

**Effects of part-time employment during higher education and socioeconomic
background influence**

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Abstract

Part-time employment during studying is increasing steadily. This study analyzes the effect on academic performance and well-being on students with and without a part-time job.

Socioeconomic background was analyzed as a moderator for the relationship between working hours and academic performance. The data was obtained via a questionnaire and students were gathered by convenience sampling (n=276). The study shows that students without a part-time job have higher GPA than students with a part-time job. There is no difference in the level of well-being. Socioeconomic background was found to not moderate the relationship between working hours and academic performance. This study concludes that there is a difference in academic performance between working and non-working students, while there is no effect of the working hours on academic performance. Furthermore, the implications, limitations and future research of the study are discussed.

Keywords: part-time jobs, academic performance, well-being, socioeconomic background

Effects of part-time employment during higher education and socioeconomic background influence

Interest in pursuing higher education after finishing high school is increasing among students in numerous countries worldwide (Huisman & Kaiser, 2003). This means that many students from different socioeconomic backgrounds will have to find the means to afford the education they want to pursue. Due to this draft towards universities and the big difference between students' financial means and university fees, there is a steep increase in students taking on part-time jobs as of lately (Darolia, 2014). A significant increase can be observed in Europe, as well as in the Netherlands specifically, where student employment has reached 85% as of 2021 (HIS, 2021). Studying and having a part-time job can be a challenging task and it can bring several implications to a student's life. Some of these implications can affect academic performance and well-being (Darolia, 2014). Students are not the only ones affected by this. Universities might have to adapt to this change as well, since students don't have their focus solely on studying anymore (Riggert et al., 2006). This paper will focus on the effect of part-time employment among students on their academic performance and well-being. Additionally, the socioeconomic background of a student will be examined and how that might influence the relationship between part-time job and academic performance. In order to understand the relationship between the variables better, the relevant literature will be reviewed.

The steep increase in student employment has led to a simultaneous increase in research interest in this topic. This research has been primarily focused on the effect of part-time employment on academic performance (Watts & Pickering, 2000). The outcome of the research done until now is inconclusive. On one hand, papers focus on the negative trends between part-time jobs and academic performance. The most common outcome for these studies is: spending too much time working will negatively affect grades and might

even lead to study delay (Hunt et al, 2004; Salmons & Andrew, 2006; King & Bannon, 2002). While Richardson et al. (2014) additionally explores the positive outcomes of part-time jobs such as transferable skills. Some of these skills include time management and a better understanding of certain career paths (Richardson et al., 2014). Additionally, Robotham (2012) found more positive outcomes such as improved communication skills, teamwork, and increased self-confidence. Hence, part-time employment has multiple convoluted implications for student lives.

Following this to gain a better understanding the above mentioned variables will be defined. Part-time employment can be defined in the majority of cases as an individual working less than 35 hours per week (Thorsteinson, 2003). The Statistical Bureau of the Netherlands (2022), similarly defines part-time employment. Three categories of employment can be distinguished based on the working hours. Working less than 15 hours is defined as a short part-time job. The 15 hour threshold was chosen based on the research of Hay & Lindsay (1969) that found no impact on academic performance when employment stays limited to 15 hours per week. Working between 15 and 34 hours is a long part-time job, and working more than 35 hours is a full-time job. Additionally, students come from different socioeconomic backgrounds and this can influence the number of hours they have to work in order to afford higher education. Objective socioeconomic status can be defined as the economic and social resources an individual has in comparison with others (Huang et al., 2017).

Furthermore, academic performance is commonly defined as the grade point average (GPA) of a student and the credits they have obtained so far in their studies (Darolia, 2014). Studying full-time, nowadays, can be defined as a 40-hour working week. Hence, it will be relevant for academic performance to take a look at the hours a student spends studying. It is important for this paper to take into account the well-being of the students and how having a

part-time job can influence that. Well-being according to Nutbeam & Muscat (2021) is defined as “*A positive state experienced by individuals and societies. Similar to health, it is a resource for daily life and is determined by social, economic, and environmental conditions*”.

