

**Effects of part-time employment and number of hours worked while enrolled in higher
education**

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Abstract

Part-time employment next to studying in higher education is the new norm. This study analyzes the effects of this double workload to see how academic performance and well-being are influenced by working part-time. Data was collected from 276 students through convenience sampling who volunteered to participate in this study. Statistical analysis shows lower average grades for students with part-time jobs, which is even lower for students working over 15 hours per week. Also, more hours worked by students lead to less time spent self-studying. It was also found that less time spent on self-studying led to lower average grades. Furthermore, significant correlations were found between other student activities (sport, time with friends and family, etc.) and well-being. It is concluded that part-time employment significantly affects students' academic performance negatively by lowering GPA. Theoretical and practical implications of the study are discussed including the reinstatement of the base grant by the Dutch government starting in 2023.

Keywords: part-time employment, academic performance, well-being, working hours

Effects of part-time employment and number of hours worked while enrolled in higher education

Student part-time employment has been a relevant topic for the last few decades as an increasing number of students have to start working next to their studies in order to be able to attend higher education (Callender, 2008; Lingard, 2007; Curtis & Lucas, 2001, Curtis & Williams, 2002). As tuition costs and living expenses keep increasing, simply attending higher education without engaging in part-time employment is no longer an option for most students (Watt & Minton, 2016). International students experience this problem even stronger, as they are often relied on housing options that on average cost more than what is available to students studying in their native country (Fang & van Liempt, 2020). Many students get some form of financial support from their parents, but some get less than others and have to make up for the difference. It is not a strange combination for students in higher education institutes to also take on employment opportunities next to their studies, but this phenomenon became especially visible among undergraduate students in the United Kingdom after the 1998 Teaching and Higher Education Act as tuition fees were introduced nationwide and student grants were abolished (Callender, 2008; Ford et al., 1995). A similar trend can be seen across many other European countries; in the Netherlands, a majority of students pay statutory tuition fees that are determined by the Dutch government each year. (Vossensteyn, 2002; Government of the Netherlands, 2022). The statutory tuition fee for students with EU, EER, Swiss, or Surinamish citizenships was €2209 for the 2022-2023 academic year (Dou, 2022). Contrarily, international students with citizenships other than the above mentioned ones paid tuition fees starting from €10189 depending on their study major. Statutory tuition fees were first introduced in 1945 in the Netherlands creating uniformity in tuition fees across different study programmes regardless of

the costs related to specific study interests (Vossensteyn, 2002; Government of the Netherlands, 2022).

A number of varying reasons can be behind students' decision to take on a part-time job in their extra time, but in most cases it is to satisfy financial needs or gain professional learning experience.

Financial needs is one of the most pressing reasons to take on part-time employment as attending university can come with a hefty price even on a monthly basis. Many cities in the Netherlands have been experiencing a shortage of student housing, often referred to as "The Housing Crisis" (Watt & Minton, 2016; Fang & van Liempt, 2020; University of Groningen, 2022). Due to The Housing Crisis, rent prices in major university cities such as Amsterdam, Rotterdam, and Groningen have skyrocketed making it harder and harder for students especially from foreign countries to find affordable housing options. Some universities in the Netherlands such as the University of Groningen and University of Amsterdam give warnings to international students about the housing situation in the city (University of Groningen, 2022; University of Amsterdam, 2022). Other than housing, students also spend money that they earned on tuition fees and everyday living expenses such as groceries, eating out, sports, and other activities. The University of Groningen provides an overview of estimated average costs of living in the city of Groningen to help students prepare for moving into the city (University of Groningen, 2022). According to the website, students living in Groningen can expect to spend an average of €800-1000 per month, not including tuition costs.

Another reason for taking on part-time employment included professional learning. Working in a study related field can be an appealing option to some students because not only does it give a solution to their monetary needs, it can also help them gain experience in a field

that they are interested in working after they have completed their studies. Studies support that when students engage in part-time employment related to their study field, it can act as an aid both to their academic performance and their future career options (Lingard, 2007; Watts & Pickering, 2000). These positive effects include being able to apply theories learned at university into practical use at the workplace as well as gaining valuable experience that can help further students' careers in the work field (Watts & Pickering, 2000).

Part-time employment next to studying in higher education does not come without its potential disadvantages. Depending on where in a given country students attend their university education, they might live in so-called 'University or Student Cities'. These cities tend to have higher cost of living as mentioned above. Due to the increased prices, some students might have to work longer hours, which according to studies can be rather damaging both to students' academic performance and their well-being (Humphrey, 2006; Lingard, 2007; Watts & Pickering, 2000). Reports state that students who work between 20 and 29 hours per week are significantly more vulnerable to drop out of their higher education by 160 percent compared to students without a part-time employment (Hovdhaugen, 2015; Humphrey, 2006; Vickers et al., 2003). Furthermore, according to the Vickers report, students who work over 30 hours on a weekly basis more than double their odds of dropping out of university in comparison to non-working students. A reason for the increase in dropout rates among part-timer students can be attributed to reduced study hours. The findings by the Vickers team support these results, as the more time students spend working, the less time they have for other activities such as studying and/or socializing with their fellow students. In general, the less time a student spends studying, the more their academic performance declines compared to their grades from before they started working (Hovdhaugen, 2015; Humphrey, 2006).

