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USING SPORTING MIGRANTS TO BUILD SECONDARY SPORT: A 12 YEAR CASE STUDY OF CZECH BASKETBALL

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ABSTRACT

This study examines the effects of the sport migration that occurred over a 12 year period in the secondary sport of basketball in the Czech Republic, in terms of its effect on the popularity of the sport within the culture. The factors of fan attendance and youth membership are isolated and measured quantitatively, using multi-level analysis within teams, between teams and at a federation level. The study was carried out in order to measure the effect of the use of immigrant athletes from an individual team management perspective and from a league growth perspective. It was found that while foreigners displace national athletes, fans were attracted to the use of foreigners and youth were attracted to play the game. The use of foreigners had the most significant correlations at the between team level to home attendance and final placement in the league. Multi-level analysis was used to show that the use of foreigners can be a facilitator for federations and team management to build the popularity of secondary sports in a culture, with certain limitations. This quantitative study of a secondary sport is an addition to the majority of the literature on sport migration, which has been largely conducted on primary sports from a qualitative, sociological perspective.

Keywords: sport migration; multi-level analysis; fan attendance; youth membership; sport popularity

INTRODUCTION

The sporting landscape is cluttered. The media increasingly show either the dominant sports in a culture or the new emerging sports. Secondary sports, or those traditional sports in the cultural middle ground, are left to fight for every fan and every potential participant. Add to this mix globalization factors such as media coverage of foreign leagues and new foreign sports, global flows of sport migration, and increasing power of sporting

companies over and above governing bodies (specially national governing bodies), and the battle for sport popularity within a culture is increasingly complex. Within this array of complexities we isolate and focus on the effect of sport migration on the popularity of these secondary sports. We have made an attempt to quantify and measure the specific effect of athletes entering and leaving secondary sports on the popularity of a particular sport within the culture. In measuring sport popularity within the culture we have focused on the markers of fan attendance at matches and youth registering to play the game.

Sport occupies a dual role in globalization, that of a motor for globalization and that of a measuring stick for globalization and the changes which it brings. Stiglitz defines globalization as "the closer integration of the countries and peoples of the world […] brought about by the enormous reduction of costs of transportation and communication, and the breaking down of artificial barriers to the flows of goods, services, capital, knowledge, and people across borders" (2003, p. 9). In one sense as long as competition between nations has existed there has been globalization in sport, because the nature of competition leads to the imitation of successful ideas. However a crucial element of globalization is the speeding up of this spread of ideas, money and people. Sports migration is one form of globalization where we can measure the form and its affects.

This study was undertaken to evaluate the practice of using immigrant athletes in the Czech basketball league as a cornerstone of the club business plan and sport growth. The long-term growth of the sport, in terms of both consumption and participation, needs to be examined in light of the globalization which is taking place. Increasing knowledge of the use of immigrant athletes in the Czech basketball league may provide insight into the effects of immigrant athletes on sport popularity in other cultures, particularly in secondary sports.

While the question of sport migration has previously been addressed primarily from a sociological viewpoint, it needs to also be addressed from a practical, managerial per-spective, as the question is in fact significant to the overall growth of sport in the culture. Sport clubs or sporting entities need to see not only business success from the top teams in their clubs (in terms of fandom and sponsorship revenue), but also growth in numbers of participants on their youth teams, in order to secure their future competitive position. Thus the use of immigrant athletes must be examined by both individual clubs and sport federations.

The sport of basketball in the Czech Republic provides an excellent starting point for such a quantitative examination, as the rate of sport migration has increased rapidly in recent years. This study represents a 12 year period from 1998 to 2010, in which the num-ber of foreigners grew from 11 to 56 out of an average 200 players in the highest Czech basketball league. During this 12 year period 18 teams were represented in the highest basketball league. The fan attendance of the games of these 18 teams and the number of youth registered to play the game of basketball in the Czech Republic are statistically examined as the number of foreigners increased. Basketball in the Czech Republic is a secondary sport behind the culturally primary sports of football and ice hockey.