Taking everything into consideration, there is substantial research done on the topic of studying and part-time job. However, the conclusions are not consistent and concise. What is clear so far is that there are positive and negative effects from the combination of studying and a part-time job. Clearly, the relationship between the concepts is complex, so adding the socioeconomic background of a student as a possible moderator in the relationship between part-time job and academic performance can give more clarity. This moderator can provide a new scientific perspective between the relationship of studying and a part-time job. This can provide some clarity because socioeconomic background affects the financial situation of the students. Consequently, this may affect the number of hours a student has to work. In order to explore this relationship, a theoretical framework will be presented in the following section.

Theoretical framework

The following theoretical framework will have a pivotal role in this paper. Providing the primary concepts of the study and the relationship between studying and part-time job. This chapter will also provide two hypotheses which will test the effects of a part-time job on academic performance.

Having a part-time job as a student can have both positive and negative effects on academic performance and well-being. Robotham (2012) concludes in his study that the majority of students present more positive effects of part-time jobs. These positive effects are improvement on the prospect of employability by enhancing teamwork and time

management skills (Robotham, 2012). Additionally, Cinamon (2018), reports that short part-time job can actually motivate students to commit to their studies and attend university more frequently. Being a working student can have benefits, however it can also have negative effects on academic performance and well-being.

Students, who have part-time jobs, will work in total significantly more hours. Studying full-time entails a 40-hour working week. The Dutch Central Bureau of Statistics (CBS) discloses that forty percent of the students enrolled in 2021 are international students. In order to get government support from the Netherlands (DUO), international students have to work at least 14 hours per week. This minimum employment requirement is relevant, especially for students who come from a low socio-economic background (Duo, 2022). These students can be put under pressure since they have to financially support themselves and study enough hours, so they won't underperform academically (Soria et al., 2014).

Students who commit to working at the same time as studying can be considered having a double workload and this can easily lead to psychological distress. Thus far it can be argued that the negative effects of part-time jobs outweigh the positive. Especially when students fall in the long part-time category of working hours (Cinamon, 2018). This implies that working a higher amount of hours will worsen students' academic performance (Cinamon, 2018). Derous & Ryan (2008) found that studying full-time and being employed additionally has negative effects on the students' well-being. Psychological distress can have negative effects on the academic performance of the student (Deraus & Ryan, 2008). Derous & Ryan (2008), additionally, found that well-being can also be associated with academic performance. This can lead to students prioritizing part-time jobs over their well-being and academic performance.

Following this, the research question and hypothesis can be developed:

Research question 1: "*What are the effects of part-time student employment on academic performance and well-being?*"

Hypothesis 1: "*Students who work less hours will perform academically better and have a higher level of subjective well-being, compared to students who work more hours.*"

Socioeconomic background can also play a role in the relationship between studying and having a part-time job. Students, who come from lower socioeconomic backgrounds, are sometimes partially or fully financially independent from their parents. This means that they have to support themselves financially, mostly through work. This can lead to stress (Stuber, 2011). Soria et al, (2014) found that students who come from lower socioeconomic backgrounds make decisions more often based on financial needs instead of educational needs, compared to students coming from higher socioeconomic backgrounds. This means they sometimes decide to work more hours than other students (Soria et al.,2014). This decision can have detrimental consequences on their academic performance since they will have fewer hours available for studying. This indicates that socioeconomic background can affect the number of hours a student decides to work in a week. Therefore, the relationship between part-time employment and academic performance will likely be stronger when students come from low-socioeconomic status.

Thus, a second research question and hypothesis can be formulated:

Research question 2: "*Does the socioeconomic background of a student affect the combination of studying and a part-time job?*"

Hypothesis 2: "*Socioeconomic status moderates the relationship between part-time student employment and academic performance. The relationship between part-time employment and academic performance will be stronger when students come from a lower socioeconomic status than coming from a higher socioeconomic status.*"

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 $\bar{X} = 22.27$ and $s = 2.92$. 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 the appendix.

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.

