Academic Expectations, Gender and Working Status: Comparing Two Cohorts of University Students

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ABSTRACT – The expansion of higher education is associated with the progressive diversification of student's profiles, such as the increasing number of older, working and female students. The transition to higher education poses challenges for students entering it, generating expectations that can impact academic adaptation. This study compared academic expectations by gender and work situation in two cohorts of first-year students from a Brazilian public university, involving 13,336 participants. The Brazilian Scale of Academic Expectations for First-Year University Students was administered. Non-working and female students had higher academic expectations in both cohorts. The findings provide subsidies to higher education institutions to develop support programs and policies targeting first-year students.

KEYWORDS: academic expectations, higher education, first-year students

Expectativas Acadêmicas, Gênero e Situação Profissional: Comparando Duas Coortes de Estudantes Universitários

RESUMO – A expansão da educação superior está associada à progressiva diversificação dos perfis discentes, tais como aumento do número de estudantes mais velhos, trabalhadores e mulheres. A transição para o ensino superior comporta desafios para os estudantes que nele ingressam, gerando expectativas que podem impactar a adaptação acadêmica. Este estudo comparou as expectativas acadêmicas por gênero e situação de trabalho em dois coortes de estudantes ingressantes em uma universidade pública brasileira, envolvendo 13.336 participantes. Utilizou-se a Escala Brasileira de Expectativas Acadêmicas para Estudantes Ingressantes na Educação Superior. Estudantes mulheres e não trabalhadores apresentaram maiores expectativas acadêmicas em ambas as coortes. Os resultados fornecem subsídios às instituições de ensino superior para desenvolvimento de programas de apoio e políticas voltadas aos estudantes ingressantes.

PALAVRAS-CHAVE: expectativas acadêmicas, educação superior, estudantes ingressantes

Higher education has increasingly been called on to respond to the social and economic challenges resulting from the rapid and profound changes that have been taking place around the world. In recent decades, there has been an increase in the numbers entering higher education. In 2019, there were 223.7 million students enrolled in higher education worldwide (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2020). This growth has been particularly significant in developing countries, such as Brazil, and has led to a notable broadening of the student population profile. Individuals from poorer sociocultural groups and minority ethnic groups, as well as older and working students have been catered to by higher education, a scenario which would have been unimaginable two decades ago (Farias & Almeida, 2020; Organisation for Economic Cooperation and Development [OECD], 2019).

Women's participation and the academic fields they choose to study in higher education have also broadened, according to the Education Indicators in Focus Report (OECD, 2020). In this decade, female participation has expanded significantly in OECD countries: 40% of graduates were women aged 25 to 64 years old against 34% of men from the same age group. However, this increase does not necessarily mean gender equality in terms of the knowledge areas of the degrees or access to the labor market (Hewitt, 2020). Another important aspect of the expansion in student profiles is the intensification of internationalization policies during the last ten years, encouraging global student mobility. For example, the Brazilian Science without Borders Program, a large-scale nationwide scholarship program, sent more than 92,000 students and higher education professionals to attend universities all over the world for periods varying from one year (undergraduate study, sandwich doctorate, visiting scholar, and post-doctoral research) to four years (full doctorate) (Mcmanus & Nobre, 2017). According to Wit (2020), students are nowadays more interested in attending courses and doing research abroad, and seek incentives for further study.

While the traditional set of social, political, cultural, economic, historical and individual characteristics have an impact on students entering and staying in higher education, there are other factors to be considered in contemporary contexts, such as students who are part-time workers, and those who have family responsibilities. This diversity is reflected in the heterogeneity of study habits, academic preparation, skills and motivation, with implications for students' adaptation to academic life, whether they remain on their courses, and whether they are successful (Araújo et al., 2019; Soares et al., 2018).

Students' expectations when entering university have also been noted as a variable that influences academic performance (Feldt et al., 2011; Hamshire et al., 2013). As Diniz et al. (2018) explained, "because AEs [academic expectations] are associated with students' past academic experiences and future prospects, they predict students' adjustment, success, engagement with, and commitment to their academic and extracurricular activities" (p. 690). Expectations are considered aspirations that influence students' decision making and their engagement with university life, as well as giving meaning to their social and academic experiences and integration (Ozdagli & Trachter, 2014; Porto & Soares, 2017). For Alfonso et al. (2020), "academic expectations can be considered drafts of plans that students confront with reality" (para. 6), which can calibrate students' levels of motivation for learning, academic success, and satisfaction with the institution.

Academic expectations are a multidimensional construct, which include personal—cognitive, affective, and behavioral—and contextual aspects. In this regard, we propose assessing academic expectations according to the following categories, based on the results of previous studies (Marinho-Araújo et al., 2015, Fleith et al., 2020b): quality of academic development, social and academic commitment, broadening of interpersonal relationships, opportunity for student exchange and internationalization, perspective of professional success, concern with self-image, and development of transversal competences. Diniz et al. (2018) also proposed similar categories to explain the construct: training for employment, personal and social development, student mobility, political engagement and citizenship, social pressure, quality of education, and social interaction. Both taxonomies highlight academic expectations that encompass several dimensions of academic life, personal characteristics, and students' investment in their training and psychosocial development, which includes career goals, civic responsibility, and future professional practice.