The rules regulating the use of foreigners on teams changed 6 times over the 12 years studied. In the final season studied there were 45 foreign players in the highest league of Czech basketball. These 45 immigrant players represent over 34% of the total players in the Czech men's first division of basketball. The teams at the top of the league have the most foreign players, with five, and the ones at the bottom have the least, with one

and zero. Foreign players dominate the top end of the statistics for Czech basketball. In the spring of 2005, the Czechs naturalized their first foreigner for the purpose of national team play. American Maurice Whitfield became the first black Czech to wear the national team jersey just in time for the qualification rounds of the Euro 2005 basketball tournament, where he led the team as the playmaking point guard. While such practices appear almost normal today, the question remains: does the use of immigrant athletes build the popularity of a sport in a culture?

LITERATURE REVIEW

Although the practice of sport migration has been going on for over a century, it has picked up considerable steam in the last 30 years. There is a noticeable and well researched trend of athletes emigrating from countries with a wealth of talent in a particular sport to countries with weaker talent pools, due to the over-production of talent in their home countries. This can be evidenced by the presence of Canadian hockey players, American basketball players and Brazilian football players in many countries across the world, and some have even become naturalized and so eligible for national teams (Galily & Bernstein, 2008; Maguire, 1996; Poli, 2010a). There is a converse trend, which has been researched much more widely, of talent being siphoned out of the countries lacking wealth and power to the countries that have the wealth and power to create or participate in a monopolistic league (Harvey et al., 1996; Magee & Sugden, 2002; Maguire, 1996; Miller et al., 2003; Poli, 2010b; Poli, 2010a; Shukert, 2002). This can be evidenced in the migration of Latin American baseball players to play in North America's Major Leagues (Klein, 1989). Other studies have sought to show the correlation between the exportation of sport talent to the most prestigious leagues and the growth of their sports in their home culture (Galily & Bernstein, 2008; Lanfranchi & Taylor, 2001; Larmer, 2005). However, little has been done to research the effect of sport migration on the growth of secondary sports in a culture from a management perspective.

Basketball is a relatively weak sport in terms of popularity in the Czech Republic, where hockey and football (soccer) are overwhelmingly dominant. Athletics (track and field) and tennis are clearly the next most popular sports, followed by cross country skiing, basketball, team handball and volleyball (Čáslavová et al., 2007). The best Czech hockey and football players have exited the country to play in countries where they can ply their trade more profitably.

Basketball, however, holds a lower position in the hierarchy of Czech sport popularity and thus only three Czechs have made it to the prestigious NBA, while a rapidly growing number play elsewhere in Europe. However the guardians of the game in the Czech Republic have chosen to rely on a second tier of immigrants to build the game of basketball at home in the Czech Republic. This second tier is composed of immigrant athletes who are of insufficient quality to play in the North American NBA or the less prestigious FIBA Euro-League, yet they are talented enough to be the stars of the Czech basketball league. Thus we see illustrated in Czech basketball the same immigration trends we referred to earlier: importation of over-produced talent and siphoning off of the best talent from a smaller country.

There seems to be an observable pattern that sport leagues follow in their beginning, growth, reasoning, and legislation regarding the use of immigrant athletes. Teams bring in immigrant athletes to gain a competitive edge over their competition who are almost exclusively relying on national, or home-grown talent. Other teams follow suit in in an effort not to lose competitive ground. Teams justify this expense, at relatively high cost, with claims of maintaining competitive equity; fostering talent growth among young home-grown players through exposure to better players; and bolstering game attractiveness to fans. At some point, leagues place a limit on the number of non-national athletes each team may have on their roster and even on how many may be on the court or playing field at one time.

Perhaps the study closest to our own is Falcous and Maguire's 2005 sociological study, "Globetrotters and Local Heroes? Labor Migration, Basketball, and Local Identities" (Falcous & Maguire, 2005). Falcous and Maguire conducted a two-year ethnographic study of fans following the Leicester Riders elite basketball team in England. Their qualitative study involved in-depth interviews and focus groups with 28 individual fans of the Leicester team. The Leicester sporting landscape is dominated by three professional men's sports: football, rugby union and cricket, with basketball only on the periphery (Falcous & Maguire, 2005). This sporting landscape parallels that of the Czech Republic, in that basketball is not one of the sports dominating the landscape of Czech sporting culture. While Falcous and Maguire identify the sporting landscape and place basketball into that landscape, they are unable to measure the effect of sport migration on the growth of the secondary sport in that landscape. We will attempt to quantify this effect within and between teams in the Czech league.