Parents education

The parents' education is used as an indication for the socio economic background of a student. Education of the parents can predict the socio economic status of the family that a student comes from (Erola & Lehti, 2016). Students were asked to indicate the level of education of parent one and parent two. The question was formulated : “What is the highest education one of your parents has finished?”, which can be answered: did not finish high school (1), high school diploma (2), vocational school(MBO) (3), Bachelor degree (HBO)/(WO) (4), master degree (5), PHD (6). The two scores were summed and the total score could range from 2-12. Where 2 indicates both parents did not finish high school and 12 indicates that both parents have a PHD.

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 job and the dependent variables academic performance and well-being. A simple linear regression was used to test the statistical significance. Parents' education was assessed as the moderator variable in the second research question. Parents' education was used as an indication for the socioeconomic background of a student. To test this relationship, the software PROCESS was used in SPSS. In order to be valid the data had to meet certain assumptions have to be met:

- 1) Dependent variable is measured on a continuous scale
- 2) Independence of observations
- 3) Data must be approximately normal
- 4) Linear relationship between the variables of interest.
- 5) Data needs to show homoscedasticity
- 6) No multicollinearity
- 7) No significant outliers
- 8) Residuals are approximately normally distributed

The above mentioned conditions were tested and the conditions were met for this study.

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 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 Alpha of $\alpha = .833$ was found. All of the subscales have a high Cronbach's Alpha, so they all have high internal validity.

Result

In Table 1a the means of the variables are broken down by study direction. The mean age of the participants is 22.3 years old. There are no age differences between study directions. 75.9% of the respondents are female. There is a significant difference between studies ($\chi^2(2,276)=13.498, p=.001$) : most females are found in alpha faculties 83.9% and the least in beta 52%. The average grade in the total sample is 7.3. There are no significant differences between study directions. The amount of contact hours in the total sample is 11.5. The highest amount is reported by students from the beta faculties 15 hours and the lowest from alpha faculties 10.6 hours ($F(2,276)=7.969, p<0.001$). There are also significant differences in self-studying hours ($F(2,276)=3.715, p<0.05$) with a total amount of 16.9. Beta studies has the highest amount of 17.9 self studying hours per week while Gamma studies has the lowest 13.5 hours. The total score for stress is 19.9 which indicates a moderate amount of stress for the students. A significant difference is found ($F(2,276)=3.149, p<0.05$) with highest number by students from the alpha faculties 20.8 which still falls into the moderate category and the lowest from beta faculties 17.2. The total score for well-being is 53.2 out of 100 (where a score of 100 indicates the best imaginable well-being). A significant difference is found ($F(2,276)=3.206, p<0.05$) with highest well-being of students from the beta category 58.1 and the lowest from alpha category 51.4. There are no significant differences between the Income from a part-time job or the total income per month. Additionally, there is no difference in the parents' education between Alpha, Beta, and Gamma study direction.

Table 1a*Relevant variables broken down by study direction*

	Alpha studies n=184	Beta studies n=37	Gamma studies n=55	Total n=276	F-value/Chi ²	p-value
Age	22.3	21.9	22.3	22.3	.304	.738
% of women	83.9	52.0	67.5	75.9	13.498	.001
GPA	7.4	7.2	7.3	7.3	1.113	.330
Contact hours	10.6	15.0	12.3	11.5	7.969	<0.001
Self-studying hours	17.8	17.9	13.5	16.9	3.715	.026
Stress	20.8	17.2	18.6	19.9	3.149	.044
Well-being	51.4	58.1	56	53.2	3.206	.042
Income from PT job	548	593	698	584	2.676	.071
Total month income	889	932	1053	928	2.838	.060
Education level of parents	7.4	7.1	7.0	7.3	1.087	.339

Note. “Faculty discipline groups the faculties by discipline Alpha: Behavioral and Social Sciences, Theology and Religious Studies, Arts, Philosophy. Beta: Medical Sciences, Spatial Sciences, Science and Engineering. Gamma: Economics and Business, Law, Sport, Communication.”

