

Is Brazil the land of happiness? * A comparative study using a sample with econ university students from UFPE and Purdue

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Abstract

In this article we study the level of happiness using a sample of American and Brazilian college students. We applied about 187 questionnaires among econ college students at Purdue University and also at Universidade Federal de Pernambuco (UFPE). We found that American college students have a higher probability to report themselves happier than Brazilian students. We also found interesting differences: (i) women are happier than men at Purdue, but men are happier than women at UFPE; (ii) family background does not seem to have a clear impact on happiness among Purdue students, but it certainly has a direct impact on happiness among UFPE students; (iii) “Extra money” is an important factor for happiness in the two groups, but it is definitely more important for male students at UFPE; (iv) leisure is the key factor for happiness among Purdue students; and (v) policy towards improvements in public safety would have a stronger effect on happiness among econ UFPE than Purdue students.

Keywords: Subjective wellbeing, relative income differences, Brazil, United States

JEL Codes: O57; Z13.

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1) INTRODUCTION

According to large surveys with tourist and travel agencies abroad, Brazil has an image associated with joyfulness and seems to be eternally celebrating. Such surveys indicate that happiness is one of the main characteristics of the Brazilian people.¹ The Brazilian Tourism Institute (EMBRATUR) names the Brazilian Northeast State Bahia as the land of happiness. After a visit to Brazil, filmmaker Fellini once said that he was convinced that *Brazilians were the happiest people in the world*. Brazilian anthropologist, Darcy Ribeiro (1996), argued that Brazilians have a unique joyfulness for life that is hard to find in other parts of the world.²

This article studies happiness in Brazil in a comparative perspective. It studies whether there are any differences in the overall reported life satisfaction among Brazilian and American college students. We use two samples collected through direct surveys with college students at Purdue University in Indiana, United States, and at Universidade Federal de Pernambuco (UFPE), Brazil.³ We asked about their overall life satisfaction (appendix A provides the two questionnaires). We also asked what would make them happier. Students had eight possible choices, which they had to rank from one to eight (see question 2 in the two questionnaires). We think that it is important to compare two similar groups in two different societies. On the one hand, they share similar wishes and preoccupations, such as their academic grades, future career, and their love life concerns, as any college student around the world. On the other hand, socio-economic conditions and social norms are far different in the two societies.⁴

¹ See the official website of EMBRATUR (www.braziltour.com).

² “*Isso é o Brasil, uma Roma melhor porque mestiça, lavada em sangue negro, em sangue índio, sofrida e tropical. Com as vantagens imensas de um mundo enorme que não tem inverno e onde tudo é verde e lindo, e a vida é mais bela...E é uma gente que acompanha esse ambiente com uma alegria de viver que não se vê em outra parte.*” (Darcy Ribeiro speech to TV Cultura, 1995)

³ UFPE is the leading Brazilian Northeast University in research. It has about 35,000 students. Purdue University in West Lafayette has about 38,000 students. Both universities are public schools, but while there are no tuition fees at UFPE, the estimated annual expenses at Purdue University are about US\$17,000.

⁴ Corbi and Menezes-Filho (2006) also study the empirical determinants of happiness in Brazil using micro data from the World Values Survey. We see our work as complementary to theirs: (i) we focus on a particular group of the society (college students) while they use a representative sample of the country; and (ii) in our survey we can study how different factors (e.g., extra money, public safety, more leisure, among

Our results show that there is a higher fraction (about two times higher) of students at Purdue than at UFPE that report themselves to be very happy. This result is robust to the introduction of individual control variables, such as age, gender, family income, and working status. Therefore, at least in our sample, college students at Purdue have a higher probability to report themselves very happy than those at UFPE. There are, however, some important differences. Women report to be happier (this is a statistically significant effect) than men at Purdue, but men are happier than women at UFPE (this is not statistically significant). We also show that family wealth is an important determinant of happiness in Brazil, but not in the United States.

Regarding the factors that make students happier, we found that extra money buys some extra happiness among male UFPE students (extra money does not affect happiness in women and men differently at Purdue). Interestingly, additional leisure is the key contributor for happiness among Purdue students, but it is not the key factor at UFPE; and UFPE students have a higher probability to rank “less violence” as an important condition for their happiness than Purdue ones.

Psychologists find significant validations in such wellbeing surveys. As reported by Layard (2003), most people find it easy to say how good they are feeling and although people’s feelings fluctuate day to day, there is a huge difference in the general level of happiness between different people. “*The idiosyncratic effects of recent, irrelevant events are likely to average out in representative population samples*” (Kahneman and Krueger (2006, p. 7)).⁵ Moreover, individuals who report higher levels of happiness smile more and meet other psychological measures of wellbeing (see Davidson, Jackson, and Kalin (2000)).

others) can contribute to students’ happiness in the two societies. We believe that this is an important extension.