The British basketball study parallels a brief 1984 study of the use of immigrant athletes in Finnish basketball, which found that owners insisted that the use of immigrants was necessary to win, and fans insisted on quotas for the number of immigrants allowed per team (Olin, 1984). Based on qualitative research, Olin asserts that the use of immigrant athletes is detrimental to the growth of the secondary sport of basketball within the Finnish culture. We will illustrate how this hypothesis can be tested quantitatively.

Falcous and Maguire point out in their 2005 study that, even though the International Basketball Federation (FIBA) passed legislation in 1998 to allow up to 10 foreign players per team worldwide, most European leagues had opted to allow only two foreign players, whilst Britain allowed up to five. Thus, including dual nationals, the British basketball league was composed of just under 30% foreign athletes through the 1980s and increased to approximately 50% in the late 1990s (47.4%, 1996/97; 53%, 1997/98; 52.6%, 1998/99) (Falcous & Maguire, 2005). This places the Czech Republic's current 34.5% foreigners in a comparable position to Great Britain in the mid 1980s.

Falcous and Maguire found a fairly complex interplay of the local and global at work among basketball fans interviewed. Broadly speaking, they found themes of: the positive necessary role of immigrants in team success; the desire for committed players in the context of local civic pride (more positive reactions were associated with an immigrant player who had played multiple seasons with the Leicester team); the marginalization of local players; and the desire for spectacle and entertainment brought by the immigrant players (Falcous & Maguire, 2005). Their study reveals the multi-layered identity politics which characterize the issue of sport migration in the globalization discussion. Each of

the themes identified by Falcous and Maguire can be quantifiably measured in relation to the business model of a local team and effect of migration on long term sport growth.

Falcous and Maguire suggest that their study shows that the use of immigrant athletes in British basketball has the potential to reinvigorate local culture through the global sport flow, but issue a caution as to the underdevelopment of the British game. They emphasize strongly that understanding the use of immigrant athletes cannot be seen as strictly an economic issue, which they find Miller et al. (2003) as falsely concluding (Falcous & Maguire, 2005). Finally, they cite the need for more empirically grounded case studies in order to understand the wider political-economic patterning of global sport (Falcous & Maguire, 2005). Our study of the use of immigrant athletes in Czech basketball fits precisely this need.

Raymore uses the terms 'facilitators' and 'constraints' to explain commitment to an activity. He defines facilitators as "factors that enable or promote the formation of leisure preferences and encourage or enhance participation" (Raymore, 2002, p. 39). Constraints on the other hand, inhibit or thwart interest and participation in leisure activities. Raymore says facilitators and constraints can be intrapersonal (individual traits and beliefs that result in predisposition to an activity), interpersonal (groups or individuals who encourage participation in an activity), or structural (intuitions or belief systems that promote an activity). These facilitators and constraints need to be identified and quantified in order to understand their influence on fan attendance and youth participation in a sport. Understanding whether the use of foreigners facilitates or constrains fans from attending games and youth from participating in a sport therefore needs to be understood at both the team and the federation level, in order to facilitate the growth of the sport in the culture.

METHODOLOGY

Data Selection

The data in this study were examined within teams and between teams over a 12 year time span. Additionally the data were examined in total on a league level across the 12 year period. The team basis within and across teams was focused on the examination of the relationship between the number of foreign players on each team to fan attendance. The league basis focused on the examination of the relationship between the number of foreign players to average fan attendance and the number of youth choosing to play the sport of basketball. The 12 year time span from 1998 to 2010 was chosen due to the rapid growth in the number of foreigners at that time, and the consequent multiple rule changes governing the use of foreigners. The study was discontinued in 2010 because the Czech Basketball Federation ceased collecting data on fan attendance.

