TU Delft

Effects of Student Finance

Effects of student finance on socio-economic inequalities and wealth concentration in the Netherlands

Thomas Schoon

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By
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in partial fulfilment of the requirements for the degree of

Master of Science
in Management of Technology

at the Delft University of Technology,
to be defended publicly on Monday October 14, 2024, at 13:30.

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This thesis is confidential and cannot be made public until 14 October 2024.
An electronic version of this thesis is available at http://repository.tudelft.nl/.

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ABBR.	DUTCH MEANING	ENGLISH MEANING
HAVO	Hoger Algemeen Voortgezet Onderwijs	Senior general secondary education
VWO	Voortbereidend Wetenschappelijk Onderwijs	Pre-university education
HBO	Hoger Beroeps Onderwijs	Higher professional education
WO	Wetenschappelijk onderwijs	University education
CPB	Centraal PlanBureau	Central Planning Bureau
CBS	Centraal Bureau voor de Statistiek	Central Statistical Office
OCW	Onderwijs, Cultuur en Wetenschap	Ministry of Education, Culture & Science

Preface

As I embark on this journey of exploration and inquiry, I am filled with a profound sense of curiosity and purpose. This master thesis, conducted at the renowned TU Delft, delves into a subject that resonates deeply with the socio-economic fabric of our society: the impact of student finance on socio-economic inequalities and wealth concentration in the Netherlands.

In a nation celebrated for its commitment to equality and social justice, understanding the intricate interplay between financial support for education and broader economic disparities is not only timely but imperative. The Netherlands, with its rich tapestry of educational opportunities and diverse student population, serves as an ideal backdrop for such an investigation.

As a student myself, I have witnessed firsthand the transformative power of education. Yet, I have also been keenly aware of the barriers that financial constraints can impose on individuals striving to pursue their academic aspirations. This dichotomy has fuelled my passion to explore the nuanced dynamics of student finance and its ramifications on societal equity.

Throughout this thesis, I endeavour to navigate through a landscape marked by complexity and nuance, employing rigorous analysis and critical reflection. By scrutinizing existing policies, evaluating empirical data, and engaging with theoretical frameworks, I aim to illuminate the ways in which student finance both shapes and reflects socio-economic disparities in our country.

Moreover, I recognise the privilege and responsibility inherent in undertaking such a study. It is my sincere hope that this thesis contributes not only to academic discourse but also to meaningful conversations surrounding policy reform and societal progress. By shedding light on the systemic forces at play, I aspire to catalyse positive change and advocate for a more inclusive and equitable educational landscape.

I am deeply indebted to the faculty and mentors at TU Delft whose guidance and support have been invaluable throughout this journey. Additionally, I extend my heartfelt gratitude to my peers and loved ones whose unwavering encouragement has sustained me through the peaks and valleys of this endeavour.

Ultimately, this thesis is a testament to the enduring belief that education has the power to transcend boundaries and unlock opportunities for all. May it serve as a catalyst for dialogue, action, and, above all, a commitment to building a future where every individual has the chance to thrive.

Thomas Schoon,

24-09-2024 12:00

Summary

The first chapter introduces the Dutch student finance system and the significant changes it underwent in 2015. The government removed the base grant to save funds and aimed to improve the quality of Dutch education. The chapter outlines the new system, where students must borrow their needed funds unless their parents have lower incomes. It presents the primary research question:

"How does student finance contribute to or alleviate socio-economic inequalities and wealth concentration in the Netherlands?"

The importance of student finance and the base grant in education quality, future income, and wealth of Dutch citizens is discussed. The chapter concludes with an overview of the thesis structure, method, and approach.

Chapter 2 delves into the theoretical framework, exploring the social and economic implications of education and the critical role of government financial support. It examines how educational attainment influences income, employment, and social mobility, emphasizing the long-term societal benefits of investing in education.
The chapter reviews various government support models, such as direct funding and student loans, evaluating their effectiveness in promoting equitable access. Existing literature and empirical studies are used to illustrate the impact of these policies, setting the stage for the subsequent empirical analysis of the Dutch student finance reforms.

In chapter three the short-term effects of removing the base grant and introducing the loan system are examined. Based on research by CBS, OCW, CPB, and DUO, conclusions are drawn about this shift in student finance. The chapter analyses student indebtedness, the number of applications per field of study, and the residential choices made by students and starters.
Significant shifts in student enrolment patterns underscore the profound influence of student finance policies on educational decisions. The chapter addresses the research question:

"How do student finance and governmental support programs impact enrolment patterns in higher education among different socio-economic groups?"

Findings indicate that after 2015, the number of students transitioning directly from HAVO to HBO or VWO to WO decreased. Applications in Bèta studies increased slightly, while alpha studies saw a decrease. A notable trend was students taking a gap year in anticipation of the base grant's return in 2023/2024.

Chapter four investigates the long-term effects of the new student finance system. By analysing the repayment process and its rules, the real impact of removing the base grant is visualised. The chapter explores the financial burden on graduates, homeownership challenges, and broader economic implications.

Between 2015 and 2019, student debt for individuals aged 20-25 surged by 62.5%, and those aged 25-30 saw a 37.5% increase. The elimination of the base grant led to an additional €50 monthly expense for students, amounting to 1.46% of an average annual starting salary of €3,500. Over a 35-year repayment period with a 2.56% interest rate, the cumulative repayment amount reaches approximately €21,000. This financial burden delays wealth accumulation, as graduates face constraints in saving for down payments, investing, and accumulating assets.
The chapter addresses the research question:

"What is the long-term impact of student finance on wealth accumulation among recipients, considering factors such as homeownership, investments, and other assets?"

The fifth chapter provides the overall conclusions drawn from each chapter. It reflects on whether the new system succeeded or failed in levelling the playing field among students and improving the quality of education. The findings indicate that student finance policies significantly impact educational access, socio-economic mobility, and long-term financial well-being.
To determine if the new system has succeeded, one must examine whether a level playing field exists among students, which is linked to annual applications and graduates. The thesis investigates how student finance and government support programs contribute to increasing access to higher education among different socio-economic groups, enrolment patterns, and disparities in educational opportunities.
The long-term financial strain on graduates highlights the need for reforms in student finance policies to alleviate debt burdens and promote socio-economic equality. The analysis reveals that high student debt negatively impacts mortgage attainability, delaying or reducing overall wealth accumulation. The thesis also explores whether student finance contributes to upward social mobility, enabling individuals from lower socio-economic backgrounds to improve their social and economic positions.

The conclusion stresses the psychological outcomes of student finance, highlighting stress and mental health issues during student life, and the prioritization of salary in job selection post-graduation. These factors underscore the broader economic and social implications of student finance policies, emphasizing the need for comprehensive reforms to support students and graduates more effectively.

Chapter 1. Introduction

The landscape of educational policy in the Netherlands has undergone significant changes in recent years, particularly with the removal and reintroduction of the base grant for students. This thesis explores the short-term impacts and speculates on the long-term consequences of this policy shift, aiming to provide a comprehensive understanding of its effects on key societal pillars. These pillars include access to education, income equality, wealth accumulation, social mobility, regional disparities, and policy effectiveness.

Educational funding policies, such as the base grant, play a crucial role in shaping access to education. Access to education is essential for personal development, economic growth, and social cohesion. It ensures that individuals, regardless of their socio-economic background, can pursue higher education and achieve their full potential. By examining enrolment rates, dropout rates, and student demographics, this research assesses how the removal of the base grant has influenced access to education in the short term.

Income equality is another critical aspect influenced by educational funding policies. The base grant serves as a financial equaliser, alleviating the financial burden on low-income families and reducing disparities in access to higher education. This thesis investigates the impact of the base grant's removal on income inequality by comparing financial strain on households, student loan debt levels, and income inequality indices before and after the policy change.

Wealth accumulation is closely tied to the financial aspects of education. The removal of the base grant can have long-term effects on graduates' ability to accumulate wealth. This research analyses savings rates, investment in property, and the long-term financial stability of individuals affected by the policy shift. Understanding these impacts is crucial for assessing the broader economic implications of educational funding policies.

Social mobility, the capacity for individuals to improve their socio-economic status, is often facilitated by higher education. The base grant's removal may influence social mobility by affecting career progression, employment rates, and the socio-economic status of graduates from diverse backgrounds. This thesis examines these factors to determine how the policy change has impacted social mobility in the short term and speculates on potential long-term trends.

Regional disparities in the effects of educational policies are also a focus of this research. The impact of the base grant's removal can vary significantly across different regions, affecting the feasibility of education, living arrangements, and local economies. By analysing regional enrolment statistics, differences in living costs, and student migration patterns, this study aims to identify and understand these disparities.

Finally, policy effectiveness is evaluated by comparing the intended outcomes of the base grant policy with its actual results. This involves a comprehensive policy evaluation, including stakeholder feedback, economic impact analysis, and a comparison with initial policy objectives. Understanding the effectiveness of the base grant policy provides valuable insights for future policymaking and highlights areas for improvement.

In conclusion, this thesis aims to provide a detailed analysis of the short-term impacts and potential long-term consequences of the removal and reintroduction of the base grant in the Netherlands (see Figure 1). By examining access to education, income equality, wealth accumulation, social mobility, regional disparities, and policy effectiveness, this research seeks to inform future educational policy decisions and contribute to a broader understanding of how financial support systems for students influence various aspects of society. Through a mixed-methods approach, combining quantitative data analysis with qualitative insights, this study offers a robust and nuanced perspective on the implications of educational funding policies.

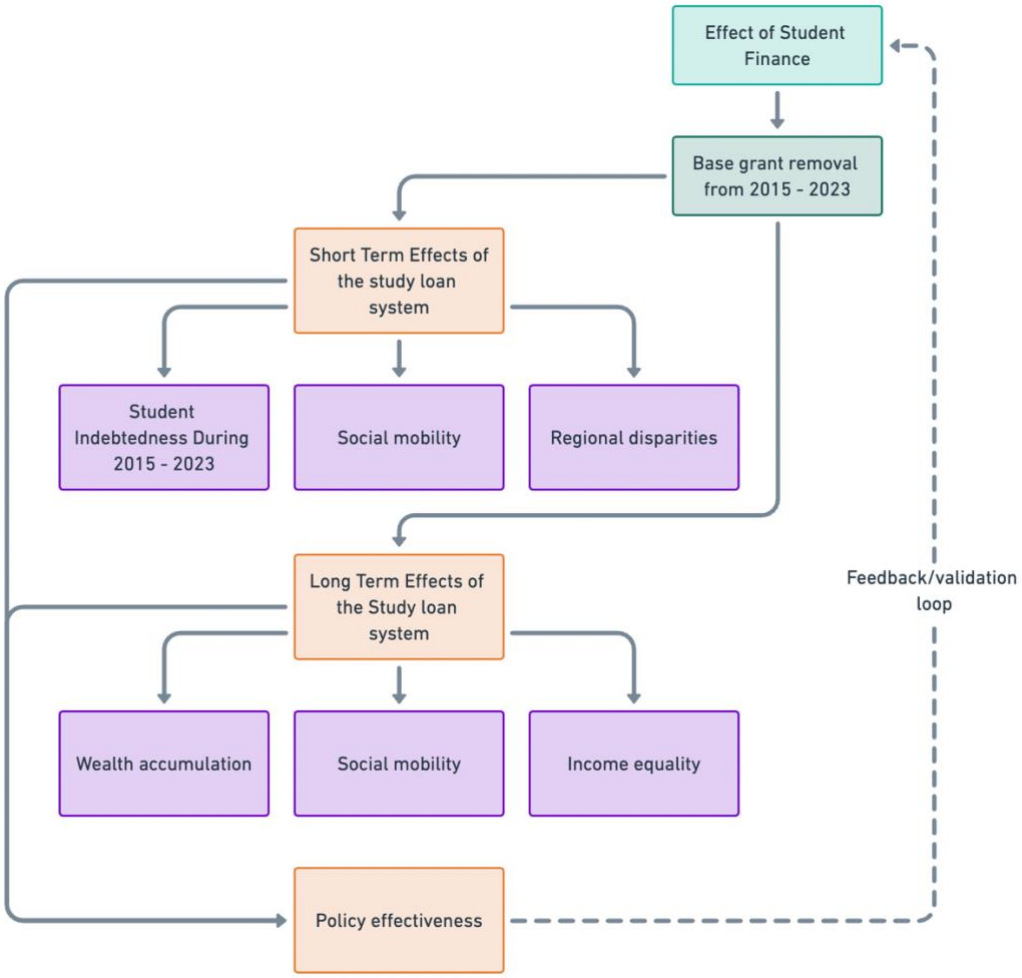


Figure 1: Flowchart of all potentially relevant influences during this thesis (created by the author)

1.1. The Dutch Study loan system

The Netherlands, renowned for its commitment to education and social welfare, has long recognised the pivotal role of student finance and governmental support in shaping the educational landscape (James, 1984). These programs are designed not only to alleviate financial barriers for (prospective) students, but also to foster a more diverse and accessible educational environment. As of the academic year 2015/2016 there has been a shift in financial governmental support in the terms of student finance. A part of the monthly student loan that used to be a 'gift' or basic grant, became a loan. In the academic year 2023/2024 the basic grant was re-introduced (Kuijpers et al., 2020).

By shifting from a grant to a loan-oriented system, the Dutch government aimed to address two concerns. Firstly, the grant system was perceived to lead to increases in socio-economic inequality, because students from affluent backgrounds received the same financial support as those from economically disadvantaged families. A study loan system would rectify this, it was argued, because the students from affluent families would no longer receive financial support; "the baker didn't have to pay for the education of the lawyer's son" (Wet Studievoorschot Hoger Onderwijs (34.035), n.d.). Secondly, the introduction of the loan system would help the government save €1 billion (on spending on student funding). The freed-up budget would be reinvested in higher education, ensuring that students would benefit from improved educational quality.

The situation is visualised by the Centraal Plan Bureau (CPB) seen in Figure 2. In the Netherlands an average dual income household earns €47.400, the median income is €39.100 (Van Den Brakel, 2023). In the graph, one can see that for these incomes the amount of study grants has drastically changed.

The blue curve indicates the level of the grant before 2015, and the red curve shows the level of the grant after 2015. The left-hand panel presents the case of a student who continues to live with his/her parents; the right-hand panel illustrates the case of a student who lives on his/her own.

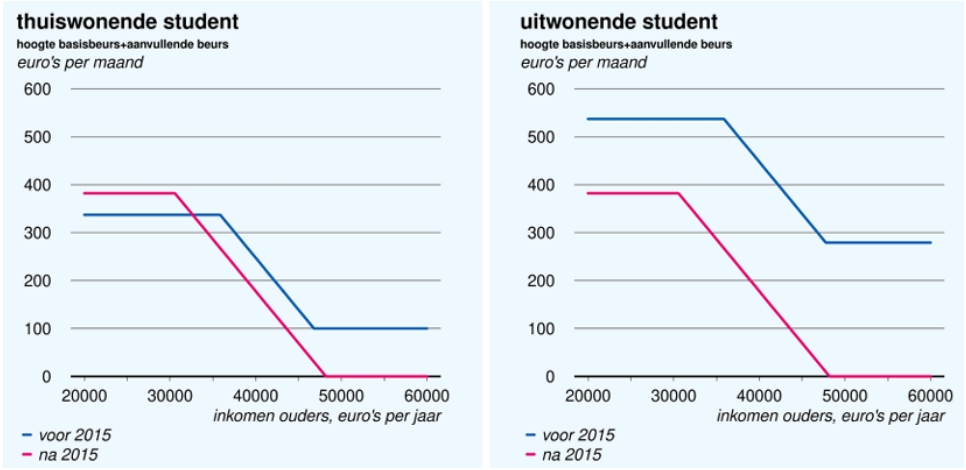


Figure 2: Effect of the shift in student finance as of 2015

However, in the academic year 2023/2024, the basic grant system was re-introduced, and the student loan system was abolished (Kuijpers et al., 2020). Total student debt, accumulated under the new system, increased from 12.7 billion in 2015 to €28.2 billion in 2023 (Centraal Bureau voor de Statistiek, 2022). The number of individuals burdened by study debt rose from 115.000 in 2015 to more than 330.000 in 2023. The average study debt amounted to €17.100 in 2023. The financial burdens and financial risks for the students concerned have grown considerably over time. That is (probably) why the Dutch government decided to abolish the study loan system and shift back to a basic grant system in September 2023, although the reasons are not fully known.

1.2. Back to the basic grant system

Since 2023, the Dutch student loan system has undergone significant changes, primarily with the reintroduction of the basic student grant, which had been replaced by a loan system in 2015. The basic student grant is a form of financial aid that does not need to be repaid, and the amount varies based on the student's living situation. Students living at home receive a monthly grant of approximately €110, while those living away from home receive around €274. In addition to the basic student grant, students from lower-income families can apply for a supplementary grant, which can be up to €419 per month depending on parental income. The exact amount depends on factors such as the number of siblings also in higher education and parental income levels (11. STUDIEFINANCIERING | Ministerie Van Financiën - Rijksoverheid, n.d.).