⁵ Since we do not make a retrospective assessment we might be placing a great weight in some particular (peak or bottom) experience – current mood or a particular event. However, we believe that such experiences will average out over the two samples. In addition, there is no particular reason that such effects might be completely different in the Purdue and UFPE samples. Besides, we do not only focus on the comparison of reported happiness, but also on the factors that make each group happier.

Beside this introduction, this paper has four more sections. The next section describes the data and summarizes some statistics of the two samples. Section 3 investigates whether or not there are any differences in self-reported happiness. Section 4 studies what factors make college students happier in the two universities. The last section concludes this paper.

2) DATA

This paper uses data from two samples collected by the authors using direct surveys with college students at Purdue University in Indiana, United States, and at Universidade Federal de Pernambuco (UFPE), Brazil. We applied 91 and 96 questionnaires among students at Purdue and at UFPE, respectively (see a sample of the two questionnaires in appendix A, and the data description in appendix C). Students at Purdue University were taking an intermediate macroeconomics class in the fall and spring of the 2005/2006 academic year, while at UFPE they were taking an intermediate class in public finance in the same academic year.⁶ It is important to highlight that these two courses are mandatory for econ students at Purdue University and UFPE, respectively. Therefore, both samples represent well the population of econ students in a given particular year in each university.

Our main variable, self-reported happiness is constructed from a question with three possible answers: I am not happy, I am pretty happy, and I am very happy.⁷ Using this question, we compared how students at Purdue and UFPE reported themselves happy, controlling for some individual and social economic conditions. Next, we ask students to rank (among eight choices) what would make them happier (see question 2 in

⁶ We conjecture that the courses taking by students do not affect their self-reported happiness. The questionnaires were applied in the 2005 fall and 2006 spring at Purdue University. Ordered regression analysis shows that there is no statistical difference in wellbeing among students in the Fall and in the Spring. At UFPE the questionnaires were applied in February of 2006. As pointed out by two anonymous referees, the two samples could have being applied in the same moment in time. This would have some effect on the comparison of happiness between Purdue and UFPE students and would produce some bias in the results of section 3. However, this probably would not have any effect on how some factors (such as public safety) affect subjective happiness in the two samples.

⁷ Notice that this is similar to the question from the General Social Survey (GSS) in the United States, used by many authors, such as Alesina, Di Tella and MacCulloch (2004), and Blanchflower and Oswald (2004).

the questionnaires). The remaining four questions collected some socio-economic conditions of the individuals, such as age, gender, parents' income, and working status.

Table 1 summarizes the frequency of individuals in the two samples by gender, parents' income, and working status. The gender division in the two samples was almost the same with about 30 percent of women in each sample. Regarding parents' income, we observe that the proportion of students coming from a low income family is roughly the same in the two samples; however, there is a higher frequency of students at Purdue than at UFPE who report to come from a high-income family.⁸ Table 1 also shows that the frequency of students working full-time is higher at UFPE than at Purdue. However, there is a higher frequency of part-time working students at Purdue than at UFPE.

Table 1: The Proportion of individuals by gender, income, and working status:

	Purdue students	UFPE students
Male	0.71	0.68
Female	0.29	0.32
Low income	0.05	0.07
Middle income	0.62	0.81
High income	0.33	0.12
Not working	0.42	0.5
Working part-time	0.52	0.38
Working full-time	0.06	0.12

Source: Authors' survey

3) DIFFERENCES IN SELF-REPORTED HAPPINESS

We investigate whether there is any difference in subjective reported happiness among econ students at Purdue University and at UFPE. Table 2 reports the mean and standard deviation value of subjective happiness by students at both universities. They are produced using 1 for not happy, 2 for pretty happy, and 3 for very happy. Notice that the arithmetic in table 2 assumes cardinality, while reported subjective happiness is an ordered number. Later on, we will report the ordered estimations using standard

⁸ It is important to highlight that low, middle, or high-income families are based on income in each country separately. In the questionnaire, we do not ask what their parents' annual income is, but whether they come from a low, middle, or high-income family.

regression procedures. With this caveat in mind, we observe that the mean reported happiness is smaller among UFPE students than what was observed among Purdue students. We also test, using the Mann-Whitney two-sample statistic, the hypothesis that the two independent samples are from populations with similar distribution. The p-value of this test rejects this hypothesis with 99 percent of confidence level.

Table 2: Descriptive statistics - Self-reported happiness:

	Purdue students	UFPE students
Mean	2.36	2.15
Std. Dev.	0.58	0.48
Number of obs.	91	94
Mann-Whitney rank test (p-value)		0.005

Source: Authors' survey

Figure 1 shows the histograms of self-reported happiness in the two samples. Notice that the two empirical distributions do not look alike, corroborating the Mann-Whitney test, which rejects the null hypothesis of equality of distributions. The difference is concentrated in the upper tail of the distribution. Observe that the fraction of not happy individuals is roughly the same among Purdue (4.4 percent) and UFPE students (5.3 percent). However, the fraction of very happy students is about two times higher among Purdue students (40 percent) than at UFPE (20 percent). Consequently, the fraction of pretty happy students is higher at UFPE (74 percent) than at Purdue (55 percent).