On a team basis the current study is composed of 18 teams which played in the Czech MNBL (the highest Czech league) of professional basketball. The rules of play in this league state that each year the last placed of 12 teams will drop down to the 1st league of Czech basketball and the winner of that league will move up to the Czech MNBL. This explains our "messy design" in which only 5 of the 18 teams remained in the MNBL all 12 years. Each 9 month season spanned two calendar years and is denoted by the beginning

year of each season. The variables of final place, number of foreigners, fan attendance, other extra-league teams (ice hockey and football), city population and hall capacity are measured across time within and between teams. Final place was chosen because there is much variance within teams over the 12 year time period. Number of foreigners was chosen because they have increased from 11 to 56 out of the average 200 players in the top Czech league and it is the primary variable whose relationship to the others we are trying to understand. Hall capacity and city population were chosen because they remain relatively stable within teams throughout the 12 year period (time-invariant) and have been shown to be in relationship to fan attendance (Douvis, 2007; Hansen & Gauthier, 1989). Number of other extra-league teams (specifically from the primary sports of ice hockey and football) in the city was chosen because many researchers have identified this as a factor highly correlated to fan attendance (Douvis, 2007; Hansen & Gauthier, 1989; Rein et al., 2006; Westerbeek & Smith, 2002). These variables compose our first data set.

The second data set is much smaller than the first, as it is only composed of three seasons from the original data set. This data set was created in order to include the variable of team budgets. Team budget is an important variable, which we were not able to measure across all 12 seasons of time due to the difficulty in obtaining data and inaccuracies in these budgets. However, we have been able to obtain team budgets for three seasons (2006–07, 2007–08, 2008–09) which have been twice verified. This does not guarantee complete accuracy, but lends itself to a high degree of comparability. Thus the between team model was run separately for these three seasons in order to examine the relationship of team budget to the other variables.

The third data set is also a subset of the original data set. This data set, on a league basis, consists of the same twelve seasons as above. The variable of number of youth registered with the Czech basketball federation is of most interest to us at this level. Youth are defined as up to 19 years of age in the season of play. Youth membership has been adjusted as a percentage of the total Czech youth population between the ages of 5 and 19 for the given years. This was done to minimize the effect of the declining birth rates and thus present youth basketball membership growth relative to the eligible population. This variable is measured alongside the total number of foreign players playing in the MNBL each year, number of Czechs playing in the league each year, number of Czechs playing outside of the Czech Republic and the average home attendance. Other variables measured in the model on a league basis across time are number of times the MNBL was broadcast on Czech television and average hall capacity.

Data Analysis

The original data set is of a multi-level nature. Seasons are considered as level-1 units which are further nested within teams (level-2) units. Thus, two co-variance matrices instead of one were estimated for each level. The pooled-within teams covariance matrix belongs to level-1 and the scaled-between teams covariance matrix is observed at level-2. These two covariance matrices were estimated via a multi-variate multilevel procedure in the PRELIS programme (Jöreskog & Sörbom, 1999). Additionally the model was expanded to include budget, population and hall capacity and to run with the longitudinal second data set. This data set was analyzed using Pearson correlations. The multi-level

structure was ignored when budget was included, due to the smaller level of observations, and is only included for illustrative purposes. In addition to correlations, bi-variate regression analysis was performed. Subsequently, path-analytic models were conducted for both levels according to the rules and procedures commonly used within the structural equation modeling framework (Kaplan, 2008).