Students can also take out a loan to cover their tuition fees, which are about €2,314 per year for most programs (as of the 2023/2024 academic year). This loan is directly paid to the educational institution. Moreover, students can borrow money for living expenses, up to a maximum of approximately €1,143 per month. The amount borrowed can be adjusted monthly based on the student's needs. All students are eligible for a travel product that allows free or discounted travel on public transportation. They can choose between free travel during the week and discounted travel on weekends, or vice versa.

Repayment of loans begins two years after graduation. The repayment amount is based on the student's income, ensuring that repayments are affordable. The maximum repayment period is 35 years, and any remaining debt after this period is forgiven. Interest rates on student loans are relatively low, making borrowing more affordable. In certain cases, such as disability or death, the student loan can be forgiven. Additionally, if students do not complete their studies within 10 years, part of the loan can be converted into a gift. EU/EEA students studying in the Netherlands can also apply for Dutch student finance under certain conditions, such as working at least 56 hours per month in the Netherlands or having lived in the Netherlands for five years (Student Finance: Eligibility - DUO, n.d.).

The Dutch student loan system aims to make higher education accessible by providing a combination of grants and loans. The reintroduction of the basic student grant significantly eases the financial burden on students, while the flexible loan system and income-dependent repayment terms ensure that higher education remains affordable and accessible.

1.3. Problem statement and research questions

As the nation continues to evolve, understanding the socio-economic impact of the student loan system is crucial for policymakers, educators, and the broader community.
The student loan system turned out to burdensome for many students. Educational debts may have affected the decision (or opportunity) to become a (university) student in many cases, and it is likely that the loan system has also affected the decision which study to choose for many.
Obviously, one cannot only look at the cost-side of this 'investment', the study loan system also brought opportunities, wealth and knowledge.

But questions about the existence of student finance remain in Dutch politics; 'does this student finance perform the way it is intended?'. Also 'isn't there a better and more social system than the current student-finance-system in the Netherlands?' (*De Prestatiebeurs Is Terug Van Weggeweest*, 2022).

It is partly known what student finance in reality achieves due to research conducted by economists like **Joshua Angrist**, **Esther Duflo** and **Philip Oreopoulos**. Their research often delves into the causal effects of educational interventions, including scholarships, on individuals' educational attainment, labour market outcomes, and earnings as well as improving educational outcomes and reducing inequality (Angrist et al., 2021).

But even for them certain questions regarding the impact of student finance persist. They include establishing causal inference, understanding heterogeneous effects across populations, examining long-term effects, identifying mechanisms of impact, assessing equity and access implications, analysing interactions with other policies, and evaluating cost-effectiveness, all of which contribute to a deeper understanding of student finance's role in promoting educational opportunity and socioeconomic mobility (Heckman & Mosso, 2014).

Research on the impact of student finance is crucial for several reasons. Firstly, student finance plays a vital role in promoting access to education, especially for disadvantaged individuals, and understanding their effectiveness helps policymakers design more targeted and efficient interventions.
Secondly, student finance can have long-term implications for individuals' economic well-being and social mobility, making it essential to assess their sustained effects over time. Additionally, student finance research contributes to broader discussions on inequality, human capital development, and the role of education in fostering economic growth and societal advancement. Ultimately, by shedding light on the outcomes and mechanisms of student finance programs, research in this area informs evidence-based policymaking and efforts to address systemic barriers to educational opportunity and social inclusion.

The primary difficulty lies in the fact that educational achievements are not distributed uniformly among individuals. On an individual level, people and their families decide how much time to dedicate to schooling, while at the community level, resource allocation to education is determined through a political process. (Udry, 2011).

This study aims to solve is to comprehensively analyse the socio-economic impact of student finance on educational attainment and wealth distribution in the Netherlands. By studying various dimensions of this impact, the research aims to provide insights into the effectiveness of existing policies and identify potential paths for improvement. The dimensions taken into account for this thesis are visualised in Figure 3.

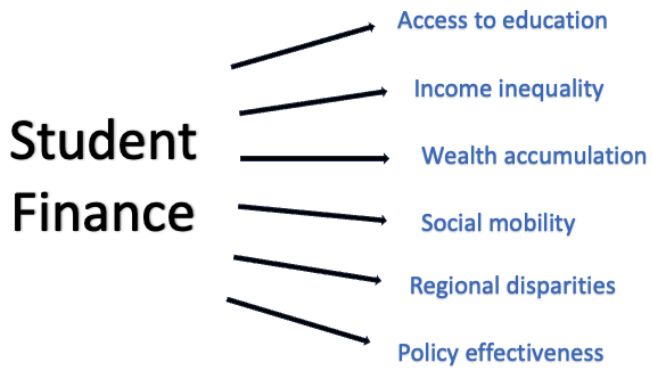


Figure 3: included dimensions with impact in this analysis (visualization by the author

This thesis is thus about **governmental support in education**, specifically **what the impact of student finance on equality and wealth concentration is in the Netherlands.** It could help others understand **why and how student finance is important for a country's (social) economy.** It will ultimately answer the following research question:

"How does student finance contribute to or alleviate socio-economic inequalities and wealth concentration in the Netherlands?"

This research encompasses a comprehensive examination of the impact of student finance and governmental support programs in the Netherlands. The study will explore the following key dimensions with their own corresponding sub-questions:

- Access to Education:

Investigating how student finance and governmental support programs contribute to increasing access to higher education among different socio-economic groups. This involves analysing enrolment patterns and identifying any disparities in educational opportunities.

"How do student finance and governmental support programs impact enrolment patterns in higher education among different socio-economic groups?"

- Income Inequality:

Exploring the relationship between receiving student finance and subsequent income levels, with a focus on understanding whether these initiatives help reduce income inequality.

"To what extent does receiving student finance influence subsequent income levels, and does it contribute to reducing income inequality?"

- Wealth Accumulation:

Examining the long-term impact of student finance on wealth accumulation among recipients. This includes assessing factors such as homeownership, investments, and other assets to gauge the broader economic implications.

"What is the long-term impact of student finance on wealth accumulation among recipients, considering factors such as homeownership, investments, and other assets?"

- Social Mobility:

Investigating whether student finance contributes to upward social mobility, enabling individuals from lower socio-economic backgrounds to improve their social and economic standing.

"Does student finance contribute significantly to upward social mobility, particularly for individuals from lower socio-economic backgrounds?"

- Regional Disparities:

Exploring whether these programs address regional disparities in access to education and economic opportunities, considering the diversity of regions within the Netherlands.

"How does student finance address regional disparities in access to education and economic opportunities, taking into account the diversity of regions within the Netherlands?"

- Policy Effectiveness:

Assessing the effectiveness of current student finance policies in achieving their intended goals and identifying potential areas for improvement. This involves a critical evaluation of the existing framework to inform evidence-based policy recommendations.

"To what extent are student finance policies effective in achieving their intended goals, and what specific areas within the existing framework could be improved to enhance policy effectiveness? "

1.4. Method and approach

The thesis method and approach involve a quantitative and comprehensive analysis of every relevant aspect of the research topic using available data. Data is systematically gathered and examined, ensuring that no significant information is overlooked. By transforming some of this data into graphs, interesting effects and patterns that might not be immediately apparent in the raw data are highlighted. This visual representation helps in uncovering trends and relationships, making complex information more accessible and understandable.

The approach is integrative, combining data from various sources to provide a well-rounded analysis. Every step of the analysis is directed towards answering specific research questions, which keeps the focus clear and purposeful. The ultimate goal is to synthesise the findings from the data analysis and visualizations to form a comprehensive understanding and provide clear, substantiated answers to the research questions.

In preparing the data, the researcher ensures it is accurate, complete, and correctly formatted for analysis. Statistical methods are employed for quantitative analysis, and non-numerical data is interpreted for qualitative insights. By using various types of graphs and visualization tools, high-quality visual representations of the data are created. The findings are presented in a clear, logical, and structured format, typically following a standard thesis structure. By prioritizing clarity and precision in writing, it becomes easy for readers to follow the arguments and conclusions. This thorough, data-driven, and visually aided approach ensures that the thesis provides robust and insightful answers to the research questions, making it a valuable contribution to the field of study.

1.5. The structure of the thesis

This thesis systematically explores the transition from the Dutch study loan system back to the basic grant system, examining short-term and long-term impacts and assessing policy effectiveness. It begins with a preface outlining the research motivation and acknowledgments, followed by an executive summary that highlights key findings and recommendations.

Chapter 1 introduces the Dutch study loan system, the shift back to the basic grant system, the central research problems, specific research questions, and methodologies used. Chapter 2 provides a theoretical background, discussing the social and economic implications of education, government support in shaping educational outcomes, and the relationship between education, income, and wealth. Chapter 3 investigates short-term effects, focusing on student indebtedness, enrolment trends, academic discipline choices, and residential choices during 2015-2023. Chapter 4 examines longer-term effects, including impacts on homeownership, financial stability, and mortgage attainability. Chapter 5 evaluates policy effectiveness, assessing whether intended outcomes were achieved, discussing unintended consequences, and offering policy recommendations.

Each chapter builds on the previous ones, leading to a comprehensive analysis of the transition from the study loan system to the basic grant system, ensuring a coherent narrative that guides the reader through the topic's complexities to well-supported conclusions and recommendations.

Chapter 2. Theoretical Background

2.1. Introduction

This chapter focusses on the governmental support in education, particularly through student finance. It has been a subject of extensive research in the context of countries like the USA (Landry & Neubauer, 2015), the Netherlands, and other countries (Jonbekova, 2023). The focus of this chapter is to critically examine the impact of such support on equality and wealth concentration in the Netherlands (Wilkinson, 2005).

Key themes and research areas within the existing literature can be broadly categorised into three main areas: the social and economic implications of education, the role of governmental support in shaping educational outcomes, and the dynamics of wealth concentration in society.

2.2. The social and economic implications of education

Numerous scholars have explored the intricate relationship between education and societal well-being (Kirkcaldy et al., 2004). Education is seen as a tool for social mobility, and access to quality education is often considered a fundamental right. Theoretical frameworks such as human capital theory posit that education enhances individual productivity, leading to overall economic growth (Cohen & Soto, 2007).

The role of education is pivotal both in general and within the economy (Plank & Davis, 2020). Generally, education fosters personal development, critical thinking, and informed citizenship.
Economically, it enhances workforce skills, boosts productivity, and drives innovation, contributing to economic growth. Education reduces inequality by providing opportunities for social mobility and equipping individuals with the knowledge and skills necessary for high-paying jobs.

Thus, education acts as a cornerstone for personal empowerment and economic prosperity. This section will delve into these perspectives to provide a nuanced understanding of the complex dynamics between education, equality, and wealth concentration.

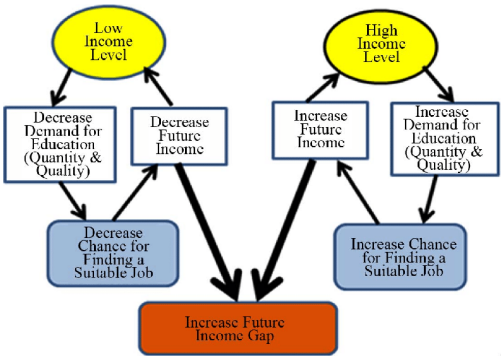


Figure 4: Causality relationship between income inequality and education inequality

2.3. The role of government support in shaping educational outcomes

Government support plays a crucial role in shaping educational outcomes in the Netherlands by ensuring access, equity, and quality in higher education. By providing various financial mechanisms, the government aims to remove economic barriers, promote social mobility, and enhance the overall educational landscape.

Direct financial aid through grants and scholarships reduces the financial burden on students and their families. The basic grant system, reintroduced to replace the study loan system, offers non-repayable financial support aimed at covering living expenses and tuition fees, ensuring that all capable students, regardless of their economic background, can access higher education. The intended outcome is increased enrolment and completion rates, particularly among students from lower-income families.

Although the study loan system was previously the primary form of student financial support, its role was to make higher education immediately accessible by providing the necessary funds upfront, with favourable terms like low-interest rates and income-contingent repayment plans to mitigate long-term financial burden. However, the shift back to grants was driven by the realization that excessive student debt could deter potential students and impact graduates' financial stability. Providing study loans aimed to broaden access to higher education, though the government now aims to balance this with debt reduction through grants.

Tuition fee loans specifically designed to cover the cost of tuition enable students to manage their finances better and focus on their studies. By offering these loans with favourable repayment terms, the government aims to maintain high levels of enrolment and ensure that financial constraints do not compromise the quality of education, resulting in a well-educated workforce contributing effectively to the economy.

Supplementary grants are provided to students from low-income families to promote equity in education, bridging the gap between financial need and the actual cost of education, ensuring that students from disadvantaged backgrounds have equal opportunities to pursue higher education. The intended outcome is to enhance social mobility and reduce educational disparities, contributing to a more inclusive society.

Additionally, higher education institutions in the Netherlands often provide financial support through scholarships, emergency funds, and grants for specific programs or research initiatives, complementing government aid and helping ensure that students can afford their education, enhancing the educational experience and success rates. The Dutch government's comprehensive approach to financing education through direct financial aid, loans, supplementary grants, work-study programs, tax benefits, and institutional support is crucial in shaping educational outcomes. By reducing financial barriers and promoting equity, the government ensures that a diverse range of students can access and succeed in higher education, fostering a well-educated and skilled population capable of contributing to the economy and society.

This balanced approach between grants and loans reflects the government's commitment to accessibility, financial sustainability, and long-term positive outcomes for individuals and the nation.

2.4. Education, incomes and wealth

Theories of education policy and social justice are pertinent here, as they offer insights into how government interventions can either perpetuate or alleviate educational inequalities (Francis et al., 2017).

This section seeks to critically evaluate existing literature to uncover how governmental assistance shapes educational outcomes and, consequently, the distribution of wealth in society. The paper by Bénabou (Bénabou, 2000) presents a theory of inequality and the social contract, aiming to illustrate why countries with similar economic and political fundamentals can uphold vastly different systems of social insurance, fiscal redistribution, and education financing, for instance, such as those observed in the United States and Western Europe.

In contexts with imperfect credit and insurance markets, certain redistributive policies may enhance welfare, which can lead to decreased political support as inequality rises. Conversely, in scenarios marked by credit constraints, reduced redistribution results in more persistent inequality, creating potential for multiple steady states characterised by mutually reinforcing high inequality and low redistribution, or vice versa.

Understanding the dynamics of wealth concentration is crucial for contextualizing the impact of education on income and wealth. Existing literature shows that educational opportunities significantly influence income levels and wealth distribution (Kim, 2022). Education improves individual earning potential and promotes economic mobility, which can mitigate wealth concentration. Theories of income inequality and wealth distribution elucidate how educational attainment, supported by government policies, can break cycles of poverty and reduce overall inequality, thereby shaping the distribution of wealth in society (Hällsten & Thaning, 2018).

2.5. Conclusions

Synthesizing and integrating the findings from various perspectives and theories are essential for constructing a comprehensive theoretical framework. This thesis will adopt an integrative approach, emphasizing the interconnectedness of education, governmental support, and wealth concentration. By synthesizing these diverse strands of literature, the study aims to construct a holistic understanding of how student finance can be instrumental in shaping a country's social and economic landscape.

Despite the wealth of literature on education, governmental support, and wealth concentration, a significant literature gap persists. While existing studies provide insights into the relationships between these variables, there is a scarcity of research specifically addressing the impact of governmental support on equality and wealth concentration in the Dutch context. This gap underscores the need for the current research, which seeks to fill

this void by providing a nuanced understanding of the specific dynamics at play in the Netherlands.

To bridge this literature gap, the study will conceptualise a model that explicates the mechanism through which governmental support influences educational outcomes, subsequently impacting societal equality and wealth concentration. Conceptualizing this mechanism will aid in communicating the theoretical underpinnings of the research. Dividing the conceptualization into short- and long-term effects, one can provide an answer to the main research question.

Chapter 3. Short Term Effects of the introduction of the study loan system

3.1. Introduction

The objective of this chapter is to provide a comprehensive analysis of the short-term effects that ensued following the introduction of the study loan system in the Netherlands in 2015. This pivotal reform in student finance marked a significant shift from the previous system of grants and allowances to a system predominantly based on loans.

By examining the immediate impacts of this transition, light can be shed on various dimensions of student behaviour and financial outcomes. The analysis is grounded in the extensive research conducted by the Dutch organizations CPB (Centraal Planbureau) and OCW (Ministerie van Onderwijs, Cultuur en Wetenschap), with data meticulously collected by CBS (Centraal Bureau voor de Statistiek) and DUO (Dienst Uitvoering Onderwijs). The studies and reports generated by these institutions provide a rich repository of information that enables to dissect the short-term consequences of the 2015 student finance reform.