Next, we estimate the probability of students to report themselves happy by allowing for a set of individual controls. We take advantage of individual variations and we run an ordered logit regression of the form:

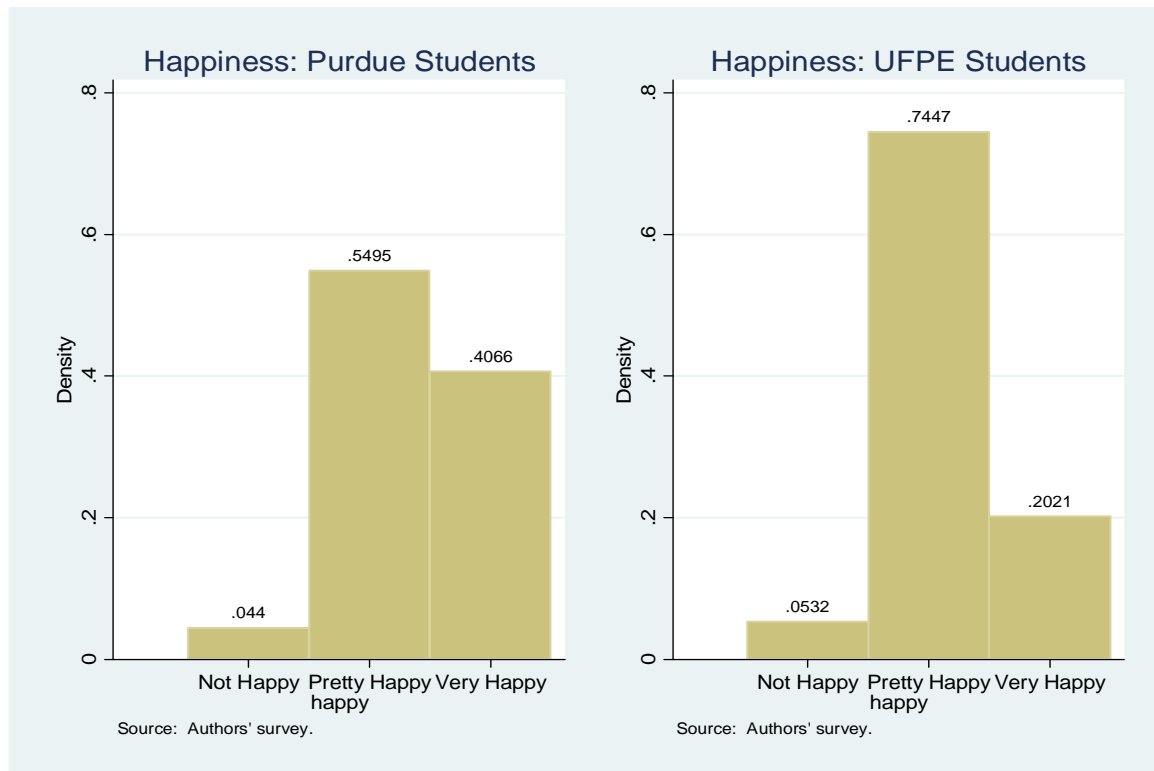
$$(1) \quad \text{happy}_i = \alpha + \beta X_i + \gamma \text{Purdue}_i + \varepsilon_i.$$

The dependent variable happy_i is the self-reported happiness, which can take three values (as discussed before, 1 corresponds to the lowest reported happiness level). The description of the independent variables in (1) is: X_i a column vector⁹ with

⁹ Therefore, β is a row vector with the number of rows as the number of columns of vector X_i .

individual characteristics such as age, age squared, gender (male=1), indicator variables for students from low income family, middle income family, dummy variable if the student is not working, and another dummy variable if the student is a part-time worker. The variable $Purdue_i$ is an indicator variable that takes value 1 if student i is at Purdue and 0 if he/she is at UFPE. Table 3 summarizes the results.

Figure 1: Distribution of self-reported happiness:



From table 3, we observe that the coefficient of the dummy variable $Purdue$ is positive and significant in all regressions. This is true when we use Purdue as the only independent variable (table 3, column (1)), but also when we add other controls in the regression (table 3 columns (2)-(6)). Therefore, we can conclude that students at Purdue University have a higher probability to report themselves happier than students at UFPE after controlling for a set of individual characteristics.

Table 3: Determinants of Happiness (ordered logits). Dependent variable: 1 for not happy, 2 for pretty happy, and 3 for very happy.

