
THE EFFECTS OF EXTRACURRICULAR ACTIVITIES & GPA ON EMPLOYABILITY OF EGYPTIAN STUDENTS OF PUBLIC & PRIVATE UNIVERSITIES

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Abstract

As the job market is getting fiercer every day, college degree is no longer a stand-alone metric (Tomlinson, 2008) that can distinguish between applicants especially in a country where education is very affordable like Egypt. Several other metrics like amount of non-college courses, trainings, and skills that the applicant have are increasing in importance. Extracurricular activities (ECAs) are receiving higher recognition and college students due their perceived potential in equipping those who engage in them with various soft and technical skills. The purpose of this research is to test two main aspects that may play vital role in determining the applicant's (public and private universities' students) number of received job offers: GPA and ECAs. Moreover, the research compares between the students' average GPA in public and private universities. When looking at the students' ECAs, the number of extracurricular activities, leadership positions, and time spent on those activities were all considered in the analysis of their effects on the number of job offers received by the participants. A study was made on 472 participants ranging between college sophomores to fresh graduates from various private and public universities in Greater Cairo using an electronic questionnaire. The findings proved that ECAs have positive impact on employment chances while GPA had no statistical effect on number of predicted jobs offers. Also, the GPA in Egypt differs in private universities than public universities, with the private ones having the advantage.

Keywords: Labor Market, Employers, Supply Side Factors, Demand Side Factors, Resumes

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Introduction

As the number of university graduates is increasing continuously and various ways of education are becoming readily available, academic readiness can no longer be a sole determinant of an applicant's employability. There is an ever-growing competition between applicants in the job market because of the limited job opportunities (Roulin and Bangerter, 2013). Higher Education students are expected to expand and develop their skills, understanding, and experience through extracurricular activities and competitions especially in the duration of their higher education. Chia (2005) stated that companies began to change their requirements from applicants with high academic excellence into applicants with more soft skills combined with academic readiness in order to have flexibility in managing and working inside dynamic environments. The meaning of 'extra-curricular' vary and the borders of extra-curricular and curricular are increasingly overlapping (Clegg, Stevenson and Willott, 2010). This paper defines extra-curricular activities (ECAs) to be any activity or event students can participate in without being paid or accredited in their formal degrees. This includes social groups, cultural or religious activities, technical and major-related clubs, hobbies, and any other voluntary work. The purpose of this research is to investigate the effects of extracurricular activities and GPA on the employability of college students and fresh graduates. In doing so, the number and nature (member or holding a leadership position) of the reported extracurricular activities were considered. The differences in GPA between public and private universities were measured along with the effects of GPA on the number of offered jobs. Moreover, the relation between the participant's ECAs and GPA was tested. The research methodology is based on primary research based on the residents of Greater Cairo.

Literature Review

The body of this literature review is based on previous research inside and outside of Egypt. A job opportunity starts with an employer's decision to post a job recruitment, then proceeds with an applicant's job search and decision to apply using mainly resume that includes all of the important information and ends with a final decision after one or more interviews. Thus, the literature review focused on analyzing and understanding the employers' behavior in recruitment as well as the factors that shape the supply of labor: Employees, mainly fresh graduates. Moreover, the resume judging criteria is explained along with the most important parts. Lastly, the process of job searching and the purposes of the interviews along with their relation to extracurricular activities are analyzed through previous research that is presented in this literature review as well.

Demand Side Factors: Employers

The demand for labor is derived. The employment relationship starts with the employer's desire to hire and ends with the execution of that desire. According to Jackson (2007), labor market inequalities are the macro level result of all the micro level decisions by employers and the responses of the employees to those decisions, with the employers getting the final say about which characteristics in the employees are desired and rewarded. It's of major importance to understand the hiring behavior of the employers to better evaluate the importance of ECAs and its relation to employability chances. How employers gather, analyze, and make decisions based on the collected information about job applicants is crucial to understanding how people get hired. Cappelli & Keller (2014) explained the "decline of the traditional model" where employers in the 1980s used to fill vacancies mainly by promoting workers in the hierarchy of the firms and employing new entry levels.