The more time students spend working, the less time they have to socialize outside of work and study related activities. This can have a negative effect on students' mental health and well-being. However, it can also be argued that the money student workers receive allows them to take part in more social interactions. Financial stress from monetary problems can further decrease well being, as performance drops in stressful situations. Further stress can be placed on students from their parents who expect their children to perform well in their academic settings. Students who struggle financially can be afraid to ask their parents for more money on a monthly basis depending on how well they perform in university. This can lead them to take on even more hours per week to work, which loops into not having enough time to spend studying (Watts & Pickering, 2000). Spending too much time at work, might not allow sufficient time to perform well in university and socialize with friends. Access to money can relieve both monetary stress and problems, as well as provide students with access to better quality of life, including social activities and better tools to help them in studying. It can also be argued that being involved in academics, part-time employment, and social activities can help students learn how to effectively manage their time which overall can lead to an increase in quality of life.

Review of existing literature on the topic of higher education while working part-time, shows support for more negative effects as a cause of a part-time job while the student is enrolled in higher education full time than those students who do not have to rely on income from a part-time job to live and study comfortably. Despite some benefits, the disadvantages of a double workload with students working over 15 hours per week seems to outweigh the positive aspects. In this paper, the main question that will be studied is: what are the effects of part-time student employment on academic performance and well being. It is hypothesized in Hypothesis 1a (H1a) that part-time employment will lead to lower academic performance. Furthermore, for

hypothesis 1b (H1b) it is assumed that working part time lowers the perceived level of well being. Furthermore, it will also be tested to what extent the number of hours spent working affects students' ability to manage their social lives, mental health while maintaining their academic performance. In a 2002 study, McVicar and McKee found significant results for better academic performance among students working less than 15 hours per week, when compared to students working more than 15 hours on the weekly basis (McVicar & McKee, 2002). In this paper, 15 hours per week spent at work will be used as a cut off point to group participants for hypothesis testing. Hypothesis 2a (H2a) is that students with more than 15 working hours per week have less fulfilling social lives and spend less time on other student activities than students working less hours per week. Moreover, for hypothesis 2b (H2b) it is hypothesized that students who work more than 15 hours per week are more prone to mental health issues with higher levels of stress and a decreased level of well being. Finally, hypothesis 2c (H2c) is that more than 15 working hours per week leads to worse performance in academic settings.

Method

Participants

The participants were 276 university and HBO students, who volunteered to fill out the questionnaire. The age of participants ranges from 16 to 39 with a mean age of $\mu = 22.27$ and $\sigma = 2.92$. The gender of the participating students was 75.9% female and 24.1% male, 193 participants did not answer. 63.8% of participants were Dutch and 36.2% were internationals, 88 participants did not answer. Participants were gathered through a convenience sample that was acquired through sending the link of the questionnaire to various social media groups. In order to be included in the sample, participants had to be enrolled in higher education, specifically in one

of the above mentioned universities. Additionally, some of the educational facilities in Groningen were visited in order to recruit participants. Furthermore, all participants must have proficient English language skills to ensure proper comprehension of questions. Giving consent to using participants' answers was also required before the participants were able to continue with the questionnaire. The collected data was treated confidentially, and treated anonymously according to the GDPR Guidelines.

Measurements

The questionnaire can be found in Appendix 1.

Demographic variables

The demographic variables that were asked from the participants were: age, current education, faculty, and living situation. Age was defined as subjects' age when completing the questionnaire. Current education as well as the specific faculty in which the participants were enrolled, were obtained. Lastly, the participants indicated their current living situation.

Academic Performance

Academic performance was assessed with a digital questionnaire based on Darolia (2013). This research studied the effect of working on grades and credit completion. Questions regarding academic performance have been specified to normal study weeks, not exam weeks.

Well-being

For the measurement of well-being the WHO-5 well-being index has been used because it has been found to have a high validity (Topp et al., 2015). This questionnaire aims to measure well-being in participants older than eighteen years old. It consists of five questions with answers ranging as follows: at no time (0), some of the time (1), less than half the time (2), more than half the time (3), most of the time (4) and all of the time (5). To answer the questions, the participants

had to consider the last fourteen days. The raw score ranges from zero to 25. To translate the raw scores to percentages they are multiplied by four as indicated in the instruction manual.

Stress

The experience of stress was assessed through the previously validated four-item Depression Anxiety Stress Scale (DASS-21) which was created to measure negative emotional states of anxiety, depression and stress (Lovibond & Lovibond, 1995). Only the sub-scale for stress was used. The sub-scale for stress contains seven questions which are to be answered on a four-point Likert scale. Participants were asked to indicate how much that statement applied to them over the last week. An example question is: “I found it hard to wind down.”, which can be answered: did not apply to me at all (0), applies to me some of the time (1), applies to me a good part of time (2) and applies to me most of the time (3). According to the manual of the test, the scores on the DASS-21 need to be multiplied by two.

Ways to spend time

How the participants spend their time was assessed by questions inspired by Howienson et al. (2012). The questions have been modified to be suited for the measurement of ways to spend time for undergraduates in the Netherlands. An example question is: “How much time do you approximately spend in a week doing sport?”

Procedure

The study uses a cross-sectional research design, with part-time job being the independent variable, and academic performance and well-being as dependent variables. The data was collected through a survey, which was approved by the Ethical Committee of the Faculty of Psychology of the University of Groningen. By using social media platforms and the social environment of the undergraduate students, participants for the study were recruited.