	Whole Sample						Purdue	UFPE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Purdue	0.884*** (0.320)	0.832*** (0.323)	0.848*** (0.325)	0.670** (0.347)	0.599* (0.351)	1.501** (0.600)		
Age		0.077 (0.222)	0.076 (0.222)	0.098 (0.224)	0.041 (0.229)	-0.013 (0.224)	1.798 (2.619)	0.045 (0.279)
Age ²		-0.002 (0.003)	-0.002 (0.003)	-0.002 (0.003)	-0.001 (0.003)	-0.001 (0.002)	-0.041 (0.057)	-0.001 (0.004)
Gender (male=1)			-0.247 (-0.75)	-0.408 (0.339)	-0.381 (0.342)	0.267 (0.486)	-1.031** (0.520)	0.228 (0.549)
GenderPurdue						-1.304* (0.726)		
Low-income				-2.316*** (0.788)	-2.422*** (0.784)	-2.383*** (0.776)	-1.896* (1.072)	-3.757*** (1.247)
Middle-income				-0.808** (0.384)	-0.832** (0.380)	-0.866** (0.390)	-0.340 (0.465)	-2.074*** (0.690)
Not working					0.427 (0.582)	0.405 (0.405)	0.043 (0.898)	1.026 (0.861)
Working part-time					0.728 (0.589)	0.616 (0.616)	0.263 (0.898)	0.927 (0.873)
Pseudo R ²	0.027	0.034	0.036	0.071	0.078	0.089	0.049	0.126
N	185	185	185	185	185	185	91	94

Source: Authors' survey. *, **, *** Statistically significant at 99%, 95%, and 90% confidence level.

Robust standard errors are in parentheses.

When we run the regression with the whole sample the coefficient on gender is negative in all regressions (table 3 columns (3)-(5)),¹⁰ but it is not statistically different from zero. However, when we run a regression for each sample separately results are different. Women are happier than men at Purdue and this result is statistically different from zero at a 95 percent level of confidence (table 3 columns (7)). This is consistent to other studies, which show that women are in fact happier than men in the United States (e.g., Blanchflower and Oswald (2004)). Among UFPE students, we observe that the sign is positive, but the coefficient is not statistically different from zero.¹¹ When we multiply the dummy for gender with the dummy for Purdue, the sign of the coefficient of this

¹⁰ Since this variable takes value one for men and zero for women, this means that women have a higher probability to report themselves happier than men.

¹¹ A recent study by Graham and Felton (2006) shows that, in Latin America, men are happier than women.

variable is negative and statistically different from zero (table 3, column (6)). Therefore, regarding differences in happiness by gender there is no gender division in overall reported life satisfaction among UFPE students but women report to be happier than men in the Purdue sample. This might be related to differences in the gender role in the two societies.¹²

Our estimates using the whole sample also show that compared to students from high-income families, those who come from low and middle-income families have a lower probability to report themselves happier (table 3, columns (4) to (6)). These two dummy variables have a negative coefficient and are statistically different from zero at 99 percent confidence level for those students from a low-income family and at 95 percent confidence level for those that come from a middle-income family. Notice that the income dummy variables are constructed by asking students whether they come from low, middle, or high-income family within their own societies. This implicitly takes into account the issue about relative income. We are not comparing the level of income of families in the United States with the level of income of families in Brazil, but the students' perception about the level of income of her/his family compared to the level of income to the society they belong to, which is in accordance to Easterlin (1974, 1995). Another important issue is that family income might be correlated to other omitted variables that affect happiness, such as family background and health status.¹³ Therefore, the positive effect of parents' income on happiness might be spurious.

Observe, however, that the effects of income on happiness are not robust when we consider the two samples separately.¹⁴ Among Purdue students (table 3, column (7)),

¹² Data from the World Development Indicators show that in the United States the female unemployment rate is similar to the total unemployment rate. In Brazil, the female unemployment rate is about 50 percent larger than the total unemployment rate. In 2000 about 26 percent of the total ministerial level positions in the United States was occupied by women. Such number is only 4 percent in Brazil.

¹³ Deaton (2008) shows that there is a close relationship between health status and happiness. Clearly, the omission of a health indicator might be biasing our results. However, our samples consist of college students only. Although students at UFPE do not pay any fee (while they do at Purdue), most of the econ students at UFPE are middle and high-income students. We therefore conjecture that health status is not an important issue for our sample and it is probably not driving any of our results.

¹⁴ An important caveat is needed here. According to a survey by Time magazine about 19 percent of Americans say they are in the richest 1 percent. We believe, from informal conversations and simple

parents' level of income does not have a strong effect on self-reported happiness. Only the low-income variable is statistically different from zero at 90 percent confidence level. There is no statistical difference in self-reported happiness among Purdue students who come from middle and high-income families. Among students at UFPE (table 3, column (8)), we observe that the parent's income dummies have a negative sign and are statistically different from zero at 99 percent level of confidence. Therefore, UFPE students who come from high-income families have a higher probability to report themselves happier than those that come from low and middle-income families.