In a study about first-year students' expectations of professional success, Fleith et al. (2020a) found higher expectations of professional success in women and working students. Although the literature points to women having higher expectations compared to men, we still see studies with contrary results (Diniz et al., 2018; Farias & Almeida, 2020). Fernández-Conejo et al. (2016) found that young women tended to have greater inclination to sacrifice a future working career in order to achieve a better balance between work and family compared to men. The predisposition to sacrifice one's career is negatively associated with high expectations about a future career in the face of family responsibilities.

According to Fleith et al. (2020b), having positive and realistic expectations promotes students' persistence, effort, and adaptation in their academic life. In contrast, having low or unrealistic expectations leads to weak engagement, poor adaptation, and higher risk of failure and dropout (Araújo et al., 2019; Khattab, 2015). Nonetheless, it is not unusual for first-year students to have unrealistic or distorted expectations about their future in higher education, such as course requirements or the time needed to do academic tasks and maintain social relationships with colleagues, which can result in dissatisfaction, lack of commitment, and poor academic performance (Araújo et al., 2019; Pleitz et al., 2015; Soares et al., 2018). As Pleitz et al. noted, students may choose to leave university, a significant and challenging issue for higher education institutions.

Therefore, it is imperative that higher education institutions learn about students' expectations and the factors that influence these aspirations in order to provide more flexible, diverse programs and services. Furthermore, because of the changes in higher education resulting from the expansion and diversification of the university population, technological advances, interactivity, and the explosion of scientific knowledge, one may also ask whether the academic expectations of students entering higher education tend to change or remain the same over time. In this regard, the relevance of students' initial expectations requires investigation about its stability, or not, over time.

For Tett et al. (2017), the transition to higher education is a process that takes time and continues beyond entering university. They interviewed a cohort of 45 non-traditional students from education colleges (colleges that accept lower qualifications as entry standards and students who are older) about the transition to higher education. Although the participants expressed a strong sense of exhilaration and excitement when first entering university, they also experienced the loss of a sense of belonging. However, by the end of the first year they learned the importance of meeting other students with whom they could share the university experience and how this could help them to fit in.

In their final years of study, the participants changed their approach to learning and belonging, they got to know the educational system and what was expected of them. In the years following graduation, the interviewees mentioned how the experience and relationships at the university changed them positively and had an impact on their family and personal lives. According to those authors, students needed to feel connected to the institution, the staff, and their peers in order to adapt, succeed, and build up their self-esteem.

In addition, Trinidad (2019) analyzed how stable or unstable expectations influence educational outcomes. Four waves of the Educational Longitudinal Study of 2002 (from 2004 to 2012) provided the data. The first two waves included data collected with high school students, and the last two involved college students. The results indicated that those with stable and rising expectations were more likely to finish college. On the other hand, students with consistent low expectations were less likely to either enter or finish college. Those students with falling and volatile low expectations were much more likely to drop out of college. In other words, "fallers did not have problems with entering college but experienced problems with staying in it" (p. 172). It is worth noting that more women were identified with stable, high expectations than men. According to Brumley et al. (2019), expectations of attending college may impact academic outcomes by motivating students to engage in behaviors that help them to attain their goals.

Studies about academic expectations usually employ cross-sectional or descriptive designs, and do not always consider the different dimensions of the construct or subgroups of students (Fleith et al., 2020a; Moreno & Soares, 2014; Oliveira et al., 2016; Soares et al., 2018). Our study compared university students' academic expectations by gender and working status in two cohorts of first-year students. We addressed the following research questions:

1. Are there differences between the two cohorts of first-year students with respect to academic expectations?

2. Are there differences in academic expectations between men and women or between working and non-working students?

METHOD

Sample

Data for this study was collected from a sample of 6,506 students who enrolled in a Brazilian public university in 2014 and from 6,830 students who entered the same university in 2018. The proportion of women was higher in the 2018 sub-sample (51.8%) than the 2014 sub-sample (47.3%), with a significant gender difference in the two sub-samples ($\chi^2 = 26.175$, $df = 1$, $p < .001$). In the 2014 sub-sample, ages ranged from 15 to 63 years old ($M = 20.08$, $SD = 5.80$), while in the 2018 sub-sample they were between 16 and 62 ($M = 19.91$, $SD = 5.83$). There were no statistically significant differences in the average age of the two groups ($t = 1.740$, $p = .09$).

When asked if they were enrolling in a higher education course for the first time, 72.9% answered yes in the 2014 sub-sample and 76.6% in the 2018 sub-sample (approximate percentage values). In addition, 83.5% in the 2014 subsample and 85.5% in the 2018 subsample reported not having any professional activity. The data collection was carried out at the beginning of each school semester from the years 2014 to 2018. We decided to use the data from the first year and the final year of data collection, in order to examine possible changes over the longest period of time given the available data.