Dutch organisations CPB and OCW have conducted extensive research with data collected by CBS on surrounding the effects of the 2015 student finance reform. In this chapter the short-term effects of student finance adjustments made in 2015 will be analysed.

3.2. Student indebtedness during 2015 - 2023

With the inception of the loan system in September 2015, the basic grant for higher education students was eliminated. Instead, students gained the option to borrow additional funds on favourable terms. Moreover, the maximum supplementary grant for students from low-income families was raised, and there ceased to be a distinction in grant amounts between students living at home and those living away from home.

The impact of the Student Loan Act on the indebtedness of the students varied depending on parental income and living arrangements. Students residing away from home without a supplementary grant experienced a decrease in financial support of nearly 3.500 euros annually, whereas those living at home with a maximum supplementary grant saw an increase of approximately 600 euros annually (see Figure 2).

Data from the CBS shows that the average amount of student debt increases after the year 2015 (which is when student finance turned into a 100% loan). During 2011-2015, the average study debt per student was around €12.200, but from 2016 onwards, the size of the average study debt increased steadily, reaching €17.100 in 2023. This constitutes an increase by more than 40% in just 8 years. With an average age among students of 22,7 years old, the group of 20- to 25-year-olds is the largest group of students (see Figure 5).

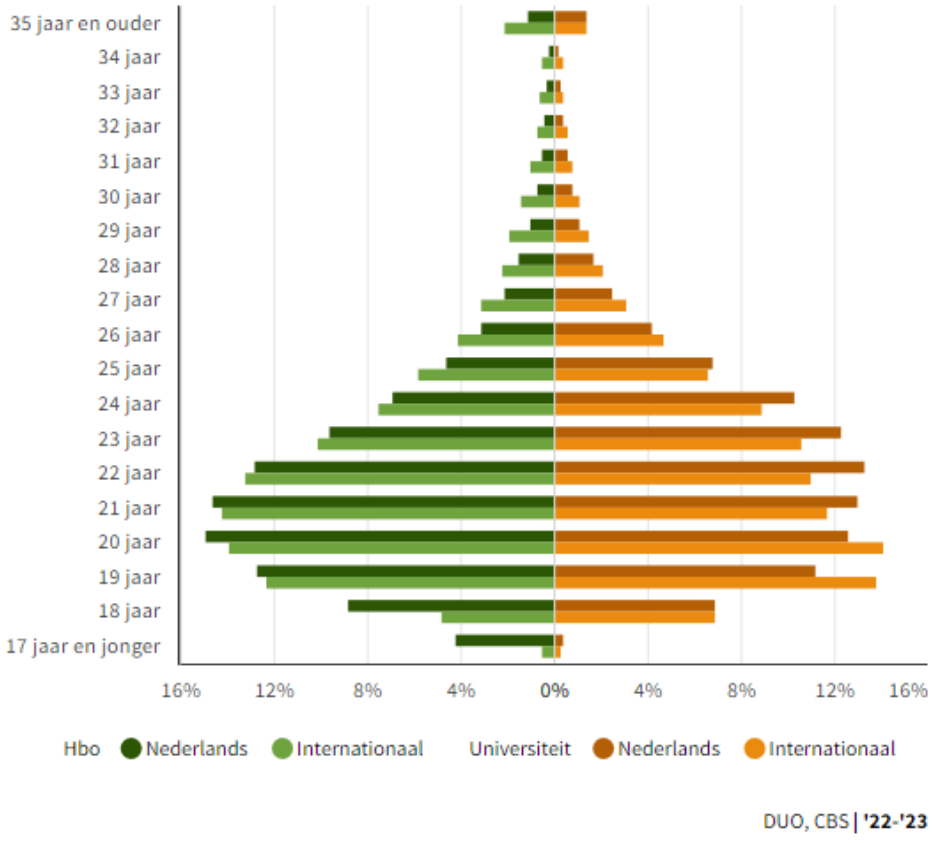


Figure 5: Percentage of students per age category (visualization by CBS)

Currently the total student debt of current and former students has risen to €28,2 billion at the beginning of 2023. That is an increase of €15,5 billion euros compared to 2015 (Centraal Bureau voor de Statistiek, 2023). Interesting is the growth rate during the years. Seeing the annual growth of the total student debt in the Netherlands spiking from 2014/2015. Before this period the growth was around 7%, during this period it peaked at 18% (see Figure 6).

When zooming in on the largest group of students with the age between 20 and 25 years old, statistics show that the average debt has almost doubled from the year 2014 (see Figure 7).

The interest rate has stood at 0,0% for a very long time. However, this has changed from January 2023 onwards. This is partly due to the fact that interest rates on Dutch government bonds have risen. The Ministry of Education, Culture and Science, together with the DUO (Education Executive Agency), indicated that the interest on student debt had to be increased.

year	total student debt	growth
2011	9,5	-
2012	10,2	7%
2013	10,9	7%
2014	11,8	8%
2015	12,7	8%
2016	13,9	9%
2017	15,4	11%
2018	17,5	14%
2019	20,6	18%
2020	23,1	12%
2021	25	8%
2022	26,5	6%
2023	28,2	6%

Figure 6: Total student debt in billion euros

From 2024, the interest rate on student loans will increase even further. Instead of an interest rate of 0,46% (introduced in 2023), a percentage of 2,56% will apply to higher education from January 1, 2024. An effect that is also visible in the average debt curve, the increased rate worked as a wake-up-call among students to lower their monthly student loan.

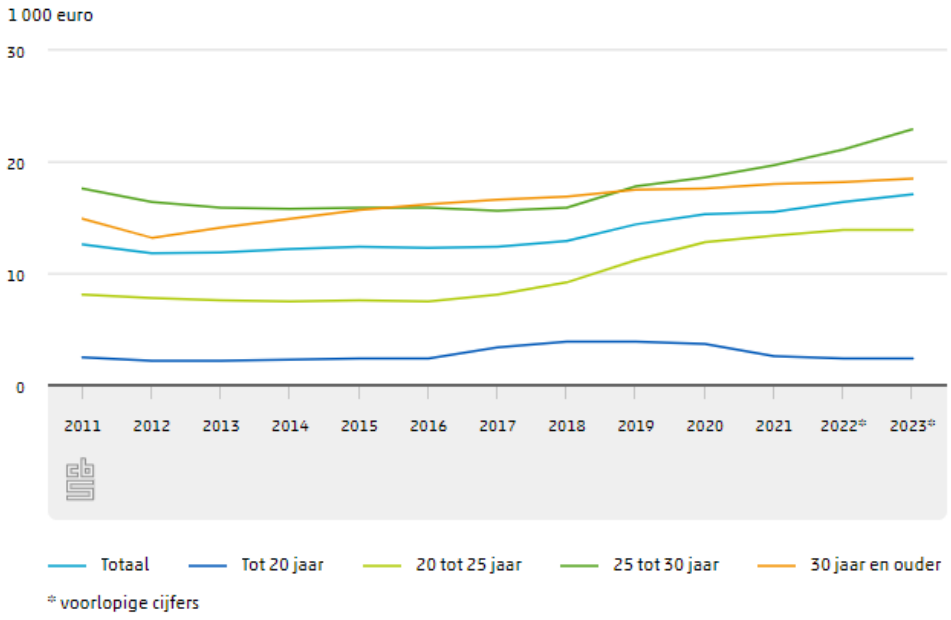


Figure 7: Average debt due to student finance (visualization by CBS)

3.3. The number of students in higher education in the Netherlands (2007 – 2023)

This chapter analyses trends in enrolment in higher vocational education (HBO) and university education (WO) in the Netherlands. It examines how financial policies, particularly the base grant, influence graduates' decisions in any further education or the workforce. By combining quantitative data with qualitative insights, the impact of these policies on student behaviour and broader socio-economic trends, aiming to inform future educational policy and support student welfare can be explored.

The visual representation provided in Figure 8 depicts the cumulative count of students enrolled in Higher Professional Education (HBO), indicated by the red line, and those attending university, marked in yellow, spanning from 2007 to 2023. A nuanced analysis of the data reveals intriguing trends over this timeframe.

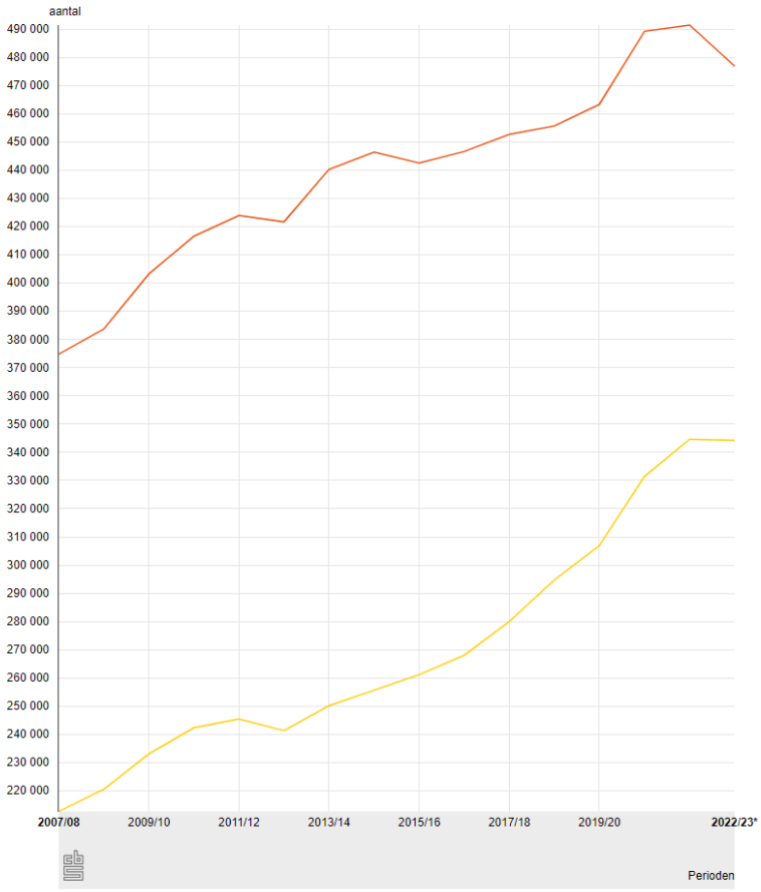


Figure 8: Number of students studying at HBO-level (Red) and University (Yellow) (visualization by CBS)

From the outset, between 2007 and 2011, there was a pronounced surge in university enrolments, indicative of a robust upward trajectory in higher education participation. However, this promising trend encountered a notable downturn in the subsequent years, particularly from 2012 to 2013, characterised by a decline in the number of students pursuing university education.

Conversely, the trajectory of HBO enrolments, while experiencing growth comparable to that of universities from 2007 to 2012, exhibited a slight deceleration following the 2015 milestone. This period saw a marginal decrease in the rate of HBO student growth compared to the earlier years, suggesting a potential stabilization or plateauing of enrolments in this educational sector.

In essence, the visualization not only captures the fluctuations in student numbers across different educational pathways but also offers insights into the evolving dynamics of higher education participation over the specified timeframe, highlighting periods of growth, decline, and potential shifts in enrolment patterns.

In Figure 9 the increase in students who graduated from HAVO and VWO and went directly to HBO or VWO in the two years before 2015 is obvious. As students deliberate on the prospect of taking a gap year following their final exams, they will inevitably factor in how such a decision could influence their access to financial support.

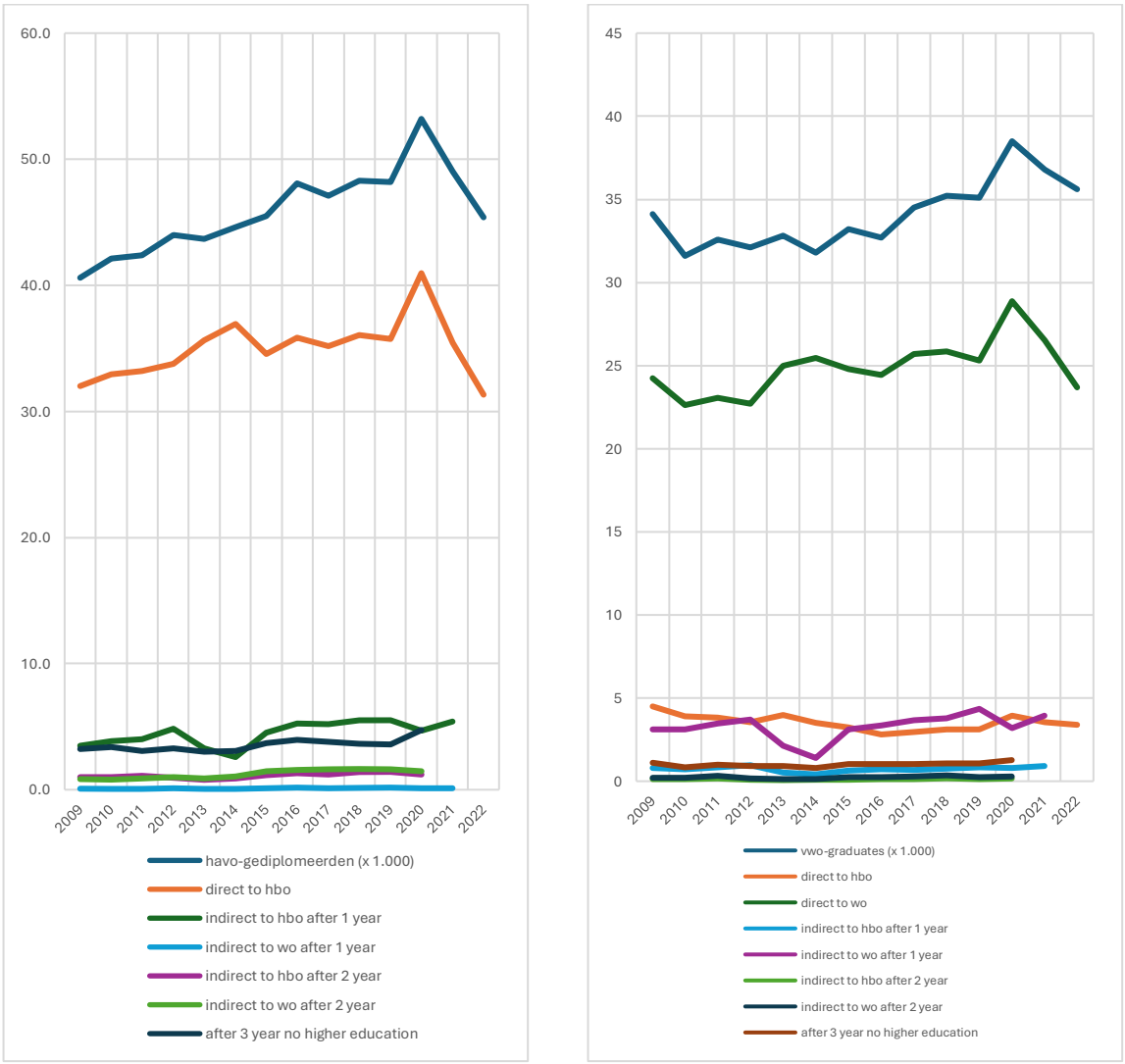


Figure 9: Number of students from HAVO and VWO to 'destination' (data provided by CBS – Appendix A)

As students deliberate on the prospect of taking a gap year following their final exams, they will inevitably factor in how such a decision could influence their access to financial support. This consideration becomes particularly pertinent when navigating the complexities of the student financing system to which they belong. Notably, students who underwent their final examinations in 2014 exhibited a propensity to give up a gap year in favour of immediately embarking on their academic journey.

This choice was often motivated by the desire to secure a fundamental grant, highlighting the intricate interplay between financial incentives and educational timelines in shaping students' decisions.

Notably, students who underwent their final examinations in 2014 exhibited a propensity to eschew a gap year in favour of immediately embarking on their academic journey. This choice was often motivated by the desire to secure a fundamental grant, highlighting the intricate interplay between financial incentives and educational timelines in shaping students' decisions.

A conspicuous trend that emerges is the marked decrease observed in 2020, a phenomenon likely influenced by a confluence of factors. Firstly, one plausible explanation is the deliberate delay in enrolment among graduates from HAVO or VWO, who may have opted to defer the initiation of their tertiary education until 2023. This strategic decision could be attributed to the desire to capitalise on the basic grant entitlements guaranteed to students during that period, thereby optimizing their financial resources and support structures.

Furthermore, the intricate interplay of global events, particularly the widespread ramifications of the COVID-19 pandemic, exerted a significant impact on educational dynamics. Europe, like many regions across the world, experienced disruptions across various sectors, including education. In this context, the pandemic-induced uncertainties and restrictions likely played a pivotal role in shaping enrolment trends. Specifically, the apprehensions surrounding health and safety, coupled with logistical challenges such as travel restrictions and visa issues, may have deterred a considerable cohort of international students from pursuing studies abroad.