In Table 1b the variables are divided into students with part-time job and no part-time job. Students with a job are 22.5 years old and students without are 21.9 ($t(274)=2.170, p<0.05$). Students who don't have a part-time job have a higher GPA of 7.7 compared to students who work that have a GPA of 7.3 ($t(274)=-3.276, p=0.001$). No difference is found in contact hours between working students and non-working students. There is a difference in the amount of self-studying hours ($t(274)=-2.191, p<0.05$). Students who work have a lower amount of self-studying hours 16.3 compared to students without a part-time job 19.8. There is no significant difference in well-being and stress between the two categories. The total monthly income of part-timers is €742 and it is significantly lower ($t(274)=3.301, p=0.001$) than students who have a part-time job €970. Students without a part time job have higher educated parents, on average 8.3 which indicates that at least one of the parents has obtained a bachelor's degree or higher, than students who have a part-time job ($t(274)=-3.852, p<0.001$).

Table 1b
Means broken down by part-time employment

	Part-time job n=223	No Part-time job n=53	T-statistic	Two sided p-value
Age	22.5	21.5	2.170	.031
GPA	7.3	7.7	-3.276	.001
Contact hours	11.5	11.4	.152	.879
Self-studying hours	16.3	19.8	-2.191	.029
Well-being	53.1	53.9	-.307	.759
Stress	19.4	22.1	-1.915	.057
Total month income	970	742	3.301	.001
Education level of parents	7.1	8.3	-3.989	<.001

Note. N=276

In Table 2 the correlation matrix is presented. Firstly, the GPA is positively correlated with self-studying hours ($r = .267, p < 0.01$). Which indicates that the more hours students study outside of university contact hours, the higher their grades will be. Additionally, GPA is correlated with the education level of the parents ($r = .139, p < 0.05$). This implies that students who have higher grades have parents with higher education. The correlation between contact hours and self-studying is significant ($r = -.154, p < 0.05$): the more hours the student puts into self-studying the less contact hours the student has. The monthly income from a PT job is negatively correlated with self-studying hours ($r = -.186, p < 0.01$): the more hours a student spends studying the less income there will be from the part-time job. Similarly, the working hours of a student are also negatively correlated with self studying ($r = -.158, p < 0.05$). Which indicates that the more hours a student works the less hours they spend studying. The stress score is positively correlated with the hours a student studies ($r = .120, p < 0.05$): the more hours a student spends studying the more stress they will experience. The self-study hours are also correlated with the parents' education of a student ($r = .151, p < 0.05$). This means that if the student comes from highly educated parents they will spend more time studying.

The more money students have from their job the less stress they will experience ($r = -.151, p < 0.05$). The working hours of a student is correlated with the education level of the parents ($r = -.143, p < 0.05$). This indicates that the more hours a student works it's more likely that he comes from lower educated parents.

The well-being score is highly correlated with the stress score ($r = -.493, p < 0.01$). This means that the higher well-being a student experiences, the student will have lower levels of stress. Additionally, the correlation between well-being and parents' education indicates that students who come from higher educated parents experience more well-being ($r = .121, p < 0.05$).

In general the GPA of a student is higher when they have a higher amount of self-studying hours and they come from higher educated parents. The more time students spend on self-studying the less contact hours they will have and their monthly income from PT jobs will be lower because they will work less hours. The higher the parents' education level of a student the more hours they spend self-studying, experience more well-being, and they spend less hours working. A student will experience more stress the more hours they spend studying. The more money they have from a part-time job the less stress they will experience.

Table 2
Correlation table of the relevant variables

	<i>M</i>	<i>SD</i>	1.	2.	3.	4.	5.	6.	7.
1. GPA	7.4	0.86							
2. Self studying hours	16.9	10.5	.276**						
3. Contact hours	11.5	6.5	.064	-.154*					
4. Income from PT job	584	385	-.078	-.186**	-.059				
5. Working hours	13.7	6.5	-.129	-.158*	-.035	.706**			
6. Well-being	53.2	17.2	.006	-.074	.024	.063	-.058		
7. Stress score	19.9	9.3	.066	.120*	.066	-.151*	-.045	-.493**	
8. Summed parents education	7.3	2.1	.139*	.151*	-.103	-.089	-.143*	.121*	-.032

