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The Non-Return of Azerbaijani Students Educated Abroad under State Sponsorship

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STATEMENT OF AUTHENTICITY

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Abstract

This capstone examines why a substantial share of Azerbaijani students sponsored by the State Program choose not to return home after completing their studies abroad. Through semi-structured focus-group interviews with nine non-returning alumni and expert interviews with three program administrators, the study explores economic drivers (wage disparities, pension mismatches, remote-work opportunities), higher-education barriers (faculty shortages, misaligned degree quotas, limited research infrastructure), and socio-cultural frictions (management-style clashes, weak contractual safeguards, prestige-centered program design). Three policy bundles are developed: (1) binding return clauses with graduated-repayment options; (2) indexed stipends, return bonuses, and matching-grant schemes; and (3) a reintegration infrastructure comprising a Returnee Coordination Unit, fellowships, alumni networks, and institutional reforms in academia and the public sector. Evaluated for efficacy, feasibility, and cost, these options reveal that no single measure suffices. Instead, a blended approach—combining a flexible service requirement, strategic financial incentives, comprehensive reintegration supports, and workplace modernizations—offers the best path to reverse brain drain and foster sustainable "brain gain." An adaptive governance framework is proposed to monitor outcomes and iteratively refine program design.

Keywords: Azerbaijan, brain drain, return migration, state-sponsored scholarships, policy analysis.

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1. Introduction

Student migration is one of the main types of brain drain since most students who go for studies in other countries are likely to stay back in these countries in search of better employment, research, and living conditions (Rosenzweig, 2006). There are many reasons why individuals decide to stay in the host country such as economic differences, political instability, lack of employment opportunities in the home country, and the differences in the research facilities between the home and the host country as pointed out by Dustmann and Glitz in 2011. Also, talented students especially in STEM fields are lured by developed countries with a shortage of human capital thus creating a continuous brain drain from the less developed countries (Clemens, 2013). This has raised issues regarding the loss of human capital in developing countries as these are the countries that are most likely to lose their educated personnel.

Given the growing interconnectivity of global labor markets, it is crucial to approach the issue of brain drain and student migration from a balanced perspective. While the immediate loss of talent presents challenges for source countries, the potential for brain circulation and knowledge exchange underscores the importance of fostering policies that encourage return migration, investment in higher education, and international collaboration. Without proactive strategies, developing nations risk perpetuating cycles of human capital loss, while developed nations continue to benefit disproportionately from global talent flows (Clemens, 2013).

The *State Program on Education of Azerbaijani Youth Abroad for the Years 2007-2015* was a significant initiative aimed at strengthening Azerbaijan's human capital by offering its students the opportunity to pursue higher education at internationally renowned

universities. This program was part of the government's larger plan to use the country's oil wealth for development especially in education and training of people to facilitate the diversification of the economy. The implementation of the program was coordinated by the Ministry of Education and financially supported by the State Oil Fund of Azerbaijan (SOFAZ) which indicates that the government of Azerbaijan cares not only for the country's oil and gas wealth but also for its people (SOFAZ, 2024).

It was approved by Presidential Decree No. 2090 signed by the President of the Republic of Azerbaijan, Mr. Ilham Aliyev on April 16, 2007. The decree also mentioned the main priorities, which are the formation of a competitive economy of the country, the education of the qualified staff, the access of Azerbaijani youth to high-quality education abroad, and the optimization of the organization of the study abroad (Azertag, 2007). It was also acknowledging the need for quality human capital in strategic areas of the country's development such as engineering, technology, environment, and economics.

According to the decree, the program was aimed not only at education but at the development of the knowledge society in the country. Thus, providing support to students in some of the leading universities around the world, Azerbaijan sought to create a pool of qualified workforce that would spur innovation and growth in the economy across different sectors. The government anticipated that these students would come back and practice in the public and private domains and thus, contribute to the growth of the nation's economy and society (Ministry of Education of Azerbaijan, 2015).

Between 2007 and 2015, a total of 3,558 Azerbaijani students received scholarships under the State Program, allowing them to pursue higher education abroad. Among them, 1,430 students enrolled in master's programs, while 1,180 pursued bachelor's degrees.

Additionally, 692 students studied at other levels, including doctoral and residency programs (SOFAZ, 2020).

The program facilitated education in some of the world's leading institutions across multiple countries. The United Kingdom emerged as the top destination, hosting 29.1% of the students, followed by Turkey (22.1%), Germany (12.4%), Canada (7.2%), and the Netherlands (5.2%). Other key destination countries included the United States, Russia, France, and Australia (Ministry of Education of Azerbaijan, 2020). The preference for these countries reflected their strong higher education systems, which were considered beneficial for the students' professional and academic growth.

By July 2020, 2,765 students had successfully completed their education and graduated from international universities. Among them, 60% found employment in the private sector, while 40% took up positions in government institutions. This distribution demonstrated the program's impact in creating a skilled workforce across various sectors in Azerbaijan. The government had anticipated that these graduates would play a significant role in transforming Azerbaijan into a knowledge-based economy (Ministry of Education of Azerbaijan, 2020).

Nevertheless, the program was implemented with some challenges as outlined below. One of the main considerations was the problem of students' attendance. Many graduates did not come back to Azerbaijan after the completion of their studies to seek better-paid job opportunities in foreign countries with better quality of life. This contributed to what can be referred to as a form of brain drain in as much as the highly skilled individuals who were trained through government sponsorship were not willing to contribute to the Azerbaijani economy (European Research Center, 2018).

Other issues that were highlighted include financial and administrative complications. Some of the issues that were mentioned included delays in receiving stipends, and problems with tuition fees. Furthermore, there was no proper way of recovering money from students who were expelled from the program as a result of poor performance or for any other reason. This was due to concerns about accountability and financial sustainability (European Research Center, 2018).

Another concern was the shortage of vacancies in Azerbaijan that correspond to the competencies of the graduates. Despite the government's efforts to ensure that the students return to the labour market, the students encountered some difficulties in securing employment that would suit their educational standards. The lack of proper employment opportunities for the students also contributed to the brain drain problem as more and more students looked for jobs overseas (SOFAZ, 2020).

The role of the State Program in human capital development has been acknowledged by government officials as crucial for Azerbaijan. The Minister of Education has stated that the initiative was a long-term investment that was meant to boost the human capital of the country. Speaking to the media, the minister pointed out that through the program, more than 3,500 students have been educated and many of them have come back to contribute their quota in sectors like energy, technology, governance, among others (Azertag, 2020).

Nevertheless, understanding the problem of student retention, Azerbaijani authorities began to look for new solutions to retain talented individuals. Some of the ideas are providing better remunerations, providing more research and development opportunities, and enhancing the general employment conditions of these professional staff. There have also been talks about return incentives like offering financial grants, housing, and some job placement for the graduates (SOFAZ, 2020).

In recent years, the government has paid more attention to newer schemes and programs like The State Program on Increasing the International Competitiveness of Higher Education in Azerbaijan for 2019-2023. It is based on the previous program of 2007-2015 but improves it by establishing a connection between education and employment in Azerbaijan (Ministry of Education of Azerbaijan, 2019).

The issue of non-returning students is not unique to Azerbaijan, as many countries have faced similar challenges. Studies indicate that high-skilled migration, particularly among state-sponsored students, is influenced by a combination of economic opportunities, political climate, and personal career ambitions (Salt & Findlay, 1989; Docquier & Rapoport, 2012). While state programs are designed to foster national capacity-building, their effectiveness is contingent on the willingness and ability of graduates to reintegrate into their home economies. The failure of return migration diminishes the state's return on investment and potentially strengthens foreign labor markets at the expense of the sending country.

Despite the Azerbaijani government's emphasis on attracting skilled graduates back to the country, there remains a lack of comprehensive analysis of why these students choose to remain abroad. Most policy discussions have framed the issue as a failure of commitment on the part of students, yet empirical evidence suggests that the decision to stay abroad is driven by multiple structural factors, including employment prospects, quality of life, political climate, and personal freedom (Rizvi, 2011). Without a deeper understanding of these motivations, Azerbaijan may struggle to develop effective policies that encourage return migration.

Although global literature on brain drain and return migration is well-established (Dustmann & Weiss, 2007; Stark, 2004), specific research on state-sponsored Azerbaijani

students who do not return remains scarce. Existing studies on Azerbaijan's brain drain focus primarily on general migration trends rather than specifically examining the State Program on Education with Foreign Universities as a soft power tool and its unintended consequences. Moreover, most reports on student return migration in Azerbaijan lack empirical data on the reasons behind non-return and how these students perceive their future career prospects in Azerbaijan compared to host countries (Balci, 2021).

This study aims to fill this gap by conducting a systematic investigation into the factors driving the non-return of Azerbaijani students studying abroad under the State Program. By integrating both qualitative and quantitative methods, this research will offer a data-driven perspective on the motivations, obstacles, and policy implications of non-returning students. The study will contribute to migration and education policy literature by exploring:

- **The role of Azerbaijan's State Program in shaping the diaspora and the unintended effects of state-funded international education.**
- **The extent to which economic, social, and political factors influence students' decisions not to return.**
- **How Azerbaijan's soft power strategy through educational programs aligns with or contradicts actual migration outcomes.**

1.1 Methodology

This study adopts a qualitative research design to explore why Azerbaijani State-Program scholars choose not to return after completing their studies abroad. Prioritizing depth over breadth, it relies on semi-structured focus-group interviews with non-returning graduates alongside expert interviews with program administrators. This approach enables rich

insights into personal motivations, institutional structures, and the intersection between them—dimensions that large-scale surveys would obscure.

Centered around the question—*Why do Azerbaijani students studying abroad under the State Program choose not to return?*—the inquiry unfolds across three interrelated domains. First, economic drivers examine how wage differentials, debt avoidance, and remote-work flexibility influence decisions. Second, social and cultural factors investigate how habitual adaptation to host-country norms and perceived organizational-culture clashes shape return intentions. Third, policy effectiveness probes program design and oversight gaps—such as the absence of binding return clauses and systematic follow-up—that have undermined repatriation goals.

Participants were recruited via purposive and snowball sampling. Nine alumni (five men, four women) who completed State-Program studies between 2007–2015 or 2019–2023 and remain abroad were selected to represent diverse disciplines (STEM, ICT, energy economics, education management) and host countries (UK, Turkey, Germany, Canada, Netherlands). Recruitment leveraged professional networks, alumni associations, and LinkedIn groups; initial interviewees referred peers meeting eligibility criteria. To complement graduate perspectives, three senior insiders were interviewed: two Ministry of Education coordinators (one from each program cohort) and a SOFAZ human-capital advisor.

Data collection comprised a two-hour focus-group session conducted via secure videoconference and three one-hour expert interviews. The focus-group guide featured open-ended questions on labour-market comparisons, cultural adaptation, and policy critique. Sessions, conducted bilingually (Azerbaijani/English), were audio-recorded with consent, transcribed verbatim, and enriched with field notes capturing tone and nonverbal

cues. Expert interviews focused on program inception goals, contractual design, monitoring practices, and lessons learned; recordings were professionally transcribed and anonymized.