Additionally, Google Forms was used to conduct the survey. The students could voluntarily open the survey and were not compensated for taking part in the study. After giving informed consent, the participants started the questionnaire. There was a clear structure in the survey, starting with demographics, then academic performance, part-time job, well-being, stress, ways to spend time, motivation and closing with government aid and parents. Furthermore, the survey included control questions to test for response fatigue. The data of the participants who did not answer the control questions correctly, were taken out of the analysis. The questionnaire was available in English and took approximately 10 minutes to complete.

Data Analysis

This correlational study used the statistical program SPSS and assessed the relationship between the independent variable part-time work and the dependent variables academic performance and well-being. A simple linear regression was used to test the statistical significance. The relationship between the independent variable number of working hours per week and the dependent variables academic performance, well-being and time spent on other activities were assessed as well, also using simple linear regression. Lastly, student life was assessed as the moderator variable in the first research question. To test this relationship, a regression analysis with an interaction effect was performed using standardized variables.

Reliability and Validity

The WHO-5 Well-Being index was used as a subscale consisting of 5 items. To test the reliability of this subscale, Cronbach's Alpha was measured and appeared to be $\alpha = .805$, showing a good internal consistency. The Depression Anxiety Stress Scale (DASS-21) was also tested on reliability, a Cronbach's Alpha of $\alpha = .833$ was found. All of the subscales have a high Cronbach's Alpha, so they all have high internal validity.

Results

Descriptive Statistics

In this section, the outcome and interpretation of the statistical analysis will be presented.

Table 1a: Means broken down by faculty discipline

	Alpha Studies n=184	Bèta Studies n=37	Gamma Studies n=55	Total n=276	F or Chi ²	p
Age	22.3	21.9	22.3	22.3	.304	.738
% women	83.9	52.0	67.5	75.9	13.498	.001*
Average Grade	7.4	7.2	7.3	7.3	1.113	.330
Contact Hours	10.6	15.0	12.3	11.5	7.969	<.001*
Self-Study Hours	17.8	17.9	13.5	16.9	3.715	.026*
Working Hours (n=223)	10.8	9.6	13.1	11.1	1.444	.238
Total income (n=272)	982	1024	1085	1008	2.838	.060
Well being	51.4	58.1	56.0	53.2	3.206	.042*
Stress score	20.8	17.2	18.6	19.9	3.149	.044*
Other Student Activities	22.2	21.8	21.6	22.0	1.038	.356

Note: 'Faculty discipline is defined as the variable Faculty_ABG, which groups the faculties per Discipline, namely Alpha, Bèta or Gamma. 'Other Student Activities' include sports, cultural activities, time spent with friends and family, and volunteering.

In *Table 1a* participants are broken down by their studies to see any potential significant differences based on what type of studies participants follow. A majority of participants are in the *Alpha Studies* group with 66.7 percent of total participants. *Alpha Studies* refer to Behavioral and Social Sciences, Theology and Religious Studies, Arts, and Philosophy. *Beta Studies* include Medical Sciences, Spatial Sciences, and Science and Engineering. Students in the *Beta Studies* group make up 13.4 percent of the total participants. Finally, participants in the *Gamma Studies* group are enrolled into Economics and Business, Law, Sport, and Communications and make up 19.9 percent of the total sample.

The mean age of students for the total sample is 22.3. There are no group means that significantly deviates from the total mean between the study directions. 75.9 percent of the participants are female, with the highest percentage being the *Alpha Studies* group. The *Beta Studies* group has the lowest female participants with 56 percent. All three groups have a relatively high grade average with a mean of 7.4. None of the group means for average grade differ significantly from the total group mean.

Significant differences can be found between the three groups for the number of contact hours per week, with the highest being the *Beta Studies* group. *Alpha Studies* has the lowest number of contact hours on average per week at 10.6 hours. Significant differences can be found between the groups in the number of self-study hours per week. Students spend an average of 22.0 hours per week on other student activities such as sports, cultural activities, time spent with friends and family, and volunteering. No significant differences can be found between the three groups regarding how much time they spend on other activities each week.

Significant differences can be found between the three groups and the total group regarding well being scores and stress scores. The total group scored 19.9 on the stress scale which according to the DASS-21 scoring instructions, translates to moderate levels of stress. Furthermore, the total mean for well-being is 53, indicating an intermediate level of well-being of students.

Working students spend on average 11.1 hours per week at their place of employment. On average, students receive €584 per month for their part-time job, while their total monthly income is around €1008 per month. The difference of total income per month between groups does not differ significantly from the total group mean.

Table 1b: Means broken down by part-time employment status

	<i>n</i>	Part-Time Job <i>n</i> = 223	No Part-Time Job <i>n</i> = 53	Total <i>n</i> = 276	<i>t</i> - statistic	Two-sided <i>p</i>
Age	276	22.5	21.5	22.3	2.170	.031*
% women	183	75.9	24.1	75.9	.544	.587
Average Grade	272	7.3	7.7	7.4	-3.276	.001*
Contact Hours	276	11.5	11.4	11.5	.152	.879
Self-Studying Hours	274	16.3	19.8	16.9	-2.191	.029*
Total income	272	1068	750	1008	4.112	<.001*
Well-Being	276	53.1	53.9	53.2	-.307	.759
Stress score	276	19.4	22.1	19.9	-1.915	.057
Other Student Activities in hours	276	21.4	24.8	22.0	-1.418	.157

In *Table 1b* participants are broken into groups based on whether they are employed part-time or not. Working students are significantly older with a mean age of 22.5 compared to non-working students with a mean age of 21.5. Students with a part-time job have significantly lower grades than those without a part time job: 7.3 and 7.7 on average respectively. This finding supports H1a which assumes that working students will perform more poorly compared to non-working students.