** $p < 0.01$ (2-tailed) * $p < 0.05$ N=276 (Variable 4,5: N=222)

Hypothesis testing

The first hypothesis that was being tested predicted that people who work less hours will perform academically better and experience higher levels of subjective well-being . In order to test this hypothesis the variable working hours in Table 2 is negatively correlated with the average grade a student receives. This correlation is not significant. However, looking at Table 1b it can be observed that there is a significant difference between students

with part-time job and without. Students who don't have a part-time job have a higher GPA compared to students who work ($t(274)=-3.276, p=0.001$). Which means our hypothesis is partially supported by the data. The working hours of a student are not correlated with their well-being. Also looking at Table 1b there is no significant difference of well-being between working and nonworking students. This concludes that the first hypothesis is only partially supported by the data.

The second hypothesis being tested states that if a student comes from a low socioeconomic background, they will work more hours and have lower grades. The socioeconomic status here is measured by the education of the parents. In Table 3 it can be seen that the complete model including the predictor variables and the interaction effect explained 5.9% of variance in GPA. As seen from the table there is no significant interaction effect between working hours and parents' education ($b = .003, p=.260$). This indicates that there is no significant moderation effect of socioeconomic status on the relation between work hours and academic performance. The results do not support the second hypothesis.

Table 3

Moderation table of Parents education as a moderator of the relationship between GPA and working hours

	Coefficients				95% CI	
	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>	LLCI	ULCI
Constant	7.380	.053	139.780	.000	7.276	7.484
Working hours	-.022	.007	-3.3014	.001	-.035	-.009
Parents education	.036	.025	1.4451	.150	-.013	.085
Int_1	.003	.003	1.129	.260	-.003	.009

Note. $R^2=.059$

$p=.001$

Int_1= Working hours*Parents Education

Discussion

This study examines the effect of a part-time job on academic performance and well-being. This study found that working hours did not affect the academic performance of students. Well-being was not correlated with the working hours of students. So the data partially supported the first hypothesis. Since, there was a significant difference in the average grade between students who are employed part-time and students who are not. Additionally, socioeconomic background of the students was examined as a moderator for the relationship. The data showed that socioeconomic status does not moderate the relationship between working hours and academic performance. The relationship between part-time employment and academic performance was not stronger when students come from a lower socioeconomic status than from a higher socioeconomic status. So the second hypothesis was not supported by the data.

Theoretical Implications

The data found in this study is not consistent with the previous literature. Carney et al. (2005) and Cinamon (2018) found that working more hours led to lower academic performance. Cinamon (2018) concludes that working more than 20 hours a week can lead to negative effects on a student's academic performance. Contrary to previous findings, this study found no correlation between the working hours of students and academic performance. Calderwood & Gabriel (2017) and Derous & Ryan (2008) show that students with part-time job have lower well-being than students without a part-time job. There was no difference between the level of well-being in working students and non-working students. Additionally, the working hours of students were not related to their well-being.

This study found a significant difference in academic performance between students who had a part-time job and students who did not. This is quite interesting, since much of the previous literature also found a difference in academic performance between working and nonworking students (Hunt et al, 2004; Salmons & Andrew, 2006; King & Bannon, 2002;

Cinamon, 2015). This shows that working does influence academic performance in a negative way, which means that students who plan on working besides their studies might have to think twice about taking on a part-time job. However, not everyone can afford that as mentioned in the introduction students who come from lower socioeconomic status base their decisions not only on academic performance but also on financial needs (Soria et al., 2014). This study did find that students who come from lower educated parents tend to work a higher amount of hours and have a lower amount of self-studying hours. However, socioeconomic background did not moderate the relationship between working hours and academic performance.