The authors found that relatively few jobs are now filled from within. Instead, employers can now hire employees in almost all kind of jobs at all levels of the organization's hierarchy. This trend of external hiring means employers won't be able to evaluate applicants based on performance they observe directly, relying more on worker skill and competence like resume, education, and GPA. Rojstaczer (2010) looked at the GPA of 160 colleges and universities in the US with a sample of more than 2,000,000 students and found that the average GPA of private universities is 0.3 higher than the average of public ones. To differentiate more between educational backgrounds, employers give rising importance to qualitative differences as college quality, sector, institutional prestige, major, and specialization (Gerber & Cheung 2008). This rising importance created educational stratification based on social class as well (Lucas 2001; Torche 2011). Rivera (2011) concluded that education prestige matters to top employers (top-tier law firms, management consulting firms, and American investment banks) more than the content or length of education.

Under a field experiment with matched pairs of resumes, Gaddis (2015) and Jackson (2009) reached the same conclusion about the importance of institutional prestige in employers' evaluations. Thus, it's predicted that students in private colleges may have higher chances of employability than other students in public schools. However, the state of the business cycle in the economy plays a role as Van Noy & Jacobs (2012) found that employers in generally robust economy valued associate degrees more than the employers in a more stressed economy. This might as well affect the opportunities in Egypt since the economic activity has been adversely

impacted by the global events with core inflation rate accelerated to 13.7 percent in August 2022 (World Bank Data).

Supply Side Factors: Fresh Graduates

Graduate unemployment continues to increase globally and remain a major problem in developing countries despite all efforts of the governments and local and international agencies to reduce the level of unemployment (Ismail, 2011; Galal, 2007; Nikusekela & Pallangyo, 2016). The high development in higher education led to a continuous increase in the number of graduates injected in the labor market (P. Brown & Hesketh, 2004) With a lot of people being college graduates, the value of the education credentials decreases as it's getting harder for employers to differentiate between applicants based on academic readiness (Tomlinson, 2008). In Egypt, higher education enrollment increased from 2,151,275 in 2012 to 3,338, 927 in 2019 (Galal, 2021). With the unemployment of those graduates in 2019 exceeding 36% (Zawya, 2020). While the amount of college students and graduates has been increasing in Egypt, the labor market can only absorb a limited portion of this amount. Thus, its crucial for universities to the quality of their students (skills and competencies) satisfy the country's labor market demands which look for certain employability factors in the students (Albach, Reisberg, & Rumbley, 2009; Rojas, 2016).

Finch et al. (2013) concluded that the employability factors can be divided into two main levels of skills: soft skills and field-related skills. Communication skills are amongst the soft skills of major importance as employers are looking for employees who are good communicators (Honaker, 2005). McKay (2005) confirmed that communication skills are among the top of the list of qualities desired for entry-level positions. Soft skills are considered non-academic skills that are transferable between wide range of working environments from a job to another (Chamorro-Premuzic, Arteché, Bremner, Greven, & Furnham, 2010). Employers and educational researchers have also drawn attention to the significance of soft-skills for employability (Hogan, Chamorro-Premuzic, & Kaiser, 2013; Omar, Manaf, Mohd, Kassim, & Aziz, 2012).

1. Resumes and Extracurricular Activities

Resume is the first and most common attribution an employer will assess a candidate on (Knouse, 1989; Cole, Feild, Giles, & Harris, 2009). For a fresh graduate, the main two pillars of his or her resume is their GPA and work experience, with the latter being the second most important resume item (Feild

and Holley, 1976). Employers look for certain characteristics in employees like knowledge, skills, abilities and other personal traits which are categorized in three major sections in the resumes: education, job-related competencies, non-job-related competencies (Cole et al., 2009; Nemanick & Clark, 2002). Richard and Eddie (2002) results on 220 undergraduate students found that higher number of activities on a resume result in a higher rating by employers than those with lower number of activities. Moreover, there was a significant impact on the ratings of applicants holding leadership positions than those with none (just membership). Cole et al. (2007) and Nemanick & Clark (2002) both found the same positive effect of number of ECAs and leadership positions on evaluations and chances of receiving invitations of interviews. For the graduates, ECAs boost their chances to find jobs on par with their qualifications (Merino, 2007). Also, the nature of the activity plays an important role. Pairwise comparisons with a 99% confidence interval proven that students with major-related activities received higher ratings than those with social-related activities (Richard and Eddie, 2002). From a development perspective (Tieu et al., 2010), engagement in a multiple ECAs would offer wide range of experiences that offer knowledge and understanding about oneself and job preferences in the labor market.

