

EXTENDED ABSTRACT

What's God Got to Do with It? Religion, Religiosity, and Union Formation among Women in Brazil¹

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Objective

The objective of this paper is twofold. The first is to determine whether religious affiliation and religiosity (measured by service attendance and maintenance of the same denomination over time) are correlated to union formation among women in Brazil. The second is to verify, among those who are in union, whether religious affiliation and religiosity are associated to the type of union (formal marriage or consensual union).

Background

Brazil has experienced major changes in religious affiliation since 1970. Although it still carries the title of the largest Catholic country in the world, the proportion of Catholics decreased from 91.8% in 1970 to 73.6% in 2000. At the same time, there was substantial increase in the proportion of self-declared Evangelicals – 5.8% in 1970 to 15.4 in 2000.

Previous work has indicated that religiosity plays an important role in understanding what it means to be a Catholic in Brazil. For instance, committed Catholics (those who attend service once a week or more) are twice more likely to be against abortion if compared to nominal Catholics (those who rarely or never attend service) (Longo et al, 2009).

Brazil has one of the highest proportions of consensual unions around the world. Data from 2006 DHS indicate that 43.9% of the 15 to 49 year-old women in union were in consensual unions.

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Expected Results

We expect that women who are committed to their religions are more likely to be in union.

We expect that consensual unions are more likely among women with no religion and less likely among Pentecostals. Catholics and Protestants are in between those categories, Catholic being more likely to be in a consensual union than Protestants.

We expect a negative correlation between religiosity and being in a consensual union. Women who attend service regularly (committed to their religion) are less likely to be in consensual unions, whereas women who rarely or never attend service are more likely to be in consensual unions.

Finally, we expect that the odds of being in a consensual union are smaller for those who have not changed religious affiliation over time as they tend to be more certain of their beliefs and, therefore, will be more likely to follow the rules.

Data and Methods

2006 DHS data for Brazil

Our samples:

Model 1: 15-49 year-old women (N=15121)

Models 2, 3, and 4: 15-49 year-old women who reported being married/in union
(N=9665)

Binary logistic regressions using STATA 10

Variables

Model 1

Dependent variable

Being in union: 1 if in union, 0 otherwise

Key independent variables

Religious affiliation: Catholic (reference), Protestant, Pentecostal, Others, None

Attendance: committed (reference), occasional, nominal

Same affiliation: 1 if woman has the same affiliation she was raised in, 0 otherwise

Control variables

Years of education: 0-4 (reference), 5-8, 9-11, 12+

Age: 15-19, 20-24 (reference), 25-29, 30-34, 35-39, 40-44, 45-49

Race/skin color: White (reference), Black, Brown, Yellow (Asian), Indigenous

Place of residence: urban (reference), rural

Region: Southeast (reference), South, Northeast, North, Center-West

Place of residence until age 12: state capital (reference), big city, small town, countryside

Parity: 0 (reference), 1, 2, 3+

Currently working: no (reference), yes

Models 2, 3, and 4

Dependent variable

Type of union: 1 if consensual, 0 otherwise

Key independent variables

Religious affiliation: Catholic (reference), Protestant, Pentecostal, Others, None

Attendance: committed (reference), occasional, nominal

Same affiliation: 1 if woman has the same affiliation she was raised in, 0 otherwise

Control variables

Years of education: 0-4 (reference), 5-8, 9-11, 12+

Age: 15-19, 20-24 (reference), 25-29, 30-34, 35-39, 40-44, 45-49

Race/skin color: White (reference), Black, Brown, Yellow (Asian), Indigenous

Place of residence: urban (reference), rural

Region: Southeast (reference), South, Northeast, North, Center-West

Place of residence until age 12: state capital (reference), big city, small town, countryside

Parity: 0 (reference), 1, 2, 3+

Age of spouse/husband: same age (+-1 year); 2-5 years older (reference), 6-10 years older, 11+ years older, 2-5 years younger, 6+ years younger

Number of unions: 1, 2+ (reference)

Age at first union/marriage: <= 19 (reference), 20-24, 25-29, 30-34, 35+

Currently working: no (reference), yes

Preliminary Results

The overall sample has 15121 15 to 49 year-old women. Among those, 63.9% are in union.

Table 1B⁵ presents the percentage distribution of the variables analyzed here. Approximately two thirds of the women are Catholic, 12% are Protestant, another 12% are Pentecostal, other religious affiliations account for 4% of the sample and those with no religion add to 6%. Regarding attendance, 43% are committed to their religion (attend services once a week or more), 43% have an occasional commitment (attend service less than once a week to once a month), and 14% rarely or never attend service, which make their commitment to their religion only nominal. The vast majority has the same affiliation they were raised in (75%) and are in their first union (82%). Among those in first union, 35% are in consensual unions. Overall, 44% of the women in the sample are in consensual unions.