Instrument

We applied the Brazilian Scale of Academic Expectations for First-year University Students, short-version (Fleith et al., 2020b). This instrument consists of 28 items answered on a 6-point scale, ranging from "I completely disagree" to "I completely agree". The scale measures seven academic expectations: (a) Quality of Academic Development, four items related to the education towards future work (example: At university I expect to: Obtain a good academic background in accordance with my interests); (b) Social and Academic Commitment, four items related to the critical-reflexive posture towards social problems, aiming to improve the quality of life in society (example: Participate in volunteering activities in the community); (c) Broadening of Interpersonal Relationships, four items that examine the opportunity to establish new relationship networks and participate in extracurricular activities (example: Have moments of social interaction and enjoyment); (d) Opportunity for

Student Exchange and Internationalization, four items on the experience and broadening of academic education at foreign institutions (example: Participate in university student exchange programs); (e) Perspective of Professional Success, four items on the possibility of getting a good job which guarantees stability through a socially valued profession (example: Get training to have a good job in the future); (f) Concern with Self-image, four items related to the need to consider family and friends' expectations as well as the desire to maintain a positive perception of oneself (example: Work hard so as not to feel inferior to my peers); and (g) Development of Transversal Competences, four items that refer to developing the ability to mobilize resources to effectively cope with unforeseen professional and personal situations (example: Acquire competencies to be a more responsible, autonomous person). Alpha reliability indexes were: .86 (Factor 1), .88 (Factor 2), .82 (Factor 3), .91 (Factor 4), .89 (Factor 5), .83 (Factor 6) and .85 (Factor 7). The model with seven correlated factors also demonstrated a good fit to the data (χ^2 [329] = 9142.49; *CFI* = .954; *TLI* = .947; *RMSEA* = .062; 90%CI = .061 to .063) and demonstrated full invariance by gender, university access modality, and work (Fleith et al.*,* 2020b).

Procedures

The students completed the instrument as soon as they enrolled in the university, just after having passed the institution's selection process. Both the informed consent form and the scale were published online for the participants to access and answer. Participation in the study was entirely voluntary, and the subjects' information was treated anonymously. A database was created from data collected from 2014 to 2018.

Data Analysis

In order to identify the multivariate normal distribution of the instrument items, we used the MVN package, version 5.8 (Korkmaz et al., 2014), R software, version 4.0.0 (R Core Team, 2018). We analyzed the univariate descriptive

statistics via the psych package, version 1.9.12.31 (Revelle, 2020). In order to analyze the invariance of the instrument, we used the lavaan packages, version 0.6-5 (Rosseel, 2012), semTools, version 0.5-1 (Jorgensen et al., 2018), and semPlot, version 1.1.2 (Epskamp et al., 2019). We tested the model of the seven correlated academic expectations via confirmatory factor analysis of the items through the comparative fit index (CFI) and root mean square error of approximation (RMSEA) indexes. Values of .10 or more in the RMSEA and values below .90 in the CFI indicate that the model should be rejected (Schumacker & Lomax, 2016).

We tested the invariance of this model for both the 2014 and 2018 cohorts, and within each cohort we considered working and non-working students, as well as male and female students. All these invariance analyses involved configural, metric and scalar models (Putnick & Bornstein, 2016). The configural invariance model makes it possible to identify whether the factorial structure of the model is the same between the groups analyzed. The configural model is rejected if it gives a CFI < .90 or RMSEA ≥ .10.

In turn, the metric invariance model allows us to verify whether the factorial structure and the factorial scores are the same between the groups. Subsequently, the scalar invariance model checks whether the factorial structure, the factorial scores, and the intercepts are the same between the groups. Both the metric invariance model and the scalar invariance model are compared to the configural invariance model. They are rejected if they present a difference of CFI > .002 and p < .01 in the Satorra Bentler scaled chi-square difference test (Satorra & Bentler, 2001). In case of rejection of the scalar invariance model, new analyses are performed, seeking to identify the partial scalar invariance model in which the CFI difference, in relation to the configural invariance model, is equal to or less than 0.002 or the *p*-value is equal to or greater than .01 in the statistical test for the chi-square differences of the Satorra-Bentler method. If the partial scalar invariance model does not relax more than 20% of the constraint parameters of the full scalar invariance model, the appropriate partial model will be considered and then permit the comparison of the scores of the analyzed groups (Putnick & Bornstein, 2016).

RESULTS

Table 1 shows the means and standard deviations of item scores from both cohorts of students (2014 and 2018) along with the skewness and kurtosis indices for the score distributions. Students' mean scores, in most items, were close to the maximum. In other words, they expressed high academic expectations. In addition, some items (items 10, 14, 21, 25, and 27) had high values for kurtosis. This occurred for both cohorts, and means a higher concentration at the

upper end of the Likert scale (mean equal to or greater than 5.60). As the participants' responses to the instrument items in both cohorts did not exhibit multivariate normality, we rejected the hypothesis of multivariate normal distribution for the year 2014 (Mardia kurtosis = 617.87; p < .001 and Mardia asymmetry = 115299.83; p < .001) and 2018 (Mardia kurtosis = 795.95; p < .001 and Mardia asymmetry = 140283.15; p < .001).