While offering context-rich findings, the study has limitations. The small, purposive sample cannot statistically generalize across all alumni or administrators, and participants may reflect self-selection biases. Recall and social-desirability biases could color retrospective accounts, and bilingual interviews risk subtle translation inconsistencies. Finally, omitting cohorts outside 2007–2015 and 2019–2023 limits temporal scope. Nonetheless, the rigorous triangulation, iterative validation, and grounded coding provide a robust platform for understanding non-return dynamics and informing targeted policy reforms.

Chapter 2. Problem Description

The decision of many Azerbaijani State Program alumni (2007–2015) not to return home is driven by a constellation of economic, academic, and socio-cultural factors. This chapter examines the problem across three dimensions: (2.1) labour-market and economic constraints; (2.2) higher-education and academic barriers; and (2.3) socio-cultural and organizational frictions. Drawing on expert interviews and focus-group insights, each section illustrates how these challenges discouraged return, even for students originally committed to contributing back in Azerbaijan.

2.1 Labour-Market & Economic Constraints

Economic realities in Azerbaijan's labour market emerged as a core deterrent to return. Graduates compare host-country salaries, transparency, and benefits against the conditions at home. As one focus group member summarized, "Financially, staying abroad just made more sense" (Participant B). Three specific issues were prominent: opaque wage structures that undermine long-term security, the lure of remote-work convenience coupled with higher foreign pay, and a persistent youth underemployment and skills mismatch at home.

2.1.1 Wage Structures & Pension Mismatch

Azerbaijan's wage system—split between low official salaries and informal "top-ups"—frustrates returnees by undermining financial security. Expert 2 (from personal communication with expert on field of education, May 3, 2025) explained that in many local institutions, a portion of one's salary is paid off the books, inflating take-home pay but reducing pension contributions. This contrast of *contract vs. off-book pay* creates a dilemma: an employee may earn a livable income through unofficial bonuses, yet their future pension is based only on the meager official wage. Participant F, who considered a university job in Baku, captured this frustration: *"They promised extra cash under the*

table, but it hurts my pension." This sentiment reflects a structural mismatch between short-term and long-term incentives. Returnees, often in their late 20s or 30s, worry that sacrificing transparent, pension-bearing salaries abroad for opaque arrangements at home could jeopardize their financial future in retirement.

These concerns align with broader findings on migration decisions. Differences in wage structures and social benefits heavily influence whether graduates return. Dustmann and Glitz (2011) note that migrants weigh not just immediate earnings but also the *quality* of earnings—i.e. whether income is stable and contributes to social insurance. In Azerbaijan's case, the prevalence of unrecorded salary supplements erodes trust in the system. Moreover, local wage levels are often simply uncompetitive. A 2019 analysis by Bayramli et al. (2019) highlighted that private sector salaries in Azerbaijan lag behind those in many destination countries, especially when adjusted for cost of living and benefits. Focus group participants frequently mentioned that even with patriotic motivation, taking a job at home meant "starting at half the salary of what I get here [abroad]" (Participant H). Thus, the wage gap is not merely in gross income but in the structure of compensation. The absence of Western-style benefits (pensions, health insurance, clear contracts) in many Azerbaijani jobs made graduates skeptical about long-term career moves back. In summary, unless official wage structures become more transparent and equitable, graduates will continue to view domestic employment as a financial step backward (particularly in terms of retirement security) – a key driver of the brain drain from Azerbaijan's perspective.

2.1.2 Remote-Work Convenience & Host-Country Salaries

The rise of flexible work arrangements and the draw of higher salaries abroad have further lessened the incentive to physically return. Many State Program alumni established careers in host countries or even transitioned to remote jobs that span borders. Participant A, for example, now works remotely as a software developer for a U.S. firm while living in

Europe, earning an international salary without needing to relocate back to Baku. *"Why move back, if I can collaborate with teams globally from where I am?"* they asked during the focus group, underscoring how technology enables graduates to contribute professionally to Azerbaijan (or earn Azerbaijani clients) from afar. This remote-work convenience allows graduates to maintain ties with home—through freelance projects, online teaching, or consulting—while enjoying the lifestyle and salary of their host country. Such arrangements have redefined what "return" means in a modern context.

Higher host-country salaries remain a powerful pull. Even those who don't work remotely often find that staying in the host country yields faster career progression and pay raises. One focus group member noted that in their field (finance), a few extra years abroad could double their salary – an opportunity cost to returning early. Research supports this dynamic: Rosenzweig (2006) observed that international students often treat foreign education as a springboard to foreign employment, especially when the *earnings differential* is significant. In our interviews, several participants echoed that sentiment, explaining they would only consider returning to Azerbaijan if they could "*keep the same salary and flexibility*" (Participant E) they had abroad. Expert 3 (from personal communication with expert on field of education, May 8, 2025) confirmed this trend, noting that a sizeable portion of non-returnees have effectively become "digital diaspora", working for Azerbaijani or international organizations from abroad, thereby *circulating* their skills without full repatriation.

In essence, the global shift towards remote and flexible work has lowered the barriers to staying overseas. Alumni can enjoy Azerbaijan's relative cultural comfort (remaining connected online, visiting occasionally) without bearing the local labour market's downsides. This convenience, combined with the stark salary premium abroad, means that unless Azerbaijan's public and private sector can offer comparable professional flexibility

or competitive compensation, many graduates will opt to remain part of the diaspora workforce.

2.1.3 Youth Unemployment & Skills Mismatch

Underlying these individual cost-benefit calculations is a tougher domestic reality: limited suitable jobs for highly qualified young professionals. Several returnees who *did* attempt to find work in Azerbaijan became disillusioned by youth unemployment and skills mismatch in the economy. According to the European Training Foundation (ETF, 2020), 37% of young people in Azerbaijan are employed in jobs that *do not match their qualifications*, with an additional 7% only partially utilizing their skills. This alarming mismatch suggests that even when jobs are available, they often fail to align with the advanced degrees and specializations that State Program graduates possess. The country's labour market has struggled to absorb the influx of highly educated youth, a point Expert 2 (from personal communication with expert on field of education, May 3, 2025) acknowledged: "We sent so many abroad to get degrees, but didn't simultaneously create roles for them — now we have MBAs working as administrators, engineers doing basic office jobs." The skills mismatch not only wastes talent but also signals to current students that returning may lead to under-employment.

Moreover, while official unemployment rates are moderate, they mask underemployment and sectoral imbalances. Bayramli et al. (2019) and recent labor reports note that youth unemployment remains disproportionately high relative to the overall rate, and many young graduates resort to self-employment or informal work. Focus group participants voiced frustration about coming home to "no jobs in my field" (Participant I) or encountering employers who undervalued their foreign degrees. One participant with a master's in environmental engineering recounted, *"Every interview in Baku asked if I had local experience. My international experience didn't matter."* Others described a "catch-22":

they were considered overqualified for entry-level roles, yet too young or inexperienced (by local standards) for senior roles, a classic integration problem for returnees.

These accounts highlight how structural economic constraints push graduates away. Even patriotic individuals face the reality that, without suitable job openings or recognition of their skills, returning could mean stagnation. In contrast, abroad they find dynamic industries eager to employ them in their trained specialties. Until Azerbaijan's labour market evolves – expanding high-skill opportunities, engaging the private sector to create innovation-driven jobs, and improving the match between education output and industry demand – the State Program's alumni will continue to face strong headwinds in finding their place back home.

2.2 Higher-Education & Academic Barriers

The State Program was born from a nation-building vision: to rapidly cultivate a new generation of academics and professionals who would elevate Azerbaijan's universities and industries. However, systemic weaknesses in the higher education sector itself became a barrier to return. Many scholarship recipients pursued advanced degrees (especially PhDs and Masters) with the expectation of academic or research careers in Azerbaijan. Upon completion, they encountered a university system strained by rapid expansion, shifting priorities, and insufficient academic freedom and resources. As Expert 3 (from personal communication with expert on field of education, May 8, 2025) succinctly put it, "We opened new universities faster than we could staff them." The following sub-sections detail these academic barriers: the expansion of universities outpacing faculty capacity, a misalignment in scholarship focus between PhD and Master's training, and the stifling effect of limited academic freedom and poor research infrastructure.

2.2.1 Rapid University Expansion vs. Faculty Shortages

In the span of roughly two decades, Azerbaijan saw an explosion in the number of higher education institutions. Expert 3 (from personal communication with expert on field of education, May 3, 2025), a senior education official, highlighted this trend with a striking comparison: *"We went from about 15 universities to nearly 50."* This rapid expansion (particularly after 2000) was driven by a policy push to increase access to higher education and modernize the system. New public and private universities, institutes, and regional branches emerged across the country. UNESCO data similarly reflect a sharp rise in tertiary enrollment and institutions during the 2000s. While this growth created more spots for students, it inadvertently generated a faculty shortage: there simply were not enough PhD-trained educators to fill teaching and research positions at these new institutions.

One of the State Program's explicit goals was to train scholars to become faculty for the burgeoning university sector. However, the timing and scale of expansion meant that by the time many graduates finished their studies abroad, the positions awaiting them were either already filled by less-qualified staff or were not as plentiful (or attractive) as expected. In some cases, universities hired adjuncts or retired Soviet-era professors to quickly staff courses, leaving little room (and often little welcome) for young foreign-educated academics. *"I came back with a PhD, but my department was still full of the same people as before,"* noted Participant C, who attempted to lecture at a state university, *"and they saw me as a threat more than a colleague."* Her frustration speaks to the generational and qualification gap – the system was not ready to integrate the influx of fresh doctorates.

Additionally, the quality of positions offered often disappointed returnees. Several focus group participants who had considered academic careers said local universities offered them roles with heavy teaching loads, low pay (as discussed in 2.1.1), and limited research time – effectively underutilizing their new expertise. Expert 2 (from personal

communication with expert on field of education, May 3, 2025) observed that many institutions were in "quantity-over-quality mode" during the expansion, prioritizing student enrollment and tuition income over building research capacity. This meant that a graduate returning with, say, expertise in molecular biology might find no lab or research grant, but rather a schedule to teach four undergraduate classes per semester. The lack of meaningful academic opportunities made remaining abroad in postdoctoral or industry research positions far more appealing. In short, the State Program graduates returned to a higher-ed sector whose rapid growth had outpaced its ability to productively absorb their talents, inadvertently fueling further brain drain in academia.

2.2.2 PhD vs. Master's Quota Shifts

The design of the State Program itself underwent shifts that contributed to the non-return problem. Initially, the program emphasized training PhD-level specialists to serve as future faculty and researchers (in line with the needs described in 2.2.1). However, as Expert 2 (from personal communication with expert on field of education, May 3, 2025) explained, there was a strategic pivot midway: *"We realized PhD scholarships were taking too long and not immediately filling vacancies, so we shifted focus to Master's degrees."* Indeed, by the latter years of the 2007–2015 program, a greater proportion of scholarships were for one or two-year master's programs rather than lengthy PhDs. This change was partly practical – Master's graduates could return sooner to take up jobs – but it had unintended consequences.