⁵ Table 1A, with descriptive statistics for Model 1, is not presented here but will be in the complete version of the paper.

Table 1B - Percentage distribution of all 15-49 year-old women in union by selected characteristics, Brazil, 2006

Characteristic	% consensual union	% total	N
Religious affiliation			
Catholics	45.46	66.21	6399
Protestants	33.51	11.80	1140
Pentecostals	33.42	11.52	1113
Other	39.51	4.19	405
None	69.08	6.29	608
Attendance			
Committed	35.27	43.24	4179
Occasional	45.48	43.02	4158
Nominal	66.11	13.74	1328
Same affiliation			
No	44.47	24.61	2379
Yes	43.71	75.39	7286
Years of education			
0-4	45.83	30.37	2935
5-8	50.63	31.12	3008
9-11	41.33	29.84	2884
12+	21.84	8.67	838
Race/skin color			
White	34.58	39.35	3803
Black	56.2	9.59	927
Brown	48.86	46.46	4490
Yellow (Asians)	48.98	2.53	245
Indigenous	46.5	2.07	200
Age			
15-19	77.62	5.23	505
20-24	63.9	13.47	1302
25-29	52.59	17.37	1679
30-34	42.91	18.47	1785
35-39	38.46	17.35	1677
40-44	27.91	15.31	1480
45-49	25.22	12.80	1237
Age of spouse/husband			
same age + - 1	41.74	18.67	1804
2-5 years older	36.61	31.83	3076
6-10 years older	37.98	22.26	2151
11+ years older	58.42	13.46	1301
2-5 years younger	49.94	8.97	867
6+ years younger	75.97	4.82	466
Age at first union/marriage			
< = 19	48.91	59.04	5706
20-24	36.87	28.26	2731
25-29	32.42	9.48	916
30-34	42.92	2.27	219
35+	58.06	0.96	93
Parity			
None	53.88	11.20	1082
1	47.5	22.80	2204
2	36.94	30.50	2948
3+	44.42	35.50	3431
Region of residence			
North	57.66	17.15	1658
Northeast	48.03	19.17	1853
Southeast	35.79	20.67	1998
South	36.54	22.34	2159
Center-West	44.72	20.66	1997
Place of residence			
Urban	45.21	67.08	6483
Rural	41.23	32.92	3182
Place of residence until age 12			
State capital	47.93	15.46	1494
Big city	45.78	12.86	1243
Small town	47.39	34.26	3311
Countryside	38.4	37.42	3617
Number of unions			
1	35.45	81.60	7887
2+	81.38	18.40	1778
Currently working			
No	47.47	54.08	5227
Yes	39.7	45.92	4438
Total	43.9	100.00	9665

Source: DHS 2006 - Brazil

1) Are religious affiliation and religiosity (measured by service attendance and maintenance of the same religion over time) correlated to union formation among women in Brazil?

Pentecostal women are 1.35 times more likely to be in union if compared to Catholics. The odds for those with other religion affiliations or no religion were approximately 70% of the odds of Catholics. The odds of being in union for Protestants are not statistically significant in comparison to Catholics (Table 2, Model 1A).

Controlling for service attendance, the effects of religious affiliation on the likelihood of being married are very similar. Those who attend service occasionally are 1.16 times more likely to be in union, if compared to those whose attend at least once a week (Table 2, Model 1B).

When the control variable “same religion” is introduced, the odds of being married for Pentecostals are no longer statistically significant. Those with other religious affiliations or with no religion have approximately half the odds of being in union, if compared to Catholics. Occasional attendance is also positively correlated to being in union. Those who have had the same religious affiliation over the years are less likely to be in union (Table 2, Model 1C).

After controlling for socioeconomic and demographic factors and compared to Catholics, Protestants are 1.3 times more likely to be in union, whereas Pentecostals are 1.6 times more likely. Compared to women committed to their religion, those who attend services occasionally or rarely/never are more likely to be in union (Table 2, Model 1D).

Age (up to 39 years old) is positively correlated to the odds of being in union. Women who grew up in small towns or the countryside, as well as those who live in rural areas are more likely to be in union. Parity is a strong predictor of being in union.