Table 2 gives the means and standard deviations of the factorial scores in the seven dimensions of academic expectations in the 2014 and 2018 cohorts. The means were near 6.0, which is the maximum value of the Likert scale. This indicates students entering university with high expectations. In both cohorts the means were higher for the dimensions Quality of Academic Development, Perspective of Professional Success, and Development of Transversal Competences, and lower for Concern with Self-image and Broadening of Interpersonal Relationships.

Table 1
Descriptive Statistics of the Items (Cohorts of 2014 and 2018)

Items	2014 (*n* = 6,506)				2018 (*n* = 6,829)			
	M	*SD*	*Sk*	*Kur*	*M*	*SD*	*Sk*	*Kur*
1	4.86	1.14	-1.09	1.21	4.93	1.12	-1.17	1.44
2	5.28	1.10	-1.82	3.35	5.19	1.13	-1.63	2.65
3	5.31	.98	-1.91	4.45	5.34	.95	-1.95	4.88
4	5.22	.98	-1.47	2.62	5.34	.96	-1.89	4.44
5	4.93	1.11	-1.12	1.26	5.04	1.12	-1.33	1.80
6	4.08	1.45	-.52	-.48	4.19	1.47	-.59	-.42
7	5.45	.92	-2.30	6.48	5.47	0.89	-2.32	6.86
8	4.90	1.23	-1.19	1.12	4.98	1.22	-1.28	1.35
9	4.82	1.16	-1.02	.94	4.95	1.13	-1.18	1.37
10	5.60	.79	-2.78	10.25	5.61	.77	-2.87	11.12
11	5.42	.95	-2.23	5.95	5.46	.92	-2.36	6.87
12	4.22	1.53	-.60	-.58	4.35	1.52	-.72	-.39
13	5.53	.78	-2.32	7.63	5.55	.78	-2.51	8.86
14	5.64	.74	-2.93	11.35	5.65	.73	-3.02	12.35
15	4.37	1.33	-.70	-.01	4.54	1.30	-.81	.20
16	5.07	1.24	-1.46	1.69	5.06	1.23	-1.39	1.53
17	5.21	1.01	-1.59	3.06	5.28	.98	-1.80	4.02
18	4.51	1.40	-.89	.11	4.61	1.38	-.96	.32
19	4.39	1.47	-.79	-.17	4.39	1.48	-.76	-.24
20	5.24	.98	-1.56	2.97	5.34	.97	-1.89	4.37
21	5.62	.72	-2.77	11.11	5.64	.71	-2.96	12.82
22	5.43	.88	-2.15	6.12	5.51	.84	-2.46	8.21
23	4.93	1.27	-1.27	1.19	4.99	1.24	-1.30	1.30
24	5.41	.90	-2.01	5.31	5.47	.85	-2.12	5.99
25	5.60	.75	-2.72	10.27	5.62	.73	-2.78	11.02
26	5.12	1.05	-1.41	2.22	5.16	1.07	-1.51	2.51
27	5.60	.82	-2.99	11.24	5.62	.79	-3.08	12.08
28	5.18	1.02	-1.54	2.86	5.24	1.01	-1.64	3.25

Note. M = mean; *SD* = standard deviation; *Sk* = skewness; *Kur* = Kurtosis.

Table 2
Means and Standard Deviations of Scores in Seven Dimensions for Two Cohorts (2014 and 2018)

Factors	2014		2018	
	M	*SD*	*M*	*SD*
Quality of Academic Development	5.62	.74	5.63	.73
Social and Academic Commitment	5.05	1.06	5.17	1.05
Broadening of Interpersonal Relationships	4.88	1.14	4.97	1.13
Opportunity for Student Exchange and Internationalization	5.05	1.21	5.06	1.21
Perspective of Professional Success	5.45	.91	5.47	.88
Concern with Self-image	4.30	1.46	4.39	1.46
Development of Transversal Competences	5.40	.89	5.47	.86

In order to test the dimensional structure of the instrument, we carried out confirmatory factor analysis. Given the absence of multivariate normal distribution, we used the robust maximum likelihood estimator (MLR). The model tested exhibited an acceptable level of fit to the data ($\chi2[329]$ = 14544.55; CFI = .939; RMSEA = .057; RMSEA 90% CI lower value = .056; RMSEA 90% CI upper value = .058).