2. Job Search and Interviews

Job interviews can be classified into three stages (Chia, 2005). Both the initial and subsequent interviews mainly check the emotional intelligence and soft skills of the candidate, while the final interview examines the academic readiness and technical skills. This shows the importance of emotional intelligence and soft skills of getting the candidate a chance of employability. Salovey and Mayer (1990) defined emotional intelligence as one's ability to control the stress during interviews, solve obstacles, and manage one's actions. All of these abilities and skills could be acquired and enhanced through ECAs as the participants get through interviews, obstacles to solve, and are held accountable for their decisions and actions (Stuart, Morgan, & May, 2011). Furthermore, participating in a wide variety of ECAs facilitates learning in three types of self-knowledge that are viewed as the basis for students' perceptions of their employability chances and career success – self-awareness (knowing why), connections (Knowing whom), and skills (knowing how); DiRenzo and Greenhaus, 2011; Eby et al., 2003; Defillippi and Arthur, 1994). ECAs help students develop higher self-awareness through understanding their own strengths, weaknesses, and the values they want to live by in the working world. Students also get to widen their network and connections by building new relationships or strengthening the current ones which would help in finding future opportunities. Lastly, doing various tasks in their ECAs, students develop their (know how).

Finally, the body of the literature proved ECAs to be of increasing importance and high impact, especially in securing at least an interview with the employer. ECAs have significant positive impact on the evaluation of the applicant's resume (Merino, 2007). Education and institutional prestige have significant influence on the applicant's chances of getting a job (Gaddis, 2015; Jackson, 2009). Employers and educational researchers have recognized the potential importance soft-skills for employability (Hogan, Chamorro-Premuzic, & Kaiser, 2013; Omar, Manaf, Mohd, Kassim, & Aziz, 2012). Thus, this research is focusing on ECAs because of their promising effects on soft-skills and human capital. The following sub-section are the hypotheses that are based on the empirical evidence in the body of literature.

Hypotheses

1. The number of ECAs as well as the number of leadership positions will each have an independent main effect on the student employability chances both before (part-time, full-time, or internships) and after college or university. As Richard and Eddie (2002) found that students with higher activities received higher ratings on their resumes by reviewers.
2. The number of ECAs may have negative effect on the students GPA since ECAs require effort and time commitments.
3. Egyptian students enrolled in private universities will have higher average GPA than those in public universities, similar to the 0.3 gap found between students enrolled in private and public universities in the United States (Rojstaczer, 2010).
4. Private university students may have more ECAs in general than public universities due to higher budgets of student unions in private universities that could be spent on funding and supporting those ECAs.
5. ECAs would have higher impact on employability chances than GPA since ECAs improves soft skills which are highly valued by employers (Hogan, Chamorro-Premuzic, & Kaiser, 2013; Omar, Manaf, Mohd, Kassim, & Aziz, 2012).

Methodology

Research Participants

The total participants of the questionnaire were 471 from various universities in Greater Cairo, Egypt. 58.9% of the participants were students and graduates of private universities, and the remaining 41.1% were from public universities. The top 3 fields of study for the participants were

Engineering, Computer Science, and Business comprising 28.8%, 23.7%, and 20.6% of the total participants, respectively. The majority of the participants 56.4% were junior students and senior students (22.9%).