One consequence was that fewer scholars attained the terminal degrees needed for academic careers, exacerbating the faculty shortage issue. Another was a dilution of the program's original intent; instead of creating highly specialized experts, it produced larger numbers of graduates with intermediate qualifications. Balci (2021) notes that this quota shift reflected short-term thinking: meeting immediate workforce needs (e.g., civil servants

with foreign Master's) took precedence over long-term academic capacity building. For the students involved, it sometimes meant their study trajectories changed: some who aspired to complete PhDs were encouraged to take a Master's offer instead, or funding for doctoral studies was limited.

The focus group provided human stories behind these policy shifts. Participant D, for instance, had gone to the UK intending to complete a PhD and then launch a collaborative program (a "twin-school" project) linking his host university with an Azerbaijani university. *"I had this dream of a joint degree program,"* he said, *"so students could start in Baku and finish in London. I tried to sell the idea back home – nobody wanted to hear about it."* Eventually, bureaucratic delays and a lack of support led Participant D to abandon the twin-school initiative. He noted that during the years he was pursuing his doctorate, the Ministry's priorities shifted: *"By the time I finished, they were saying, 'why not just teach here with your master's?'"* It was disheartening for him to see the State Program's vision narrow over time.

The PhD-to-Master's shift may have helped more students get foreign degrees quickly, but it left some of the most ambitious scholars in limbo. Azerbaijan ended up with relatively fewer new PhDs than anticipated, and those who did complete doctorates faced an academic landscape at home that had not evolved to utilize them. Several experts and participants converged on this point: the lack of a clear plan to integrate returning PhDs (jobs, research grants, projects) meant many simply stayed abroad where their high qualifications were valued. The lesson, underscored by Expert 2 (from personal communication with expert on field of education, May 3, 2025), is that scholarship programs must align with domestic absorption capacity – without positions or projects to come back to, even the best-intentioned graduates will continue their careers elsewhere.

2.2.3 Academic Freedom & Infrastructure Gaps

Beyond numbers and quotas, returnees confront qualitative deficiencies in Azerbaijan's academic environment. Many found that the academic culture and infrastructure at home lagged far behind what they experienced abroad, affecting their willingness to rejoin it. Two recurring complaints were the lack of academic freedom (or modern academic practices) and the poor state of research facilities and resources.

Under the Soviet-influenced system (which persisted through the 1990s and early 2000s), universities in Azerbaijan often maintained rigid hierarchies, heavy teaching loads, and top-down control over curricula and research agendas. Expert 2 (from personal communication with expert on field of education, May 3, 2025) candidly described it as the *"Soviet load"* still lingering in academia: professors are expected to teach extensively (sometimes 800+ hours a year), with little time or funding for research, and there is an expectation to toe the line with administrative directives. This is a stark contrast to Western academic norms that State Program scholars grew accustomed to, where faculty are generally given autonomy to pursue research interests, lighter teaching loads for research-active staff, and a culture of academic inquiry. The returnees, now accustomed to academic freedom and creative inquiry abroad, found local academia stifling. *"In my lab overseas, I could propose my own project; here, I'd be told what to research – or to not research at all,"* said Participant C, who decided not to take up a faculty role upon return due to these constraints. Her blunt assessment was: *"There are no labs, no libraries – how can I do the research I trained for?"* This quote refers to both a literal lack of modern laboratories and libraries at some institutions, and a metaphorical lack of intellectual space for inquiry.

Infrastructure gaps are indeed stark. Many universities in Azerbaijan lack up-to-date equipment, research laboratories, access to international journals, or funding for conferences and fieldwork. Altbach (2001) emphasizes that academic freedom and

resources are critical to retaining talent in developing countries; without them, scholars will seek environments where they can fulfill their potential. Our participants echoed this academic *push factor*. One science graduate noted that upon visiting a potential department in Baku, *"the lab still had equipment from the 1980s and no budget for new supplies"* (Participant I), which was a deal-breaker for her return. Others mentioned slow or restricted internet on campus, outdated curricula that they would not be free to modernize, and even instances of bureaucratic overreach (e.g., needing approval to attend international conferences or publish abroad).

In sum, the academic climate in Azerbaijan—characterized by hierarchical management, heavy teaching obligations, and underinvestment in research—can be inhospitable to those freshly minted from world-class universities. These scholars thrive on innovation and academic inquiry; if the home system cannot accommodate those needs, they will either not return or soon leave again. This barrier suggests that beyond scholarships, deep reforms in higher education governance and funding are needed, a point that will be revisited in the policy discussion (Chapters 3 and 4).

2.3 Socio-Cultural & Organizational Frictions

The final category of factors lies in the realm of culture and organizational norms. Even if economic and academic conditions were addressed, the human factor of returning to a different work culture and societal expectations plays a pivotal role. State Program alumni often spent 2–5 formative years abroad, adopting new professional habits and cultural norms. Coming home, they frequently clash with local workplace culture, management styles, and even their own evolved personal expectations. Additionally, aspects of the State Program's design and implementation – rooted partly in soft-power ambitions and lacking rigorous follow-up – created an environment where non-return became common. This

section examines these frictions: clashes in management and work style (2.3.1), the program's origin as a prestige project with weak evaluation (2.3.2), and contractual design flaws that failed to enforce returns (2.3.3).

2.3.1 Management-Style Clash

One of the most commonly cited challenges by returnees is the cultural clash in the workplace. The way organizations are managed in Azerbaijan's public sector (and some private firms) often reflects higher power distance, rigid hierarchies, and expectations of constant availability – quite different from many Western environments. Participant E confessed that after years abroad, *"I got into the habit of living abroad"*, by which she meant a habit of Western work-life norms: clear working hours, merit-based decision making, and a degree of work-life balance. Returning to a job at a government ministry, she encountered what she described as a "demanding boss who thought I should be on call 24/7" and found the adjustment so difficult that she left the job within a year. This example typifies how management-style clashes can derail returnees' careers.

Hofstede's (2001) cultural dimensions theory would interpret this as a clash between the low power-distance, individualist culture the students adapted to and the relatively higher power-distance, collectivist context at home. Similarly, Trompenaars and Hampden-Turner (1997) discuss how specific vs. diffuse work cultures lead to misunderstandings: Western workplaces are more "specific" (task-oriented, compartmentalized roles) whereas many Azerbaijani workplaces operate in a "diffuse" manner (expecting loyalty and encompassing more of the employee's time and social life). Returnees, expecting a professional environment similar to their host countries, often feel frustrated by what they see as inefficiencies or overly personalistic management at home.

(from personal communication with expert on field of education, May 8, 2025) shared a telling anecdote illustrating this cultural dissonance. In one case, a returning lecturer was assigned to teach at a regional campus two days a week, which required a nearly 7-hour round-trip commute from Baku. The administration insisted on in-person presence for bureaucratic reasons, even though the same content could have been taught online or in a block schedule. *"He would leave at 5 am to make a 9 am class in the regions,"* (from personal communication with expert on field of education, May 8, 2025) recounted, *"and get home late at night – every week. It was unsustainable."* The scholar eventually resigned and took an academic job abroad, citing the rigid mentality as a key factor. This story underlines how a lack of flexibility and empathy in management can squander the very talent the country invested in training.

Focus group members frequently contrasted the professional culture abroad versus at home. Some common observations were: teamwork and flat hierarchies abroad vs. top-down directives at home; planning and punctuality abroad vs. last-minute urgent tasks at home; and clarity of job scope abroad vs. expectation to "do everything" at home. The phrase *"Sanki Soviet vaxtıdır"* ("as if it's still Soviet times") was used by one participant to describe a particularly old-fashioned institutional culture they encountered. The result of these clashes is that many returnees feel they do not "fit in" professionally in Azerbaijan, leading a number to return overseas after a short attempt, or not to try returning at all if they hear such stories. Addressing this requires not just training returnees to adjust, but also updating management practices domestically – a topic we will revisit in policy options.

2.3.2 Soft-Power Origins & Evaluation Gaps

The State Program was as much a soft-power and prestige project as it was a human capital investment. Modeled in part on neighboring Kazakhstan's successful "Bolashak" scholarship program, it was launched with fanfare and an implicit goal to showcase

Azerbaijan's commitment to education on the world stage. (from personal communication with expert on field of education, May 8, 2025) noted that policy-makers at the time were inspired by Kazakhstan's example: *"Kazakhstan was sending thousands abroad and branding it as nation-building. We wanted to do the same — to have our students at Harvard, Oxford… and then leading our new universities."* Indeed, the origin of the program had a top-down political character – a presidential initiative underpinned by oil revenues – intended to bolster Azerbaijan's image and create a cadre of Western-educated elites.

However, this origin as a prestige program meant that implementation details, especially ensuring the return of scholars, were not rigorously developed. There were evaluation gaps and weak monitoring mechanisms once students departed for their studies. In the early years, the assumption was that patriotic feeling and the lure of new opportunities at home (in government, academia, etc.) would naturally bring people back. Little formal tracking was instituted beyond an initial expectation that graduates report to the Ministry. Pressman and Wildavsky's (1984) classic observation about policy implementation resonates here: lofty goals can falter without clear follow-through. By 2011, it became evident that a growing number of graduates were choosing to stay abroad, yet there was no systematic evaluation or adjustment of the program at that midpoint. Expert 2 (from personal communication with expert on field of education, May 3, 2025) admitted that *"after sending them off, we didn't really check in properly."* Apart from some alumni surveys and informal networks, no comprehensive database or annual report was maintained to see how many return, what challenges they face, or what jobs they take when they do return. This lack of data meant missed early warnings.

Moreover, because the program's success was politically sensitive, there may have been reluctance to acknowledge the non-return problem as it emerged. (from personal

communication with expert on field of education, May 8, 2025) hinted that internally, concerns were raised: *"We knew by 2013 that returns were lower than expected, but no one wanted to call the program a brain drain."* As a result, mid-course corrections (such as stricter requirements or added incentives) were delayed until a new State Program was designed years later. The focus remained on the *input* (number of students sent abroad) as a metric of success, rather than the *outcome* (number of scholars coming back and contributing). Azerbaijan enjoyed the soft-power benefits – having bright students in top global universities, improving its international academic connections – but did not fully address the brain drain risk inherent in such programs. Essentially, the country replicated the form of Kazakhstan's program but not all of its enforcement features (Kazakhstan, for example, imposed legal return obligations and had robust monitoring from early on).

The consequences of these evaluation gaps are now clear in hindsight: by not systematically tracking and supporting students during and after their studies, the State Program lost many of its graduates to permanent migration. Their experiences (good university education, but then integration into foreign labor markets) became individual successes but collective losses for Azerbaijan. This underscores a key lesson: policies need built-in monitoring and feedback loops. In Chapters 3 and 4, this will inform recommendations such as establishing a coordination unit or improving data tracking to avoid repeating those mistakes.

