valuable work. Their average peer-comparison score was 4.32 out of 5. Looking ten years ahead, 52.63% felt confused and 21.05% felt clearly anxious, while 47.37% reported being significantly influenced by the worries of parents, teachers and classmates. Their concerns included both economic security and meaningfulness: 31.58% selected low income as their most unacceptable future, while 26.32% selected a successful-looking job that lacked real meaning.

4.4. Art and design

Art and Design was the most consistently interest-driven group: every respondent selected academic interest, and half considered a high-paying but meaningless job the worst future they could imagine. No respondent selected peer competition as their single greatest pressure. However, their average peer-comparison score of 3.25 shows that they were not completely unaffected by social comparison. Six of the eight nevertheless described their future as confused, worried or clearly anxious. Their most common pressures were academic grades and university applications. Their responses suggest strong concern for creativity and meaningful work alongside continuing academic and social pressure.

4.5. Medical and health sciences

The Medical and Health Sciences group contained only four students. Two perceived their parents as very anxious. All four reported that their parents prioritised future income, three reported that they prioritised employment prospects, and three expected AI to have a large influence on their field. Two respondents felt optimistic about the next ten years and two felt confused. Because of the group's size, these responses should be treated as individual patterns rather than general conclusions about future medical students.

4.6. The undecided group

As shown in Figure 3, Undecided students recorded the highest average peer-comparison score (4.43) and the highest score for concern about appearing successful while remaining unhappy (4.14). None felt excited or optimistic about the next ten years; all seven felt confused, worried or clearly anxious. All identified tuition and living costs as important, six prioritised employment and income, and five reported being significantly influenced by other people's worries. The results show an association between indecision, economic concern, peer comparison and anxiety, but cannot establish whether anxiety causes indecision or indecision increases anxiety.

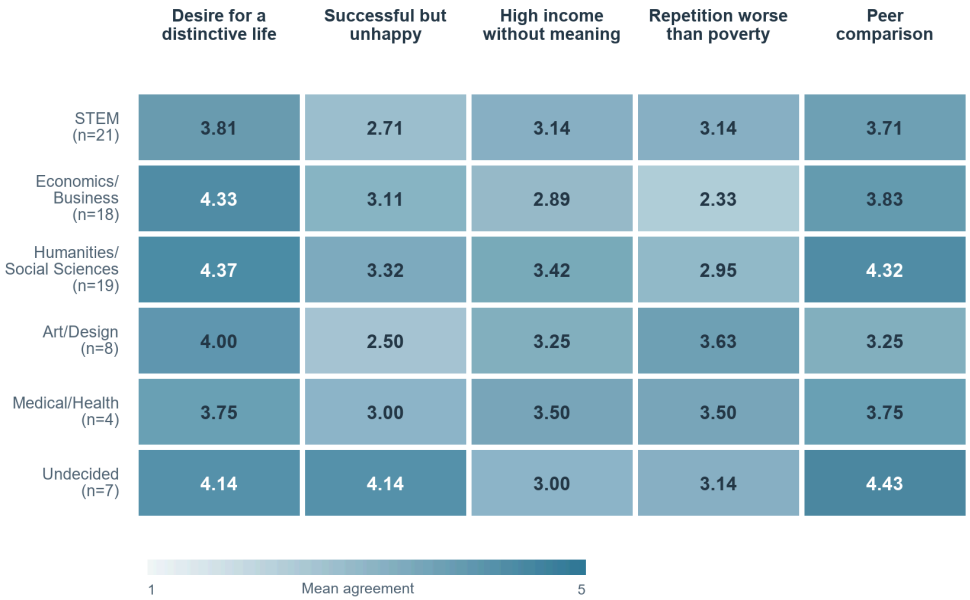

Figure 3. Anxiety-related attitudes by intended field

Note. Mean agreement on a 1–5 scale; darker cells indicate higher agreement. Source: Author's survey.

5. Discussion

Three findings emerge from the survey. Discipline choice can operate as a strategy for managing future risk; anxiety is shaped by family expectations and surrounding emotions; and students fear not only economic failure but also meaningless success. Differences between majors therefore reflect different combinations of shared pressures rather than completely separate types of anxiety.

5.1. Major choice as risk management

The emphasis on employment, income and career prospects suggests that major choice has become a form of risk management. Beck's "risk society" explains why weakening guarantees of employment and mobility shift responsibility towards individual educational decisions [5]. A major may function as an economic shield as well as an expression of interest. This applied beyond Business, Medical/Health and Undecided students. STEM respondents trusted specialised knowledge but recognised possible technological displacement. This supports the idea of "technical and structural anxiety": skills may create confidence while increasing awareness of future risks. Major choice is therefore an attempt to control uncertainty, not evidence that uncertainty has been removed.

5.2. Economic security and meaningless success

The findings also reveal conflict between security and self-realisation. Business students worried about income but valued autonomy, while Humanities/Social Sciences, Art/Design and STEM students emphasised interest and meaningful work. Students appeared to want stability, freedom and meaning simultaneously. Han's account of achievement culture helps explain why anxiety can continue after conventional success [13]. Some

respondents feared not only unemployment but also a respectable and well-paid occupation lacking personal meaning. "Meaningless success" captures the difficulty of meeting social expectations without losing identity.