Figure 1 shows the structure, as well as the factorial loads of the factors towards the items, and the correlations between the factors. In general, the items were strongly loaded by their corresponding factors, which had moderate and strong correlations with each other, according to Cohen (1988). Factors' reliability proved to be adequate: Quality of Academic Development (QUAL) alpha = .86 and McDonald's omega = .86; Social and Academic Commitment (ACAD) alpha = .87 and McDonald's omega = .87; Broadening of Interpersonal Relationships (INTERP) alpha = .81 and McDonald's omega = .82; Opportunity for Student Exchange and Internationalization (INTERC) alpha = .91 and McDonald's omega = .92; Perspective of Professional Success (PROF) alpha = .88 and McDonald's omega = .88; Concern with Self-image (IMAG) alpha = .82 and McDonald's omega = .83; Development of Transversal Competences (COMPET) alpha = .84 and McDonald's omega = .84).

The configural invariance model of the 2014 and 2018 cohorts demonstrated an acceptable fit ($\chi2[658]$ = 15163.45;

CFI = .938; RMSEA = .058; RMSEA 90% CI lower value = .057; RMSEA 90% CI upper value = .058), indicating that the factorial structure of the seven academic expectations was acceptable for the years 2014 and 2018. The metric invariance model was not rejected ($\chi2[679]$ = 15230.54; CFI = .938; RMSEA = .057; RMSEA 90% CI lower value = .056; RMSEA 90% CI upper value = .057) because compared to the configural model there was no difference in CFI (ΔCFI = 0.000) or in chi-squares ($\Delta\chi2[21]$ = 37.03; p = .017). The scalar invariance model was also not rejected ($\chi2[700]$ = 15449.12; CFI = .937; RMSEA = .056; RMSEA 90% CI lower value = .055; RMSEA 90% CI upper value = .057). Despite having a higher chi-square than the configural model ($\Delta\chi2[42]$ = 202.94; p < 2.2e-15), the difference in CFI was less than .002 (ΔCFI = .001). We, therefore, concluded that the factorial structure of seven academic expectations was suitable as a measure for the 2014 and 2018 cohorts, and thus their scores could be compared. The 2018 cohort exhibited higher expectations in the factors ACAD (Δ = .136; p < .001), INTERP (Δ = .089; p < .001), IMAG (Δ = .082; p < .001) and COMPET (Δ = .089; p < .001). There were no statistically significant differences in the factors QUAL (Δ = .025; p = .184), INTERC (Δ = .008; p = .676) and PROF (Δ = .030; p = .112). All differences were insignificant, as suggested by Cohen (1988), in the case of differences in mean and standard deviation for distinct samples.
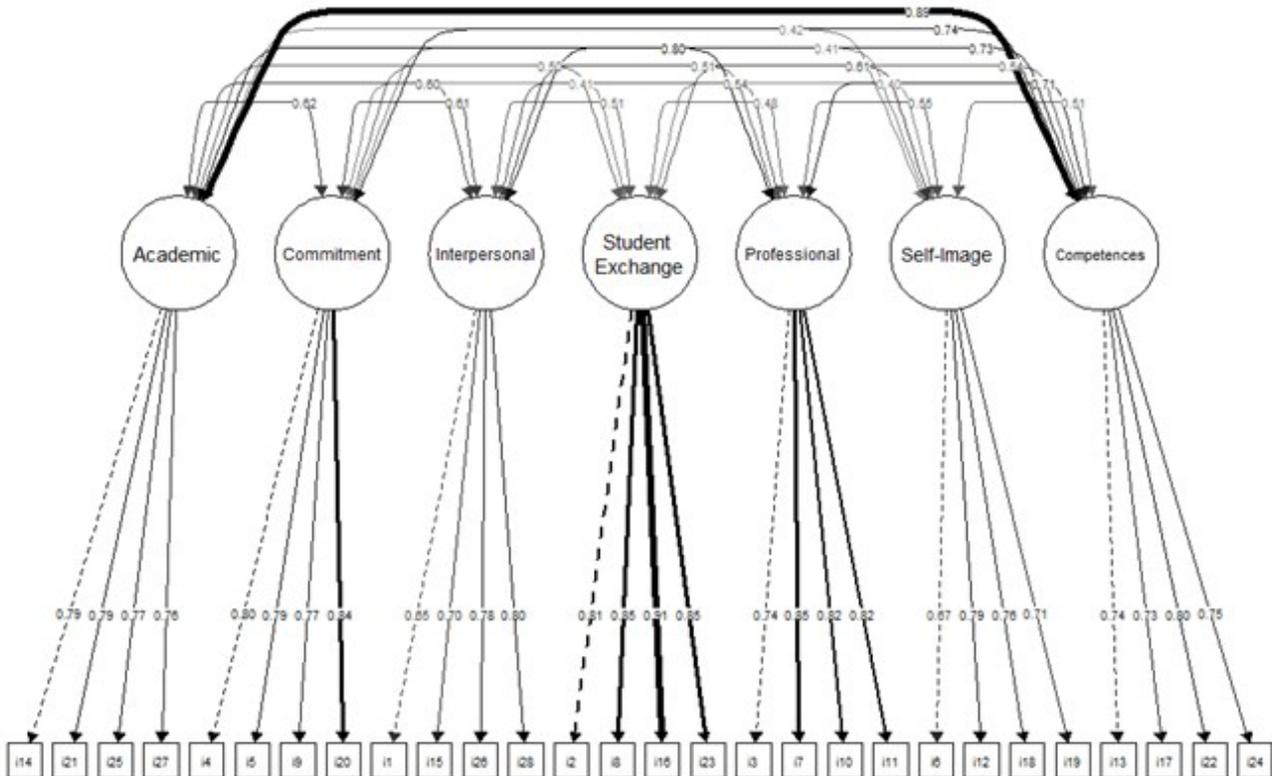