RESULTS AND FINDINGS

We will begin with some simple tables and scatterplot graphs to illustrate quantitatively the data over the time period under study in the Czech Republic. Then the relationships between these variables will be represented through two-level hierarchical modelling with correlation and covariance matrixes. Finally we will attempt to represent the indirect effects within these intended and unintended consequences through the use of path analysis.
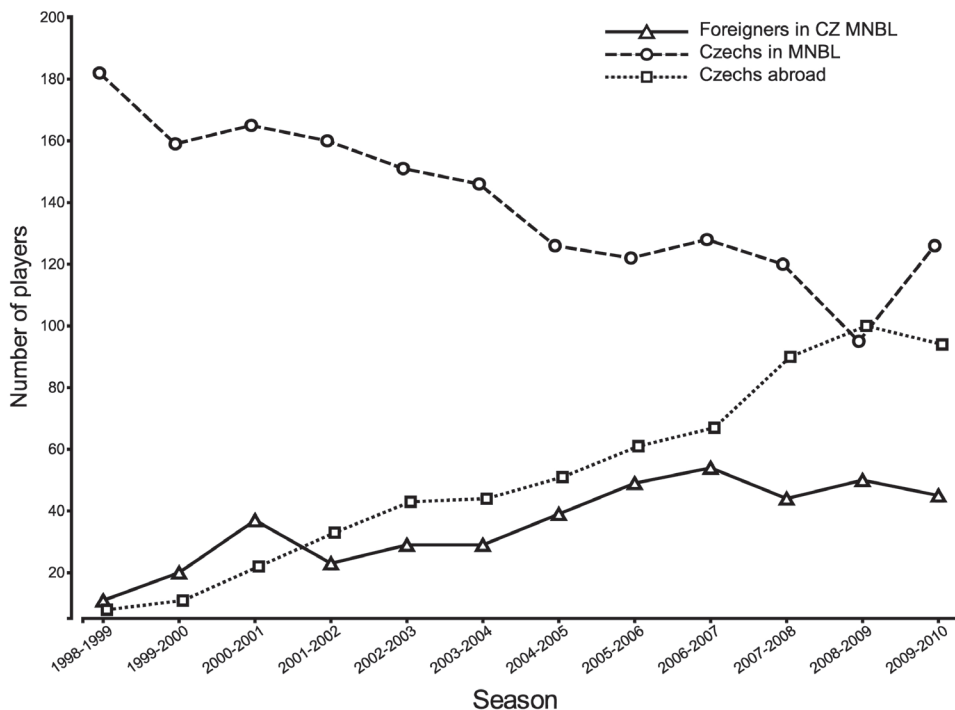
Figure 1. Use of Foreigners and Czechs playing outside the Czech Republic

The number of foreigners playing in the top Czech league increased steadily over the 12 years studied. The quadrupling of the number of foreigners is even more significant when one considers the concurrent decrease in Czech players.
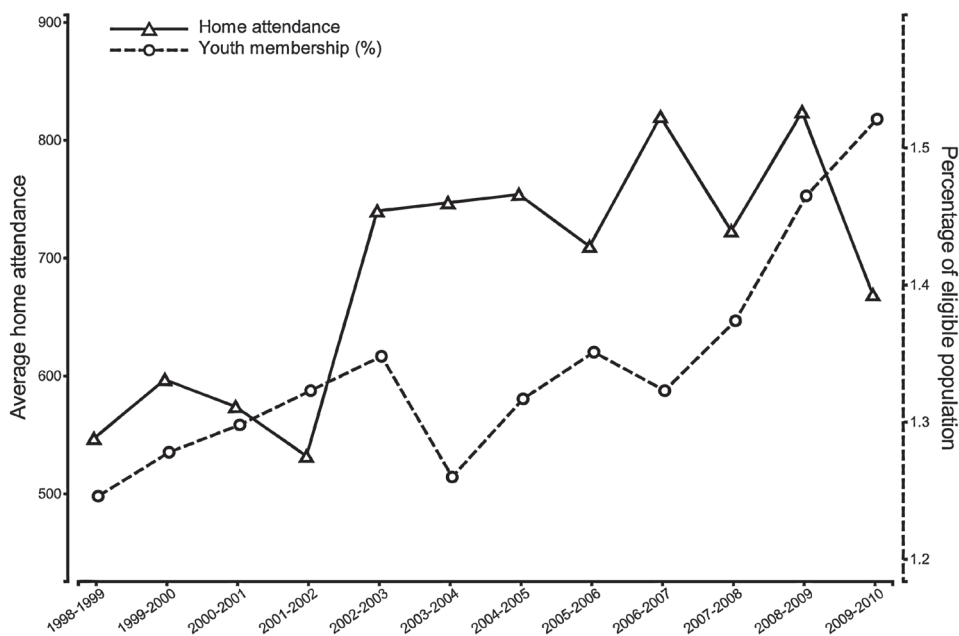
Figure 2. Fan Attendance and Youth CBF membership as a percentage of the eligible population