Contact hours do not differ. Non-working students spend significantly more time on self-studying at a mean of 19.8 compared to working students who study a mean of 16.3 hours per week on their own.

No significant difference can be found between part-timers and students who do not work regarding their well-being. Total mean is 53, indicating intermediate level of well-being of students. Scores below 39 recommend testing for depression. No significant results can be observed on stress among students with students without a part time employment scoring 22.1 and part-time employed students scoring a mean of 19.4.

Furthermore, students who work part time, have significantly higher average income per month at €1068, while non-working students have a budget of €750 per month.

Correlations

Table 2: Correlation Matrix (n=276)

Variable	Contact hours	Self-studying	Avg. grade	Well-being score	Stress score	Working hours per week (n=223)	Other activities in hours
Age	-.083	.104	.017	-.099	.011	.180*	-.151*
Contact hours		-.154*	.064	.024	.066	-.017	-.104
Self-studying			.276*	-.074	.120*	-.190*	.063
Avg. grade				.006	.066	-.217*	.016
Well-being score					-.493*	-.052	.148*
Stress score						-.107	-.060
Working hours per week							-.093

Table 2 shows the correlation matrix of the relevant variables. *Contact hours* and *Self-studying hours* correlate significantly with each other at $r=-0.154$ meaning that the more contact hours a person has, the less time they spend on additional studying and vice versa. *Self-studying hours* and *Avg. grade* have a significant positive relationship with $r=0.276$, indicating that the more time spent on self-studying, the better grades a student receives. Correlation between *Stress score* and *Self-studying hours* with $r=0.12$, meaning that the more time a student spends self-studying, the more stress they report. *Stress score* and *Well-being score* have a strong negative relationship scoring $r=-0.493$ as can be expected. Furthermore, *Age* and *Working hours per week* correlate significantly at $r=0.18$ meaning that the older the student is, the more hours per week they spend working. *Working hours per week* and *Average grade* have a significant negative correlation at $r=-0.217$. This correlation supports H1a as it was hypothesized that the more time students spend at work, the lower their average grades will be. *Other student activities* and *Age* correlate with each other significantly in a negative way at $r=-0.151$, meaning that the older a

student is, the less time they spend on other student activities. Finally, the *Well-being score* and *Other student activities* proved to be also significantly correlated with each other at $r=0.148$, indicating that the more time a student spends on other activities, the higher their overall well-being is.

Table 3: Means broken down by working hours

	Working hours per week <15 hours <i>n=124</i>	Working hours per week >15 hours <i>n=99</i>	Total group	<i>t</i> -statistic	Two-sided <i>p</i>
Age	22.3	22.6	22.3	-.670	.504
% women	57.1	42.9	75.9	-.392	.696
Average Grade	7.4	7.1	7.4	2.047	.042*
Contact Hours	11.6	11.4	11.5	.230	.819
Self-Studying Hours	17.5	14.7	16.9	2.061	.040*
Total income	937	1236	1008	-5.146	<.001*
Well-Being	54.5	51.3	53.2	1.332	.184
Stress score	19.5	19.2	19.8	.238	.812
Other Student Activities	21.5	21.2	22.1	.120	.905

In *Table 3*, working students are grouped according to the number of hours they work each week in order to test hypotheses H2a, H2b, and H2c. Students working more than 15 hours on the weekly basis have significantly lower grades and spend significantly less time studying than students working less than 15 hours per week, supporting H2c.

Between the two group means for well-being scores, no significant differences can be found, therefore H2b is not supported by the data. Furthermore, there are no significant differences between stress scores for the two groups, hence this finding does not support H2b.

No significant differences can be found about time spent on other activities, therefore H2a is not supported by the data, because no significant differences can be found between the two groups when it comes to time spent on other student activities.

Furthermore, a significant difference can be found between the two groups regarding total monthly income, as students who work more than 15 hours per week have significantly more money to spend each month than students who do not. On average, students working over 15 hours per week earn €299 more than students working less. Non-working students have a total income of €750 per month (*Table 1b*), while students working over 15 per week have an average total income of €1236 per month.

Table 4: Linear regression on GPA. Method: stepwise.

	Coefficients					95% CI	
	<i>b</i>	Std. Error	Beta	<i>t</i>	sig.	LB	UP
Constant	7.204	.129		55.936	<.001	6.950	7.457
Self-studying hours	.020	.005	.244	4.115	<.001	.010	.029
Working hours per week	-.017	.006	-.156	-2.634	.009	-.029	-.004

Note. The following predictors were considered but not included: Age, Contact hours, well-being score, stress score, other student activities.