2.3.3 Contractual Design Flaws

Perhaps the most direct policy shortcoming was the lack of a binding return obligation in the scholarship contracts of the 2007–2015 State Program. Unlike some scholarship programs worldwide, and even unlike Azerbaijan's own SOCAR (State Oil Company) scholarships, the State Program did not enforce a "return or repay" clause. (from personal communication with expert on field of education, May 8, 2025) contrasted these approaches: *"SOCAR would have scholars or their families post a financial guarantee – if*

they didn't come back and work for SOCAR, they had to pay the money back. The State Program had no such clause, only a general expectation." In effect, students funded by SOCAR (or certain smaller sponsorships) knew there was a tangible penalty for not returning, whereas those under the main State Program faced no immediate consequences if they chose to remain abroad.

This contractual leniency did initially stem from trust in the scholars' goodwill and a desire not to "burden" them with fear of penalties. However, focus group discussions revealed that students were very much aware of this loophole. As one thematic consensus emerged, many felt the program implicitly allowed them to *"take the money, stay abroad."* In fact, *"Take the money and stay in Europe"* was described by several participants as a common joking mantra among scholars in their cohort (Focus Group, Theme 1). It was widely understood that if one secured a good job or PhD opportunity abroad after graduation, there was nothing in the contract compelling them to return to Azerbaijan. The only thing they would forego was the plane ticket home and an official placement (if offered), which for many was a trivial trade-off given the opportunities overseas.

Participant H openly acknowledged exploiting this flaw: *"I signed the papers knowing I wasn't bound. They invested in me, yes, but I have to do what's best for my career."* This candid remark might sound harsh, but it encapsulates a rational decision made easier by the contract design. For the individuals, there was little downside to not returning; for the state, it was a lost investment without recourse. By the end of the program in 2015, hundreds of graduates had quietly built lives abroad, essentially converting scholarships into one-way tickets. Government officials only later grappled with how to respond, realizing that without an enforcement mechanism, moral obligation alone was not sufficient.

The contrast with SOCAR's scholarship program (and some other countries' schemes) is instructive. SOCAR's bond requirement meant families had collateral at stake, creating both pressure and support for scholars to return and work at least the required few years. No similar structure existed for the State Program. Additionally, the State Program did not specify a clear duration of required service at home (Kazakhstan's Bolashak, for example, requires 5 years of service in-country). This absence left return decisions entirely to the individual's discretion. Expert 2 (from personal communication with expert on field of education, May 3, 2025) reflected on this design flaw with some regret: *"We probably should have been tougher on that front. By the time we considered changes, it was late – many were already gone."*

In summary, the lack of binding return clauses or penalties in the State Program agreements was a significant policy weakness contributing to non-return. It essentially gave scholars an easy opt-out, which many took given the other economic, academic, and cultural incentives to stay abroad. This experience directly informs the policy options discussed in the next chapter, where the idea of introducing binding return obligations (with lessons from SOCAR and international models) is explored as one remedy to improve future outcomes.

The problem of non-return among Azerbaijani students educated abroad under state sponsorship is multi-faceted. Labour market disadvantages, shortcomings in the higher education system, and socio-cultural frictions collectively create a strong pull to remain overseas and a push against reintegration at home. The voices of the affected – both the graduates and the officials – highlight that it is not a lack of patriotism or interest, but rather concrete structural issues that drive this brain drain. Understanding these root causes is essential before moving on to solutions. The next chapter (Chapter 3) will propose policy

options aimed at mitigating these issues and encouraging talented graduates to bring their skills back to Azerbaijan.

3.1. Mismatch between graduates' qualifications and the demands of the job market

The dynamics of labor productivity and wages determine international competitiveness of the economy. Labour productivity reflects output per employee while wages represent payments for work performed. In sectors such as industry and agriculture real wages grow faster than labor productivity, which signals the low competitiveness (Rahmanov, Gasimov, & Tahirova). Labour market encompasses industries such as oil, gas, manufacturing, construction, agriculture and tourism in Azerbaijan. Several authors (Majidova, & Petrivska, 2023; The World Bank, 2022) argue that oil sector dominates Azerbaijani economy and reliance on oil and gas is one of the main challenges for the country's economy, while the non-oil sector partly relies on links to oil-related activities.

There is a surplus of graduates in the areas such as education, health, humanities while there is a shortage of graduates in the field of financial management and agriculture. The mismatch between the education and the market demands remains one of the main unsolved issues (AMCHAM, 2023). Qualification and skills mismatch affect many young people, yet good-quality retraining and upskilling opportunities, as well as internships to acquire practical experience, are relatively scarce. 37% were employed in jobs not matching their qualifications, while 7% were partially matched to the profile of their jobs. Employers claim that it is difficult to find workers with required skills. The shortage is particularly pronounced in the case of modern, innovative firms, which tend to require more advanced skills. Employers seek not only technical, job-specific skills but also cognitive skills such as literacy, numeracy and problem-solving and adequate socio-behavioral, soft skills such as communication, teamwork, leadership and the ability to work independently (Bayramli

et al., 2019). The development of these skills among students represents the main challenge for the education system in Azerbaijan and is critical to address the skills gap. (European Training Foundation, 2020). In the period from 2017 to 2025, it is anticipated that 125 200 people will enter the labour market every year, which is almost 2.5 times higher than the number of jobs created in one year. 12.7% youth unemployment is almost 2.6 times more than the total unemployment rate of 4.9% in 2018. Around 91% of economically active young people have a medium or high level of education, yet many works in jobs requiring different levels and profiles of qualifications. More than a quarter of young people work in manufacturing, around 20% in ICT, followed by agriculture and transportation. The transition to work for young people remains a challenge. While there is no available data on the average transition time, graduates struggle to find jobs (European Training Foundation, 2020).

Nowadays, Azerbaijani economy promises several job opportunities for migrants to return. However, there are several factors that make them stay in the host countries. Most migrants are employed in low-skilled jobs, such as retail, wholesale, restaurant and other services and they face unemployment upon their return, those who gain skills abroad, they still cannot find the employment opportunities to accommodate new skills, widespread patronage and nepotism in the national market limits its growth (Aliyeva, & Sadigova, 2012). Information on employment opportunities is not easy accessible and active labour market measures supporting the reintegration of migrants do not exist (Aliyeva, & Sadigova, 2012). The quality of education does not meet the requirements of global competitiveness, despite high literacy and enrollment rate. Students graduating from the many local Universities lack proper job skills. The government policies aim to educate students abroad about global market technologies and practical knowledge and meet the global labour market standards, which on the one hand ensure graduates' future career and

progression and on the other hand guarantees enhancing sustainable development in Azerbaijan (Majidova, & Petrivska). The main aim of the government programs is to ensure young people's intellectual and spiritual development and encourage them to participate in the socio-economic and socio-political life of the nation, raise the level of education and decrease the unemployment rate (Guliyev, & Nasibova, 2024).

The main goal of the State Program was "to transfer black gold into human capital" (Alasgarova, 2024). State Oil Fund provides financial support for 400-500 students annually and expect them to contribute to the country upon their return. Applicants can pursue their studies with financial support and gain advantage to immediate access to employment opportunities and they are funded by State Oil Fund to study abroad and contribute upon their return (Alasgarova, 2024). If they do not return, it means that they will not be able to contribute to tax revenue and strengthen political and cultural relations with other nations.

Since the primary focus for PhD students is on teaching, the Universities serve as main employment places for them. Many higher education institutions lack the capacity to serve effectively for enterprising efforts and limit the ability to collaborate and compete with other nations in the global economy. Higher education institutions play a vital role for research and teaching in support of competitiveness, innovation or economic growth. High education system in Azerbaijan is characterized by low level of tertiary education compared internationally and with neighbor countries. The Education Development Strategy by decree of President of Azerbaijan Republic in 2013 determined the reforms aiming to build a competitive education system, develop education quality, strengthen quality assurance and promote transparency (World Bank, 2018). The National Strategy for Development of Education focused on competence-based education, while the 2018 education agenda's aim is to strengthen social services and modernize education system. Public expenditure on

education was 2.5 % of GDP in 2018, which is lower compared to European countries and average for higher middle-income countries. Government's main goal is to reduce country's dependence on oil and gas revenues and education policies consider changing demographics, skills required to compete with the world countries (European Training Foundation, 2024).

Education expert Kanan Naghibayli suggests that graduates seek education according to global standards, utilize the modern technology and collaborate professionally in international environment (Bahman, 2025). However, young people face challenges when they want to apply valuable skills in the country because the quality of higher education in Azerbaijan does not meet the requirements of global competitiveness (Bahman, 2025).

Universities, such as ADA University, Baku Higher Oil School established double-degree programs with international Universities, undoubtedly, Karabakh University will become one of the enhanced Universities. Despite these educational developments, most of the Universities do not offer higher wages or standard of living and outdated and traditional education program do not attract high-qualified graduates. Many Universities lack adequate library resources and laboratory facilities. "Many students currently studying abroad report that without access to well-equipped laboratories, they are unable to effectively apply the knowledge and skills learned during their studies" (from personal communication with expert on field of education, May 3, 2025).

Economic factors are particularly significant. The Azerbaijani labour market is characterized by a shortage of job opportunities that align with the advanced competencies of internationally trained graduates. Moreover, wage disparities and the availability of better-paid positions abroad serve as powerful incentives for remaining in the host country. The domestic higher education sector further exacerbates the problem due to its limited

competitiveness, reflected in outdated curricula, a lack of innovation, and insufficient institutional adaptability to global academic and labour market standards. The students who study abroad discover their qualifications in higher demand and better opportunities to earn higher wages in the developed country compared to their home country.

3.2. Social factors. Social and cultural factors also play a considerable role. Students may choose to remain abroad due to the multicultural environments of host countries, the presence of established diaspora communities, marriage to foreign nationals, access to flexible employment (e.g., remote work), and a generally higher quality of life. These factors collectively contribute to a stronger sense of personal and professional fulfillment abroad.

Country's soft power relies on its culture, policies and values. Some countries can affect people's behavior with their soft power politics and others may want to follow, admire its values and aspire its openness, development (Nye, 2008). Life satisfaction depends on individual characteristics, the country where they are from, cultural similarities and differences between the home and host country, number of friends, financial opportunities are among the reasons for people to stay in the host country (Jurasek, & Wawrosz, 2023).

Some authors (Gurbanov, 2014; Walsh-Zamanbayova, 2023) argue that increase in tertiary education level leads to brain drain issue, students seek education and professionals seek career opportunities abroad. The emigration rate of tertiary-educated population is 2% for 2000, by 2010, this figure reached to 16%, as a result of State's education abroad policy (Gurbanov, 2014). While the brain drain decreased by 2008, it has risen since 2016, despite the low number of students funded by State Program. 2007 - 2015 program period ended and COVID 19 pandemic hindered students from studying abroad (Walsh - Zamanbayova, 2023).

While state regulations aim to make the regulation obligatory for students to stay in their home country and teach for 5 years, some education experts argue that it is not possible to attract them with such requirements, because the main reason of non-return is their adaptation to the country and social issues (Jahangirov, 2013).

3.2.1. Obstacles faced by returning graduates. Interviews with students and graduates of the State Program reveal significant challenges in their reintegration into the Azerbaijani labour market upon returning from their studies abroad. Many graduates report an inability to access the same privileges they enjoyed in their host countries, such as comprehensive insurance coverage, flexible working hours, remote work opportunities, and the freedom to engage in research activities. These benefits were common in their international settings but are not readily available or supported within Azerbaijan's domestic labour market.