Fan attendance consistently increased over the time period being studied, just as the number of foreigners shown above. In fact, home attendance increased by 22.3%. This percentage has high elasticity simply because so few fans relatively attend basketball games (as compared to ice hockey or football). The biggest shift occurred between the seasons 2001–2002 and 2002–2003 (years 4 and 5).

Table 1. Basketball Federation Membership

Season	Total CBF membership	Youth CBF membership
1998–1999	41,198	25,411
1999–2000	41,168	25,328
2000–2001	40,768	24,967
2001–2002	40,553	24,834
2002–2003	39,728	24,614
2003–2004	35,761	22,461
2004–2005	35,985	22,900
2005–2006	36,032	22,931
2006–2007	38,592	21,908
2007–2008	39,075	22,256
2008–2009	40,328	23,325
2009–2010	40,788	23,745

The actual numbers represent an overall loss of 1666 total members or a 6.5% decrease in youth membership. However, when one takes into account the declining birth rate in the Czech Republic and its relative effect on the actual youth population eligible to play basketball each season, there is a 22% increase over the 12 year period as shown in figure 2 above.

Team Level analysis

Table 2. Descriptive statistics of full and budget-only reduced sample

	All teams over all seasons (N = 143)				Teams with known budget (N = 35)			
	Mean	SEM	Min	Max	Mean	SEM	Min	Max
Home Attendance	685.27	25.34	171	1,945	787.66	66.00	231	1,945
Away Attendance	686.26	11.63	403	1,180	788.20	16.80	636	1,180
Foreigners	2.97	0.19	0	8	4.11	0.35	0	8
Non-EU	1.68	0.12	0	6	2.57	0.19	0	6
Czechs	11.72	0.29	5	23	9.80	0.44	5	15
Final Place	6.46	0.29	1	12	6.34	0.58	1	12
Hockey Extraleague	0.52	0.06	0	2	0.46	0.11	0	2
Football Extraleague	0.83	0.11	0	5	0.57	0.19	0	5
Capacity	1,951.57	169.56	250	9,000	2,610.51	463.59	490	9,000
Population	286,394	98,517	13,400	1,157,800	197,166	54,100	13,400	1,157,800
Budget	xxx	xxx	xxx	xxx	16.69	1.61	8	50

The descriptive statistics above in table 2 paint a picture of all variables, measured for all teams, over the 12 year longitudinal period. The first four columns represent all 18 seasons, while the last four columns represent the three seasons 2006–2007, 2007–2008, 2008–2009 for which budget data was available. Budgets were measured in millions of Czech crowns. The three year average exchange rate for these seasons was 19.4 Kc / 1 USD and 26.7 Kc / 1 EUR.

The results of the multi-variate multi-level model are two co-variance matrixes, pooled-within teams and scaled-between teams. The pooled-within teams matrix is presented in table 3 and the scaled-between teams matrix in table 4. For both matrixes the bold entries on the diagonal are the variances. Entries below the bold variances are the covariances, and above are the respective correlations. The significant covariances are delineated with asterisks.

Table 3. Pooled-within teams covariance-correlation matrix

	Home Atten.	Away Atten.	Foreigners	Non-EU	Czechs	Final Place	Hockey	Football
Home Atten.	**55,886.70**	*0.40*	*0.26*	*0.31*	*−0.33*	*−0.43*	*−0.12*	*−0.01*
Away Atten.	10,302.82**	**11,855.32**	*0.26*	*0.19*	*−0.40*	*−0.19*	*0.08*	*−0.03*
Foreigners	99.43**	46.61**	**2.61**	*0.73*	*−0.54*	*0.01*	*0.01*	*−0.04*
Non-EU	88.43**	24.43**	1.41**	**1.44**	*−0.42*	*−0.13*	*−0.02*	*0.00*
Czechs	−198.18**	−109.34**	−2.22**	−1.28**	**6.45**	*0.19*	*−0.05*	*0.19*
Final Place	−232.08**	−47.54**	0.04	−0.36**	1.13**	**5.31**	*0.17*	*−0.20*
Hockey	−4.86**	1.44**	0.00	0.00	−0.02	0.07	**0.03**	*−0.01*
Football	−1.08**	−1.17**	−0.02	0.00	0.19*	−0.18*	0.00	**0.16**