An interesting hypothetical exercise is to study the possible consequences of moving a randomly chosen student from UFPE to Purdue and vice-versa. For instance, assume that a male student in UFPE belongs to the middle-income group. Such student is likely to become a low-income student at Purdue, which reduces his happiness, but he will get the benefit of the fixed effect of being at Purdue net of the effect of being male at Purdue. Using equation (6), we can observe that the overall wellbeing of this student will decrease or increase whether he uses the reference income group as the one in the United States (low income) or as the one in Brazil (middle income), respectively. Now, consider a female middle-income class student from UFPE and move her to Purdue. Again, such student is likely to become a low-income student at Purdue, which reduces his happiness, but she will get the benefit of the fixed effect of being a female at Purdue. Her self-reported happiness will remain the same if she uses her United States reference income group, but certainly will increase if her reference income group is the one in Brazil.¹⁵

4) WHAT WOULD MAKE STUDENTS HAPPIER?

In this section we study some factors that would make students happier. This is based on the answers of question 2 in our questionnaire (see appendix A and the description of the data in appendix C). In this question we ask students what would make

analysis from the household survey PNAD, that most people in Brazil that report to be in the middle class are indeed in the top 1 percent of income.

¹⁵ Of course, this is a static exercise. The move from UFPE to Purdue might have a strong impact on career opportunities for a student at UFPE and the overall long run impact on wellbeing might be very different.

them happier. They had eight possible choices that they ranked from 1 to 8 (1 being the most important for happiness). The factors we chose were: more money, more friends, being closer to parents or/and friends, a love story, a job, more leisure, less violence, and others.

Table 4 reports some descriptive statistics on the importance of each factor for students' happiness. Recall that 1 (while 8) implies that this factor is (not) very important on students' happiness. Therefore, a *lower* mean and median suggest that the factor is relatively *more important* in one group than in the other. We observe that the mean and median for the two samples are quite similar (as well as the standard deviation) for almost all factors except two of them: "more leisure" and "less violence". In fact, these two factors were the only items in which the Mann Whitney rank test rejects the null hypothesis that the two samples come from the same distribution.

Observe that "more leisure" is the item with the lowest mean and median among Purdue students. In fact, about 60 percent of students at Purdue ranked "more leisure" as at least the second most important factor (among the eight listed) to increase their happiness. Only 30 percent of students at UFPE ranked more leisure as at least the second more important factor on happiness. The factor with lowest mean and median among UFPE students is "more money".¹⁶ The ordered regression analysis corroborates this finding and suggests that students at Purdue have a higher probability to indicate "more leisure" as an important factor for their happiness than UFPE students (see appendix B, table 5, and column (6)).

Regarding "less violence", the mean and median are higher at Purdue than at UFPE (see table 4 (g)), which indicate that "less violence" would have a stronger impact on happiness at UFPE than at Purdue. This is confirmed in the ordered logit regression (see table 5, column (7)).¹⁷ With respect to the other factors, we have the following:

¹⁶ Notice, however, that the mean and median for "more money" are lower for Purdue than UFPE students.

¹⁷ When we use the dependent variable that takes value 1 if students ranked "less violence" as at least the second factor in importance for happiness, the only variable that is statistically different from zero is the

Table 4: What would make students happier?

	(a) More money		(e) A job	
	Purdue students	UFPE students	Purdue students	UFPE students
Mean	3.21	3.26	3.87	4.31
Median	3	3	4	5
Std. Dev.	1.79	1.82	1.96	2.03
Number of obs.	84	87	77	81
Mann-Whitney rank test (p-value)	0.81		0.182	
	(b) More friends		(f) More leisure	
Mean	3.94	3.74	2.66	3.86
Median	4	4	2	4
Std. Dev.	1.65	1.98	1.62	2.01
Number of obs.	74	81	80	87
Mann-Whitney rank test (p-value)	0.32		0.001	
	(c) Live closer to parents/friends		(g) Less violence	
Mean	3.76	3.86	6.16	5.06
Median	3	4	7	6
Std. Dev.	2.12	2.15	1.59	2.06
Number of obs.	81	82	69	85
Mann-Whitney rank test (p-value)	0.81		0.001	
	(d) A love story		(h) Others	
Mean	4.06	4.02	6.53	6.39
Median	4	4	8	8
Std. Dev.	2.17	2.12	2.33	2.58
Number of obs.	77	79	54	69
Mann-Whitney rank test (p-value)	0.86		0.97	

Source: Authors' survey

- (1) “Extra money” does not impact students’ happiness differently in the two universities once we control for some individual characteristics. On average, money is more important for men than for women. However, this difference in gender is only statistically significant for UFPE students. Men at UFPE have a higher probability to report “Extra Money” as an important factor for their happiness than women (see appendix B, table 5, 6 and 7, column (1)).

Purdue dummy variable. It has a negative coefficient, which indicates that UFPE students have a higher probability to report “less violence” as an important factor to increase their happiness than Purdue students.