Personal communications with first and second cohort students (May 3, 2025) further reveals issues, not only for graduates but also for current students. graduates cannot find the same privileges in home country, such as insurance, flexibility with working hours, remote work, flexibility to participate in research activities which they had in the host country. Among the concerns is the scholarship amounts, which have remained the same between the periods of 2007-2015 and 2019-2023, despite significant changes in the global economy due to factors such as industrial development, geopolitical conflicts, and the COVID-19 pandemic. Furthermore, students and graduates alike face difficulties in securing support for fieldwork and research projects, which is crucial for their professional and academic development.

These challenges indicate a misalignment between the support provided to students during their studies abroad and the opportunities available to them upon returning to Azerbaijan, ultimately hindering their professional growth and contributions to the local economy.

They are accustomed to higher living standards and better career opportunities. As a result, the host country seems as more attractive option.

One of the reasons is lower salary, however even a well-paid job is sometimes not enough. In Western countries there is flexibility with regard working hours and employees may work remotely for local international companies.

The graduates from reputable Universities abroad expect respectful and supportive culture in the workplace. “The better educated the person is, the more difficult is to manage him or her. We must recognize if we are ready to address these issues” (from personal communication with expert on field of education, May 8, 2025).

3.3. The inability to establish an accountability mechanism within the State Program.

The aim of the State Program was to establish a mechanism for the effective integration of graduates into the workforce. Economic Research Center conducted a study on implementation process of State Program on Education during the period 2007-2015. Among its findings are insufficient transparency and accountability in the execution of the state program, delays of monthly allowances, delayed tuition fees and as a result 1228 could benefit from program (Economic Research Center, 2012).

The program includes a contractual clause requiring graduates to return and work at the university for five years, based on the principle of compulsory service. Effective relationships are being established with employers, taking into account international incentive strategies (e-qanun, 2007). Graduates were expected to return in 6 months and work for the local University. Under the more recent program in 2022, the participants are required to return earlier, in two months (The Ministry of Education and Science, 2022). This return policy is also applied in Kazakhstan- the Bolashak scholarship funds students studying abroad and expects studetns to return for three to five years after completing their

studies, which proves that it is short term succes, as they plan to leave rigth after fulfilling their obligations (Walsh-Zamanbayova, 2023). The scenario is comparable with Azerbaijan. Recently the students were presented with a contract obligating them to return and work for five years, very few agreed and some of them inquired the ways to return the funding (from personal communication with expert on field of education, May 3, 2025). It is necessary to make a country attractive place to work, to earn higher salaries, more career opportunities and better living and working conditions.

There is no proper control mechanism, and implementation appears unfeasible. According to personal communication with expert on field of education (May 8, 2025), neither such mechanism has been established, nor it is considered necessary. Nevertheless, the program remains a valuable opportunity for young people to pursue studies abroad, explore the world and enrich learning.

3.3.1 Limited employment options upon return. Limited job opportunities discourage many students from returning to home country. The program concentrates on teaching for PhD students while limiting their involvement in the administrative or research activities. The meaning of PhD is sometimes misunderstood. PhD student is not only a learner, but also a researcher and contribute to academic development presenting projects. In some cases University leadership resists new initiatives, innovative projects. Graduates from fields, such as biology engineering, information technology, geology, could contribute significantly to research and administrative rather than teaching roles (from personal communication with expert on field of education, May 3, 2025).

Collectively, these barriers highlight the need for targeted policy interventions aimed at improving the domestic employment landscape, aligning higher education with

international standards, and creating conditions conducive to the reintegration of highly skilled professionals into Azerbaijan's economy and public sector.

Chapter 3. Policy Options

Having identified the key barriers to return, this chapter outlines several policy options to encourage and facilitate the return of State Program alumni. The options are grouped into three strategic areas: **(3.1) Strengthening return incentives** (making it financially and contractually attractive to come back), **(3.2) Reintegration and career-path supports** (easing the transition into local employment and projects), and **(3.3) Organizational-culture and public-sector reform** (addressing the workplace and cultural issues that often frustrate returnees). Each set of options draws on international best practices and suggestions from experts and focus group participants. Notably, these options are not mutually exclusive – they can be combined to form a comprehensive policy response. In discussing each, we will also note any relevant examples (from SOCAR's program, South Korea, India, etc.) and stakeholder feedback.

3.1 Strengthening Return Incentives

The most immediate way to reduce post-scholarship "brain drain" is to redesign the financial and contractual architecture of the State Program so that the rational graduate sees greater utility in coming home than in remaining abroad. Three instruments—binding return clauses, indexed stipends, and a blended graduated-repayment / grant-matching mechanism—operate along the same continuum of incentives and sanctions but address different stages of the student life cycle. Taken together, they transform return from a hopeful request into an economically sensible default, while preserving flexibility and fairness.

A first—and in many ways the simplest—lever is the re-introduction of an explicit return-of-service clause. Between 2007 and 2015, the absence of such language meant that scholars faced few material consequences for staying overseas; the State effectively under-wrote a private migration project. A revised contract would instead obligate future

recipients to work in Azerbaijan for a defined period—typically one year of service for every year of study, capped at five—failing which they would reimburse the full or prorated scholarship cost. Domestic precedent already exists: SOCAR's overseas bursary treats its funding as an "educational bond," and SOCAR managers report a compliance rate that well exceeds the State Program's because the cost of default is explicit and sizeable. Internationally, South Korea's Brain Pool grants likewise bind researchers to in-country laboratories for the length of the award, demonstrating that legal specificity can turn outward mobility into circular migration and, ultimately, domestic knowledge stock (Hwang 2020). Critics warn that hard bonds may deter applicants or force reluctant returnees into low-motivation jobs, yet these risks can be mitigated by pairing the clause with guaranteed placements at competitive salaries. If graduates know they will step into a role aligned with their training—whether in the civil service, state-owned enterprises, or accredited private firms—the clause feels like a fair exchange rather than a punitive tether. Designed with such safeguards, the clause protects public investment without appearing draconian, and shifts the baseline expectation from "You may return" to "You will return unless you actively opt—and pay—to do otherwise."

While contractual sticks work after graduation, perceptions of fairness are shaped during study. Several focus-group participants recalled scraping by in high-cost cities, taking part-time jobs, or even borrowing privately to fill stipend gaps. Those experiences bred either resentment or a powerful urge to secure a high foreign salary immediately after graduation. A second reform therefore targets scholarship adequacy: stipends and benefits should be indexed to objective cost-of-living data for each host city and adjusted annually for inflation. Indexation would cover tuition, health insurance, and where relevant, dependent support, so that scholars can devote full attention to academic and social integration rather than financial survival. OECD (2023) reviews show a clear correlation between under-

funded awards and higher defection rates; conversely, generous and predictable support cultivates a sense of gratitude and moral obligation. The index could also integrate a macro-adjustment factor tied to Azerbaijan's economic growth, underscoring that the home country is sharing the dividends of its own development. To sharpen the pull factor, policy-makers might add a "return bonus"—a lump-sum payment, disbursed after twelve verified months of domestic service—or offer to repay any private loans incurred abroad. One participant remarked that a USD 10 000 bonus for two years of home service "would have tipped the scales" against settling in Germany, illustrating that relatively modest sums can leverage powerful behavioural shifts. Budgetary outlays would rise, but the fiscal trade-off is compelling: every non-returnee represents a sunk cost of up to USD 100 000, so paying an extra USD 5 000 a year to prevent that loss is prudent asset management.

The final lever blends accountability with opportunity through a dual graduated-repayment and matching-grant framework. Under graduated repayment, the obligation to reimburse the scholarship is not binary but proportional. If the service requirement is four years and a graduate serves two, fifty per cent of the principal is forgiven; stay abroad indefinitely and the entire amount converts to a low-interest loan payable over a decade. Such flexibility, proposed by Dustmann and Weiss (2007) to counter brain drain, recognises that life circumstances—including family commitments, health, or unforeseen crises—can delay return without necessarily extinguishing it. Administration is straightforward: the government simply recovers funds via the tax or banking system, recycling them into future scholarship cycles and thus enhancing program sustainability.

Yet graduates often aspire not merely to "serve time" but to deploy their newly acquired expertise creatively at home. Here the carrot of matching grants becomes powerful. If a returning alum secures private capital, wins a competitive research grant, or presents a vetted business plan, the State matches that investment up to a ceiling—effectively

doubling the resources available for a start-up, laboratory, or social enterprise. Focus-group voices were clear: the chance to launch a renewable-energy lab, ed-tech platform, or public-health NGO in Baku with co-funding would be a decisive magnet. The model echoes India's Ramanujan Fellowship, which offers returning scientists a generous five-year research package (Khadria 2011). For Azerbaijan, a tiered matching scheme—larger for STEM PhDs and strategic industries, smaller yet still meaningful for arts or social-science graduates—would align public spending with sectors promising the highest spill-overs. The implicit message is that the State does not merely demand service; it actively invests in the graduate's ambition to create value at home.

In concert, these three instruments realign incentives across the scholar's entire decision horizon. Before enrolment, a transparent return clause signals that public funding is a reciprocal obligation. During study, indexed stipends and the prospect of a return bonus communicate fairness and partnership. Upon graduation, the graduate sees a forked path: fulfil the service requirement and unlock seed capital to build a career at home, or remain abroad and convert the scholarship into a repayable loan. Either way, Azerbaijan secures a tangible return—human capital in practice or financial capital recycled. The scheme thus replaces today's porous pipeline with a closed-loop system that is flexible enough to accommodate individual variance yet firm enough to safeguard national investment.

3.2 Reintegration & Career-Path Supports

Even the most robust incentives and contractual requirements will fall short if returning scholars step off the plane only to encounter an uncertain job market, bureaucratic bottlenecks, or a lack of community. To make return a truly attractive—and viable—option, Azerbaijan must build a comprehensive reintegration infrastructure that combines proactive coordination, structured post-study placements, and sustained peer support.

A first pillar of this infrastructure is the establishment of a dedicated Returnee Coordination Unit within the relevant ministries. This unit would maintain a live registry of all scholarship recipients, tracking their fields of study, graduation timelines, and evolving career plans, and would begin outreach well before completion of studies. By proactively sharing tailored information on job vacancies, research posts, and internship opportunities, the unit transforms a fragmented re-entry process into a guided transition. For example, a graduate in urban planning would receive targeted placement offers from the State Committee on Urban Development, while a public-health scholar might be connected to openings at the Ministry of Health. Neighboring Kazakhstan's informal "QazTalent" platform for Bolashak alumni offers a ready model: employers post vacancies, alumni upload resumes, and an algorithmic matchmaker proposes interviews (Expert 3, from personal communication with expert on field of education, May 8, 2025). Supplementary services—reverse culture-shock orientation sessions, networking events, or virtual career fairs—would further ease graduates back into Azerbaijani society. Focus-group participants repeatedly emphasized that their greatest anxiety lay in "not knowing what comes next"; one scholar admitted, "If someone had lined up even a couple of interviews, I would have given it a try." By ensuring that government support continues beyond tuition payments, the coordination unit sends a clear message: Azerbaijan is invested in your success from day one of study through your first year of professional life.

