The Effects of Demographic and Athletic Variables on the Retention of International Student-Athletes

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INTRODUCTION

Retention

The continuous enrollment in college or university every semester until graduation, typically in about 4 years (11).

Domestic Students

- Institutional characteristics (e.g., class size) (1, 10).
- Financial constraints (3, 10).
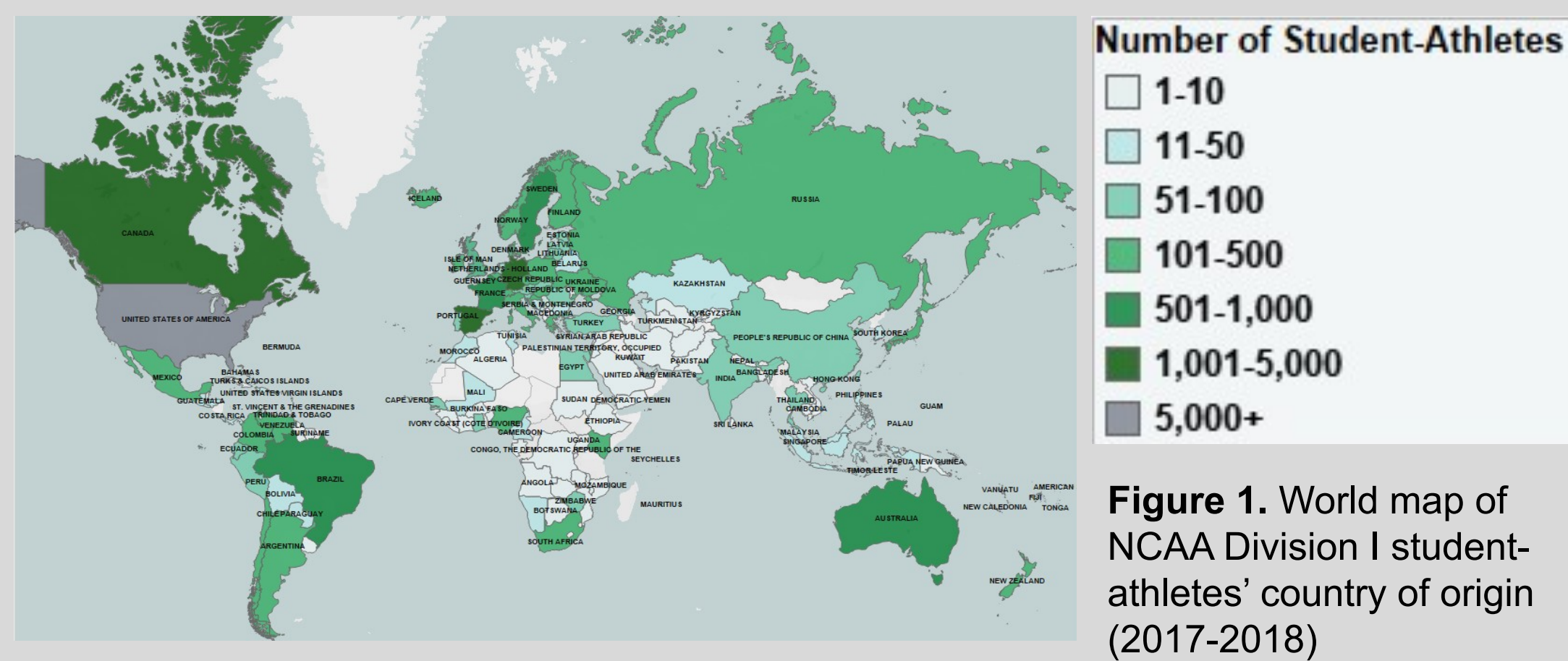- Sense of belonging and community (3, 9).

International Students

- Varying circumstances that influence retention (2).

Student-Athletes

- Influence of athletic factors that do not affect regular students (4, 5, 7, 13).
- Increased pressure of athletic schedule and commercialization of college athletics (5).

International Student-Athletes (ISA)

- Unique college sport governance structure (6, 8).
- Cultural differences (6, 9, 12).

Figure 1. World map of NCAA Division I student-athletes' country of origin (2017-2018)

Number of Student-Athletes
- 1-10
- 11-50
- 51-100
- 101-500
- 501-1,000
- 1,001-5,000
- 5,000+

PURPOSE

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- To examine different athletic and demographic variables to identify if and how they impact the retention of ISA within NCAA Division I-FBS athletics.