Figure 1. *Factorial Model Structure of the Seven Correlated Academic Expectations*

The configural invariance model for groups of working and non-working students in the 2014 cohort was not rejected ($\chi2[658]$ = 8411.41; CFI = .930; RMSEA = .060; RMSEA 90% CI lower value = .059; RMSEA 90% CI upper value = .061), indicating that the factorial structure of seven academic expectations was acceptable for both groups. Because the metric invariance model of the 2014 cohort ($\chi2[679]$ = 8489.80; CFI = .929; RMSEA = .059; RMSEA 90% CI lower value = .058; RMSEA 90% CI upper value = .061) gave a higher chi-square in relation to the configural model ($\Delta\chi2[21]$ = 53.45; p = .0001), the CFI difference was less than .002 (ΔCFI = .001), the metric invariance model was not rejected. However, the scalar configural invariance model of the 2014 cohort ($\chi2[700]$ = 8768.26; CFI = .927; RMSEA = .060; RMSEA 90% CI lower value = .058; RMSEA 90% CI upper value = .061) was rejected, since the CFI difference was greater than .002 (ΔCFI = .003), as well as the model chi-square values being higher than those of the configural model ($\Delta\chi2[42]$ = 291.17; p < 2.2e-16). The 2014 cohort partial scalar invariance model with only one relaxation in the parameters ($\chi2[699]$ = 8695.90; CFI = .928; RMSEA = .059; RMSEA 90% CI lower value = .058; RMSEA 90% CI upper value = .060) gave a difference in CFI equal to .002, despite its chi-square being higher than the chi-square of the configural model ($\Delta\chi2[41]$ = 230.88; p < 2.2e-16). The relaxation was in the intercept of item 15. This partial invariance model allowed the scores of working and non-working students in the 2014 cohort to be compared.

The results from the 2014 cohort partial scalar invariance model indicated that non-working students had higher academic expectations than working students in all factors of the instrument. This difference was small or moderate but, in all cases, statistically significant (p <.001), with the greatest difference in the factor Opportunity for Student Exchange and Internationalization. The average expectation of non-working students in this factor was .454 standard deviations higher than the average expectation of working students (ΔQUAL = .310; ΔACAD = .147; ΔINTERP = .367; ΔINTERC = .454; ΔPROF = .406; ΔIMAG = .371; ΔCOMPET = .304).

The configural invariance model was also acceptable for the 2018 cohort ($\chi2[658]$ = 7718.70; CFI = .940; RMSEA = .056; RMSEA 90% CI lower value = .055; RMSEA 90% CI upper value = .057). Because the 2018 cohort metric invariance model ($\chi2[679]$ = 7909.25 CFI = .938; RMSEA = .056; RMSEA 90% CI lower value= .055; RMSEA 90% CI upper value = .057) had a higher chi-square than the configural model ($\Delta\chi2[21]$ = 102.77; p = 9.296e-13) and the difference in CFI was not greater than .002 (ΔCFI = .002), the metric invariance model was not rejected. In turn, the scalar invariance model of the 2018 cohort ($\chi2[700]$ = 8110.75; CFI = .937; RMSEA = .056; RMSEA 90% CI lower value = .055; RMSEA 90% CI upper value = .057) was rejected, as it had a higher chi-square than the configural model. ($\Delta\chi2[42]$ = 280.07; p < 2.2e-16) and the difference in CFI was greater than .002 (ΔCFI = .003). Relaxing only two parameters—the intercepts of item 27 and the factorial load of item 22—the partial scalar invariance model ($\chi2[698]$ = 8028.72; CFI = .938; RMSEA = .055; RMSEA 90% CI lower value = .054; RMSEA 90% CI upper value = .057) produced a CFI difference of .002, despite presenting a chi-square higher than the configural model ($\Delta\chi2[40]$ = 224.07; p < 2.2e-16). This model allowed the comparison of the scores of working and non-working students in the 2018 cohort.

As in the 2014 cohort, non-working students in the 2018 cohort had higher academic expectations in all factors (p <.001). However, the difference in the 2018 cohort was smaller than in the 2014 cohort for four factors: Quality of Academic Development (ΔQUAL2014 = .310 and ΔQUAL2018 = .217); Opportunity for Student Exchange and Internationalization (ΔINTERC2014 = .454 and ΔINTERC2018 = .330); Perspective of Professional Success (ΔPROF2014 = .406 and ΔPROF2018 = .298); and Development of Transversal Competences (ΔCOMPET2014 = .304 and ΔCOMPET2018 = .282). There was no difference in Social and Academic Commitment expectation (ΔACAD2014 = .147 and ΔACAD2018 = .147). In two factors—Broadening of Interpersonal Relationships and Concern with Self-image—there was an increase in the difference between the groups (ΔINTERP2014 = .367 and ΔINTERP2018 = .389; ΔIMAG2014 = .371 and ΔIMAG2018 = .414).