A second pillar recognizes that immediate, structured placements can bridge the gap between foreign credentials and domestic opportunity. Post-study fellowships would deploy returning graduates into short-term, mission-driven roles—"Young Professionals Fellowships" in ministries, think tanks, or universities—fully funded by the State Program. A Master's graduate in public health could, for instance, spend 12–24 months as a Health Policy Fellow developing vaccination outreach strategies at the Ministry of Health, while

an engineering scholar might join an innovation lab at SOCAR's research division. These fellowships serve dual purposes: they give employers a low-risk mechanism to integrate foreign-educated talent and offer graduates a guaranteed platform to demonstrate value at home. Research-focused tracks, modeled on India's Ramanujan Fellowship (Khadria, 2011), would similarly fund returning PhD holders to establish labs or projects within national institutes, signaling to the academic community that Azerbaijan is serious about retaining cutting-edge expertise.

Parallel to fellowships, targeted incubator programs can ignite entrepreneurial ventures and social-impact projects. By reserving office space, mentorship, and matching seed funding for State Program alumni, the government catalyzes new enterprises that both employ returnees and generate broader economic spill-overs. Participant G—trained in renewable-energy engineering—recounted his struggle to find an R&D position at home: "If there were funding for a pilot solar lab, I'd fly back tomorrow." An incubator that offers co-investment up to a fixed ceiling would defray the financial risk of startup formation, turning latent expertise into local industry clusters. Partnerships with ADA University's tech park or the Alat Free Economic Zone could host these hubs, while co-funding from multilateral agencies (e.g., UNDP, EU innovation grants) would stretch public resources further and embed graduates in existing innovation ecosystems.

The third pillar leverages the power of community through an official alumni networking platform. Diaspora-studies research confirms that technology-enabled networks mobilize knowledge, opportunities, and emotional support more effectively than any lone ministry (Brinkerhoff, 2006). A dedicated online portal—perhaps integrated with LinkedIn but moderated by the Coordination Unit—would allow alumni to share job postings in Baku, mentor current students, and coordinate temporary assignments or guest lectures. Annual gatherings, webinars, and regional meet-ups hosted by embassies would foster camaraderie

and maintain ties long before formal return. One focus-group member reflected, “I’d love to mentor younger students if there was a program for that,” while another noted how he had spontaneously forwarded Baku job leads to friends abroad. By officially recognizing and modestly funding these grassroots activities—micro-grants for local chapter events, a central budget for an annual “Scholars at Home” summit—the government harnesses alumni goodwill and triggers a domino effect: visible success stories of returning peers amplify the attractiveness of repatriation for those still abroad. Moreover, the platform serves as a real-time feedback loop, enabling policymakers to identify emerging obstacles—be they licensing delays or regional salary disparities—and adjust support accordingly.

Crucially, these three strands form an integrated pipeline rather than discrete programs. The Coordination Unit uses the alumni platform to refine its job-matching algorithms; fellows and incubator participants become mentors and recruiters for the next cohort; and insights from network discussions feed back into program design. Administration need not be burdensome: a lean team with cloud-based database tools suffices for the unit; fellowships and incubator slots can be time-limited and co-financed by host agencies; and the alumni network thrives on volunteer leadership augmented by occasional seed funding. The combined payoff, however, is substantial: scholars feel courted rather than abandoned, agencies and firms access proven talent, and the State converts a once-leaky pipeline into a sustainable human-capital engine. By weaving together accountability, opportunity, and community, Azerbaijan can make return not just a requirement but a logical and welcomed next step in every scholar’s career.

3.3 Organizational-Culture & Public-Sector Reform

The third category of policy options addresses the deeper changes required within domestic institutions to both accommodate and encourage returning talent. Even the most generous incentives and supportive reintegration programs will falter if returnees arrive to workplaces characterized by rigid structures, outdated practices, and unclear career pathways. To transform Azerbaijan's professional environment into one that welcomes globally trained alumni—and indeed benefits the entire workforce—three broad reforms are proposed: modernizing academic workloads and career tracks, implementing management-training programs to bridge cultural and procedural gaps, and piloting flexible-work arrangements within the public sector. Together, these reforms attack the "push factors" that repel talent (see 2.3), ensuring that once scholars are incented to come home, they will want to stay.

Universities in Azerbaijan today often impose heavy teaching loads and administrative duties on faculty, leaving scant time for research or innovation. This outdated model deters early-career academics—especially those with freshly minted PhDs—from returning, since they fear being relegated to endless lecturing rather than pursuing scholarship. Modernizing academic workloads to align with international norms is therefore critical. Drawing on accreditation guidelines such as ABET's outcome-based engineering standards (ABET 2018), the Ministry of Education could incentivize or require universities to cap annual teaching hours and reserve a defined percentage of faculty time for research, grant writing, and professional development. Introducing tenure-track or research-track positions would similarly signal that cutting-edge scholarship and mentorship of graduate students are institutionally valued, not optional extras. Moreover, adopting teaching-assistant systems—common in Western universities but rare locally—would reduce routine burdens and free faculty to concentrate on high-impact activities. Complementing workload reform

with merit-based reward structures—grant bonuses for publications in reputable journals, seed funding for new programs, and performance-based promotions—would replace seniority-driven advancement with a true culture of academic excellence (Altbach 2001). Crucially, investment in campus infrastructure—state-of-the-art laboratories, national e-library subscriptions, and collaborative research spaces—would demonstrate a long-term commitment to knowledge creation and further entice returnees to join domestic faculties.

Beyond academia, returning professionals often face managers unaccustomed to integrating staff who have studied or worked abroad. To address this disconnect, targeted management-training programs should be introduced within government agencies, state enterprises, and universities. Such programs would sensitize local leaders to international best practices in leadership, cross-cultural communication, and talent development—thereby creating a two-way street in which both managers and returnees adapt. Trompenaars and Woolliams (2003) emphasize that cultural synergy in organizations hinges on leaders' ability to understand diverse work styles. In practice, managers could attend workshops on modern leadership—shifting away from hierarchical micromanagement toward empowering delegation—and learn techniques for providing constructive feedback, fostering initiative, and supporting work-life balance. Partnerships with foreign institutions could facilitate short-term exchanges, allowing Azerbaijani managers to observe collaborative decision-making and innovation labs abroad. Expert interviews revealed that some ministries already conduct informal briefings when a scholarship alum joins, but formalizing these into certified training would normalize the expectation that managers proactively prepare for integration of globally trained staff. Mentorship schemes—pairing experienced local managers with returnees—would reinforce mutual learning and reduce early turnover caused by cultural misunderstandings.

While academic and managerial reforms equip institutions to absorb returning talent, modern workplaces must also reflect the flexibility many alumni experienced overseas. The COVID-19 pandemic has globally validated remote and hybrid work, even in the public sector. To replicate this appeal domestically, Azerbaijan could pilot flexible-work arrangements—telecommuting, flexible hours, and project-based remote roles—in knowledge-intensive divisions of government and state enterprises. OECD studies (2021) have shown that flexible work increases public-sector attractiveness to young professionals and supports retention of women and internationally experienced staff. A concrete pilot might involve establishing a "Digital Services Taskforce" whose members can work from home two days a week, convening in person for strategic planning only when necessary. Similarly, universities could permit returning lecturers to deliver certain courses online or to maintain staggered schedules that accommodate research trips and family obligations. Focus-group participants underscored the importance of this flexibility: one alumnus noted, "If I could work remotely part of the time and still collaborate with my European lab, I'd be more inclined to return." Starting with small, well-defined pilots allows institutions to develop clear policies on performance metrics, IT security, and equitable access, thereby allaying concerns about discipline or fairness.

Together, these three institutional reforms create a more dynamic, internationally aligned professional ecosystem. Modernized academic tracks ensure that returnees in higher education find genuine opportunities to continue research and innovate; management training bridges cultural divides and empowers leaders to harness global expertise; and flexible-work pilots bring the lifestyle benefits of abroad into the Azerbaijani workplace. Although these reforms require upfront investment and coordination across ministries, their long-term payoff extends beyond the State Program alumni to uplift domestic professionals at large. When returning scholars observe workplaces that value their advanced skills, treat

them as equals, and offer the autonomy they expect, they are far less likely to re-emigrate. Ultimately, embedding such progressive practices into the fabric of Azerbaijani institutions transforms return from a checkbox into a career-defining choice—a necessary step if the country is to realize the full social and economic dividends of its investment in human capital.

Chapter 4. Evaluation of Policy Alternatives

Having proposed multiple policy options, we now evaluate them to determine how well they address the non-return issue and which should be recommended. It's crucial to assess each alternative systematically to understand its strengths, weaknesses, and trade-offs. This chapter uses three criteria—drawn from standard policy analysis frameworks (adapted from Bardach, 2012)—to evaluate the options:

1. Efficacy (Effectiveness): How likely is the option to significantly increase return and retention of students? Will it achieve the desired outcome?
2. Feasibility: Can the option be implemented in practice, given political, administrative, and technical constraints? (Includes political acceptability and legal considerations.)
3. Cost: What are the financial implications for the government (and possibly other stakeholders)? This includes both direct costs and indirect or opportunity costs.

Each of the three main options (or packages of measures) from Chapter 3 will be evaluated against these criteria: Option 1 – Binding Return Clauses & stricter obligations, Option 2 – Enhanced Scholarships & Financial Incentives, and Option 3 – Reintegration Support & Organizational Reforms. The evaluation will incorporate evidence from expert interviews and focus group participants to gauge practical impacts and acceptability. Finally, we will summarize the findings (including a comparison table) and present a recommended policy package that combines the best elements while respecting individual autonomy.

4.1 Evaluate Option 1: Binding Return Clauses

Description of Option 1: This option encompasses policies that make returning obligatory or at least enforceable – primarily the introduction of binding return clauses in scholarship

contracts (with penalties for non-compliance), possibly supplemented by a graduated repayment scheme. The core idea is to require service in Azerbaijan after graduation, thereby directly tackling the problem of non-return through contractual means.

Option 1—binding return clauses—offers very high efficacy in securing initial scholar returns by shifting the default outcome: graduates must come home or face financial penalties. (from personal communication with expert on field of education, May 8, 2025) reflected, "Had we had these clauses from day one, we wouldn't be facing this level of brain drain now." SOCAR's scholarship "bond" similarly enforces near-100 percent compliance, demonstrating how contractual obligations compel service. While mandatory return guarantees scholars spend their obligated years in Azerbaijan, it does not ensure they stay beyond that period; focus-group feedback warned of "two-year and out" scenarios, where alumni depart immediately after fulfilling the minimum requirement. Nonetheless, for the duration of the service bond, Option 1 is clearly the most effective lever for boosting return rates.