Research Question

- Is there a correlation between the athletic and demographic variables and the retention of ISAs through four-years?
- To what degree do the correlating athletic and demographic variables predict retention of ISAs through four-years?

Hypothesis

- The athletic and demographic variables will negatively correlate with the retention of ISA.
- The correlating athletic and demographic variables will be able to predict retention of ISA.

METHOD

Participants

- ISAs who began competing from 2012-2013 to 2015-2016 academic year.
- Power 5 conferences.
- ISA competing in Basketball (M/W), Tennis (M/W), Soccer (M/W), Baseball, and Softball.

Instruments

- Excel document for raw data entry
- SPSS Statistical analysis software 26

Study Design

- Historical archival study

Data Collection Procedures

1. Find websites with archival data
2. Collect raw data from all NCAA Division I-FBS institutions
3. Input raw data into excel document
4. Code raw data based on the variable code instrument

Data Analysis

- Descriptive statistics
- Pearson correlations (RQ. 1)
- Multiple linear regressions (RQ. 2)

Table 1. Independent variables and their operational definitions

Demographic Variables	
Gender	Male Female
Location	Categorized based on continents; North America, Europe, Oceania, Asia, Africa, South America.
Language	Native English speaker, very high English proficiency, high English proficiency, moderate English proficiency, low English proficiency, very low English proficiency

Athletic Variables	
Sport	Men's Basketball, Women's Basketball, Men's Tennis, Women's Tennis, Men's Soccer, Women's Soccer, Men's Golf, Women's Golf, Baseball, and Softball
Individual/Team	Individual sports = Tennis (M/W), Golf (M/W) Team sports = Basketball (M/W), Soccer (M/W), Baseball, Softball
Scholarship Type	Headcount = Basketball (M/W) Equivalency = Tennis (M/W), Soccer (M/W), Baseball, Softball, Golf (M/W)
Coaching Change	Change = the head coach changed at some point throughout the athlete's time at the institution No Change = the head coach remained the same for the duration of the athlete's time at the institution.
Average Team Win Percentage	The number of conference wins divided by the number of conference losses averaged for each year they competed

Results

Descriptive Statistics

N = 835

- Retained (73.4%), not retained (26.6%)
- European (50.3%), North American (18.1%), all other locations (31.6%).
- Experienced a coaching change (20.7%)

Pearson Correlation

- Team/individual showed a significant (p < .01) weak positive correlation (r = .096) with retention.
- Coaching change showed a significant (p < .01) weak negative correlation (r = -.107) with retention.
- Several of the independent variables were correlated with each other.

Multiple Linear Regression

Six of the eight variables examined were found to be significant predictors of retention through four-years.

- Gender, sport, team/individual, scholarship, coaching change, average team conference win percentage

	B	Beta	t value	Significance
Gender	-.129	-.146	-3.313	.001**
Location	.001	.005	.126	.900
Language	-.003	-.010	-.235	.814
Sport	.074	.292	4.841	.000**
Team/Individual	.284	.322	5.598	.000**
Scholarship	.075	.085	2.080	.038*
Coaching Change	-.206	-.189	-5.142	.000**
Average Win %	-.216	-.113	-3.255	.001**

*P < .01**, p < .05*   **Table 2.** Multiple Linear Regression Results

DISCUSSION

Gender

- Women were found to be retained through four-years at a higher rate than males (2, 4, 5, 7, 10).

Location and language

- Not found to be a significant predictor of retention.

Sport

- Women's and men's tennis were retained at the highest rate, while women's and men's basketball were retained at the lowest rate.

Team/Individual

- Individual sports (tennis) were found ton be retained at higher rates than team sports (basketball, soccer, baseball, softball).

Scholarship

- ISAs competing in an equivalency sport (M/W soccer, M tennis, baseball and softball) were retained at higher rates than sports offering headcount scholarships (M/W basketball, W tennis).

Coaching Change

- Women's basketball experience the highest rate of coaching changes. Coaching change is a significant predictor of retention.

Average Team Conference Win Percentage

- Average team conference win percentage was found to significantly predict retention.
- ISAs who win more are retained at higher rates

Pragmatic Considerations

- ISAs on team sports with low win percentages are most in need of retention programming.
- Recommend on-boarding checklist for recruiting ISAs and cultural competency training for coaches and administrators to better connect with ISAs.

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