Instruments

An electronic questionnaire delivered by Google Forms were used as the primary and only data collection method (Appendix 1). The questionnaire had a total of 19 questions about the participants type of college, major, academic standing, GPA, schedule and time spent on sleeping, studying, attending college, working and participating in extracurricular activities. The rest of the questions aimed understand and analyze the participants' opinion on extracurricular activities and the impact their participation in those activities had on academic and professional life. The key questions of the questionnaire were the ones asking about the participants GPA, frequency of participation in extracurricular activities, the number of activities reported in the participants' resume, and the number of leadership positions held in those activities. Using an electronic questionnaire was the best option in terms of accessibility, time saving, and clarity for objective results.

Data Collection Procedures

The electronic questionnaire was sent on emails to Nile University alumni as well as all the current batches except for freshmen students as they don't have any experience or GPA yet. Also, the questionnaire was distributed using universities' official Facebook groups with the collaboration of the students' unions. The collected data was analyzed using various methods including regression models to find and summarize all the interrelated relations between extracurricular activities, academic readiness, and professional life. The questionnaire was answered by 100 students in the first day and kept increasing at a decreasing rate until it reached 470 participants by the end of 8th day. The following section shows the most important results and analysis of the research. The discussion and interpretation of those results will be provided in a separate section.

Results

The average GPA for students majoring in fields of Engineering, Computer Science, and Business were 3.04, 3.36, and 3.29, respectively. Separating the average GPA of private and public universities, an obvious consistent advantage of 0.3 increase in private universities over public ones. For example, the average GPA of computer science students in private universities was 3.36 and just 3.102 in public ones. On the whole sample of 470 students,

a regression model was implemented with confidence level of 95% to test the relationship between students' GPA

and number of activities. The results of the model shown in table 1 (see appendix) proved that participation in activities have no effect on students' GPA. The independent variables were the number of activities and leadership positions, and the dependent variable was the students' GPA. The P-value was 0.001271, very insignificant. Moreover, the very low adjusted R square value shows the insignificant relation between GPA and participation in activities. Separating the data of the fresh graduates, a regression model was implemented with the number of jobs offers being the dependent variable and GPA as an independent variable, shown in table 2(see appendix). A clear negative relation between GPA and amount of job offers appears. The P-value was 0.018 which is significant but the adjusted R square value was small (0.44) due to the smaller sample of fresh graduates. However, the results confirm with the paper published by Qutb (2016) where the unemployment rate reaches its maximum among universities' graduates (22%) in Egypt.

A more comprehensive model was done to include all of the ECAs reported in resumes, number of leadership positions in those ECAs, working hours and GPA as independent variables against the amount of job offers as the sole dependent variable. This model run on all of the participants except for the sophomore students as college students rarely start working before junior year in Egypt. The results, available in table 3, showed the highest aspect that affects the predicted.Number of job offers a candidate may have was the number of leadership positions held on ECAs. Every leadership position would increase the chance of getting a job offer by 37%. Both The number of ECAs and average working hours (which increases the applicant's experience) had a positive relation with the number of job offers. In this analysis for this sample of data, the students GPA didn't have any effect on the number of job offers. In the questions asking about students' opinions on ECAs, their education and most recent work, only 37.5% agreed that they were working in areas related to their study fields. On the other hand, 52.8% of the participants said they're still using the skills learned in ECAs in their most recent jobs, 24.5% were neutral, and only 14.17% were negative about the impact their ECAs. Lastly, only 12.7% of the total participants claimed that ECAs negatively affected their GPA. The following section provides the discussion and interpretation of the mentioned results.

Discussion

Hypothesis one was partially true. ECAs and leadership positions both have effects on job offers but with interrelated not independent effects. Similar to Cole et al. (2007) and Nemanick (2002), each leadership position can boost the applicant chances by 37%. This proves the findings of Richard and Eddie (2002) as they claimed that resumes with more ECAs were better valued by employers. Moreover, the average number of extracurricular activities for students who had at least one internship was 4, twice as much activities as those who couldn't find an internship yet. Hypothesis two is false; extracurricular activities does not have significant positive or negative effect on GPA. This may be because of the time management skills gained from the participation on these activities, or the lack of commitment some people show in extracurricular activities and free riding the team tasks.