- (2) The factor “more friends” has a weaker contribution on happiness than the item “more money”. Moreover, the ordered logit regression shows that there is no important difference on how students rank “more friends” at Purdue and UFPE (see column (2) in table 5 in appendix B).
- (3) In the item “living closer to parents and friends”, we observe that once we control for students’ characteristics ordered logit analysis does not suggest that students at Purdue have a higher probability to indicate that this factor is important for their happiness than students at UFPE (see column (3) in table 5). Interestingly, however, women have a higher probability to report that living closer to their parents and friends is an important factor for their happiness than men, and this is only statistically significant among Purdue students.
- (4) Table 4 (d) shows that “a love story” has the highest mean in both samples compared to the three previous items. Therefore, looking only at these two central measures, “a love story” is the least important factor for happiness in both samples – compared to the previous three factors. The mean and median are similar in both samples. Indeed, there is no different pattern on how Purdue and UFPE students ranked this item in importance for their happiness.
- (5) The mean and median of the item “a job” is roughly the same at Purdue and at UFPE (see table 4 (e)). In fact, once we control for individual characteristics ordered logit regression does not suggest that students in the two universities rank a job differently in importance for happiness (see table 5, column (5)).

4) CONCLUDING REMARKS

In this paper we investigate differences in overall life satisfaction among Brazilian and American econ college students using a sample from Purdue and UFPE students. We find that econ Purdue students have a higher probability to report themselves very happy and happy than UFPE students. This effect is statistically

significant and it is also robust to a set of control variables characterizing individual and socio-economic conditions.

We also found some interesting differences between the two groups of students. Women are happier than men at Purdue, but men are happier than women at UFPE. Family wealth does not seem to have a clear impact on happiness among Purdue students, but it certainly impacts happiness positively among UFPE students. We also found the following: “additional leisure” is the key factor for happiness among Purdue students. About 60 percent of students at Purdue ranked “more leisure” as at least the second most important factor (among the eight listed) to increase their happiness. For UFPE male students, “extra money” would definitely buy some happiness. About 38 percent of students at UFPE ranked “more money” as at least the second most important factor for happiness. This is, particularly, important for male college students. Finally, policy towards improvements in public safety would have a stronger effect on happiness among UFPE students than Purdue ones.

REFERENCES

- Alesina, A., R. Di Tella, and R. MacCulloch (2004). “Inequality and happiness: are Europeans and Americans different?” *Journal of Public Economics* **88**, 2009-2042.
- Blachflower, D. G. and A. J. Oswald (2004). “Well-being over time in Britain and the USA,” *Journal of Public Economics* **88**, 1359-1386.
- Corbi, R. B. and N. A. Menezes-Filho (2006). “Os determinantes empíricos da felicidade no Brasil,” *Revista de Economia Política* **26**, 518-536.
- Davidson, R. J., D. C. Jackson, and N. H. Kalin (2000). “Emotion, plasticity, context and regulation: Perspective from affective neuroscience,” *Psychological Bulletin* **126**, 890-906.

Deaton, A. (2008). "Income, aging, health and wellbeing around the world: Evidence from the Gallup World Poll," *Journal of Economic Perspectives* **22**, 53-72.

Easterlin, R. A. (1974). "Does economic growth improve the human lot? Some empirical evidence." In: David, P. A., and M. W. Reader (Eds), *Nations and households in economic growth: Essays in honor to Moses Abramowitz*. Academic Press, New York.

Easterlin, R. A. (1995). "Will raising the incomes of all increase the happiness of all?" *Journal of Economic Behavior and Organization* **27**, 35-47.

Graham, C. and A. Felton (2006). "Inequality and happiness: Insights from Latin America," *Journal of Income Inequality* **4**, 107-122.

Kahneman, D. and A. Krueger (2006). "Developments in the measurement of subjective well-being," *Journal of Economic Perspectives* **20**, 3-24.

Layard, R. (2003). "Happiness: has social science a clue?" *Lionel Robbins Memorial Lectures, London School of Economics*.

Ribeiro, D. (1996). "*O Povo Brasileiro: A formação e o sentido do Brasil*", 2ª Edição.

APPENDIX A: QUESTIONNAIRES

Questionnaire: Subjective Happiness

Are you Happy?

1__ I am not happy 2__ I am pretty happy 3__ I am very happy

What would make you happier? (Please, rank your answer. Use 1, 2, 3, 4, 5, 6, 7, and 8 to describe which factor makes you happier; 1 being the most important.)

__ More money	__ More friends
__ Live closer to my parents or/and friends	__ A love story
__ A Job	__ More leisure
__ Less violence	__ Others

Age:

Gender: Male Female

Do you come from a?

1__ Low-income family 2__ Middle-income family 3__ High-income family

Do you work?

1__ No, I do not work 2__ Yes, I work part-time 3__ Yes, I work full-time

Questionário: Felicidade Subjetiva

Você se sente feliz?