Note. Bold entries on diagonal are the variances; values in the bottom-left triangle are the covariances; upper-right triangle contains respective correlations
**p < 0.01; *p < 0.05

Table 4. Between teams covariance-correlation matrix

	Home Atten.	Away Atten.	Foreigners	Non-EU	Czechs	Final Place	Hockey	Football
Home Atten.	**77.85**	*0.98*	*0.63*	*0.43*	*−0.45*	*−0.66*	*−0.04*	*0.05*
Away Atten.	726.64**	**7,012.15**	*0.65*	*0.58*	*−0.56*	*−0.51*	*−0.13*	*−0.09*
Foreigners	7.73**	74.71**	**1.91**	*0.59*	*−0.76*	*−0.39*	*−0.27*	*−0.23*
Non-EU	3.68**	47.06**	0.79**	**0.95**	*−0.93*	*0.34*	*−0.48*	*−0.68*
Czechs	−8.83**	−105.74**	−2.34**	−2.03**	**5.00**	*−0.17*	*0.61*	*0.69*
Final Place	−23.59**	−174.02**	−2.17**	1.35**	−1.53**	**16.65**	*−0.25*	*−0.55*
Hockey	−0.27**	−7.37**	−0.26	−0.33	0.95**	−0.70	**0.48**	*0.86*
Football	0.49**	−8.80**	−0.37**	−0.78*	1.80	−2.62**	0.69**	**1.35**

Note. Bold entries on diagonal are the variances; values in the bottom-left triangle are the covariances; upper-right triangle contains respective correlations
**p < 0.01; *p < 0.05

Using path analysis of the team means we can more clearly state a few of these significant correlations. An improvement of one place in the final rankings is equal to 54 more fans attending home games. Adding one more foreigner to the team draws 69.5 more fans, but if the foreigner is a non-EU foreigner the number of home fans drawn increases to 84. We can see the strength of the correlation between foreigners and final place in that one more non-EU foreigner is equal to an improvement of 1.2 spots in the final rankings. For each total foreigner there is 0.9 better placement in the final team standings.

The total correlation matrix based on the data set including the budget is presented in table 5. This matrix was calculated from the three seasons for which budgets could be obtained and is represented by 35 team entries (season 1: 12 teams, season 2: 12 teams, season 3: 11 teams).

Table 5. Correlation matrix based on data including budget, population, and capacity (N = 35)

	HA	AA	For	N_EU	CZE	FP	Hoc	Foot	Cap	Pop	Bud
Home Atten.	1.00										
Away Atten.	–0.08	1.00									
Foreigners	0.26	0.27	1.00								
Non–EU	0.09	0.12	0.64**	1.00							
Czechs	–0.19	–0.34*	–0.72**	–0.45**	1.00						
Final Place	–0.45**	–0.43*	–0.40	–0.20	0.45**	1.00					
Hockey	0.03	–0.19	–0.19	–0.29	0.23	0.26	1.00				
Football	–0.26	–0.08	–0.12	–0.28	0.25	0.18	0.65**	1.00			
Capacity	0.43	–0.11	–0.10	–0.35*	0.10	0.00	0.38*	0.15	1.00		
Population	–0.24	–0.11	–0.12	–0.41*	0.28	0.21	0.68**	0.84**	0.38*	1.00	
Budget	0.06	0.55**	0.35*	0.32	–0.46**	–0.62**	–0.51**	–0.64**	–0.03	–0.61**	1.00