$R^2=.099$

In *Table 4*, the results of a linear regression are presented: variables age, contact hours, self-studying hours, working hours per week, well-being score, stress score, and other student activities were put into the regression model but only self-studying hours and working hours per week were regressed as these were the significant correlation variables in relation to average grade. The results of the complete ANOVA model are $F(2, 267)=14.730$ and $p<.001$. Average grade is predicted to change positively by .244 if the standard deviation of self-studying hours is increased by one and negatively by -.156 for working hours per week. Both variables are

significant predictors of average grade and together, they explain 9.9 percent of the total variance in GPA.

Table 5: Linear regression on well-being. Method: stepwise.

	Coefficients					95% CI	
	<i>b</i>	Std. Error	Beta	<i>t</i>	sig.	LB	UP
Constant	68.041	2.567		26.501	<.001	67.319	73.096
Stress score	-.901	.100	-.479	-9.046	<.001	-1.098	-.705
Other student activities	.141	.058	.130	2.448	.015	.028	.255

Note. The following predictors were considered but not included: Age, Contact hours, Self-studying, Average grade, Work hours per week, .
R²=.254

In *Table 5*, the results of a linear regression are presented: variables age, contact hours, self-studying hours, working hours per week, well-being score, stress score, and other student activities were put into the regression model but only stress score and other student activities were regressed as these were the significant correlation variables in relation to well-being. The results of the complete ANOVA model are $F(2, 267)=45.573$ and $p<.001$. Well-being is predicted to change negatively by $-.479$ for each one standard deviation increase of stress score and positively by $.139$ for other student activities. The variables in the model are significant predictors of well-being and together, they explain 25.4 percent of the total variance.

Discussion

In this study the effects that part-time employment has on academic performance and well-being in higher educational settings were examined. It was found that part-time

employment has significant negative effects on academic performance which was measured by looking at participants' grade point averages, therefore supporting H1a. The data did not support H1b, as working and non-working students did not have significant differences when it comes to their scores on the well-being questions.

For the second research question, significant results were found between the groups; students working over 15 hours per week have significantly lower grades, thus supporting H2c. Data did not support hypotheses H2a and H2b, meaning that working more than 15 hours per week does not significantly lower well-being nor time spent on other student activities.

Theoretical Implications

There are moderate consistencies between the findings of this study and previous research. McVicar & McKee (2002) found significant, negative effects of working more than 15 hours per week next to studying in higher education and academic performance. Contrary to McVicar & McKee's findings, this study found significant effects between employment status (working or not working) and average grade. Other previous studies have also found similar results on the negative effects of part-time employment on academic achievements, but have not tested for the number of hours students spend working (Humphrey, 2006.; Lingard, 2007; Watts & Pickering, 2000). The findings of this study show that working part time leads to lower academic performance, therefore students who are already struggling academically should take the findings of this study into consideration before applying for a part-time job. However, some students might not have the ability to decide whether or not to work as they might need to sustain themselves financially.

This study found a significant correlation between hours spent self-studying and number of hours spent working, which is in line with previous findings from a study done by Ford et. al (1995). Furthermore, studies done by Hovdhaugen (2015) and Humphrey (2006) had similar results. This shows that the more time students spend at their place of part-time employment, the less time they have left to study. Average grade and self-studying hours are also significantly correlated, therefore indicating that working hours per week influence how much time students can study, which influences their academic performance.

A significant correlation was found between well-being and other student activities, which further supports that the more time students can spend on activities other than studying and working, the better their overall mental health is. These findings are similar to previous research where student life and part-time employment have been assessed (Watts & Pickering, 2000).

Practical Implications

Since there is a significant difference between working and non-working students regarding academic performance, students planning on taking part in part-time employment should be aware of the effects of working. Working students have a lower average grade than their non-working peers. This difference becomes even more prominent with students working more than 15 hours a week. It is important for students to be aware of this difference especially when students consider potential Masters programs as some require a certain GPA, putting part-time working students at a disadvantage. Due to this, institutions should take action to help students with financial difficulties as students' good academic performance only puts universities into a positive light.

Starting in 2023, the Dutch government has reinstated the base grant, which provides students living away from home € 274.90 each month (Central Government, 2023). However, in order to qualify, the student's parents combined have to earn below € 70,000 yearly. Students, whose parents earn more than that, but do not get financial support from their parents do not qualify for this grant. This is a good first step, but many students from different backgrounds and situations cannot take advantage of this financial aid tool.

Strengths

One strength of this study is its practical implications. 80.7 percent of the participants in this study have a part-time job, this shows that most students cannot make ends meet without earning extra money. The results provided by this study can be used by institutions to understand the pressing need for financial support for its students. Furthermore, it can help start the conversation about the reality of many students, in order to start making adjustments to make it easier for students to focus on their studies rather than how they are going to afford paying rent next month.

Limitations

This study also has some limitations that have to be mentioned for transparency. First, the sample size used in this study was relatively small compared to the number of students in the city of Groningen alone. Furthermore, participants were collected through convenience sampling as the questionnaire was sent into social media groups and participants were scouted by visiting various university buildings. Participation in the study was voluntary, therefore only those who

wanted to participate filled out the questionnaire. 33.8 percent of the participants study at the Behavioral and Social Sciences faculty, while other faculties were underrepresented.

Second, the reported GPA in this study was unexpectedly high, 7.3 for the total group. Data was gathered by self-report, increasing social desirability bias. Also, there was no way to check for students' real GPA, their reported average grade was analyzed.

Another limitation of this study was the limited time for data collection. Since this study had a time limit on it, it was not possible to visit university buildings multiple times making the sample narrowed to students who were present at the buildings at the time of data collection.