Thus, the observed decline in 2020 can be construed as a multifaceted phenomenon, underscored by both strategic decisions of domestic graduates and the far-reaching repercussions of a global crisis, collectively shaping the landscape of higher education enrolment during that period.

3.4. Fields of study

This chapter explores the shifting trends in the number of students enrolled in various fields of study over time in the Netherlands. By analysing these changes, this thesis aims to determine whether the absence of the base grant has influenced students' choices of academic paths.

Specifically, it investigates if financial considerations have led to an increase in students opting for fields like engineering, which promises higher wages, or nursing, which offers quicker job placements (Net, 2021). Through this analysis, understand is sought on how economic incentives shape educational decisions and career trajectories in response to changing student finance policies.

The decision to pursue a particular field of study may be influenced by the (future) salaries offered in that field. Disparities in sector selection within education can stem from factors such as higher pay and improved job prospects. Analysing Figure 10 reveals a declining trend in student enrolment in education, journalism, arts, and law since the academic year '14/'15.

Conversely, disciplines like technology, informatics, and mathematics have seen a rise in popularity over the same period.

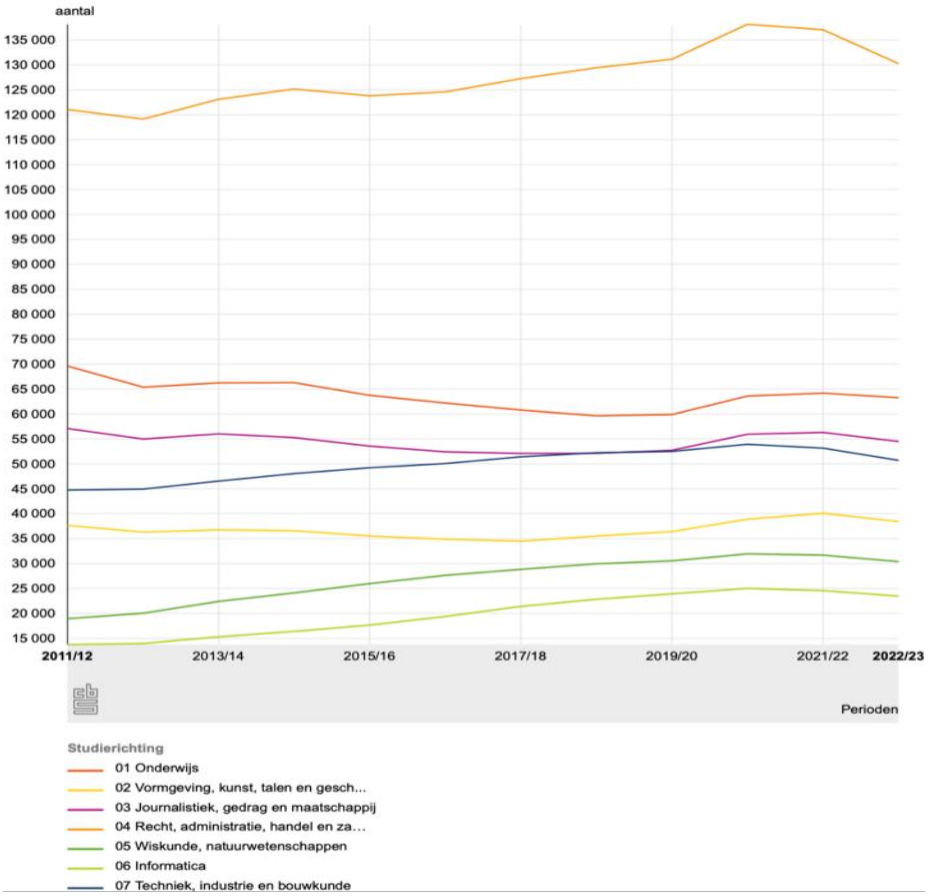


Figure 10: Number of students per field of study (visualization by CBS)

In addition to the pivotal decision between pursuing a higher professional education (HBO) or a university degree, students are presented with a multifaceted landscape of academic choices. Beyond this fundamental dichotomy, students may opt for alternative courses of study driven by a variety of considerations.

For instance, some students may be drawn to a particular field of study because it offers a perceived smoother path towards diploma attainment within the prescribed timeframe.
This could be due to factors such as the structure of the curriculum, the availability of resources, or the alignment of the program with their personal strengths and interests.

Others may find themselves grappling with uncertainty regarding their capacity to excel in a specific academic discipline. This hesitation may stem from a myriad of factors, including perceived difficulty, fear of failure, or apprehension about the financial implications, particularly under the purview of the Student Loan Act. The prospect of accruing debt without the assurance of future success can serve as a deterrent for students who are wavering in their academic pursuits.

Moreover, students are increasingly cognizant of the symbiotic relationship between their chosen field of study and the prevailing labour market dynamics. As they weigh their options, considerations about the demand for skills and qualifications in various industries inevitably come into play. The prospect of securing gainful employment post-graduation is a critical factor for many students, as it directly impacts their ability to repay any loans they may have acquired during their studies.

Despite the introduction of the Student Loan Act, which introduced significant changes to the financing landscape for higher education, the trends in the choice of academic disciplines have shown remarkable resilience. For instance, the proportion of secondary school students opting for technical studies continues to exhibit a consistent upward trajectory, underscoring the enduring appeal and perceived value of such programs in the eyes of prospective students.

3.5. The study loan system and residential choices of students

Is there a visible trend in the residential choices of students? Did students opt to reside within their parental household following the introduction of the study loan system in 2015, rather than seeking more costly, independent accommodation? Examination of Figure 11 reveals a notable uptick in the number of students continuing to dwell in their parental homes since 2015. This trend is likely attributable to a decline in purchasing power, potentially stemming from the cessation of base grant.

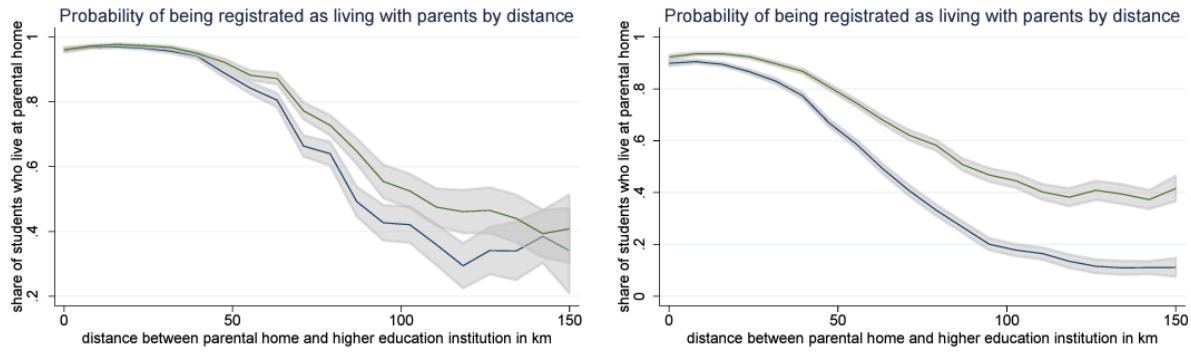


Figure 11: share of students who live at their parental home; HBO left and Uni right; blue represents before 2015 and green after 2015 (visualization by CPB)

Across the span from 2012 to 2021, there is a noticeable pattern indicating a preference among students and young professionals to remain within their familial abodes, particularly evident when comparing data from 2012 to 2015 (see Figure 12). Here, a surge in the category denoted as 'thuiswonend' (indicating residence with parents) can be seen, accompanied by a corresponding decline in rental accommodations.

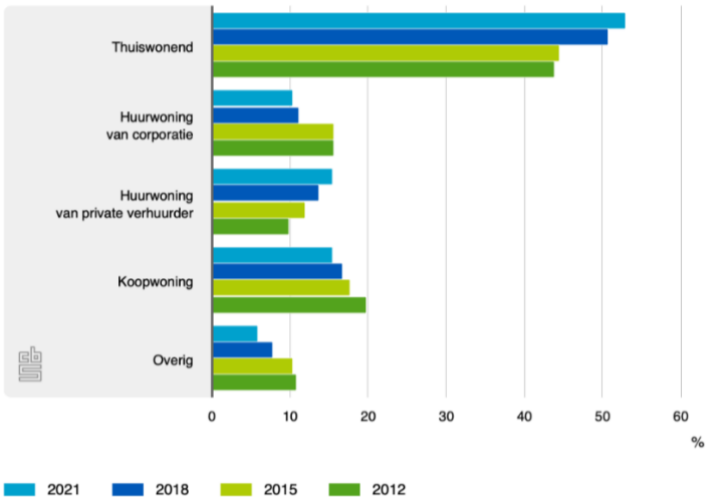


Figure 12: Living situation 18 – 30-year-old (visualization by CBS)

The share of Dutch students living away from home has fallen from 53% to 44% this year since the introduction of the loan system (2015/2016). This resulted from the National Student Housing Monitor 2023 by Kences (Kences, Kenniscentrum Studentenhuisvesting, 2023). It is

difficult to attribute the decline in student housing demand solely to the removal of the basic grant. During the years following this policy change, the Netherlands experienced a rise in the number of students, which, under normal circumstances, would likely have increased the demand for student accommodations.
However, this period also saw significant changes in the student residential landscape, including shifts in where and how students choose to live. These changes could be driven by a combination of factors such as rising housing costs, the growing scarcity of affordable options, and evolving student preferences towards staying at home or seeking alternative living arrangements. Although more students would like to live on their own. For almost half of the students living at home, affordability (48%) is the main reason for not leaving home. In addition, 20% indicate that there is no living space available.

Consequently, the interplay between the removal of the basic grant, the increasing student population, and the changing dynamics of the housing market complicates the analysis of this decline.

3.6. Conclusions

Summing up the findings from this chapter as short-term effects, beginning with the visualization of 'demography' of students. During 2011-2015, the average study debt per student was around €12.200, but from 2016 onwards, the size of the average study debt increased steadily, reaching €17.100 in 2023. The average debt of the largest group of students, aging between 20 and 25 years old, increased from €8.000 to €13.000 (+62,5%). The average debt per student has increased by 40% after 2015.

In terms of applications, there is an obvious decrease in 2015 when the base grant was removed. In the run-up to 2023-2024, a significant decrease can be seen in applications since these years mark the reintroduction of the base grant.
Most fields of study look affected by the removal of the base grant since there has been a visual decline in applications from 2015. Except the beta and law related studies, these show an ever slightly rising increase in applications.

Due to the removal of the base grant research shows the probability of students willing to leave their parental home after 2015 increased for both HBO and WO. During the period 2012 – 2021, there is an obvious shift in student housing. Little over 40% of the 18 – 30-year-olds used to live at their parental home, since 2015 this is over 50%.

To sum up, the introduction of the study loan system (2015) appears to have had an impact on fundamental decisions made by students.

Chapter 4. The longer-term effects of the student loan system

4.1. Introduction

This chapter examines the long-term effects of the introduction of the student loan system in the Netherlands in 2015, along with the significant changes made to the system over the last decade. By analysing these changes, it aims to shed light on their impact on the educational landscape and the financial well-being of Dutch students.

It may be early to assess the longer-run implications of the student loan system, and some of the impacts may become larger in the next years, but this chapter will attempt to already identify key impacts of higher student indebtedness.

Specifically, the effects of elevated average student debt on (future) home ownership and on (future) incomes are considered. In the next chapter the psychological impact of the study loan system on the mind and thinking of the persons concerned is examined.

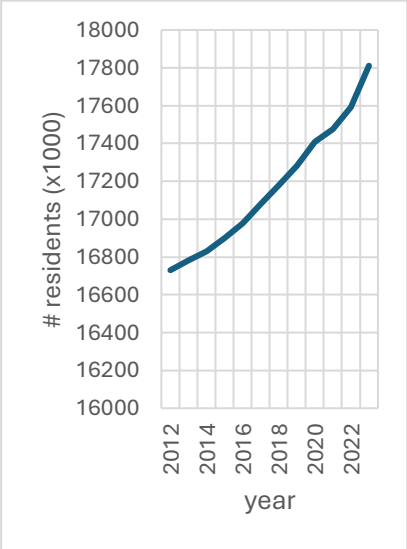


Figure 13: Population in the Netherlands (Source data: CBS)

4.2. Homeownership

In the context of students residing longer in their parental homes due to a decline in available student financing, an intriguing question arises: does this trend persist into the long term, even after these students enter the workforce and commence repayment of their student loans? Furthermore, how does this phenomenon influence their living arrangements and lifestyle choices?
Examining the broader demographic landscape of the Netherlands, one cannot ignore the steady rise in population over the past decade. This demographic shift significantly fuels the escalating demand for residential accommodations across various segments of society.

Figure 14 provides a compelling illustration of this trend, depicting a consistent upward trajectory in the overall number of residential properties. There has been a notable increase of approximately 739.000 living units in the past decade. The Dutch population has increased by more than 1,2 million persons during the same period. The average Dutch household consists of 2,1 persons. This suggests that the increase in 'living units' more or less matched the rise in the Dutch population (Housing Market, 2024).

However, in the Netherlands, there are not enough houses for everyone. And housing is expensive for many people looking for a property such as first-time buyers, low- and middle-income earners and single people. Housing costs are particularly high in the 'Randstad' (suburban) region.

This disjunction between housing supply and population expansion invariably exerts upward pressure on housing prices.

One lingering inquiry pertains to the role of the diminishing availability of the basic grant in shaping the dynamics of homeownership. Specifically, to what extent does this factor contribute to the decline in both rental properties and owner-occupied residences? Unravelling this complex interplay between educational financing policies and housing market dynamics remains paramount for understanding evolving patterns of residential living and tenure.

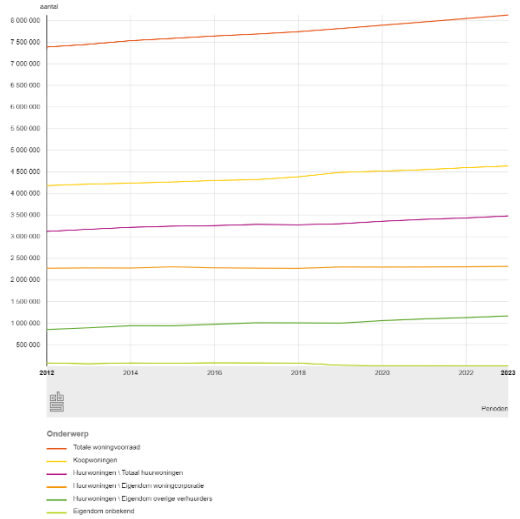


Figure 14: visualization by CBS of the number of living accommodations by sort (visualization by CBS) [for larger figure, see appendix B]

First, one needs to find out if rising prices in the housing market are the main reason for not buying a house and thus residing in the parental home. A survey conducted by the CBS indicated that most people between 25 and 30 do not have enough financial resources to buy their own house (see Figure 15).

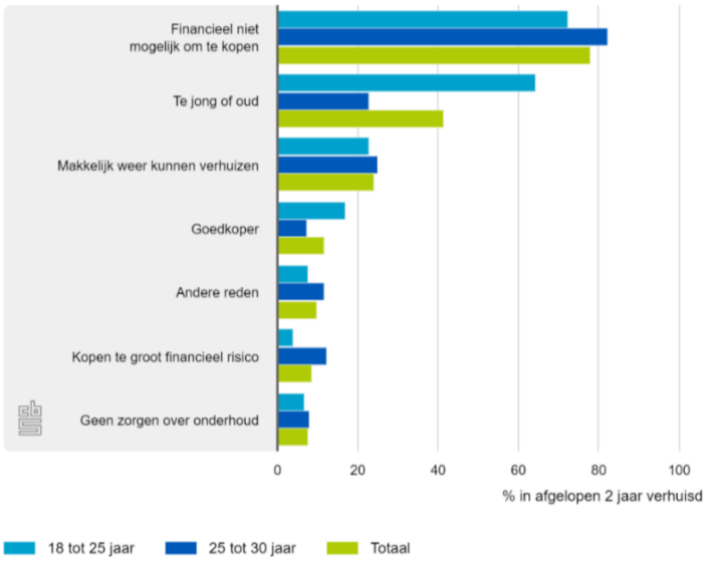


Figure 15: Reason for no home ownership (visualization by CBS)

These households indicated that it was not financially possible for them to buy were asked for the most important reasons behind this. Most said their income is too low to buy a house. Not having enough money on one's own was also cited as a reason. Compared to 2018, the group of 18- to 30-year-olds who say they do not have enough money of their own has increased, from 40 to 47 percent.
As already concluded, there is a shift in living situations in 2015. The reason in most cases is that it is financially not possible to buy or rent a house. To what extent this has been due to the change in student finance in combination with the change from the basic grant system to a student loan system, will be investigated in chapter 4.