5.3. The social transmission of anxiety

Anxiety appeared socially transmitted rather than entirely private. Students perceived parents as prioritising employment, income, rankings and stability, and many were influenced by others' worries. Social reproduction and parentocracy explain why families may use education to protect social position [9, 10]. For international-school families investing in overseas education, a "wrong" subject may appear both a financial risk and a threat to mobility. Relative privilege therefore does not necessarily remove anxiety; greater investment may increase the perceived consequences of an unsuccessful choice. However, support and interference can affect autonomy differently [12]. The survey records students' perceptions, so it suggests transmission without establishing parents' intentions.

5.4. Indecision and possible selves

The Undecided group shows how choices can become burdens. Through "possible selves", young people imagine hoped-for and feared identities [15]. Choosing one major means accepting one future while abandoning others. Employment, educational costs, family expectations and fulfilment complicate this commitment. As Vignoli [16] suggests, anxiety may accompany both indecision and active exploration. The students should therefore not be described simply as passive. Nevertheless, the direction of the relationship between anxiety and indecision remains uncertain.

Overall, major-related anxiety is not simply individual weakness. It responds to labour-market uncertainty, technology, family investment, social comparison and the challenge of constructing a secure but meaningful future.

6. Conclusion

This study shows that major choice among international high-school students can function both as personal expression and as a strategy for managing uncertainty. Across intended fields, students negotiated tensions between economic security, family expectations, technological change, autonomy and meaningful work. Their anxiety was therefore not purely individual or financial but embedded in wider social relationships and expectations. The small, non-representative and cross-sectional sample prevents causal or general conclusions. Nevertheless, the findings indicate that supporting students requires more than directing them towards apparently practical degrees. Career guidance should help them distinguish structural risks from personal failure while recognizing their need for reliable information, autonomy and opportunities to imagine futures that are both secure and meaningful.

References

[1] World Bank. (2026, July). *China Economic Update: July 2026*. https://thedocs.worldbank.org/en/doc/1ef2e7b9c02124a80292f5d43cce0961-0070012026/original/CEU-July-2026-CN.pdf

[2] The New York Times. (2026, July 30). Article on China's economy and the Politburo. *The New York Times*. https://www.nytimes.com/2026/07/30/business/china-economy-politburo.html

[3] State Council of the People's Republic of China. (2025, December 22). *Report on protecting the rights and interests of workers in flexible employment and new forms of employment*. National People's Congress of the People's Republic of China. https://www.npc.gov.cn/npc/c2/c30834/202512/t20251224_450484.html

[4] China Research Centre for New Forms of Employment. (2026). *2025 China blue-collar employment research report*. https://hulianhutongshequ.cn/upload/tank/report/2026/202606/6/16e2838178574fb189ac588530ca8966.pdf

[5] Beck, U. (1992). *Risk society: Towards a new modernity*. Sage.

[6] Zhou, T., Bao, Y., Guo, D., Bai, Y., Wang, R., Cao, X., Li, H., & Hua, Y. (2022). Intolerance of uncertainty and future career anxiety among Chinese undergraduate students during COVID-19 period: Fear of COVID-19 and depression as mediators. *Frontiers in Public Health, 10*, 1015446. https://doi.org/10.3389/fpubh.2022.1015446

[7] Sun, Y. (2026). Youth anxiety in an age of uncertainty: Future insecurity, career stress, and the mechanisms of identity exploration during major life transitions. *Frontiers in Psychiatry, 17*, 1741101. https://doi.org/10.3389/fpsyt.2026.1741101

[8] Tu, Y. (2026). An empirical study of the dimensional structure and influencing mechanisms of career-choice anxiety among university students. *Journal of Jinling Institute of Technology (Social Science Edition), 40*(1), 65–71. https://doi.org/10.16515/j.cnki.32-1745/c.2026.01.009

[9] Bourdieu, P., & Passeron, J.-C. (1977). *Reproduction in education, society and culture*. Sage.

[10] Brown, P. (1990). The "third wave": Education and the ideology of parentocracy. *British Journal of Sociology of Education, 11*(1), 65–85. https://doi.org/10.1080/0142569900110105

[11] Wang, Q., Chen, J., & Xie, A. (2024). Middle-class education anxiety in China: Rising parentocracy and institutional uncertainty in social reproduction. *Chinese Education & Society, 57*(3–4), 235–256. https://doi.org/10.1080/10611932.2025.2468956

[12] Zhang, Y. C., Zhou, N., Cao, H., Liang, Y., Yu, S., Li, J., Deng, L., Sun, R., Wu, Q., Li, P., Xiong, Q., Nie, R., & Fang, X. (2019). Career-specific parenting practices and career decision-making self-efficacy among Chinese adolescents: The interactive effects of parenting practices and the mediating role of autonomy. *Frontiers in Psychology, 10*, 363. https://doi.org/10.3389/fpsyg.2019.00363

[13] Han, B.-C. (2015). *The burnout society*. Stanford University Press.

[14] Rosso, B. D., Dekas, K. H., & Wrzesniewski, A. (2010). On the meaning of work: A theoretical integration and review. *Research in Organizational Behavior, 30*, 91–127. https://doi.org/10.1016/j.riob.2010.09.001

[15] Markus, H., & Nurius, P. (1986). Possible selves. *American Psychologist, 41*(9), 954–969. https://doi.org/10.1037/0003-066X.41.9.954

[16] Vignoli, E. (2015). Career indecision and career exploration among older French adolescents: The specific role of general trait anxiety and future school and career anxiety. *Journal of Vocational Behavior, 89*, 182–191. https://doi.org/10.1016/j.jvb.2015.06.005