This study did not focus on the positive effects of working part time, therefore any potential positive aspects were not measured nor analyzed. The reason for this limitation is the topic of the research paper as it did not focus on the positive effects of working next to studying, but rather the potential negative effects it can have on academic performance and well-being.

The questionnaire created for this study also had some limitations as it did not include a question about nationality, it only asked if the student considered themselves an international. It would have been interesting to measure whether there is a difference in how many students have a part-time job based on their nationality. Groups could have been divided between students from European Union countries and students from outside of the EU.

Future Research

For future research, the study should be repeated with a bigger sample size that includes better representation of students across different faculties. In order to gather more information, questions regarding nationality should be asked to see whether or not students are more or less likely to work based on where they are from. To get more in-depth information, future research

should replicate this study, but instead of dividing participants into two groups: working less than 15 hours per week and more than 15 hours per week, more groups should be created to test for differences between students based on their nationality. EU students can apply to certain grants funded by their government, while students from non-EU countries do not always have the same options available, therefore they might have to work longer hours to make up for the difference. Furthermore, other than testing for negative effects as a result of working part time, focus should also be placed on positive effects as well. For example, working in a study related field could have the potential to build connections that can be used once the student graduates and enters the work field.

Conclusion

This study shows the negative effects of part-time employment on academic performance as working students have significantly lower average grades when compared to their non-working peers. As living costs and tuition fees keep increasing, more and more students have no choice but to work, therefore putting them at a disadvantage. Furthermore, it is also concluded that students working more than 15 hours per week perform even worse. These results highlight the financial gap that students are trying to make up for in order to continue studying. Starting in 2023, the Dutch government has announced the reinstatement of the base grant for students in higher education with the aim to help lift some of this financial burden that is placed on students. Further research is needed to test whether this step from the Dutch government helps students spend more time on their studies instead of working in order to be able to study.

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Appendix 1

Questionnaire Student Life

Dear participant,

This study is conducted within the third-year course Bachelor Thesis of the Psychology Programme of the University of Groningen. In this course, students conduct a study on a psychological topic under supervision of a teacher of the psychology programme.

Within this course, we conduct a study on the effect of a part-time job on the academic performance and perceived stress of students. We do this in order to gain more knowledge on how combining a job with studying may impact students.

In this study you will fill in a questionnaire with questions about different topics related to your study and your part-time job. There are no correct or incorrect answers. For each question, please choose the answer that is closest to your opinion.

Filling in this questionnaire will take about 10 minutes.

The student-researchers conducting this study keep to the ethical guidelines as specified by the Ethics Committee of the Faculty of Behavioural and Social Sciences of the University of Groningen.

The data for this study are collected anonymously. During the study, we will ask demographic questions regarding age, gender, and year of education. This information will be used to describe our group of participants (for example mean age or distribution male/female/other).

The student-researchers adhere to the Dutch code of conduct for scientific integrity and university policy regarding the storage and management of personal and research data when conducting this research.

Below, you can find detailed information about how we will process the research data that we collect.

The research data obtained will not be viewed from a medical and/or clinical perspective. Therefore, your participation in the study cannot be considered a medical/clinical test.

Since the current study is completely anonymous, any scores that are worrying and/or that may be of personal clinical significance cannot be related back to you. If you are concerned about your health as a result of the questions, we advise you to contact the student advisor, the student psychologist or your general practitioner.

For questions, remarks or concerns about this study, you can contact the researchers in charge via n.blom.2@student.rug.nl.

If you have questions, remarks or concerns that you rather not share with the researchers in charge, you can contact the coordinators of Bachelor Thesis (Hedy Greijdanus & Else Havik, bachelortheses.psy@rug.nl).

We now ask you to consider whether you want to participate in our study.

Your participation in this study is entirely voluntary. If you decide not to participate, there will be no adverse consequences. If, during the course of the research, you wish to withdraw your consent and terminate your participation, you have every right to do so at all times. Again, there will be no adverse consequences for you. If you decide you do not want to participate in this study, we thank you for your time. If you indicate that you want to participate in this study, we will ask you to sign an informed consent form. By signing this informed consent form, you indicate that you are sufficiently informed about the study, that you want to participate in the study and that you voluntarily do so.

Thank you for your participation in advance!

On behalf of thesis group 37,

Tsveta, Vera, Nynke, Erick, Annette and Judith

* Required

Informed Consent

The information you provide for the current research purposes is treated with the utmost care and is accessible to the student-researchers who conduct this study only. In addition, the research data are accessible to the teacher(s) of these students and the examiners of the course for which this study is conducted.

The research data that are collected in this study will be saved by the student-researchers for the course in which they conduct this study. To fulfill this course, the student-researchers have to submit the research data to the programme Psychology of the University of Groningen during the course. The programme Psychology of the University of Groningen keeps the research data for education purposes (for example, appraisal, verification and audits).

The research data will be kept by the student-researchers until the course for which they conduct this study is completed (February 2023). After that, the research data will be deleted by the student-researchers from their own storage.

The online consent form will be deleted by the student-researchers at the same time as the research data.