4.3. Financial implications of the student loan system

To find out what the effect of the introduction of the student loan system is in terms of the financial situation of the (graduated) student, one first needs to understand the system that determines how a graduated student pays off his student debt.

Students who started studying after 2015 and used the student loan system, have a term of 35 years in which they have to pay a certain amount per month to pay of their debt.

This amount is called the statutory monthly amount, it is calculated as an annuity mortgage. However if someone has a salary below the minimum level stipulated by the government, then he/she has to pay an amount that is called 'ability to pay'. To determine whether one has to pay the statutory monthly amount or according to capacity, the following calculations have to be made.

$$Statutory\ monthly\ amount = \left(\frac{i_m}{1-(1+i_m)^{-n}}\right) * debt$$

$i_m = monthly\ interest\ rate\ [(1+i)^{1/12}-1]$
$n = months\ left\ to\ pay\ back\ the\ loan$

$$Ability\ to\ pay = (monthly\ salary - ability\ treshold) * 0{,}04$$

The 'ability threshold' depends on one's living situation:

- $living\ alone\ without\ kids \rightarrow ability\ treshold = minimum\ wage$
- $all\ other\ situations \rightarrow ability\ treshold = minimum\ wage * 1{,}43$

As can be seen, the statutory monthly amount only depends on the interest rate and the debt. Whereas the ability to pay only depends on one's salary.

To give an example, the following is assumed based on a report conducted by Nibud (Groen et al., 2021). With a monthly expense of around € 800 and a period of 3 years bachelor and 2 years master, the debt is around € 48.000. In this scenario the student has no own or other financial resources or is able to maintain a job due to busy study hours.

The interest rate is currently set at 2,56% by DUO, in the future this rate will change. It is very difficult to say how, this interest rate is based on the average interest rate for Dutch bonds and is determined every 5 years. As income an average salary of € 3.500 is considered (Augustus Raming 2023 (CMEV 2024), n.d.).

Student Debt = € 50.000,-
Interest rate = 2,56 % (for 35 years)
Monthly Salary = € 3.500,- (annual growth rate = 3%)

$$Statutory\ monthly\ amount = \left(\frac{(1+0{,}0256)^{1/12}-1}{1-((1+0{,}0256)^{1/12})^{-420}}\right) * 50.000 = €179{,}59$$

Only looking at the situation where one pays the statutory amount. The **green** line in Figure 16 represents the remaining student debt level after each statutory amount (monthly) repayment of € 179,59. The **blue** line is the cumulative amount paid, and the **orange** line is the cumulative amount paid in interest. To sum up, with a principal repayment of € 50.000 and an interest rate of 2,56%, the total repayment is 420 x € 179,59 = € 75427,80. Hence, in this example, the graduated student will pay € 25.427,80 as cumulative interest payments. This is quite an extra burden on top of the principal repayment.

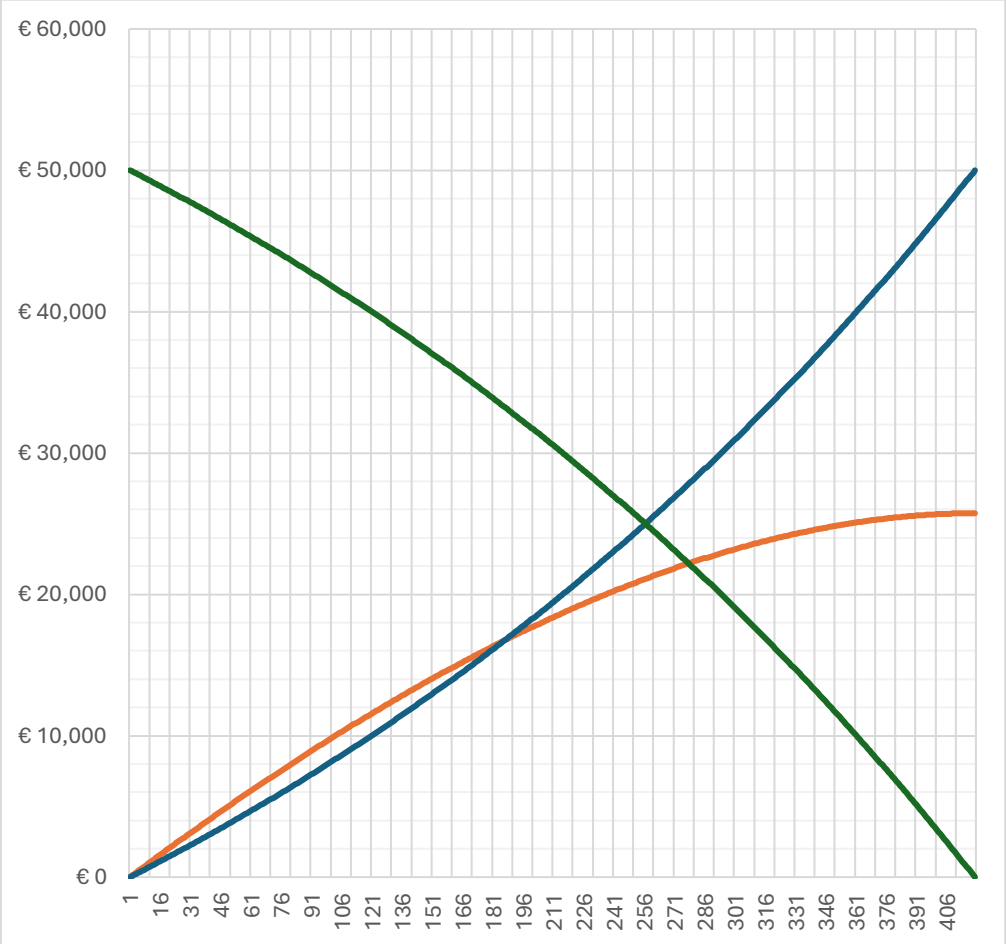


Figure 16: Hypothetical scenario of the repayment of a student loan of € 50.000 over a period of 35 years (420 months). (Source: calculated by the author with assumed input variables)

As already stated, most students start working for a salary that does not give them the ability to pay these 'high' statutory monthly amounts. Therefore, they will pay an amount based on their salary. The question that remains is if and when will one be paying the statutory amount instead of the 'ability' amount. To give an example:

$$Ability\ to\ pay = (3500 - 2069) * 0{,}04 = €57{,}22$$

With a salary of € 3.500,- one only must pay € 57,22, which is considerably lower than the statutory amount of € 179,59. For a visualization of the repayment process certain assumptions must be made. Let us assume a starting salary of 3500 euro, an annual growth of 3% for the starting salary as well as for the minimum wage (which affects the threshold of the ability-to-pay formula), an interest rate of 2,56% for the term duration of 35 years and an initial debt of 50.000 euro.

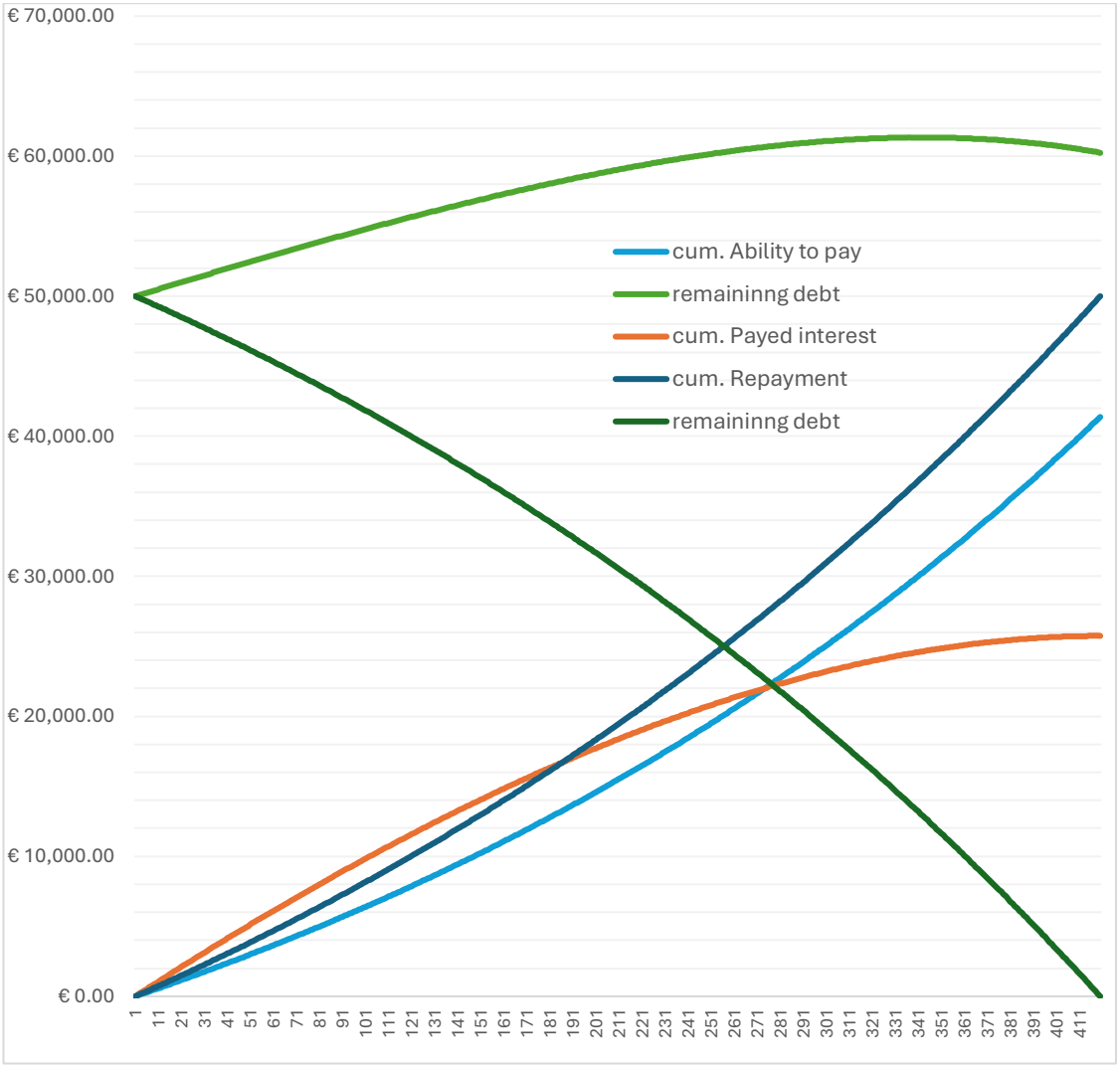


Figure 17: Repayment process of statutory- vs. ability amount (Source: calculated by the author with assumed input variables)

The most interesting aspect of Figure 17 is the light green line, which represents what happens to the debt if the previously made assumptions are in effect for term duration of 35 years. The growth is because the 'ability to pay' amount is lower than the monthly interest.

The light blue line represents the cumulative paid amount when repaying according the 'ability to pay' amount. The dark blue line and orange line represent respectively the cumulative paid debt repayment and cumulative interest repayment. The latter together obviously result in a much larger amount than the light blue line alone.

Of course there is more to it, the 'rules' of repayment change drastically when one has a fiscal partner or when the interest rate changes (note that the interest rate will be adjusted every five years). The assumption was that the fiscal partner does not have a student debt. In case of a present fiscal partner, the aggregate of both incomes is used to calculate the ability to pay. Using the same example as before this will result in the following:

Student Debt = € 50.000,-
Interest Rate = 2,56 %
Monthly Salary = € 7000,- (two times € 3.500,-)

$$Statutory\ monthly\ amount = \left(\frac{(1+0{,}0256)^{1/12}-1}{1-((1+0{,}0256)^{1/12})^{-420}}\right) * 50.000 = €179{,}59$$

$$Ability\ to\ pay = (7000 - (1{,}43 * 2069)) * 0{,}04 = €161{,}65$$

If these values are calculated for the whole period of 35 years (displayed on the x-axis in Figure 18), it is obvious that a household consisting of two fiscal partners, has a higher ability to pay. When looking at the statutory amount of 179,59, such a household will pay this in full after 5 years. Whereas a single person household will probably never pay the full amount (see Figure 18).

In the example where the interest rate is 2,56% (2024) and the debt is €50.000, one must pay almost €26.000 in interest.

However, with a current annual interest rate of 2,56% and an average inflation rate of 2 - 3% the interest is economically speaking negligible. Unless the Dutch government decides to increase the interest rate for student loans. In this scenario the statutory monthly amount will increase, and it will take longer for a household to reach the point where their ability to pay outgrows the statutory amount.

To give insight in the actual difference the base grant has in this repayment process, a comparison will be made.

Taking the input from the example before, the statutory amount can be visualised based on the student debt with its corresponding monthly amount.

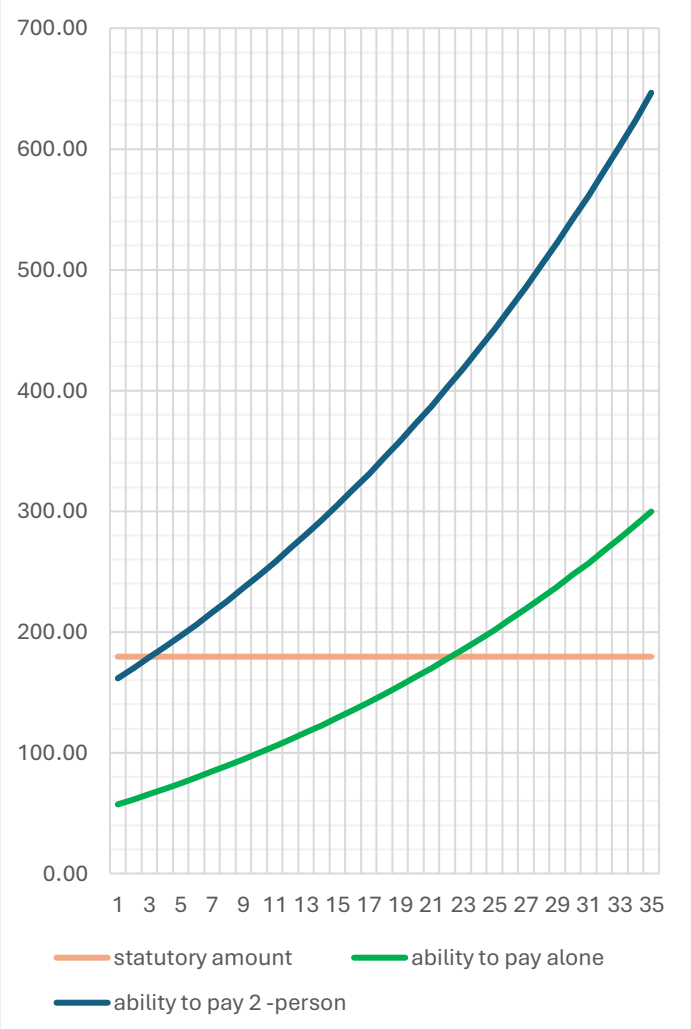


Figure 18: Ability to pay comparison, single vs 2-person household (Source: calculated by the author with assumed input variables)

Before 2015 the base grant became a gift if the student graduated within 10 years. This base grant, being over €13.000, will be gifted and can be subtracted from the 'debt amount' when calculating the monthly statutory amount. An obvious difference of over €50 per month can be derived from Figure 19. With an income of €3500 per month the relative impact will be between 1,43% and 1,71%.

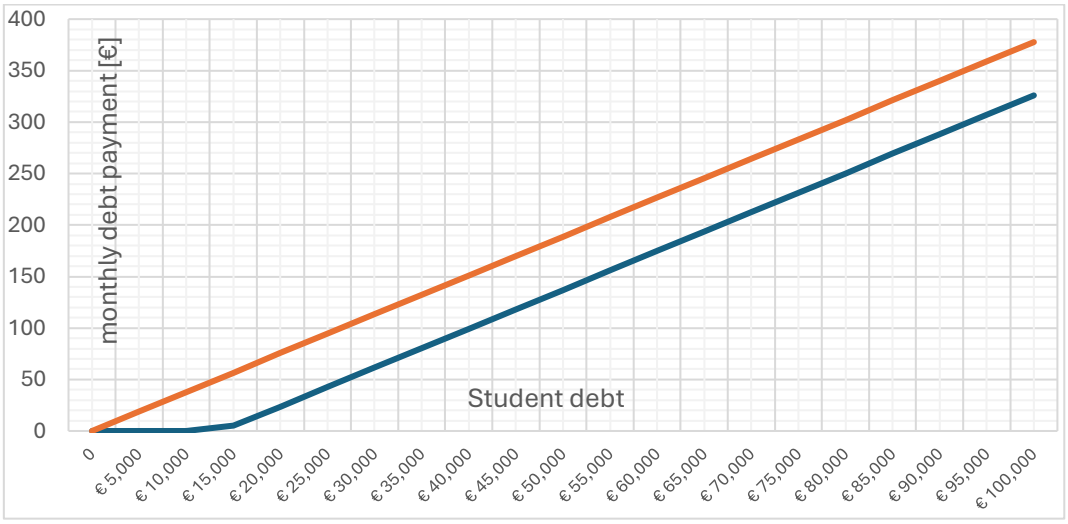


Figure 19: Base grant eventually gifted (blue) and base grant as a loan (orange) (Source: calculated by the author with assumed input variables)

Taking all the previous parameters into account with an initial debt of € 50.000, the difference in the repayment process results in € 33.897,6 (single household) and € 504,8 (dual household) compared to the statutory aggregate amount (see figure 18). So, a single person household will pay back (in this situation) around 55%, whereas a dual household pays back almost in full.