Table 2 - Odds ratios assessing effects of predictor variables on the likelihood of being in union in Brazil, 2006 (N=15121)

Dependent variable: being in union (in union - reference)	Odds Ratios			
	Model 1A	Model 1B	Model 1C	Model 1D
Religious affiliation (Catholics - reference)				
Protestants	1.02	1.06	0.84	1.31**
Pentecostals	1.35***	1.42***	1.07	1.57***
Other	0.71**	0.74**	0.53***	1.05
None	0.72***	0.75**	0.49***	0.99
Attendance (Committed - reference)				
Occasional		1.16**	1.17**	1.20**
Nominal		1.00	1.02	1.27**
Same affiliation (No - reference)				
Yes			0.61***	1.05
Years of education (0-4 - reference)				
5-8				0.92
9-11				0.91
12 and more				0.77*
Race/Skin color (White - reference)				
Black				0.72**
Brown				0.95
Yellow (Asian)				0.73
Indigenous				1.09
Age (20-24 - reference)				
15-19				0.4***
25-29				1.3**
30-34				1.43**
35-39				1.54***
40-44				1.15
45-49				0.88
Parity (None - reference)				
1				6.66***
2				11.01***
3+				8.70***
Region (Southeast - reference)				
North				1.10
Northeast				1.03
South				1.38***
Center-West				1.39***
Place of residence until age 12 (State capital - reference)				
Big city				0.97
Small town				1.19*
Countryside				1.64***
Place of residence (urban - reference)				
Rural				1.30**
Currently Working (No - reference)				
Yes				0.80***

Source: DHS 2006 - Brazil

*** p <= 0.01; **p <= 0.05; *p <= 0.10

2) Among those who are in union, are religious affiliation and religiosity associated to the type of union (formal marriage or consensual union)?

The zero-order model indicates that both Protestants and Pentecostals have approximately half the odds of being in a consensual union if compared to Catholics (the reference category). The odds for a woman with other religious affiliations are 2/3 the odds for Catholics. If a woman has no religion, her odds of being in a consensual union are 2.6 times greater than those for Catholics (Table 3, Model 2A).

Controlling for attendance and compared to Catholics, Protestants and Pentecostals are less likely to be in a consensual union. Those with no religion are 1.5 times more likely to be in a consensual union, whereas those with other religions are not different from Catholics (Table 3, Model 2B).

Compared to women who are committed to their religion, those who attend service occasionally are 1.6 times more likely to be in a consensual union. If church attendance is rare or inexistent, then the odds of being in a consensual union are 3.3 times greater (Table 3, Model 2C).

Controlling for attendance and socioeconomic factors, the differences hold only for Protestants and Pentecostals, who have approximately half the chance of Catholics. The odds that a woman with no religion or other religions is in a consensual union are not statistically different from the odds for Catholics. Women who have had the same religion over time are less likely to be in a consensual union if compared to those who have changed religious affiliation (Table 3, Model 2D).

The odds of being in a consensual union are inversely correlated to woman's age and education – older and more educated women are less likely to be in a consensual union. Blacks and Browns are respectively 1.8 and 1.4 times more likely to be in a consensual union than Whites. Compared to same age couples, the odds of consensual union are smaller for those whose husbands/spouses are 2-10 years older. If the husband/spouse is 2 to 5 years younger than his wife/spouse, the odds of being in a consensual union are approximately 1.5 times greater to same age partner. If the wife/spouse is 6 or more years older, the odds of a consensual union is 2.44 greater than same age partners. The odds of being in a consensual union are negatively correlated to the age at first union. Women who enter first union at age 35 or older, the odds that this union is consensual is quite high – 9.8 times more likely than those who enter first union during adolescence. The odds of a consensual union are greater in the North region of the country, followed by the Center West and the Northeast. Having lived in the countryside until age 12 or currently living in the rural area reduces the odds of a consensual union. For those who are in their first unions, the odds of being in a consensual union are only 1/10th of those who are in unions of order 2 or more. Parity and current work are not correlated with the odds of being in a consensual union.

Table 3 - Odds ratios assessing effects of predictor variables on the likelihood of being in a consensual union in Brazil, 2006 (N=9665)

Dependent variable: type of union (Consensual union - reference)	Odds Ratios			
	Model 2A	Model 2B	Model 2C	Model 2D
Religious affiliation (Catholics - reference)				
Protestants	0.53***	0.70***	0.63***	0.51***
Pentecostals	0.57***	0.77**	0.67***	0.45***
Other	0.69**	0.78	0.67**	0.93
None	2.6***	1.54*	1.3	0.89
Attendance (Committed - reference)				
Occasional		1.59***	1.59***	1.51***
Nominal		3.30***	3.30***	3.00***
Same affiliation (No - reference)				
Yes			0.82	0.70**
Years of education (0-4 - reference)				
5-8				0.80**
9-11				0.48***
12 and more				0.28***
Race/Skin color (White - reference)				
Black				1.87***
Brown				1.38***
Yellow (Asian)				1.54*
Indigenous				1.37
Age (20-24 - reference)				
15-19				1.78***
25-29				0.52***
30-34				0.23***
35-39				0.20***
40-44				0.12***
45-49				0.08***
Age of spouse/husband (same age + - 1 - reference)				
2-5 years older				0.82*
6-10 years older				0.73**
11+ years older				1.57***
2-5 years younger				1.45**
6+ years younger				2.45***
Age at first union/marriage (<= 19 - reference)				
20-24				1.17
25-29				1.61***
30-34				3.12***
35+				9.84***
Parity (None - reference)				
1				1.03
2				1.07
3+				1.23
Region (Southeast - reference)				
North				2.18***
Northeast				1.23*
South				1.20*
Center-West				1.34***
Place of residence until age 12 (State capital - reference)				
Big city				0.87
Small town				0.81*
Countryside				0.68***
Place of residence (urban - reference)				
Rural				0.80**
Number of unions (2+ - reference)				
1				0.09***
Currently Working (No - reference)				
Yes				1.02