Hypothesis three was true; students enrolled in private universities average GPA is noticeably higher than public ones by 0.3. The same 0.3 gap was observed by Rojstaczer (2010) when he compared between the GPA of students enrolled in public and private universities in the United States. This may be because of several reasons including the higher focus on the students in private universities since the student-to-faculty ratio is lower, enabling students to have better communication and accessibility on their professors. Hypothesis four was not right; the frequency of participation in ECAs was equal in private and public universities. The average participation in ECAs for a student, either in a public or private college, is three. This could be due to the fact that many college activities are not strictly for the students in the home university. However, it's important to note that the nature of the ECAs the participants had was not tested in this questionnaire.

The relevance and prestigiousness of the activity could be different in private than in public universities. Hypothesis five was right; ECAs had higher impact than GPA on the number offered jobs. In fact, there was no observed impact or correlation between participants' GPA and number of offered jobs. This is different from Gerber & Cheung (2008) findings as they showed rising importance to college education and GPA in employability chances. However, their study was not on Egypt. Qutb (2016) explains that due to the nature of the market in Egypt, which is not based on manufacturing or high skill, there is higher demand for semi-skilled workers over those of high skill who are mostly college graduates. The perceived negative impact of GPA on job offers may have many other factors like the mandatory military for males which disqualifies them from most jobs until their military status is decided or after they finish their service. Also, students with higher GPA may tend to pursue graduate studies instead of going directly to the job market after graduation.

On the other hand, ECAs had a statistically significant impact on the number of jobs offered. Moreover, the number of leadership positions in the ECAs had twice the impact of the number of ECAs on the amount of offered jobs.

Limitations

However, there were some limitations that could result in more accurate results. The gender of the participants was not considered, nor their desire to pursue graduate education or get into the job market. The relevance of the activities was measured based on the student's perception and feedback which might be affected by different personal criteria.

Conclusion

Extracurricular activities have positive impact on human capital and the skills of the students participating in it. ECAs can boost the applicants' chances of getting a job offer. While the number of activities can have a positive impact, the leadership positions have a significantly higher effect. Unlike the findings of the body of the literature, which is mostly based on previous research outside Egypt, college GPA shown to have no impact on the amount of job offers the participants of the questionnaire received.

Recommendations

It's highly recommended to investigate the goals of the fresh graduates to accurately measure the impact of other factors. For example, some fresh graduates may decide to take a gap year after graduation. Others may want to pursue higher education or entirely change their careers. These factors may alter the influence of GPA and measured employability. Moreover, the gender of the participants may have an impact due to potential discrimination and different policies that affect the choices of each gender like the mandatory military service for males in Egypt.

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Appendix 1

Questionnaire

Q1: Current Academic year

- Sophomore (level 2)
- Junior (level 3)
- Senior (level 4 or 5)
- Fresh Graduate Fresh Graduate (Graduated in the past 3 years)

Q2: University Sector Type

- Private
- Public

Q3: Field of study

- AGRICULTURE & NATURAL RESOURCES CONSERVATION
- BUSINESS
- COMMUNICATIONS
- COMPUTER SCIENCE & MATHEMATICS
- ENGINEERING
- EDUCATION
- LINGUISTICS
- MEDICINE
- PHARMACY
- DENTISTRY
- Other

Q4: Cumulative GPA

- _____

Q5: Average hours per week spent in attending college per week (Lectures/Tutorials/Sections/Labs) Please only consider your actual time spent not the total required hours by college.

- less than 10
- 10 – 15
- 16 – 20
- 21 – 25
- +25

Q6: Average working hours per week (Work hours are time spent in any part/full time jobs, internships, or freelancing. Do not include time spent on extracurricular activities)

- 0
- 1-5
- 5-10
- 10-15
- 15-20
- 20+

Q7: Average sleeping hours per day (During College)

- 4-5
- 6-7
- 8-10
- 10+

Q8: Average hours spent on your extracurricular activities per week
(According to the scope of this research, extracurricular activities could be any non-paid work that's also not accredited by your college. This includes personal projects, participation in student clubs, competitions, charity work, etc.)