With this information one can determine a salary that can be seen as a border between higher earning households that will pay according to the statutory amount and lower earning households where one will pay according to the ability to pay. In other words, when is the ability to pay exactly the statutory amount (€ 179,59)?
For a one-person household:

$$Ability\ to\ pay = € 179{,}59 = (x - 2069)) * 0{,}04$$
$$x = (€ 179{,}59/0{,}04) + 2069 = € 6558{,}75$$

For a two-person household:

$$Ability\ to\ pay = € 179{,}59 = (x - (1{,}43 * 2069)) * 0{,}04$$
$$x = (€ 179{,}59/0{,}04) + (1{,}43 * 2069) = € 7448{,}45$$

For visualisation, these salaries follow the orange line in figure 18. If a household starts on this salary, it will pay 100% of the € 50.000 student debt with the additional interest amount.

As can be seen in Figure 20, the majority of younger (25 – 30 years old) households consists of one-person households. As people grow older their living situation changes more often to a larger household.

So, the government will collect most of its outstanding student debts. But due to its 'low' interest rate that matches, or is even lower, than the inflation rate, this part that a graduated student has to pay will not be paid back since its economically negligibility.

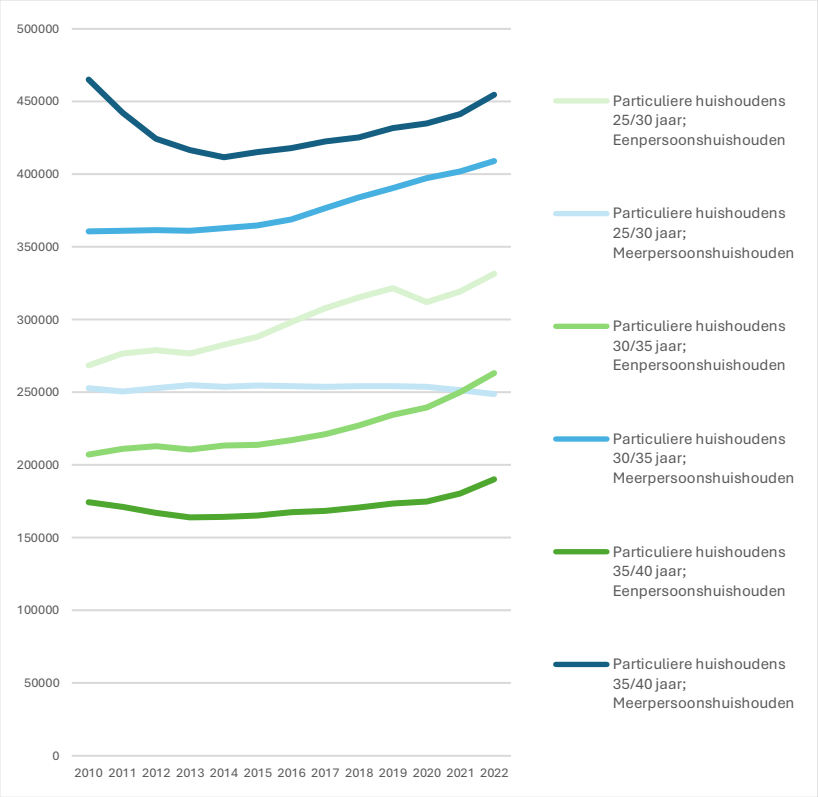


Figure 20: Household composition 18–30-year-olds (visualization by CBS)

4.4. Financial effect of the basic grant on mortgage attainability

An unintended effect was the influence of one's debt on their mortgage attainability. These days, before a bank determines how high one's mortgage can be, they check if that individual has other loans or debts (a student debt is also taken into account).

Based on the example from before, with an initial debt of €50.000 one can get different mortgages at different banks (see Figure 21). With this analysis one can determine what the influence of the base grant is in mortgage attainability.

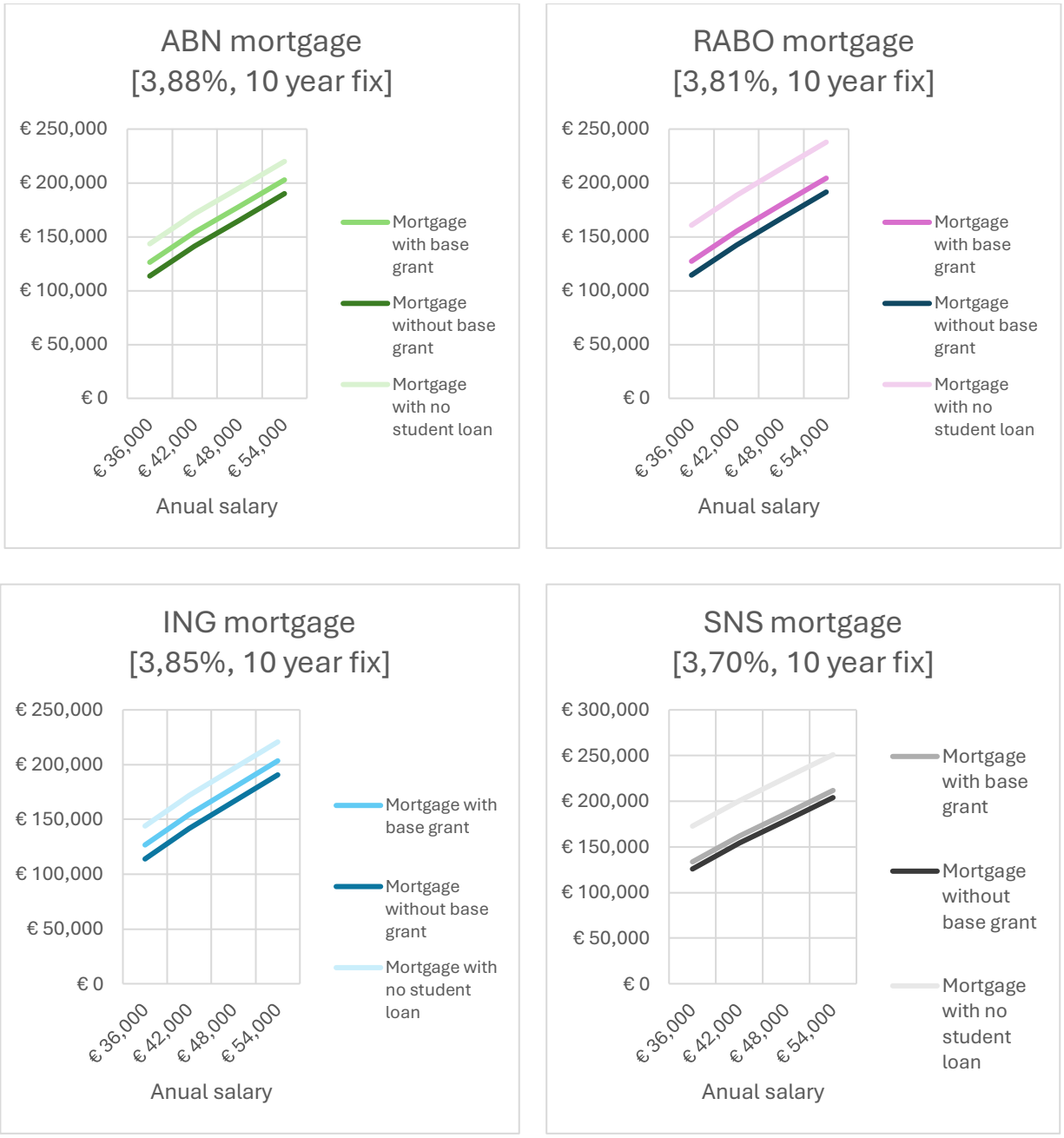


Figure 21: Mortgage attainability at four different major banks with an initial debt of €50.000 (Source: calculated by the author with assumed input variables)

Interesting is the influence of having received the base grant or no student finance at all versus a mortgage without base grant is different for every bank. This influence is due to the difference in interest rates among these observed banks.
The influence of the base grant in obtaining a mortgage at the four major banks (see Figure 21) in the Netherlands ABN, RABO, ING and SNS is almost €13.000. Percentagewise, this has more influence when one has a lower annual salary due to a lower mortgage.

Obviously, the annual income is not the only factor that affects one's mortgage. The height of the debt is another very important influence. In the previous analysis the student debt was a fixed number, in the analysis below the debt will be variable and examined for every annual salary.

Figure 22 presents a comparative analysis of the maximum attainable mortgage offered by the same four major banks, segmented across different income levels. This figure illustrates how mortgage limits vary depending on the borrower's income. The data visualised in Figure 22 was sourced directly from the publicly available information on these banks' official websites. Specifically, the collected data on mortgage lending criteria, such as income requirements, interest rates, and maximum loan-to-value ratios, as advertised by each bank. This approach ensures that the information reflects the latest policies and terms as provided by the banks themselves. By examining these variations, the figure aims to highlight the differences in lending capacity on various income levels in combination with various debt levels.

Locking in the following variables:

Interest rate:	2,56%
Duration:	35 years

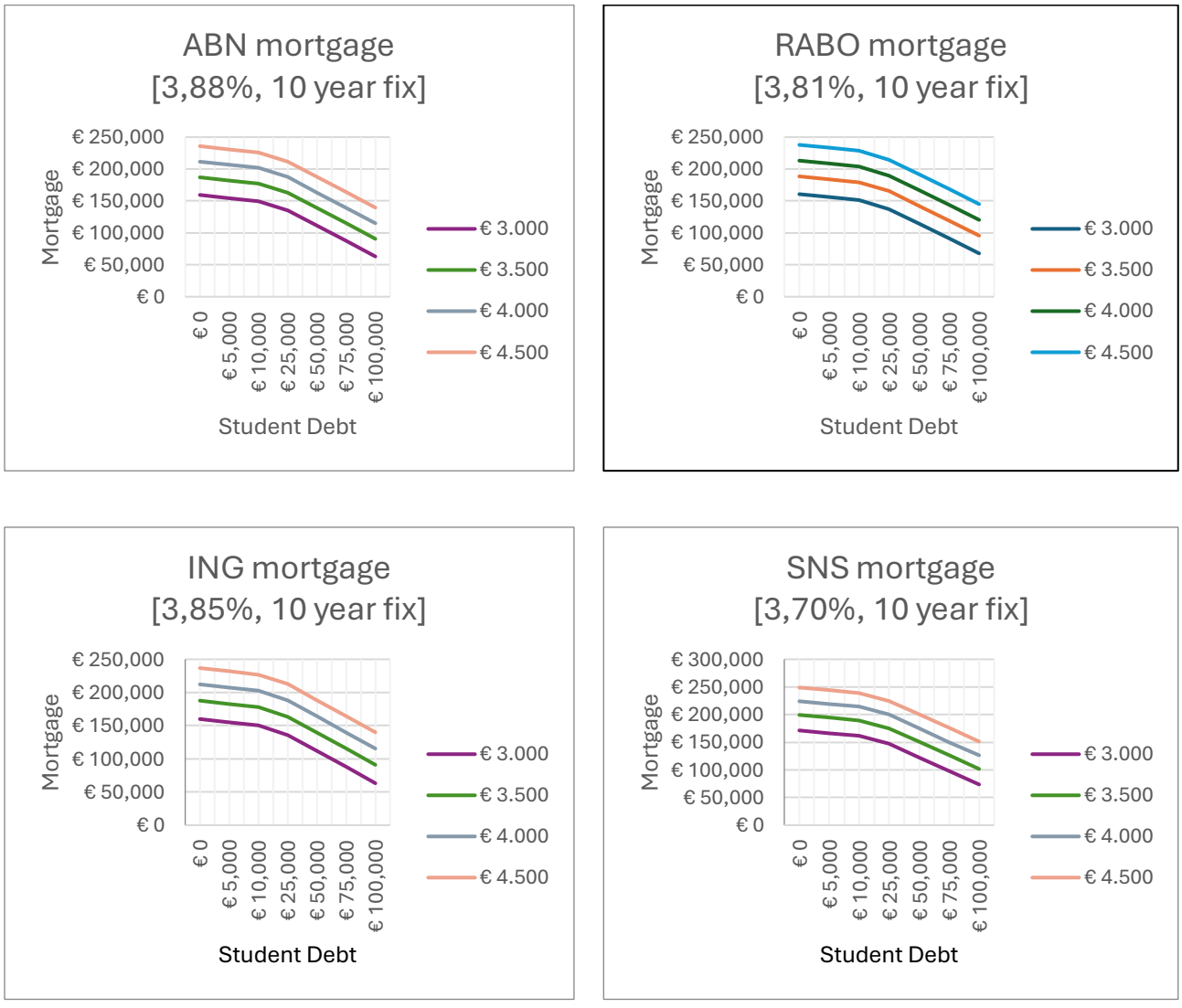


Figure 22: Mortgage attainability per annual income with variation in student debt and for 4 different income levels (€3000, €3500, €4000 and €4500 per month) (Source: calculated by the author with assumed input variables)

4.5. Conclusions

Referring to Figure 22, one can observe that a single-person household has the potential to secure a mortgage amounting to almost €250,000, provided they meet the most favourable conditions. This figure, however, must be contextualised within the financial realities faced by most recent graduates and young professionals.

Graduates from HBO (Higher Professional Education) and WO (University Education) programs typically enter the job market with a starting salary in the range of €3.000 to €3.500 per month (Researchcentrum voor Onderwijs en Arbeidsmarkt van Maastricht University [ROA], 2024). While this starting income seems substantial, it is important to also consider the average student debt burden they carry, which stands at approximately €17.100 as reported by the CBS (Centraal Bureau voor de Statistiek, 2023).

When these financial factors are considered, the mortgage amount that a single individual can realistically obtain falls between €150.000 and €200.000. This estimation takes into consideration the typical loan-to-income ratios used by lenders, which are influenced by the borrower's debt levels and disposable income.

Noticable is the non-lineair conncetion between the mortgage (amount) and student debt, especially when one has a larger debt than € 25.000. From this point a steeper curve is visible, this indicates that larger student debts have increasingly more trouble obtaining a substantial mortgage.

In stark contrast to these figures, the average price of a typical house in 2023 was significantly higher, at € 418.000, according to data (Centraal Bureau voor de Statistiek, 2024). This discrepancy highlights a critical issue in the housing market. The substantial gap between what young professionals can borrow and the actual cost of purchasing a home creates a significant barrier to homeownership for single-person households.

Even with the assistance of a base grant, which aims to provide some financial relief, affording a home remains an extraordinarily difficult challenge for individuals in this demographic. The presence of the base grant somewhat alleviates the financial strain, but without it, the prospects of buying a home become even bleaker.

To summarise, the financial landscape for single-person households, especially those who are recent graduates or early in their careers, is characterised by a significant mismatch between available mortgage financing and the high cost of housing. This situation underscores the pressing need for more comprehensive solutions to address housing affordability, particularly for young professionals striving to achieve homeownership.

Chapter 5. Psychological impact of student debt

This chapter will discuss the effects student debt can have based on conducted research and on answers from a questionnaire (See Appendix C). The evidence is based on a trial survey and must be considered as explorative. The questionnaire explores the psychological outcomes associated with student debt, focusing on stress and mental health during student life and the prioritization of salary in job selection by graduates.

5.1.

According to some the “the termination of the basic grant was a solution to a problem that did not exist. But this termination has caused real problems. Students are saddled with enormous student debt and the accessibility of education has not improved” (DPG Media Privacy Gate, z.d.).
Student finance, particularly in the form of student loans, has become an essential part of higher education funding for many students. While it provides the necessary financial support to pursue education, the burden of student debt carries significant psychological implications that affect student life and post-graduation decisions.
One of the most immediate psychological effects of student loans is financial stress. Students often worry about accumulating debt, which can lead to chronic anxiety (Qian & Fan, 2021). The constant need to manage finances, coupled with the looming thought of repayment, creates a stressful environment that can hinder academic performance and overall well-being. Persistent financial stress is strongly linked to mental health problems, including depression and anxiety disorders. Studies have shown that students with higher debt levels report more significant levels of stress and mental health issues (Deckard et al., 2021). The pressure to balance academic responsibilities with financial concerns can exacerbate feelings of inadequacy and hopelessness.