Feasibility is moderate. Legally, drafting new contracts and addendums is straightforward, and many nations employ comparable provisions. Politically, the measure appeals to taxpayers and officials demanding accountability for public funds, yet may spark resistance from students and families seeking flexibility. Cross-border enforcement of repayment obligations poses a challenge—pursuing defaulting scholars abroad would require international legal cooperation—but is not unprecedented. Administratively, the government must build capacity to track graduates, issue notices, and manage collections. Some officials worry that "chasing" non-returnees for money could generate negative press—suing top students risks reputational damage—so success depends on careful communication and political will.

In financial terms, Option 1 is cost-effective, even revenue-generating. Administrative overhead—staff to monitor obligations and enforce contracts—is modest compared to large-scale programming, and repayments from defaulters could replenish the scholarship fund. Over time, returning alumni contribute taxes and economic value, yielding long-term gains. As Expert 2 (from personal communication with expert on field of education, May 3, 2025) observed, “It costs nothing to be strict.” Thus, in cost–benefit terms, binding clauses rank very favorably: minimal net expenditure, high leverage on public investment, and potential for self-funding through recovered repayments.

4.2 Evaluate Option 2: Indexed Scholarships & Financial Incentives

Description of Option 2: This option includes enhancing the financial attractiveness of the scholarship program and return. It covers indexing scholarship stipends to cost of living, providing return bonuses, and potentially implementing matching grants for returnees. Essentially, it’s a package of financial incentives designed to reduce the financial disadvantages of returning (or advantages of staying abroad).

The efficacy of pure financial incentives in securing scholars’ return is moderate. Unlike binding obligations, bonuses and enhanced stipends cannot compel return, but they do reshape the decision calculus. A generous living allowance abroad prevents debt accumulation and reduces the need to chase high-paying foreign jobs. Participant H observed, “If I hadn’t needed to work to cover extra expenses, I might feel I owe my career more to the State Program and less to my foreign employer.” A return bonus or higher starting salary in Baku can tip the balance for those weighing equivalent offers abroad, easing the financial pain of repatriation and fostering goodwill toward the program. Yet money alone does not address structural deterrents—poor work environments, limited

career trajectories, or family ties overseas—so financial incentives remove a key barrier but do not guarantee return. Their overall impact is therefore meaningful but partial.

Feasibility is high. Adjusting scholarship budgets to index stipends against living costs and introducing lump-sum bonuses can be accomplished through government directives and existing fiscal processes. Matching grants for alumni-led startups or community projects build on established grant-making mechanisms—science foundations and youth-development funds already vet proposals and disburse awards. The primary challenge lies in securing political commitment to higher per-student spending, but such generosity typically garners popular support and signals national investment in human capital. Administrative capacity for monitoring grant use or processing bonus payments exists within current agencies or can be outsourced to innovation bodies, making implementation straightforward.

Cost is the chief drawback. Equalizing stipends for expensive cities—London or New York, for instance—could double or triple per-student outlays compared with standard rates. Return bonuses and grant matching further amplify expenditure: fifty alumni receiving $20 000 each represent a $1 million commitment, not including ongoing stipends. While these amounts pale against national budgets, they are substantial relative to the number of scholars. Nonetheless, when viewed as investment—as the cost of losing a trained graduate often exceeds $100 000 in sunk resources—the incentives may be justified. Ultimately, Option 2 demands moderate to high budgetary allocations, making it critical to align incentive levels with fiscal priorities and anticipated economic returns.

4.3 Evaluate Option 3: Reintegration Support & Reform

Description of Option 3: This is a broader, comprehensive approach including the establishment of support structures (returnee unit, fellowships, alumni network from 3.2)

and enacting workplace and institutional reforms (management training, flexible work, academic changes from 3.3). It's essentially the "make it better at home" package. It does not rely on coercion or money directly, but on providing guidance, opportunities, and a better environment for returnees.

Option 3's long-term efficacy lies in transforming domestic institutions so that returnees find rewarding careers and welcoming workplaces, thereby sustaining both initial returns and longer-term retention. Whereas binding clauses or financial bonuses may prompt graduates to come home, only substantive reforms—modernized academic tracks, management training, and flexible-work pilots—ensure they stay. As Participant D lamented, "If the system doesn't change, you can bring us back temporarily but we won't stay." Early wins, like job matches from a Returnee Coordination Unit, can occur within a year, but cultural and structural shifts—revised faculty workloads or agency leadership practices—take time. In the short term, impact on initial return decisions may be moderate: some who have already built lives abroad will still require concrete incentives. Yet for those who do return, career satisfaction and integration improve dramatically, reducing re-migration. Thus, on criteria of boosting return rates, Option 3 merits a moderate-to-high efficacy rating—it lays the foundation for sustainable brain-gain even if its full effects emerge gradually.

Feasibility is mixed. Establishing coordination units, fellowship programs, and alumni networks is relatively straightforward, requiring administrative directives, modest budgets, and existing grant-management frameworks. Those components fall largely within the Education Ministry's authority and mirror successful prototypes abroad. Conversely, wholesale academic reform and public-sector culture change demand cross-agency coordination, legal adjustments, and leadership buy-in. Management-training workshops and flexible-work pilots must overcome entrenched norms and civil-service regulations.

While Azerbaijan's broader modernization agenda provides a supportive policy context, these deeper reforms depend on sustained political commitment and phased implementation, making overall feasibility moderate.

Cost considerations range from low-to-moderate for staffing coordination units, running fellowships, and hosting networking events, to higher for infrastructure upgrades, lab investments, and potential productivity adjustments during change management. Most measures leverage existing budgets—scholarship funds, ministry training allocations, university modernization grants—so marginal costs are manageable. Although full institutional transformation entails significant time and resource commitments, the long-term return on investment—in greater retention, enhanced research output, and a more dynamic labor market—can far exceed initial expenditures.

4.4 Summary Table and Recommended Policy Package

The evaluations above indicate that no single option is a silver bullet; each has advantages and drawbacks. A combined approach is likely necessary to effectively reduce non-return rates while fostering positive outcomes. Table below provides a summary comparison of the three options on the five criteria:

Table 1. Comparative Evaluation of Policy Options.

Criteria	Option 1: Binding Return	Option 2: Financial Incentives	Option 3: Support & Reform
Efficacy	High (ensures short-term returns through enforcement)	Moderate (improves motivation to return, but not guaranteed)	Moderate-High (addresses root causes, boosts long-term retention)
Feasibility	Moderate (requires political will, legal enforcement mechanisms)	High (straightforward to implement funding changes)	Moderate (some parts easy, others need broad commitment and time)
Cost	Low (little financial cost; potential cost recovery)	High (requires increased spending on stipends, bonuses, grants)	Moderate (requires funding for programs and reforms, but scalable)

Considering the analysis, Option 1 is very effective at securing returns but could be seen as heavy-handed; Option 2 is easier to do and quite fair, but costly and not sufficient alone; Option 3 is transformative and retains talent, but takes time and effort to implement fully.

Recommended Policy Package: The optimal strategy is to combine elements of all three options to capitalize on their strengths and offset their weaknesses. In other words, a policy mix that uses a light form of binding obligation, robust incentives, and strong reintegration support is recommended. Specifically:

- **Implement a Return Requirement with Flexibility:** Introduce a binding return clause (Option 1) for new scholarship students, *but* incorporate a graduated repayment mechanism and deferral possibilities. For example, require 3 years of service, but if a graduate has a valid reason or opportunity that keeps them abroad longer, they can repay a portion or defer service with approval. This keeps the principle of obligation without it being draconian. Enforcement should be firm but also allow waivers in exceptional cases (to maintain equity). This ensures accountability and significantly increases expected return rates.

- **Enhance Financial Incentives:** At the same time, increase scholarship stipends to meet real living costs (Option 2) so students feel well-supported. Establish a return bonus program: e.g., a certain sum or salary top-up for those who fulfill their return service. Also, create a fund for returnee-led projects (matching grants or fellowships) to immediately engage them in meaningful work on return. These incentives will make fulfilling the obligation attractive rather than seen as a penalty. They also help build goodwill – graduates will feel the state cares about their welfare and success.

- **Strengthen Reintegration Support Structures:** Set up the Returnee Coordination Unit to manage the above – tracking students, helping them find placements, disbursing bonuses, monitoring compliance – basically the administrative backbone that both enforces and supports. Simultaneously, launch the alumni network platform (Option 3) so even those still abroad remain connected and can be drawn on for mentoring or eventually enticed back. Offer post-study fellowships in government and academia to provide immediate landing spots for returnees (especially while broader reforms are underway).

- **Begin Organizational Reforms:** Start with relatively quick wins like management orientation sessions for units that will receive returnees (so new hires are welcomed, not frustrated). Pilot a flexible work scheme in one or two ministries where many returnees might work (perhaps the Ministry of Digital Development or Education itself) to set an example of modern workplace practice. In academia, as returnees take up roles via fellowships or positions, give them lower teaching loads and research startup grants – effectively a mini "Ramanujan"-style support to encourage them to stay in academia and innovate. These are initial steps of Option 3 that can be initiated without delay. Over the medium term, institutionalize these changes: incorporate flexible and remote work options into civil service where appropriate (drawing from OECD (2021) guidelines), and push for a review of university policies on workloads and research funding (aligning with international accreditation standards, possibly referencing ABET (2018) criteria for quality improvement).

This combined approach can be thought of as a "carrot-and-stick with a welcoming home" strategy. The stick (moderate, reasonable obligations) ensures commitment, the carrots (financial rewards, career opportunities) make the commitment enticing, and the

welcoming home (supportive environment and reformed institutions) ensures that once they return, they are likely to stay and thrive, rather than becoming disillusioned.

Importantly, these policies should be seen not as static, but as part of an adaptive management of the State Program. The coordination unit should continuously collect data on return rates, reasons for staying or leaving, and success stories or failures. If, for instance, return rates improve to near 100% and the domestic job market can't immediately absorb everyone in their exact field, that feedback can be used to adjust – perhaps by expanding fellowships or encouraging private sector partnerships to hire returnees. If certain fields see more brain drain than others, targeted incentives can be added for those fields.

In terms of respecting autonomy (a concern raised especially about binding clauses), the recommended package tries to balance individual freedom with responsibility. Scholars still have choices – they can choose the field of study, they receive ample support, and if they truly do not want to return, they have the option to compensate the state (graduated repayment) rather than being coerced. But the expectation of return is clearly set and encouraged at every step. As (from personal communication with expert on field of education, May 8, 2025) put it in his endorsement of a mixed approach, *"We must make it easy for them to come back and hard for them to justify not coming back."* Easy via support and incentives, hard via obligation and improved conditions at home that undercut the reasons to stay abroad.

Finally, implementing this package will require coordination at high levels – possibly a task force that includes the Ministry of Education, Ministry of Labor/Economy, key university rectors, and maybe representatives of the alumni themselves. Securing funding (perhaps allocating a small percentage of the state oil fund annual draw specifically for

human capital return programs) will be important to sustain the financial components. But given the relatively small scale of the cohort (a few thousand students over the years) and the high value they represent, the investment is very worthwhile.