Practical implications

Students who plan on taking a part-time job have to know the consequences of this action, since there is a significant difference in academic performance between working and non-working students. Where students with a part-time job have 7.3 GPA on average and students without have 7.7 GPA on average. This shows that government institutions should take action. Reinstating the base grant from 2023 is a first step of the Dutch government in helping students (Duo, 2023). This help however, is still quite low compared to the expenses a student has. This especially holds for students coming from low socioeconomic backgrounds who will still need to take on a part-time job to cover all the expenses. As found in this study students coming from lower socioeconomic backgrounds report a higher amount of working hours and lower amount of self-studying hours. The government could use the outcome of this study to implement a plan for a more level playing field for students from all socioeconomic backgrounds based on equity.

Strengths, Limitations and Future Research

One strength of this study is the practical implication it provides. Since there is such a high percentage of students in the Netherlands having a part-time job, it is very important for research to add to this topic. This can help the government and university understand the severity of this topic. Especially in countries like the Netherlands where the government

wants to give equal opportunities for education to everyone. Additionally, academic performance is also measured by GPA which can be a good predictor (York et al., 2015). This shows that the interpretations made with these scales can be trusted.

This study, however, has some limitations. Firstly, the reported GPA of the students in this study was quite high. This could have occurred as a result of the form that was used for the survey. Google form was used for the questionnaire, which displayed the email of the student taking the quiz. This could have led the students to believe that the data could have been traced back to them, which can lead to social desirability bias. As this was also mentioned during the presentation of this paper by one of the participants. This can explain the elevated GPA of the students. Future research should use different means of obtaining the data where this bias will be less likely to occur.

This study did not focus on the positive effects of part-time working. Even though there is literature that suggests that working besides studying can have some positive effects for students (Richard et al, 2014; Robotham, 2012; Cinamon, 2018). Future research should also include the positive effects since this can give a more complete picture of the working student. Other variables that can contribute to the relationship between studying and academic performance is the involvement of the employer. This will give interesting insight in the relationship. Additionally, different universities can have differences in mandatory presence that can also play an important role. This can lead the students to work more irregular hours which can lead to poorer academic performance.

The sample size was also one of the limitations of this study. The sample was obtained by convenience sampling. This indicates that the data obtained from the students could have been biased, since the survey was conducted with easily accessible students. This means that the results cannot be generalized to the whole population. Additionally, there was a higher number of Dutch participants in the study. There are different requirements for international students to receive help from the government which is the working hours. A better

representative number of international students can give a more realistic picture of how the working hours of students can play a role in their academic performance.

As future research, this study can be transformed into longitudinal study. Longitudinal study can give a more clear picture of how the variables interact with each other. This type of study can also identify other possible changes in the variables over time. Additionally, this study should be replicated in countries with different student-support systems. This can help globalize the results. As of 2023 the Netherlands will reinstate the base grant system. This can change the percentage of working students and their working hours. This means that future research also has to be conducted after this change is applied.

Conclusion

Because of the constant increase in university fees and cost of living, more students decide to have a part-time job while studying. This study concludes that students who have a part-time job will have lower GPA than students without a part-time job and the difference is significant. This means that students, universities and student-support systems should make changes and find a better solution to the problem of the increasing costs. The Netherlands is already taking steps in this direction with introducing back the base grant for students which will help the financial stability of students. The working hours of students was found to be a non-significant factor in the academic performance of students. Furthermore, the socioeconomic status of students did not moderate the relationship between working hours and academic performance. However, some interesting results were found from the differences in socioeconomic status. Further research is needed to clarify the role that socioeconomic status plays in this relationship.

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Appendix

Questionnaire:

*Only the relevant parts for this study are included in this questionnaire. Motivation and ways to spend time were excluded.

Welcome to the questionnaire about the effects of studying and part time employment.

Before the start of the questionnaire you receive some information about the research we are conducting. Additionally you will be given an informed consent form.

The questionnaire will take approximately 10 minutes.

Thank you in advance for your participation.

Why do I receive this information

You are being invited to participate in our research because you are a student currently undergoing a university or HBO study. This research focuses on the relationship between part time employment and studying.

Who are the researchers?

This research is conducted by six students of the bachelor program of psychology, N. Blom, T. Boteva, E. van Eck, V. Németh, J. van Straaten and A. Tangemann, regarding their bachelor thesis project. The project is supervised by Dr. Pierre Cavalini.