The stress of managing finances and worrying about debt can take a toll on cognitive resources (APA PsycNet, z.d.), reducing students' ability to focus and perform academically. This cognitive load can lead to poorer academic outcomes, creating a vicious cycle where financial stress impacts grades, and poor academic performance, in turn, increases financial worry. Additionally, financial constraints often limit students' ability to engage in social activities, leading to isolation and decreased social support. The inability to participate in extracurricular activities or social events can result in feelings of alienation and lower life satisfaction. Students might also make significant lifestyle sacrifices to manage their finances, such as taking on part-time jobs, cutting down on essential needs, or foregoing beneficial opportunities like internships. These sacrifices can negatively impact their educational experience and personal growth.

Graduates with significant student debt are more likely to prioritise salary when selecting their first job (Häusler Ruiz, 2021). The immediate need to start repaying loans creates a sense of urgency to secure high-paying positions, often overshadowing other job attributes like passion, work-life balance, or company culture. These needs to manage debt can lead graduates to adopt a short-term focus in their career choices, prioritizing jobs that offer immediate financial rewards over those that might provide better long-term growth and

satisfaction. This can limit their moral ambitions (Bregman, 2024) and potential for future success.

In their quest to secure high-paying jobs, graduates may accept positions that do not align with their interests or career aspirations. This misalignment can lead to job dissatisfaction, reduced motivation, and higher turnover rates. The pressure to prioritise salary can lead to employment in high-stress environments or roles that do not match the individual's skills and preferences. This can exacerbate stress and negatively affect mental health, perpetuating the cycle of anxiety that began during their student years. The need to address immediate financial concerns can cause graduates to delay pursuing roles that align with their long-term career goals. This delay can hinder professional growth and the accumulation of relevant experience, impacting their career trajectory. By focusing on salary, graduates might miss out on opportunities that offer other valuable benefits such as professional development, mentorship, and networking, which are crucial for long-term career success.

In conclusion, the psychological outcomes of student finance extend far beyond the immediate financial strain, influencing both student life and post-graduation career decisions. The stress and anxiety associated with student debt can significantly impact academic performance, mental health, and social participation during university years. Post-graduation, the imperative to repay loans forces many graduates to prioritise salary over other job attributes, potentially compromising job satisfaction and long-term career goals.

To test these findings in real life, a questionnaire was used for validation. While the sample size of respondents is small and additional data is needed to fully confirm the trends, the general findings provide valuable insights into the priorities of participants. The results confirmed the importance of the factors identified in the initial analysis. The most significant factor for respondents is maintaining a good work-life balance, followed by the social impact of a company's mission. Working according to contract, without overtime, is crucial for many, as it allows them to have enough free time to pursue personal interests and recharge.

Several respondents elaborated on their preferences. One participant stated, "Work-life balance would be very important for me. I would not be willing to work 70 hours while having a 40-hour contract. Having enough free time takes precedence over a high salary, for instance (although that is also very important)." This highlights the widespread desire for boundaries between work and personal life, even when financial rewards are tempting. Others expressed a strong aversion to being consumed by their jobs, emphasizing the need for personal time and balance. As one individual put it, "Some people are consumed by their job, something that will not happen to myself. However, I would be willing to give up a very high salary to work a 'dream' job with a nice (sustainable/good, etc.) mission." This underscores the value people place on meaningful work, where personal and ethical alignment with a company's goals can outweigh even substantial financial incentives. Another important factor for some respondents was the presence of growth and development opportunities. One person noted, "A job with many learning opportunities where a fair salary is guaranteed," indicating that the chance to acquire new skills and advance professionally is a key component of job satisfaction, provided the compensation is equitable.

Overall, the feedback highlights that while salary remains an important consideration, other factors such as work-life balance, social impact, and opportunities for personal growth are central to employee satisfaction and career choices.

Chapter 6. Conclusion

In this chapter the findings will be summarised and linked with conclusions, which will answer the research questions from chapter 1.

6.1. The success or failure of student finance

The removal of the base grant was meant to 'level the playing field' for all student (regardless of their parents' income). Also, the money that was saved due to this removal was meant to improve the quality of the Dutch education. In the new system every student must borrow their needed funds, unless your parents have lower incomes. In the run-up to 2015 funds were tight and the education system could use some financial injections. This ensured that certain savings had to be made, starting with the base grant.

To determine if this new 'system' has failed or succeeded, one must check if there was a so-called 'level playing field' among students. This can be linked to the numbers in annual applications and graduates. Investigating how student finance and governmental support programs contribute to increasing access to higher education among different socio-economic groups. This involves analysing enrolment patterns and identifying any disparities in educational opportunities. This concerns the research question:

"How do student finance and governmental support programs impact enrolment patterns in higher education among different socio-economic groups?" [chapter 3.2 & 3.3]

In 2015 there was a decrease in students that went directly from HAVO to HBO or VWO to WO due to the removal of the base grant. Through the years, applications per field of study have not changed drastically. Bèta study applications have increased slightly, alpha have decreased. After the announcement that the base grant would return in 2023/2024, a large group of students took a gap year to ensure their study would start in the corresponding year.

The significant shifts in student enrolment patterns underscore the profound influence of student finance policies on educational decisions. Beyond affecting immediate educational choices, these financial factors also play a crucial role in shaping the long-term economic well-being of graduates. Examining the long-term impact of student finance on wealth accumulation among recipients includes assessing factors such as homeownership, investments, and other assets to gauge the broader economic implications. Hence the question:

"What is the long-term impact of student finance on wealth accumulation among recipients, considering factors such as homeownership, investments, and other assets?" [Chapter 3.1]

Between 2015 and 2019, student debt for individuals aged 20-25 surged by 62,5%, while those aged 25-30 saw a 37,5% increase. The elimination of the base grant and subsequent need to borrow more have led to students incurring an additional €50 monthly expense, amounting to 1,46% of an average annual starting salary of €3500.

Over a standard 35-year repayment period, with current interest rates set at 2,56%, the cumulative repayment amount reaches approximately €21.000. This financial burden constrains the ability of graduates to save for down payments, invest in stocks or retirement funds, and accumulate other assets, thus delaying or reducing their overall wealth accumulation. These findings underscore the broader economic implications of student finance policies, highlighting the need for reforms to alleviate the long-term financial strain on graduates. When answering the following question, this thesis looked at the short- and long-term effects of the student finance:

"To what extent does receiving student finance influence subsequent income levels, and does it contribute to reducing income inequality?" [Chapter 4.3 & 4.4]

Between receiving student finance and subsequent income levels, with a focus on understanding whether these initiatives help reduce income inequality Then the (unintended) long-term effects of the new system. Buying a house as a starter has become increasingly difficult due to the repayment of the debt, as well as its inclusion in the mortgage determination. The more one is/was dependent of student finance, the higher this person's student debt will be in the end. The analysis in this thesis shows a linear connection (between student debt and maximum attainable mortgage) until debts become higher than €25.000. Higher debts will have increasingly more trouble obtaining a mortgage.

This thesis also explored the impact of student financial aid on social mobility, it involved determining if such financial support enables individuals from lower socio-economic backgrounds to significantly improve their social and economic positions. This examination considers whether access to educational funding helps break the cycle of poverty, providing opportunities for higher education and better career prospects. Ultimately, it assesses if financial assistance for students can lead to long-term benefits, such as higher income, improved living standards, and greater social inclusion for individuals who might otherwise be unable to afford the costs of higher education.

Investigating whether student finance contributes to upward social mobility, enabling individuals from lower socio-economic backgrounds to improve their social and economic standing.

"Does student finance contribute significantly to upward social mobility, particularly for individuals from lower socio-economic backgrounds?" [Chapter 1]

For students from a lower socio-economic background there still is a 'safety net'. Concerning students who resided at their parental home before 2015, if the aggregate parental income is below €36.000, they received a base grant of roughly €350 per month. After 2015, if the aggregate parental income is below €32.500, they received €350 per month. To sum up, if the aggregate income was below €32.500 one will receive more after 2015 (above €32.500 one will receive less). In conclusion, one must first determine the limit in salary for 'lower' socio-economic backgrounds. If this limit is above €32.500, students from lower socio-economic backgrounds have to borrow more and end up with a higher student debt. In the long-term, this results in a lower mortgage attainability.

What the base grant's impact was on student housing has been implemented in the following research question:

"How does student finance address regional disparities in access to education and economic opportunities, taking into account the diversity of regions within the Netherlands?" [Chapter 3.4 & 4.2]

Student finance programs in the Netherlands aim to provide financial support to all students, ensuring that those from less affluent regions can afford higher education, thus promoting equal opportunities across different regions.

Recent trends indicate significant changes in the residential choices of students pursuing HBO (higher professional education) and WO (university education). Before 2015, fewer than 20% of university students lived at their parental homes while studying, but this percentage has now increased to roughly 40%. Also, 50% of HBO students used to live at their parental home. After 2015, this percentage increased to 65%.

This shift can be attributed to several factors, including the rising cost of living in university cities, the availability of online learning resources, and the financial constraints faced by students and their families. Living costs vary significantly across the Netherlands, with major university cities such as Amsterdam, Utrecht, and Rotterdam being more expensive.

Student finance programs help mitigate these cost differences by providing sufficient funds to cover not just tuition but also living expenses, enabling students from less affluent regions to study in more expensive cities if they choose to. Access to higher education is a crucial factor in determining future economic opportunities. By ensuring that students from all regions can access education without financial hindrances, student finance programs help build a more skilled and educated workforce across the country, leading to more evenly distributed economic development and opportunities, and reducing economic disparities between different regions.

Assessing the effectiveness of current student finance policies in achieving their intended goals and identifying potential areas for improvement. This involves a critical evaluation of the existing framework to inform evidence-based policy recommendations.

"To what extent are student finance policies effective in achieving their intended goals, and what specific areas within the existing framework could be improved to enhance policy effectiveness? "[Chapter 5]

For this question it is best to look at the side effects this particular policy has and had. The effectiveness of the policies regarding student finance, particularly those centred on student loans, is significantly undermined by the psychological and socio-economic burdens they impose on students and graduates. While these policies aim to make education accessible by providing financial support, they often lead to high levels of debt, which contribute to persistent financial stress, anxiety, and mental health issues during and after university. This financial strain not only affects academic performance and social engagement but also forces graduates to prioritise immediate financial stability over long-term career aspirations, leading

to job dissatisfaction and potential misalignment with personal and professional goals. To enhance the effectiveness of student finance policies, it is crucial to address these unintended consequences by exploring alternatives that reduce debt burdens and support student well-being, ultimately aligning financial support with the broader goals of higher education accessibility and student success.

6.2. Recommendations & Reflection

- Assessing the Impact of the Reintroduction of the Base Grant

To determine whether the decrease in student applications leading up to the 2023-2024 academic year is truly due to the reintroduction of the base grant, it is essential to analyse application trends over a longer period. Specifically, one should examine the graph of indirect applications (those submitted after one or more years of initial eligibility) for both HBO (higher professional education) and WO (university education). By comparing these trends, it will be possible to identify whether the base grant's reintroduction has had a delayed but positive impact on student enrolment. This analysis should include a robust data set that captures multiple cohorts of students, accounting for variables such as changes in economic conditions and policy adjustments.

- Evaluating Fairness in the Repayment Process for Two-Person Households

The current repayment process for student loans should be scrutinised to ensure it is fair towards two-person households. Typically, these households have two individual student debts but are assessed based on their combined household income, which often results in a higher perceived ability to pay. This method may place an undue financial burden on such households, potentially affecting their overall economic stability. A more equitable approach would involve reassessing repayment terms to reflect individual incomes within a household, rather than combining incomes, to avoid disproportionately high repayment expectations. Policy adjustments should consider a sliding scale that takes into account the number of debt holders and their respective contributions to the household income.

- Monitoring and Adjusting Interest Rates on Student Debts

Interest rates on student debts can significantly influence the financial burden on graduates. Regular monitoring of these rates is crucial, especially in response to changes in economic conditions. The government should establish a transparent mechanism for adjusting interest rates on student loans that considers inflation, employment rates, and overall economic growth. Providing clear communication about how and why interest rates are adjusted will help students and graduates plan their finances more effectively. Additionally, offering fixed-rate options or interest rate caps could protect borrowers from sudden and steep increases in repayment costs, contributing to a more stable and predictable repayment environment.

- Compensation measures by the Dutch government

In December 2021 the Dutch government announced that 1 billion euro will be spent as compensation for the students that started studying between 2015 and 2022 (Landelijke Studentenvakbond (LSVb), 2021). In other words, students that did not receive the base grant. The compensation consisted of the following:

- € 1640 for student that studied for four years.
- € 410 for students that studied one year under the loan ‘system’.

In perspective, the average student debt is € 17.100, students that make a claim on this compensation see a decrease in their student debt of around 10%. To investigate if and what the real impact of this compensation eventually is, extra research has to be conducted.

- 35-year vs. 15-year payback plan

In this research only the 35-year payback-plan is considered, a 15-year plan is available for students who received the base grant but also studied in the 2015 – 2022 period. Since the 35-year plan is the only available payback-plan these days, it could be interesting to investigate both payback plans.

References

APA PsycNet. (z.d.). https://psycnet.apa.org/buy/2020-12487-001

Bénabou, R. (2000). Unequal societies: income distribution and the social contract. *The American Economic Review*, *90*(1), 96–129. https://doi.org/10.1257/aer.90.1.96

Bolhaar, J., Kuijpers, S., Webbink, D., & Zumbuehl, M. (2023). Does replacing grants by income-contingent loans harm enrolment? Retrieved from Centraal Planbureau website: https://www.cpb.nl/vermindert-het-vervangen-van-studiebeurzen-door-een-sociaal-leenstelsel-de-onderwijsinschrijvingen

Bolhaar, J., Kuijpers, S., & Zumbuehl, M. (2020). Effect Wet studievoorschot op toegankelijkheid en leengedrag. Retrieved from Centraal Planbureau website: https://www.cpb.nl/sites/default/files/omnidownload/CPB-Policy-Brief-Effect-Wet-studievoorschot-op-toegankelijkheid-en-leengedrag.pdf

Bregman, R. (2024). Morele ambitie: Stop met het verspillen van je talent en maak werk van je idealen.

Britton, J., Van der Erve, L., & Higgins, T. (2019). Income contingent student loan design: Lessons from around the world. Economics of Education Review, 71, 65-82. Doi: 10.1016/j.econedurev.2018.06.001

Centraal Bureau voor de Statistiek. (2022, 14 september). Studieschuld blijft toenemen. *Centraal Bureau voor de Statistiek*. https://www.cbs.nl/nl-nl/nieuws/2022/37/studieschuld-blijft-toenemen#:~:text=Totale%20studieschuld%20opgelopen%20naar%20bijna,opzichte%20van%20het%20jaar%20ervoor.

Centraal Bureau voor de Statistiek. (2023, October 9). Studieschuld opgelopen tot 28 miljard euro. Centraal Bureau Voor De Statistiek. https://www.cbs.nl/nl-nl/nieuws/2023/41/studieschuld-opgelopen-tot-28-miljard-euro#:~:text=Jongeren%20tot%2020%20jaar%20hadden,was%2013%2C9%20duizend%20euro

Centraal Bureau voor de Statistiek. (2024, 6 november). Woningmarkt. Centraal Bureau Voor de Statistiek. https://www.cbs.nl/nl-nl/visualisaties/dashboard-economie/woningmarkt#:~:text=Hoeveel%20kost%20een%20koopwoning%20gemiddeld,Pekela%20met%20216%20duizend%20euro.

Cohen, D., & Soto, M. (2007). Growth and human capital: good data, good results. *Journal of Economic Growth*, *12*(1), 51–76. https://doi.org/10.1007/s10887-007-9011-5

Deckard, F. M., Goosby, B. J., & Cheadle, J. E. (2021). Debt Stress, College Stress: Implications for Black and Latinx Students' Mental Health. Race And Social Problems, 14(3), 238–253. https://doi.org/10.1007/s12552-021-09346-z

DPG Media Privacy Gate. (z.d.). https://www.ad.nl/opinie/afschaffing-basisbeurs-was-nergens-goed-voor~a41c4348/?referrer=https%3A%2F%2Fwww.google.com%2F#:~:text=In%202014%20werd%20de%20basisbeurs,een%20goede%20baan%20mee%20kregen.

Francis, B., Mills, M., & Lupton, R. (2017). Towards Social Justice in Education: Contradictions and Dilemmas. *Journal of Education Policy*, *32*(4), 414–431. https://doi.org/10.1080/02680939.2016.1276218

Groen, A., Houtsma, N., & Nibud. (2021). Nibud Studentenonderzoek 2021. In *Nibud Studentenonderzoek 2021* [Report]. https://userfiles.mailswitch.nl/files/1117-f5ef462d753e6bfaf5316df7a8b1895c.pdf

Hällsten, Martin; Thaning, Max (2018). Wealth vs. education, occupation and income – unique and overlapping influences of SES in intergenerational transmissions. The Department of Sociology Working Paper Series. Preprint. https://doi.org/10.17045/sthlmuni.7302143.v1

Häusler Ruiz, S. (2021). What do master students find important when selecting their post-graduate job in The Netherlands? In Erasmus University Rotterdam & Erasmus School of Economics, Bachelor Thesis: International Bachelor Of Economics And Business Economics.