1__ Eu não me sinto feliz 2__ Eu me sinto feliz 3__ Eu me sinto muito feliz

O que faria você mais feliz? (você pode ordenar sua resposta. Use 1, 2, ... para descrever que fator o faria mais feliz, 1 sendo o mais importante)

__ Mais dinheiro	__ Mais amigos
__ Viver mais perto de meus pais e/ou amigos	__ Uma história de amor
__ Um trabalho	__ Mais lazer
__ Menos violência	__ Outros

Idade:

Sexo: Masculino Feminino

Que tipo de família é a sua?

1__ Família de renda baixa 2__ Família de renda média 3__ Família de renda alta

Você trabalha?

1__ Não, eu não trabalho
2__ Sim, eu trabalho 1 expediente
3__ Sim, eu trabalho em tempo integral

APPENDIX B: ADDITIONAL TABLES

Table 5: (Whole Sample) Dependent variable: 7 dependent variables. How students ranked the following factors for their happiness: More money, more friends, live closer to parents/friends, a love story, a job, more leisure, and less violence.

	Money	Friends	Parents	Love	Job	Leisure	Violence
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Purdue	-0.014 (0.297)	0.333 (0.322)	-0.121 (0.305)	-0.125 (0.316)	-0.385 (0.307)	-1.179*** (0.307)	1.181*** (0.325)
Age	-0.178 (0.196)	0.213 (0.206)	0.043 (0.199)	-0.149 (0.208)	-0.128 (0.224)	0.049 (0.195)	-0.541** (0.216)
Age ²	0.002 (0.003)	-0.002 (0.003)	-0.001 (0.003)	0.002 (0.003)	-0.001 (0.003)	-0.001 (0.003)	0.008** (0.003)
Gender (male=1)	-0.759** (0.305)	0.034 (0.315)	0.642** (0.307)	0.291 (0.325)	-0.066 (0.313)	0.187 (0.311)	0.806 (0.326)
Low-income	-0.707 (0.604)	0.902 (0.669)	0.707 (0.628)	-0.461 (0.683)	-0.271 (0.636)	0.438 (0.603)	0.724 (0.607)
Middle-income	0.198 (0.358)	-0.161 (0.375)	-0.409 (0.366)	-0.494 (0.376)	-0.117 (0.384)	0.724** (0.339)	0.879** (0.358)
Not working	-0.218 (0.456)	0.138 (0.541)	0.757 (0.506)	0.318 (0.65)	-0.857 (0.551)	0.489 (0.509)	-0.367 (0.551)
Working part-time	-0.298 (0.466)	0.419 (0.548)	0.466 (0.497)	0.477 (0.480)	-0.743 (0.546)	0.473 (0.513)	0.045 (0.539)
Not happy	-0.958 (0.735)	-0.389 (0.751)	0.107 (0.636)	0.204 (0.666)	-0.111 (0.746)	-1.115* (0.636)	-0.382 (0.704)
Happy	-0.315 (0.316)	0.467 (0.328)	0.196 (0.314)	0.043 (0.330)	0.167 (0.326)	-0.632** (0.316)	-0.341 (0.350)
Pseudo R ²	0.021	0.017	0.022	0.006	0.019	0.041	0.045
N	169	153	161	154	157	165	152

Source: Authors' survey. *, **, *** Statistically significant at 90%, 95%, and 99% confidence level.

Robust standard errors are in parentheses.

Table 6: (Purdue Sample) Dependent variable: 7 dependent variables. How students ranked the following factors for their happiness: More money, more friends, live closer to parents/friends, a love story, a job, more leisure, and less violence.

	Money	Friends	Parents	Love	Job	Leisure	Violence
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Age	1.171 (2.384)	3.049 (2.722)	-1.465 (2.337)	0.016 (3.086)	-2.183 (2.723)	3.235 (2.502)	-2.881 (2.880)
Age ²	-0.025 (0.051)	-0.065 (0.060)	0.025 (0.051)	0.002 (0.068)	0.047 (0.059)	-0.065 (0.054)	0.052 (0.063)
Gender (male=1)	-0.444 (0.476)	-0.83 (0.517)	0.868* (0.494)	0.167 (0.538)	-0.385 (0.496)	0.347 (0.501)	0.921* (0.562)
Low-income	-0.661 (0.861)	-0.839 (0.867)	1.376 (0.895)	-0.217 (1.159)	0.543 (0.956)	0.47 (0.831)	-0.327 (0.878)
Middle-income	-0.001 (0.434)	-0.527 (0.468)	-0.637 (0.467)	-0.932** (0.443)	0.174 (0.487)	0.472 (0.442)	1.106** (0.545)
Not working	0.165 (0.794)	1.382 (0.891)	1.937** (0.881)	-0.042 (0.766)	-0.812 (1.219)	-0.326 (1.069)	-0.723 (1.429)
Working part-time	0.425 (0.787)	1.322 (0.890)	1.339 (0.856)	0.527 (0.756)	-0.975 (1.200)	0.201 (1.052)	-0.004 (1.418)
Not happy	0.133 (1.098)	1.251 (0.949)	-0.774 (0.968)	0.344 (0.967)	0.067 (0.965)	-1.829* (1.023)	-1.595* (0.981)
Happy	-0.208 (0.411)	-0.121 (0.441)	-0.076 (0.428)	-0.532 (0.439)	0.606 (0.428)	-0.677 (0.429)	-0.195 (0.481)
Pseudo R ²	0.011	0.076	0.029	0.011	0.014	0.042	0.088
N	84	81	77	84	77	80	69