5. Conclusion and Recommendations

In this capstone, we have traced the evolution of Azerbaijan's flagship State Program for overseas study, identified the multifaceted drivers of non-return, and developed a suite of policy options to reverse brain drain. Chapter 2 revealed how economic disincentives—opaque wage structures, weak pension accrual, and the lure of high foreign salaries or remote-work gigs—undermine repatriation. Concurrently, systemic deficiencies in higher education, from rapid expansion without sufficient faculty positions to the absence of research infrastructure, leave returnees with unappealing teaching-heavy roles. Layered atop these are socio-cultural frictions: hierarchical, inflexible management styles and the program's own contractual leniency, which together enabled many scholars to "take the money and stay abroad."

Chapter 3 offered three broad solution sets. Option 1, binding return clauses combined with graduated repayment, directly tackles non-return by making repatriation the default or turning scholarships into low-interest loans if obligations are unmet. Option 2, indexed stipends, return bonuses, and grant-matching, reshapes the financial calculus so that returning no longer feels like a financial setback. Option 3 builds the reintegration infrastructure—Returnee Coordination Units, structured fellowships, incubators, and alumni networks—and launches institutional reforms to modernize academic workloads, management practices, and flexible-work pilots.

In Chapter 4, we used three evaluation criteria—efficacy, feasibility, and cost—to assess these options systematically (Bardach, 2012). Binding clauses boast very high efficacy and

low net cost but require political will and cross-border enforcement mechanisms. Financial incentives score high on feasibility but carry substantial recurring expenditures (OECD, 2023). Reintegration supports and cultural reforms promise moderate-to-high long-term efficacy by addressing root causes, yet they demand sustained coordination and moderate investments.

5.1 Recommendations

Our recommended policy package weaves together the best elements of all three options:

- First, introduce a flexible return requirement, mandating three years of in-country service with a graduated-repayment schedule for unserved portions. This "stick" preserves accountability and discourages exploitation of the scholarship without being unduly draconian, as deferral and waiver provisions accommodate exceptional academic or personal circumstances. Enforcement capacity can be built by negotiating bilateral agreements to facilitate loan recovery if necessary.
- Second, bolster strategic financial incentives: index stipends to authoritative cost-of-living data in host cities and adjust them annually; award a lump-sum return bonus upon twelve months of verified service; and establish a matching-grant fund for alumni-led ventures, with higher ceilings for STEM and strategic sectors. Though this "carrot" entails higher per-student budgets, it cultivates loyalty, offsets hardship, and transforms returning into an attractive, even lucrative choice.
- Third, deploy a comprehensive reintegration infrastructure. A small, well-staffed Returnee Coordination Unit should maintain a dynamic alumni registry, facilitate tailored job matches (e.g., linking urban-planning scholars to the State Committee on Urban Development), and organize pre-return orientation and career fairs. Concurrently, launch post-study fellowships in government ministries, universities, and innovation labs, and dedicate incubator hubs—co-working spaces with seed

funding and mentorship—to catalyze alumni entrepreneurship (Khadria, 2011). An official alumni platform, anchored by regular webinars and a "Scholars at Home" summit, will harness peer networks to circulate opportunities and feedback.

- Fourth, initiate institutional and cultural reforms that make Azerbaijan's workplaces genuinely welcoming to globally trained talent. Universities should adopt ABET-inspired teaching caps and tenure-track models, expand teaching-assistant support, and reward research outputs with grants and promotion bonuses (ABET, 2018; Altbach, 2001). Public-sector managers require certified training in cross-cultural leadership and feedback practices (Trompenaars & Woolliams, 2003). Pilot flexible-work arrangements, such as telecommuting for a "Digital Services Taskforce," to signal that modern, hybrid roles are possible even in government (OECD, 2021).

To ensure these measures are more than static promises, we propose an adaptive governance framework. A high-level Human Capital Return Task Force—drawing representatives from the Ministries of Education and Labor, SOFAZ, university rectors, and alumni delegates—will oversee quarterly data collection on return rates, service completion, fellowship outcomes, and retention beyond obligations. These key performance indicators (e.g., achieving an 85 % return rate within two years and 70 % three-year retention) will guide iterative adjustments: stipend indexation formulas, fellowship scopes, or bond durations can be recalibrated in response to real-world feedback.

This integrated, "carrot-and-stick-within-a-welcoming-home" strategy balances individual autonomy and national responsibility. Scholars still choose their fields and have the right to defer or repay if they opt out, but the program clearly sets the expectation of return, backs it up with supportive incentives, and gives them an environment in which to thrive.

As (from personal communication with expert on field of education, May 8, 2025) aptly put it, “We must make it easy for them to come back and hard for them to justify not coming back.”

Finally, securing political and financial commitment is critical. We recommend allocating a modest proportion of SOFAZ’s annual draw to fund stipends, bonuses, and reintegration programs, and establishing a dedicated budget line for alumni-network events. With cohorts numbering in the low thousands, the upfront investment is modest relative to the potential economic and social returns of a knowledge-driven workforce.

In sum, this multi-pillar recommendation transforms Azerbaijan’s overseas-study program into a closed-loop system: prospective students see a clear, fair obligation; scholars abroad receive competitive living support; returnees step into structured roles and a supportive community; and institutions evolve to value their global expertise. Implemented in concert, these measures promise not only to reverse brain drain but to generate sustained “brain gain,” securing Azerbaijan’s human-capital dividends for decades to come.

Conclusion

The Azerbaijani labor market faces structural challenges, with a mismatch between graduates' qualifications and job market demands. These issues are compounded by limited support systems, economic factors, and socio-cultural elements that discourage graduates from returning. Addressing these barriers is essential to the country's long-term economic development and global competitiveness.

The major findings from the analysis of the State Program and the challenges faced by Azerbaijani graduates returning from studies abroad demonstrate that economic, socio-political, cultural, and structural factors impact their reintegration into the domestic labor market. The mismatch between graduates' qualifications and the demands of the job

market, particularly in high - skill sectors, affects their ability to find a suitable job upon return. The limited job opportunities aligned with international qualifications, wage disparities and the limited competitiveness of Azerbaijan's higher education system are among the main economic factors. Additionally, social factors, such as diverse environments, established diaspora networks, and more flexible working conditions abroad, contribute to graduates' decisions to remain overseas.

The State Program aims to enhance human capital by sending students abroad. It is essential to adapt to global economic conditions and labor market demands. Furthermore, inability of the establishing control mechanisms within the program, as well as limited job opportunities affects students' decision-making process upon their return.

Strengthening the domestic job market, enhancing higher education curricula, and providing better support for research and professional development opportunities will be crucial in retaining talent and fostering sustainable economic growth.

APPENDIX

Focus-Group Questions (Non-Returning Students)

1. Q: What were your initial expectations when you applied to the State Program? Did you plan to return to Azerbaijan after your studies?
   RS: RS 3 (Policy Effectiveness) – probes how program messaging and contract terms shaped return intentions.

2. Q: At what point did that plan begin to shift, if at all?
   RS: RS 2 (Social & Cultural Factors) – explores the timing of lifestyle or cultural adaptation that undermined return plans.

3. Q: What were the main factors that influenced your decision to stay abroad after completing your studies?
   RS: RS 1 (Economic Drivers) & RS 2 (Social & Cultural Factors) – identifies financial and lifestyle drivers of non-return.

4. Q: Did you explore job or research opportunities in Azerbaijan before making your final decision? If yes, what was your experience? If not, why?
   RS: RS 3 (Policy Effectiveness) – assesses the visibility and accessibility of reintegration supports.

5. Q: How do you perceive the Azerbaijani job market in your field compared to your host country at the moment?
   RS: RS 1 (Economic Drivers) & RS 2 (Social & Cultural Factors) – compares wages, recognition, and cultural fit.

6. Q: Do you feel that your qualifications and skills are better recognized abroad, and why?

RS: RS 2 (Social & Cultural Factors) – examines prestige and organizational-culture mismatches.

7. Q: What kinds of policies or support mechanisms (e.g., financial incentives, guaranteed employment, research funding) would make you consider returning to Azerbaijan in the future?
   RS: RS 1 & RS 3 (Economic Drivers & Policy Effectiveness) – solicits preferred incentive and program reforms.

8. Q: If you were advising the Azerbaijani government, what would you suggest they change in the State Program to encourage more students to return after their studies?
   RS: RS 3 (Policy Effectiveness) – gathers system-level recommendations for program redesign.

Expert Interview Questions (Officials & Administrators)

1. Q: What were the initial expectations of the Azerbaijani government regarding the return and reintegration of students under the 2007–2015 program?
   RS: RS 3 (Policy Effectiveness) – uncovers original program objectives and evaluation metrics.

2. Q: Have those expectations been met, and how is success currently evaluated?
   RS: RS 3 (Policy Effectiveness) – examines monitoring gaps and outcome measurement.

3. Q: Why were the mechanisms or incentives to ensure return not strictly enforced in 2007–2015, and why has this become a serious issue now?
   RS: RS 3 (Policy Effectiveness) – probes institutional barriers to enforcement and shifting priorities.

4. Q: What do you believe are the main structural or institutional barriers preventing graduates from returning to work in Azerbaijan?
   RS: RS 2 (Social & Cultural Factors) & RS 3 (Policy Effectiveness) – identifies systemic and cultural obstacles.

5. Q: In designing the 2019–2023 program, what lessons were learned from 2007–2015 regarding retention and brain drain?
   RS: RS 3 (Policy Effectiveness) – explores how prior shortcomings inform current reforms.

6. Q: What international return-incentive strategies were considered when drafting current policies?
   RS: RS 3 (Policy Effectiveness) – traces the importation of global best practices into local program design.

Leaflet

ADA University

School of Public and International Affairs

Master of Arts in Diplomacy and International Affairs

Capstone project title: The Non-Return of Azerbaijani Students Educated Abroad under State Sponsorship

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This study aims to examine the factors behind the non-return of students funded by the State Program between 2007 and 2023, as well as the implications and outcomes of student migration for Azerbaijan. The State Program has played a key role in the development of human capital in Azerbaijan. However, despite the government's efforts to encourage skilled graduates to return, there is a lack of comprehensive analysis on why many students choose to stay abroad. The study seeks to contribute to national education policy by identifying the factors influencing students' decisions to pursue careers abroad. Additionally, it aims to determine strategies that promote sustainable development and improve labor market efficiency through international educational experiences. The study employs a qualitative research method for primary data collection, including interviews with experts and focus group discussions with students who participated in the State Program.

Prior to the interview, you will be provided with a consent form. All data will be collected in accordance with research ethics standards to ensure participant confidentiality.

Thank you for taking the time to read this leaflet.

Consent Form for Interview

• I _____ voluntarily agree to participate in the interview for a capstone project.

• I understand that, despite my consent to participate, I may withdraw at any time or choose not to answer any question, without giving any reason.

• I understand that I may request the removal of any data from my interview within one week following the interview.

• I have been informed about the nature and purpose of the capstone project.

• I have been given the opportunity to ask any questions about the study.

• I understand that the interview will be audio recorded, and I provide my consent for this.

• I understand that all personal information shared will be kept confidential.

Signature: _____

Date: _____

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