Housing market (Door De Nederlandsche Bank [DNB]). (2024, 3 juni). DNB.nl. Geraadpleegd op 22 juli 2024, van https://www.dnb.nl/en/current-economic-issues/housing-market/

Jonbekova, D. (2023). Government Scholarships for international Higher Education: Pathways for Social Change in Kazakhstan. *Higher Education*. https://doi.org/10.1007/s10734-023-01034-8

James, E. (1984). Benefits and costs of privatized public services: Lessons from the Dutch Educational system. *Comparative Education Review*, *28*(4), 605–624. https://doi.org/10.1086/446470

Kences, Kenniscentrum Studentenhuisvesting. (2023, September 7). *Nederlandse student steeds minder vaak op kamers - Kences*. Kences. https://www.kences.nl/nieuws/nederlandse-student-steeds-minder-vaak-op-kamers/

Kuijpers, S., Zumbuehl, M., Leijen, S., & Nielen, T. (2020, mei). *Eerste effecten invoering Wet studievoorschot*. Centraal Bureau voor de Statistiek. https://www.cpb.nl/sites/default/files/omnidownload/CPB-Achtergronddocument-Eerste effecten-invoering-Wet-studievoorschot-mei2020.pdf

Kim, H. (2022). Education, wage dynamics, and wealth inequality. *Review of Economic Dynamics*, *43*, 217–240. https://doi.org/10.1016/j.red.2021.02.006

Kirkcaldy, B., Furnham, A., & Siefen, G. (2004). The relationship between Health Efficacy, Educational Attainment, and Well-Being among 30 nations. *European Psychologist*, *9*(2), 107–119. https://doi.org/10.1027/1016-9040.9.2.107

Landelijke Studentenvakbond (LSVb). (2021, 23 december). *Compensatie | Landelijke Studentenvakbond*. Landelijke Studentenvakbond. https://lsvb.nl/standpunten/compensatie/#:~:text=E%C3%A9n%20van%20de%20eisen%3A%20er,ongeveer%201.000%20euro%20per%20student.

Net. (2021, November 9). Met deze studies verdien je het meeste (of het minste). EWmagazine.nl. https://www.ewmagazine.nl/kennis/achtergrond/2021/11/met-deze-studies-verdien-je-het-meeste-of-het-minste-854658/

Landry, L. G., & Neubauer, D. E. (2015). The role of the government in providing access to higher education: the case of government-sponsored financial aid in the US. *Journal of Education and Work*. https://doi.org/10.1080/13639080.2015.1049027

Plank, D., & Davis, T. (2020). The economic role of the state in education. In Elsevier eBooks (pp. 445–454). https://doi.org/10.1016/b978-0-12-815391-8.00032-x

Piketty, T. (2020). Capital and ideology. In Harvard University Press eBooks. https://doi.org/10.4159/9780674245075

Qian, Y., & Fan, W. (2021). Student loans, mental health, and substance use: A gender comparison among US young adults. Journal Of American College Health, 71(3), 930–941. https://doi.org/10.1080/07448481.2021.1909046

Researchcentrum voor Onderwijs en Arbeidsmarkt van Maastricht University [ROA]. (2024). HBO-Monitor 2023: De arbeidsmarktpositie van HBO-afgestudeerden. In HBOmonitor.nl. Vereniging Hogescholen. Retrieved July 23, 2024, from https://verhog-p-1.mangrove.net/system/knowledge_base/attachments/files/000/001/477/original/Factsheet_HBO-Monitor_2023_VH_20240402.pdf?1712311405

Student finance: Eligibility - DUO. (n.d.). duo.nl. https://duo.nl/particulier/student-finance/eligibility.jsp

Van den Berg, L. & Van Gaalen, R. (2021). Hoe vergaat het studenten in het leenstelsel? Centraal Bureau voor de Statistiek. Retrieved from Centraal Bureau voor de Statistiek website: https://www.cbs.nl/nl-nl/longread/statistische-trends/2021/hoe-vergaat-het-studenten-in-het-leenstelsel-

Wet studievoorschot hoger onderwijs (34.035). (n.d.). Eerste Kamer Der Staten-Generaal. https://www.eerstekamer.nl/wetsvoorstel/34035_wet_studievoorschot_hoger?df1=vgi8gqaw8fs6.

Wilkinson, R. (2005). *Aiding students, buying students: Financial Aid in America*. Vanderbilt University Press.

11. STUDIEFINANCIERING | Ministerie van Financiën - Rijksoverheid. (n.d.). https://www.rijksfinancien.nl/memorie-van-toelichting/2016/OWB/VIII/onderdeel/d16e30289#

Zapfe, L., & Groß, C. (2021). How do characteristics of educational systems shape educational inequalities? Results from a systematic review. *International Journal of Educational Research*, *109*, 101837. https://doi.org/10.1016/j.ijer.2021.101837

Appendices

Appendix A

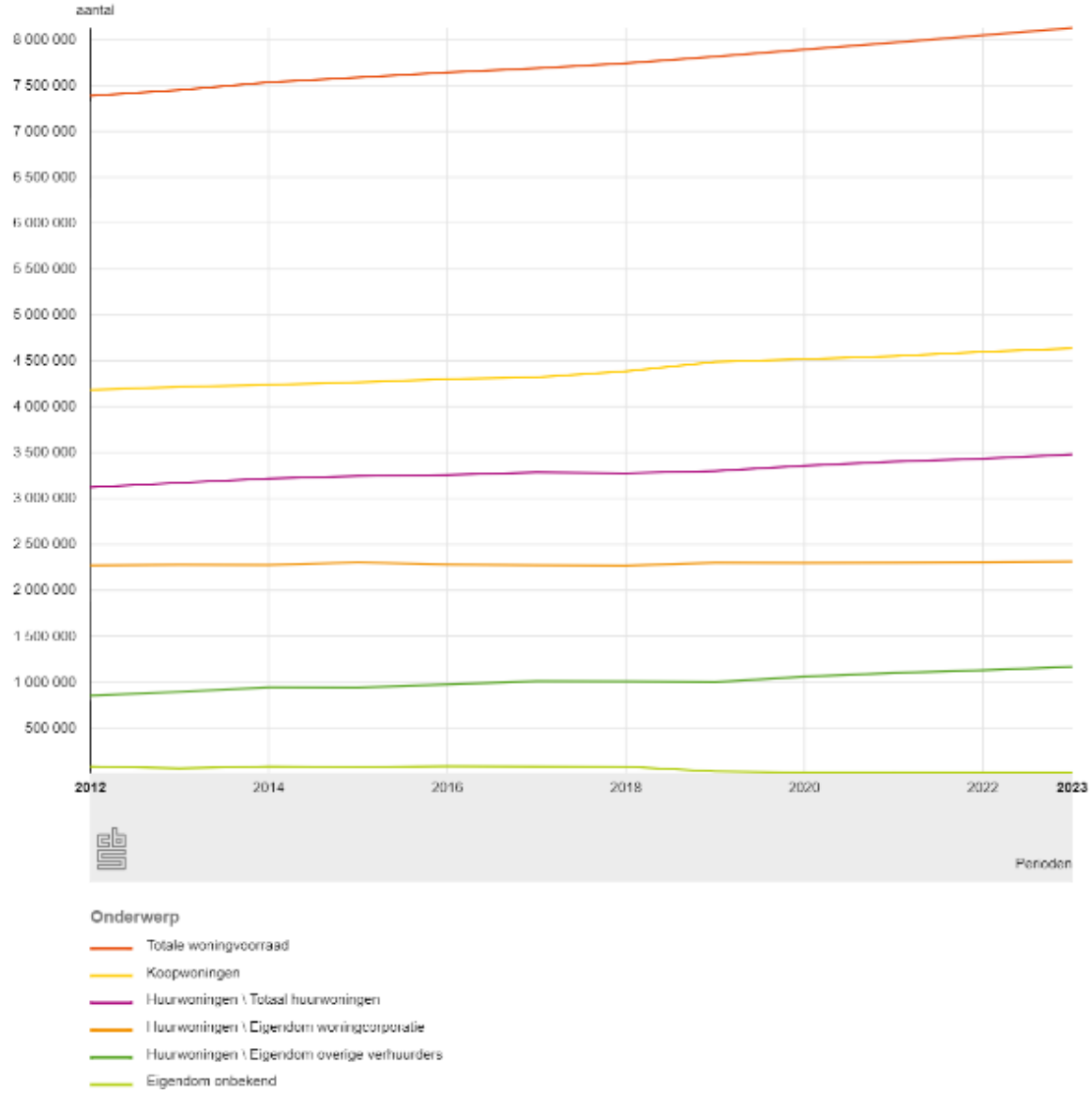
Directie Kennis | DEFINITIEF | Referentieraming 2023 | 1 mei 2023

Doorstroom naar het hoger onderwijs

jaar diploma	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*	*2020*	*2021*	*2022*
vwo-gediplomeerden (x 1.000)	**34,1**	**31,6**	**32,6**	**32,1**	**32,8**	**31,8**	**33,2**	**32,7**	**34,5**	**35,2**	**35,1**	**38,5**	**36,8**	**35,6**
direct naar het hbo	13,2%	12,4%	11,7%	11,1%	12,2%	11,0%	9,8%	8,6%	8,6%	8,9%	8,9%	10,2%	9,6%	9,5%
direct naar het wo	71,1%	71,6%	70,7%	70,7%	76,2%	80,1%	74,7%	74,7%	74,5%	73,5%	72,1%	75,0%	72,1%	66,6%
indirect naar het hbo na 1 jaar	2,3%	2,3%	2,6%	3,0%	1,6%	1,3%	1,9%	2,2%	2,0%	2,2%	2,4%	2,1%	2,5%	
indirect naar het wo na 1 jaar	9,1%	9,9%	10,6%	11,5%	6,5%	4,4%	9,4%	10,2%	10,6%	10,8%	12,4%	8,3%	10,7%	
indirect naar het hbo na 2 jaar	0,4%	0,4%	0,5%	0,3%	0,2%	0,3%	0,3%	0,4%	0,4%	0,5%	0,4%	0,4%		
indirect naar het wo na 2 jaar	0,6%	0,6%	1,0%	0,5%	0,4%	0,4%	0,7%	0,8%	0,8%	1,0%	0,7%	0,7%		
na 3 jaar niet in het ho geweest	3,3%	2,7%	3,0%	2,9%	2,8%	2,5%	3,1%	3,1%	3,0%	3,1%	3,0%	3,3%		
havo-gediplomeerden (x 1.000)	**40,6**	**42,1**	**42,4**	**44,0**	**43,7**	**44,6**	**45,5**	**48,1**	**47,1**	**48,3**	**48,2**	**53,2**	**49,0**	**45,4**
direct naar het hbo	78,8%	78,3%	78,3%	76,8%	81,6%	82,8%	75,9%	74,5%	74,7%	74,6%	74,2%	77,0%	72,3%	69,0%
indirect naar het hbo na 1 jaar	8,6%	9,2%	9,4%	11,0%	7,5%	5,8%	10,0%	10,9%	11,0%	11,4%	12,2%	8,8%	11,0%	
indirect naar het wo na 1 jaar	0,2%	0,2%	0,2%	0,3%	0,2%	0,2%	0,3%	0,3%	0,3%	0,3%	0,3%	0,2%	0,2%	
indirect naar het hbo na 2 jaar	2,4%	2,4%	2,6%	2,2%	1,8%	2,0%	2,5%	2,7%	2,6%	2,9%	2,4%	2,3%		
indirect naar het wo na 2 jaar	2,1%	1,9%	2,1%	2,3%	2,0%	2,3%	3,2%	3,3%	3,4%	3,4%	3,2%	2,8%		
na 3 jaar niet in het ho geweest	7,9%	8,0%	7,3%	7,4%	6,9%	6,9%	8,1%	8,2%	8,1%	7,5%	7,8%	8,9%		
vt-bol4-gediplomeerden (x 1.000)	**44,9**	**45,4**	**46,2**	**46,9**	**49,1**	**51,2**	**53,8**	**53,3**	**59,7**	**57,7**	**56,7**	**56,9**	**57,8**	**57,3**
direct naar het hbo	50,3%	49,0%	47,1%	46,2%	48,8%	48,3%	41,0%	41,3%	41,1%	40,8%	40,4%	43,7%	41,5%	37,5%
indirect naar het hbo na 1 jaar	5,9%	6,2%	6,5%	7,3%	5,6%	4,9%	6,9%	7,5%	7,4%	7,8%	9,1%	7,0%	6,7%	
indirect naar het wo na 1 jaar	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	
indirect naar het hbo na 2 jaar	1,9%	1,7%	2,0%	2,0%	1,4%	1,6%	2,3%	2,3%	2,3%	2,8%	2,7%	2,1%		
indirect naar het wo na 2 jaar	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%		
na 3 jaar niet in het ho geweest	41,9%	43,0%	44,3%	44,5%	44,2%	45,2%	49,8%	48,8%	49,1%	48,6%	47,9%	47,3%		

In bovenstaande tabel wordt inzichtelijk gemaakt hoeveel leerlingen na het halen van een diploma dat toegang geeft tot het hoger onderwijs in het hoger onderwijs gaan studeren en of ze dat direct na het halen van het diploma doen of pas na 1 of 2 jaar. Als een leerling niet direct naar het hoger onderwijs gaat, wil dat niet zeggen dat de leerling ondertussen geen ander onderwijs volgt. Een havo-gediplomeerde kan bijvoorbeeld eerst naar het vwo gaan om later – na wel of niet halen van het vwo-diploma – alsnog het hoger onderwijs in te stromen.

Appendix B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Huurwoningen \ Totaal huurwoningen
Huurwoningen \ Eigendom woningcorporatie
Huurwoningen \ Eigendom overige verhuurders
Eigendom onbekend

Appendix C

Job Preference Questionnaire

Input ID-number (possibly for later

Input random 8 different letter sequence: _____

Section A: Demographic Information

1. **Age:**
   - 18-22
   - 23-26
   - 27-30
   - 31+
2. **Gender:**
   - Male
   - Female
   - Prefer not to say
3. **Field of Study:**
   - Arts and Humanities
   - Social Sciences
   - Natural Sciences
   - Engineering
   - Business
   - Others: _____
4. **Current Employment Status:**
   - Unemployed
   - Employed part-time
   - Employed full-time
   - Self-employed
5. **Student Debt**
   - 0
   - 0 – 10.000
   - 10.000 – 30.000
   - 30.000 – 50.000
   - 50.000 – 70.000
   - More than 70.000
6. **Years Since Graduation:**
   - 0-1 years
   - 2-3 years
   - 4-5 years
   - 6+ years

Section B: Job Choice Factors

7. **How important is salary when choosing a job?**
    - Very important
    - Important
    - Neutral
    - Slightly important
    - Not important
8. **How important is job security to you?**
    - Very important
    - Important
    - Neutral
    - Slightly important
    - Not important
9. **How important is the company's reputation when choosing a job?**
    - Very important
    - Important
    - Neutral
    - Slightly important
    - Not important
10. **How much do you value opportunities for career advancement?**
    - Very highly
    - Highly
    - Neutral
    - Slightly
    - Not at all
11. **How important is a job's alignment with your personal values and ethics?**
    - Very important
    - Important
    - Neutral
    - Slightly important
    - Not important
12. **How important is work-life balance in your job choice?**
    - Very important
    - Important
    - Neutral
    - Slightly important
    - Not important
13. **How much do you prioritise the social impact of a company's work?**
    - Very highly
    - Highly
    - Neutral
    - Slightly
    - Not at all
14. **Do you prefer a job that offers high salary over one that makes a positive impact on society?**
    - Strongly agree
    - Agree
    - Neutral
    - Disagree
    - Strongly disagree

15. **Would you choose a job with lower pay if it meant working for a company that aligns with your moral values?**
    - Yes
    - No
    - Maybe
16. **Which of the following factors is most important to you when choosing a job?**
    - High salary and benefits
    - Company's mission and values
    - Opportunities for professional growth
    - Work-life balance
    - Job security

Section C: Open-Ended Questions

16. **What motivates you the most when considering a job offer? (Please elaborate)**
    - ____
    - ____
    - ____
17. **Can you describe a situation where you chose a job based on moral ambition over salary, or vice versa?**
    - ____
    - ____
    - ____

Thank you for participating in this survey! Your responses will provide valuable insights into the priorities of recent graduates and starters in the job market.