Analyzing the model invariance according to students' gender, the configural invariance model for the female and male groups in the 2014 cohort was not rejected ($\chi2[658]$ = 8513.74; CFI = .931; RMSEA = .061; RMSEA 90% CI lower value = .059; RMSEA 90% CI upper value = .061), indicating that the factorial structure of seven academic expectations was acceptable for both groups. The metric invariance model of the 2014 cohort ($\chi2[679]$ = 8576.41; CFI = .930; RMSEA = .060; RMSEA 90% CI lower value = .059; RMSEA 90% CI upper value = .061) was not rejected, as there was no difference in the chi-square test ($\Delta\chi2[21]$ = 37.26; p = .02) compared to the configural model and the difference in CFI was less than .002 (ΔCFI = .001).

The scalar invariance model of the 2014 cohort was not rejected ($\chi2[700]$ = 8795.71; CFI = .929; RMSEA = .060; RMSEA 90% CI lower value = .059; RMSEA 90% CI upper value = .061) because the difference in CFI was not greater than .002 (ΔCFI = .002), despite having higher chi-square values ($\Delta\chi2[42]$ = 210.61; p < 2,2e-16) than the configural model. This model allowed the scores of male and female students in the 2014 cohort to be compared. The results from the 2014 cohort partial scalar invariance model indicated that female students had higher academic expectations than male students in all factors of the instrument. These differences were small or moderate, but all were statistically significant (ΔQUAL = .197; p < .001; ΔACAD = .414; p < .001; ΔINTERP = .077; p = .003; ΔINTERC = .114; p < .001; ΔPROF = .273; p < .001; ΔIMAG = .131; p < .001; ΔCOMPET = .247; p < .001).

The configural invariance model was also acceptable for the 2018 cohort ($\chi 2[658] = 7860.81$; CFI = .939; RMSEA = .057; RMSEA 90% CI lower value = .056; RMSEA 90% CI upper value = .058). The 2018 cohort metric invariance model ($\chi 2[679] = 7975.78$; CFI = .938; RMSEA = .056; RMSEA 90% CI lower value = .055; RMSEA 90% CI upper value = .057) and had a higher chi-square than the configural model ($\Delta\chi 2[21] = 64.20$; p =2.894e-06) but the difference in CFI was less than .002 (ΔCFI = .001), so the metric invariance model was not rejected. In contrast, the scalar invariance model of the 2018 cohort ($\chi 2[700] = 8207.38$; CFI = .936; RMSEA = .056; RMSEA 90% CI lower value = .055; RMSEA 90% CI upper value = .057) was rejected, as it had a higher chi-square than the configural model ($\Delta\chi 2[42] = 247.89$; p < 2.2e-16) and a CFI difference greater than 0.002 (ΔCFI = 0.003). Relaxing only one parameter—the intercept of item 23—the partial scalar invariance model ($\chi 2[699] = 8124.21,67$; CFI = .937; RMSEA = .056; RMSEA 90% CI lower value = .055; RMSEA 90% CI upper value = .057) gave a CFI difference equal to .002, despite having a higher chi-square than the configural model ($\Delta\chi 2[41] = 187.39$; p < 2.2e-16). This model allowed the comparison of the scores of female and male students in the 2018 cohort.

As in the 2014 cohort, women had higher academic expectations than men in all factors (p <.001). However, the difference in the 2018 cohort was smaller than in the 2014 cohort for three factors: Social and Academic Commitment, Perspective of Professional Success and Concern with Self-image (ΔACAD2014 = .414 and ΔACAD2018 = .404; ΔPROF2014 = .273 and ΔPROF2018 = .243; ΔIMAG2014 = .131 and ΔIMAG2018 = .119). In four factors, the differences between men and women's expectations were greater in the 2018 cohort than in the 2014 cohort: Quality of Academic Development, Broadening of Interpersonal Relationships, Opportunity for Student Exchange and Internationalization, and Development of Transversal Competences (ΔQUAL2014 = .197; ΔQUAL2018 = .231; ΔINTERP2014 = .077 and ΔINTERP2018 = .190; ΔINTERC2014 = .114 and ΔINTERC2019 = .173; ΔCOMPET2014 = .247; ΔCOMPET2018 = .288).