Source: Authors' survey. *, **, *** Statistically significant at 90%, 95%, and 99% confidence level.

Robust standard errors are in parentheses.

Table 7: (UFPE Sample) Dependent variable: 7 dependent variables. How students ranked the following factors for their happiness: More money, more friends, live closer to parents/friends, a love story, a job, more leisure, and less violence.

	Money	Friends	Parents	Love	Job	Leisure	Violence
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Age	-0.21 (0.226)	0.123 (0.230)	0.274 (0.229)	-0.07 (0.241)	-0.22 (0.251)	-0.057 (0.222)	-0.393 (0.247)
Age ²	0.002 (0.003)	-0.001 (0.003)	-0.004 (0.003)	0.001 (0.003)	0.001 (0.004)	0.001 (0.003)	0.006 (0.003)
Gender (male=1)	-1.008** (0.433)	0.554 (0.444)	0.341 (0.433)	0.737* (0.453)	0.287 (0.435)	0.373 (0.414)	-0.458 (0.434)
Low-income	-0.468 (0.984)	2.912*** (1.077)	0.154 (1.028)	0.023 (1.076)	-0.937 (0.968)	0.647 (0.946)	1.332 (0.904)
Middle-income	0.601 (0.685)	0.474 (0.730)	-0.143 (0.772)	0.337 (0.832)	-0.651 (0.696)	0.878 (0.595)	0.998 (0.639)
Not working	-0.637 (0.593)	-0.905 (0.683)	0.426 (0.651)	0.427 (0.663)	-1.060* (0.628)	0.742 (0.599)	-0.342 (0.645)
Working part-time	-0.855 (0.602)	0.001 (0.689)	0.515 (0.655)	0.352 (0.641)	-0.828 (0.622)	0.301 (0.593)	0.038 (0.617)
Not happy	-1.977* (1.083)	-2.055* (1.227)	0.304 (0.927)	0.476 (1.078)	-0.433 (1.285)	-0.369 (0.895)	-0.098 (1.055)
Happy	-0.644 (0.520)	1.344 (0.565)	0.664 (0.521)	0.793 (0.565)	-0.401 (0.523)	-0.599 (0.512)	-0.469 (0.549)
Pseudo R ²	0.046	0.08	0.015	0.019	0.043	0.02	0.02
N	85	79	80	77	80	85	83

Source: Authors' survey. *, **, *** Statistically significant at 90%, 95%, and 99% confidence level.

Robust standard errors are in parentheses.

APPENDIX C: DATA APPENDIX

This appendix describes the data. Below are the variables. The raw data collected by the authors can be found at www.econ.cam.ac.uk/faculty/cavalcanti.

Happy – Answer of question 1 in the questionnaire: Value 1 for not happy, 2 for pretty happy, and 3 for very happy.

Money – Answer of question 2 in the questionnaire. It is an ordered number from 1 to 8. Value 1 means that this factor is the most important one for happiness.

Friends – Answer of question 2 in the questionnaire. It is an ordered number from 1 to 8. Value 1 means that this factor is the most important one for happiness.

Prentfrnd – Answer of question 2 in the questionnaire. It is an ordered number from 1 to 8. Value 1 means that this factor is the most important one for happiness.

Love – Answer of question 2 in the questionnaire. It is an ordered number from 1 to 8. Value 1 means that this factor is the most important one for happiness.

Job – Answer of question 2 in the questionnaire. It is an ordered number from 1 to 8. Value 1 means that this factor is the most important one for happiness.

Leisure – Answer of question 2 in the questionnaire. It is an ordered number from 1 to 8. Value 1 means that this factor is the most important one for happiness.

Violence – Answer of question 2 in the questionnaire. It is an ordered number from 1 to 8. Value 1 means that this factor is the most important one for happiness.

Others – Answer of question 2 in the questionnaire. It is an ordered number from 1 to 8. Value 1 means that this factor is the most important one for happiness.

Age – Students' reported age.

Gender – Male 1, female 0.

Income – 1 for students that come from low income families, 2 for students that come from middle income families, and 3 for students that come from high income families.

Work – 1 not working, 2 working part-time, and 3 working full-time.

Purdue – 1 for Purdue students; and 0 for UFPE students