Some persons and organizations must have access to your research data. This is necessary in

order to test whether the research has been carried out properly and reliably. These persons and supervisory authorities inspecting your data for verification include: authorized persons within the programme Psychology of the University of Groningen (for example a dean, director or data officer) and (inter) national supervisory authorities (for example the Dutch Data Protection Authority and the Netherlands Board on Research Integrity). They are held to inspect your data on a strictly confidential basis.

You will be asked to grant permission for this access. If you refuse to do so, you cannot participate in the study.

University of Groningen is responsible for compliance with the General Data Protection Regulation (GDPR) when processing your personal data. The researchers ensure that your privacy and the conditions attached to it are safeguarded and they adhere to the Dutch code of conduct for scientific integrity and university policy regarding the storage and management of personal and research data when conducting this research. You have the right to withdraw your consent for the processing of your personal data at any time. Your personal data will then be deleted.

If you have any questions or concerns regarding your rights as a research participant, you may contact the Ethics Committee of the Department of Psychology of the University of Groningen via email (ecp@rug.nl).

Do you have questions or concerns regarding your privacy, or regarding the handling of your personal data? For this you may also contact the Data Protection Officer of the University of Groningen: privacy@rug.nl.

As a research participant you have the right to a copy of this research information.

Informed consent

Consent form for participation in scientific research for the course Bachelor Thesis: Studying With a Part-Time Job.

I hereby confirm that:

I have been informed that the current study is conducted by psychology students as part of their third-year course Bachelor Thesis;

I have been satisfactorily informed about the study in writing;

I have read the written information;

I have been given the opportunity to ask questions about the study;
my questions have been answered satisfactorily;

I have been given ample opportunity to think carefully about participating in the study;

I participate in the study entirely on a voluntary basis.

I understand that:

I have the right to withdraw my consent to participate at any time during the study without having to state reasons and without fear of adverse consequences;

my personal data are processed in accordance with the applicable European privacy regulations;
 my personal data are processed in accordance with the privacy statement of University of Groningen (<https://www.rug.nl/about-ug/organization/rules-and-regulations/general/20211129-general-policy-on-protection-of-personal-data-ug-2-0.pdf>)

the tests and questionnaires used are not medical / clinical tests. Since the data are collected anonymously, the researchers cannot inform me about scores that may be of personal clinical interest.

I agree that:

the online consent form is kept until the end of February 2023 at the latest;

my personal and research data within this research are obtained for education purposes and will be kept until September 2023 at the latest and will be available for appraisal, verification and audits until that date;

supervisory authorities may inspect my personal and research data for the purpose of auditing research.

Please indicate your preference below.

1. Do you consent to participate in this study? * *Mark only one oval.* Yes/No

Demographics

The first few questions will be about demographics

2. How old are you? **open question**

3. Please indicate your current educational level

Mark only one oval

- MBO/Technical or Vocational
- School HBO/Higher Education
- WO/University
- Other

4. At which faculty do you study

Check all that apply.

- Economics and Business
- Behavioral and Social Sciences
- Theology and Religious Studies
- Arts
- Medical Sciences
- Law
- Spatial Sciences
- Science and Engineering
- Philosophy

Sport
Other:

Academic Performance

The next questions are about academic performance.

Note that the questions below refer to your normal study week. (not to the exam period)

5. How many contact hours do you have in your study? * *open question**
6. How many hours per week do you spend self-studying? * *open question**
7. What is your average grade? (Please specify with one decimal) * *open question**
8. What is the average of your last three grades? (Please specify with one decimal) * *open question**
9. How many courses did you fail on the first try? * *open question**

Part Time Job

The next part of the survey will be about your part time job. Note that these questions are also about your average week.

10. Do you have a part time job? *Mark only one oval* Yes/No
11. In what sector do you work * *Check all that apply.*
 - Hospitality Delivery
 - Retail
 - Education
 - Freelancing
 - On-campus jobs
 - Caregiver
 - other:
12. How many hours a week do you work? * *open question**
13. What is your (average) hourly wage before deduction of taxes? * *open question**
14. What is your average income per month from your part-time employment? * *open question**
15. Do you have a study related job ? *Mark only one oval* Yes/No
16. Does your job affect your studies in a positive way? * *Mark only one oval*
 - 5 All of the time
 - 4 Most of the time
 - 3 More than half of the time
 - 2 Less than half of the time
 - 1 Some of the time
 - 0 Not at all
17. Does your job affect your studies in a negative way? * *Mark only one oval*
 - 5 All of the time
 - 4 Most of the time
 - 3 More than half of the time
 - 2 Less than half of the time

- 1 Some of the time
- 0 Not at all

Well- being

The following questions are about well-being. The answer range will be:

All of the time (5), most of the time (4), more than half of the time (3), less than half of the time (2), some of the time (1) and at no time (0).

18. Over the past 2 weeks I have felt cheerful and in good spirits. * *Mark only one oval*

- 5 All of the time
- 4 Most of the time
- 3 More than half of the time
- 2 Less than half of the time
- 1 Some of the time
- 0 Not at all

19. Over the past 2 weeks I have felt calm and relaxed. * *Mark only one oval*

- 5 All of the time
- 4 Most of the time
- 3 More than half of the time
- 2 Less than half of the time
- 1 Some of the time
- 0 Not at all

20. Over the past 2 weeks I have felt active and vigorous. * *Mark only one oval*

- 5 All of the time
- 4 Most of the time
- 3 More than half of the time
- 2 Less than half of the time
- 1 Some of the time
- 0 Not at all

21. Over the past 2 weeks I woke up feeling fresh and rested. * *Mark only one oval*

- 5 All of the time
- 4 Most of the time
- 3 More than half of the time
- 2 Less than half of the time
- 1 Some of the time
- 0 Not at all

22. Over the past 2 weeks my daily life has been filled with things that interest me * *Mark only one oval*

- 5 All of the time
- 4 Most of the time
- 3 More than half of the time
- 2 Less than half of the time
- 1 Some of the time
- 0 Not at all

Stress

The following questions will be about stress in the last month.