DISCUSSION

One significant variable that differentiates students accessing higher education is their academic expectations, which reflects how invested the students are in their academic activities and their beliefs in self-efficacy (Alfonso et al., 2020; Feldt et al., 2011; Gomes, 2013; Porto & Soares, 2017; Yazedjian et al., 2009). In this study we compared university students' academic expectations by gender and working status in two student cohorts entering higher education five years apart (2014 and 2018 cohorts). Statistical analyses demonstrated the invariance of the multidimensional structure of the instrument over cohorts. The study allowed a differential analysis by student gender and work status of scores in the seven dimensions of expectations scale, using the two temporal cohorts and the two socio-demographic variables.

The results point to a certain degree of stability for academic expectations looking at the two cohorts. Even five years apart, first-year students had high expectations of their higher education, especially in Quality of Academic Development, Perspective of Professional Success, and Development of Transversal Competences. These findings show that as they start university, students expect not only to obtain better technical qualifications for the workplace, but also to develop personal abilities that equip them to effectively and creatively deal with the challenges and complexities of modern society. In this regard, the results may indicate the need for higher education institutions to offer students academic development that provides a wider professional profile. The data also seems to point out that access to higher education is still valued by young people as a path to better life conditions, from both personal and professional perspectives.

The findings also indicated that students who work and study have lower academic expectations compared to peers who are not working during their studies. One hypothesis is that students who need to work come from lower social groups that tend to exhibit lower academic expectations (Cabrera et al., 2012; Casanova et al., 2019; Gomes, 2013).

Another possible reason, which warrants further research, is that working students tend to be older and devote less time and energy to academic life, not only because they have to manage their day-to-day lives, but also because they need to deal with their various social roles, meaning they might have fewer chances to participate in academic life beyond classes. Moreover, they may feel less like they belong or take part in the university community (Tett et al., 2017). On the other hand, it is possible that students who are only studying are more available for peer interaction and participation in extracurricular activities and are able to stay longer after classes, allowing them to invest more time and have more comprehensive, enriching academic experiences.

In this study, we found higher expectations in non-working students in the 2014 cohort than in the 2018 cohort. This difference may reflect younger students' broadened expectations, whose needs for specific academic training or qualifications for the current, increasingly uncertain and unpredictable job market have not yet been fully met. In 2014, differences were greater, especially about internationalization opportunities, which seems to translate the real difficulty part-time and older students had applying for mobility programs. It is also worth highlighting that between 2012 and 2016, the Brazilian Sciences without Borders Program was widely announced in higher education institutions,

giving thousands of students scholarships to study abroad. In the beginning of 2017, the program was cancelled by the Brazilian government (Mcmanus & Nobre, 2017). In this sense, it is no surprise that the expectations of the youngest first-year students in 2018 were lower than in 2014 in terms of opportunities for internationalization.

Looking at student gender, we found that women had higher expectations than men. This supports the results of previous studies, such as Alfonso et al. (2020) and Trinidad (2019), in which female students had higher expectations compared to male students. In the 2018 cohort, the differences between the groups were evident in the dimensions of Quality of Academic Development, Broadening of Interpersonal Relationships, Opportunity for Student Exchange and Internationalization and Development of Transversal Competences. According to Araújo et al. (2019), female students are more engaged than male students in social activism, volunteering activities, and mobility programs. The recent Brazilian census of higher education (Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira [INEP], 2019) recorded 8,450,755 enrollments in undergraduate courses in 2018. The majority (57.0%) were women. In 2018, 60.5% of graduates were women. This indicates women's interest in and commitment to obtaining higher qualifications.

Part of the practical implications of our findings are strategies that institutions could implement before students enter university: (a) distribution of brochures to secondary school students covering information about life at university, such as academic and social activities, learning communities, programs, resources and facilities (Pleitz et al., 2015); (b) guided university tours for future students; and (c) conference meetings with university students at secondary schools. Moreover, institutions could provide programs, services, and policies targeting first-year university students, as well as

a flexible curriculum including a variety of methodologies, which could accommodate students' interests, abilities, learning styles, and schedules.

According to the Brazilian census of higher education (INEP, 2019), the percentage of students who drop out is around 54%—looking at the number of students who entered university in 2013 compared to the number of those who effectively graduated in 2018. In this regard, it is necessary to acknowledge students' aspirations, their learning and socio-emotional needs, and their lived reality in order to provide a more flexible and supportive educational system, which is responsive to first-year students (Gale & Parker, 2014). Faced with the challenges of the modern world, academic institutions must offer students conditions in which they can develop to their highest potential, by targeting not only their academic success, but also at their personal development to act as professionals and as citizens committed to the well-being of society as a whole.

One limitation of this study is that, in both cohorts, students had high scores in academic expectation items, which may be related to social desirability or unrealistic expectations before entering university. As with all self-report data, we were limited to the data provided by the participants. In order to confirm this hypothesis, it would be necessary to collect data two or three months after classes start or to use a combination of other instruments such as interviews to contrast student expectations with their early experience at university. A second limitation concerns the sample. Even though there was a large number of students in the two cohorts (practically all of the students entering that university), in the future it would be interesting to have a more diverse sample by including different types of institutions and regions of Brazil. Furthermore, given migratory movement around the world, one promising study would be to compare international students' with native students' academic expectations.

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