Do I have to participate in this research?

Participation in the research is voluntary. However, your consent is needed. Therefore, please read this information carefully. If you decide not to participate, you do not need to explain why, and there will be no negative consequences for you. You have this right at all times, including after you have consented to participate in the research.

Why this research?

We are investigating the effects of part time jobs on student life, such as well-being and academic performance. We are therefore hoping to increase the body of knowledge about this topic, gaining insight on how to create a better work life balance for students in the future.

What do we ask of you during the research?

First you will be asked for consent. Then you will be able to fill out our questionnaire. You will be asked about certain demographics, your academic performance, your part time job, your well-being, different ways you spent your time, motivation and some questions about financial government aid or aid from your parents. The questionnaire will take roughly ten minutes.

What are the consequences of participation?

Participating in this research might give you insight into how your part time job is affecting your academic career as well as your state of well-being. Research outcomes can however not be guaranteed.

How will we treat your data?

The gathered data will be used for educational purposes. All data will be kept confidential according to the GDPR guidelines and collected anonymously. This research is evaluated by the Ethic Committee of Psychology at the University of Groningen (ECP). After analyses the data will not be used for anything other than this thesis project.

What else do you need to know?

If you have questions about the research you can ask the principal researcher by emailing (p.m.cavalini@rug.nl). If you have questions or concerns about your rights as a research participant in this research you can contact the ethics committee of the department of psychology of the University of Groningen via ecp@rug.nl. Questions regarding privacy and personal data can be asked to Data Protection Officer of the University of Groningen: privacy@rug.nl.

Informed consent

By agreeing to participate you understand the following: I have read the information that was provided to me about this research. My participation is voluntary and I may withdraw my consent to participate in this study at any time without penalty. I may refuse to answer or skip any questions in this study that I do not wish to answer. There are no advantages or disadvantages for me depending on my decisions. All of my responses are completely anonymous and confidential. This means that there is no possible way of using my responses to identify me. In the event that I have communicated any information that is able to identify me, the information would be removed from the survey materials. All responses will be securely stored and only be accessible to the research team, and not passed on to any third parties. I further understand that this project subscribes to the ethical conduct of research and to the protection of the dignity, rights, interests and safety of participants at all times.

I agree to the following:

- I have read the information about the research. I have had enough opportunity to ask questions about it.
- I understand what the research is about, what is being asked of me, which consequences participation can have, how my data will be handled, and what my rights as a participant are.
- I understand that participation in the research is voluntary. I myself choose to participate. I can stop participating at any moment. If I stop, I do not need to explain why. Stopping will have no negative consequences for me.
- Below I indicate what I am consenting to.

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:

5. What is your current living situation ?

Mark only one oval

- With housemates
- Alone
- With parents
- 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)

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

Parttime Job

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

11. Do you have a parttime job? *Mark only one oval* Yes/No

12. In what sector do you work * *Check all that apply.*

- Hospitality Delivery
- Retail
- Education
- Freelancing
- On-campus jobs
- Caregiver
- other:

13. How many hours a week do you work? * **open question**

14. What is your (average) hourly wage before deduction of taxes? * **open question**

15. What is your average income per month from your part-time employment? * **open question**

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).

19. 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
20. 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
21. 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
22. Please fill in option 3: More than half of the time * *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
23. 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
24. 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

25. I found it hard to wind down. * *Mark only one oval.* 0-3

26. I tended to over-react to situations. * *Mark only one oval* 0-3
 27. I felt that I was using a lot of nervous energy. * *Mark only one oval.* 0-3
 28. I found myself getting agitated. * *Mark only one oval.* 0-3
 29. I found it difficult to relax. * *Mark only one oval.* 0-3
 30. I was intolerant of anything that kept me from getting on with what I was doing. * *Mark only one oval.* 0-3
 31. I felt that I was rather touchy. * *Mark only one oval.* 0-3
-

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.

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

- No
- DUO
- BAFÖG
- Erasmus
- Other

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

61. 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

62. 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:

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

64. 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