- 0
- 2-4
- 5-7
- 8-10
- 10+

Q9: How many extracurricular activities did you join in the last 4 years?

- 0
- 1-3
- 4-6
- 7-10
- 10+

Q10: How many extracurricular activities reported in your resume?

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

- 9
- 10

Q11: How many leadership positions (If any) did you have in those activities?

Ex. Head/Director of a committee, founder, chairman, vice, president.

- 0
- 1
- 2
- 3
- 4 or more

Q12: Did you have an internship before?

- Yes
- No

Q13: How many job offers did you get so far? Do not include internships, only

part/full time offers.

- None, yet. Skip to question 20
- One Skip to question 14
- Two Skip to question 14
- Three Skip to question 14

Q14: My extracurricular activities were related to my field of study:

Likert scale 1 to 5 between highly disagree and highly agree

Q15: I worked in areas directly related to my study field

Likert scale 1 to 5 between highly disagree and highly agree

Q16: I still use skills I learned through my extracurricular activities in my most recent

job.

Likert scale 1 to 5 between highly disagree and highly agree

Q17: I highly benefit from my study material directly in my most recent job.

Likert scale 1 to 5 between highly disagree and highly agree

Q18: Extracurricular activities negatively affected my academic performance and

GPA

Likert scale 1 to 5 between highly disagree and highly agree

Q19: My payrate/salary is more than the average of similar jobs in the industry I'm

working in.

Likert scale 1 to 5 between highly disagree and highly agree

Tables

Table 1: Regression Statistics results between GPA (dependent variable) and ECAs & number of leadership positions in those ECAs (independent variables)

SUMMARY OUTPUT								
<i>Regression Statistics</i>								
Multiple R	0.128594							
R Square	0.016536							
Adjusted R Square	0.011704							
Standard Error	0.555619							
Observations	410							
<i>ANOVA</i>								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	2	2.11267	1.056335	3.421747	0.033598			
Residual	407	125.6459	0.308712					
Total	409	127.7585						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	3.140516	0.04476	70.16332	1.9E-229	3.052527	3.228506	3.052527	3.228506
ECAs in Resume	0.021659	0.016165	1.339843	0.181044	-0.01012	0.053436	-0.01012	0.053436
No. of Leadership Pos	0.019945	0.033645	0.592794	0.553649	-0.0462	0.086085	-0.0462	0.086085

Table 2: Regression analysis on GPA and number of job offers

SUMMARY OUTPUT								
<i>Regression Statistics</i>								
Multiple R	0.585313502							
R Square	0.448466495							
Adjusted R Square	0.324136966							
Standard Error	1.252042617							
Observations	37							
ANOVA								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	1	9.5661	9.5661	6.1023	0.0185			
Residual	35	54.8664	1.5676					
Total	36	64.4324						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	6.079526019	1.4040	4.3301	0.0001	3.2292	8.9299	3.2292	8.9299
Cumulative GPA	-1.028040676	0.4162	-2.4703	0.0185	-1.8729	-0.1832	-1.8729	-0.1832

Table 3: Summary of the regression analysis on the relationship between number of job offers and ECAs, leadership positions, GPA, and average working hours per week

SUMMARY OUTPUT								
<i>Regression Statistics</i>								
Multiple R	0.791359							
R Square	0.626249							
Adjusted R Square	0.621024							
Standard Error	1.010402							
Observations	410							
ANOVA								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	4	694.5096052	173.6274	170.0708	2.63E-85			
Residual	406	414.4903948	1.020912					
Total	410	1109						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Average working hours per week	0.121846	0.029889896	4.076502	5.5E-05	0.063088	0.1806045	0.06308794	0.18060451
ECAs in Resume	0.15998	0.029729558	5.381181	1.25E-07	0.101537	0.2184232	0.10153705	0.21842322
No. Leadership Pos	0.372829	0.061725503	6.040112	3.48E-09	0.251487	0.4941704	0.25148748	0.49417045
Cumulative GPA	-0.04553	0.025795196	-1.76496	0.078322	-0.096236	0.0051814	-0.09623628	0.00518136