The rating scale is as follows:

- 0 Did not apply to me at all
 - 1 Applied to me to some degree, or some of the time
 - 2 Applied to me to a considerable degree or a good part of time
 - 3 Applied to me very much or most of the time
23. I found it hard to wind down. * *Mark only one oval.* 0-3
24. I tended to over-react to situations. * *Mark only one oval* 0-3
25. I felt that I was using a lot of nervous energy. * *Mark only one oval.* 0-3
26. I found myself getting agitated. * *Mark only one oval.* 0-3
27. I found it difficult to relax. * *Mark only one oval.* 0-3
28. I was intolerant of anything that kept me from getting on with what I was doing. * *Mark only one oval.* 0-3
29. I felt that I was rather touchy. * *Mark only one oval.* 0-3

Ways to spend time

The following questions are about how you spend your time.

How much time do you approximately spend in a week doing the following activities? (**In full hours**)

- 30. How much time do you approximately spend in a week doing sport? **open question**
- 31. How much time do you approximately spend in a week doing voluntary work? * *open question**
- 32. How much time do you approximately spend in a week doing cultural activities or trips? * *open question**
- 33. How much time do you approximately spend in a week doing activities with friends and **open question** family?
- 34. How much time do you approximately spend in a week doing informal care duties? (like taking care of a family member) * *open question**
- 35. How much time do you spend doing any other obligatory duties? * *open question**

Motivation

The following questions will be about motivation.

Scale the answer of the following question: Why do you go to school? The scale is from 1 (not at all) to 7 (exactly)

36. Because I need at least a bachelor diploma in order to find a high-paying job later on * *Mark only one oval.* 1-7
37. Because I experience pleasure and satisfaction while learning new things * *Mark only one oval.* 1-7
38. Because I think that an education will help me better prepare for the career I have chosen * *Mark only one oval.* 1-7
39. Honestly, I don't know; I really feel that I am wasting my time in school. * *Mark only one oval.* 1-7
40. To prove to myself that I am capable of completing my bachelor diploma. * *Mark only one oval.* 1-7
41. In order to obtain a more prestigious job later on. * *Mark only one oval.* 1-7
42. For the pleasure I experience when I discover new things never seen before. * *Mark only one oval.* 1-7
43. Because eventually it will enable me to enter the job market in a field that I like. * *Mark only one oval.* 1-7
44. I once had good reasons for going to school; however, now I wonder whether I should continue. * *Mark only one oval.* 1-7
45. Because of the fact that when I succeed in school I feel important. * *Mark only one oval.* 1-7
46. Because I want to have "the good life" later on. * *Mark only one oval.* 1-7
47. For the pleasure that I experience in broadening my knowledge about subjects which appeal to me. * *Mark only one oval.* 1-7
48. Because this will help me make a better choice regarding my career orientation. * *Mark only one oval.* 1-7
49. I can't see why I go to school and frankly, I couldn't care less. * *Mark only one oval.* 1-7
50. To show myself that I am an intelligent person. * *Mark only one oval.* 1-7
51. In order to have a better salary later on * *Mark only one oval.* 1-7
52. Because my studies allow me to continue to learn about many things that interest me. * *Mark only one oval.* 1-7
53. Because I believe that my education will improve my competence as a worker. * *Mark only one oval.* 1-7
54. I don't know; I can't understand what I am doing in school. * *Mark only one oval.* 1-7
55. Because I want to show myself that I can succeed in my studies. * *Mark only one oval.* 1-7

Government Aid and Parents

The following questions are about government aid, income ,and parents' education.

The income questions are about your average income per month.

56. Do you get any additional money from the government or other organizations? * *Mark only one oval.*

No

DUO

BAFÖG

Erasmus

Other

57. If yes, how much money do you get from the government or organizations in euros?
(including loans and funds) ***open question**

58. What is the highest education one of your parents has finished? ** Mark only one oval.*

Did not finish high school

High school diploma

Vocational school (MBO)

Bachelor degree (HBO)/(WO)

Master degree

PHD

Not applicable

Other

59. What is the highest education your other parent has finished? ** Mark only one oval.*

Did not finish high school

High school diploma

Vocational school (MBO)

Bachelor degree (HBO)/(WO)

Master degree PHD

Not applicable

Other:

60. If so, how much money do you receive from your parents in euros? ***open question**

61. What is your income per month in total(from parents, job, government, loans)? ** Mark only one oval.*

Less than €200

200-400

400-600

600-800

800-1000

1000-1200

1200-1400

1400-1600

1600-1800

1800-2000

Other

You have reached the end of the questionnaire. At this point you can change your answers if you want to. If you click on 'next' the questionnaire will be submitted and you won't be able to change your answers.

Thank you for your participation!

If you still have questions you can send an email to n.blom.2@student.rug.nl