Source: DHS 2006 - Brazil

*** p <= 0.01; **p <= 0.05; *p <= 0.10

Do the odds of a woman being in a consensual union vary depending on whether she has the same religious denomination she grew up in or whether she has switched denominations over time?

Among women who have had the same religious affiliation over time, Protestants and Pentecostals are less likely to be in a consensual union. Those who have no religion are 10 times more likely to be in a consensual union (Table 4, Model 3A).

Controlling for attendance, Protestants and Pentecostals are also less likely to be in a consensual union and women with no religion are 5 times more likely to be in the same type of union (Table 4, Model 3B).

Controlling for attendance and socioeconomic factors and compared to Catholics, Protestants have half the odds of being in a consensual union, whereas among Pentecostals the odds are approximately a third. Religiosity also matters. Women who attend services occasionally have 1.5 the odds of being in a consensual union if compared to those who attend service once a week or more. Those who rarely or never attend service are 3.6 times more likely to be in a consensual union (Table 4, Model 3C).

The results for women who have switched denominations over time are quite distinct (Table 4, Model 4A). The zero-order model is somewhat similar to the other zero-order models presented previously. The same can be said when attendance is controlled for (Table 4, Model 4B). However, when controlling for attendance and socioeconomic factors, religious affiliation loses significance and only religiosity remains significant. In other words, for those who have changed religions over time, what matters is not the affiliation, but the commitment to the religion, measured by service attendance (Table 4, Model 4C).

Preliminary concluding remarks

Union formation in Brazil is closely related to religion and religiosity. In addition to affiliation and attendance, changes in affiliation over time must be taken into account.

Table 4 - Odds ratios assessing effects of predictor variables on the likelihood of being in a consensual union in Brazil, 2006 (N=9665)

Dependent variable: type of union (Consensual union reference)	Odds Ratio					
	Same affiliation			Different affiliation		
	Model 3A	Model 3B	Model 3C	Model 4A	Model 4B	Model 4C
Religious affiliation (Catholics - reference)						
Protestants	0.46***	0.60***	0.46***	0.38***	0.56**	0.72
Pentecostals	0.36***	0.49***	0.32***	0.45***	0.65	0.69
Other	1.09	1.23	1.55	0.40***	0.50**	0.94
None	10.23***	5.40***	2.34**	1.52	1.17	1.29
Attendance (Committed - reference)						
Occasional		1.51***	1.40***		1.88***	1.92***
Nominal		3.58***	3.29***		2.49***	2.23***
Years of education (0-4 - reference)						
5-8			0.76**			1
9-11			0.45***			0.64**
12 and more			0.28***			0.28***
Race/Skin color (White - reference)						
Black			1.88***			1.82**
Brown			1.48***			1.17
Yellow (Asian)			1.51			1.41
Indigenous			2.48***			0.45*
Age (20-24 - reference)						
15-19			1.81**			1.73
25-29			0.52***			0.52**
30-34			0.25***			0.20***
35-39			0.21***			0.16***
40-44			0.11***			0.13***
45-49			0.07***			0.10***
Age of spouse/husband (same age + 1 - reference)						
2-5 years older			0.83			0.83
6-10 years older			0.69***			0.97
11+ years older			1.54**			1.89**
2-5 years younger			1.42*			1.80*
6+ years younger			2.54***			2.51**
Age at first union/marriage (<= 19 - reference)						
20-24			1.16			1.19
25-29			1.63***			1.54
30-34			3.34***			2.25
35+			12.93***			6.09***
Parity (None - reference)						
1			0.91			1.46
2			1.08			1.05
3+			1.15			1.47
Region (Southeast - reference)						
North			2.47***			1.65**
Northeast			1.22			1.26
South			1.26*			1.12
Center-West			1.35**			1.17
Place of residence until age 12 (State capital - reference)						
Big city			0.84			0.93
Small town			0.89			0.61**
Countryside			0.66**			0.78
Place of residence (urban - reference)						
Rural			0.75**			1.04
Number of unions (2+ - reference)						
1			0.08***			0.11***
Currently Working (No - reference)						
Yes			0.95			1.17

Source: DHS 2006 - Brazil

*** p <= 0.01; **p <= 0.05; *p <= 0.10