Note. **$p < 0.01$; *$p < 0.05$

Using bi-variate regression analysis we were able to estimate that 1 million more Czech crowns ($51,546, EUR 37,453) is equal to 6 more fans and a 0.26 improvement in final place, or 4 million Czech crowns ($206,186, EUR 149,813) is equal to one final place improvement. When budget is measured against team composition numbers using regression analysis, 1 million more Czech crowns equals 0.066 more total foreigners and 0.037 more non-EU foreigners.
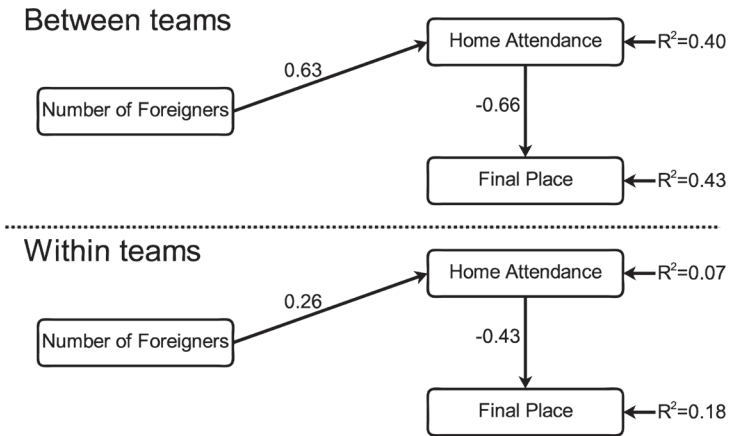
The relationship of percentage of youth in correlation with other variables is presented in table 6. This table uses Pearson correlations.

Table 6. League level correlation matrix (N = 12)

	For.	CZ MNBL	CZ out	HA	Hall Cap.	MNBL TV	Youth %
Foreigners in MNBL	1.00						
Czechs in MNBL	–0.86**	1.00					
Czechs playing outside CZ	0.82**	–0.92**	1.00				
Average home attendance	0.73**	–0.81**	0.70*	1.00			
Average hall capacity	0.68*	–0.72**	0.75**	0.67*	1.00		
MNBL regular season TV appearances	0.67*	–0.83**	0.95**	0.57	0.73**	1.00	
Youth index membership as population %	0.68*	–0.75**	0.60*	0.96**	0.52	0.45	1.00

Note. **$p < 0.01$; *$p < 0.05$

Path analysis diagrams

Between teams

Number of Foreigners → 0.63 → Home Attendance ← R²=0.40

Home Attendance → -0.66 → Final Place ← R²=0.43

Within teams

Number of Foreigners → 0.26 → Home Attendance ← R²=0.07

Home Attendance → -0.43 → Final Place ← R²=0.18

Figure 3. Two-level path model with standardized estimates

Fit indexes for the between-team level (N = 18): Chi-square = 0.05, df = 1, RMSEA = 0.00, SRMR = 0.01
Fit indexes for the within-team level (N = 143): Chi-square = 2.77, df = 1, RMSEA = 0.11, SRMR = 0.05

In order to find the path analysis diagram with the best fit many hypotheses were tested until the best fit was found. According to the rules of structural equation modelling the number of non-redundant elements of the covariance matrix must not exceed the number of observations. Furthermore, this is a necessary, but not sufficient condition; the suggestions on adequate sample size related to the number of free parameters are much higher (Kaplan, 2008). Thus, within and between teams we were limited to models which tested four or less parameters. We present a limited model with three variables, number of foreigners, home attendance and final place, which exhibit an acceptable fit both within and between teams. The model fits very well between teams (RMSEA = 0.00, SRMR = 0.01), and marginally within teams (RMSEA = 0.11, SRMR = 0.05). The direct path between number of foreigners and final place is not included because, in both cases, within and between, it was not significantly different from 0. Rather, this relation is indirectly mediated by home attendance. The magnitude of the indirect effect is a product of the two standardized path coefficients, 0.63 and −0.66, between teams, equaling −0.42 and is significant. At the within-team levels the magnitude of the indirect effect is −0.11 and is also significant. The significance of these results was obtained using Lisrel software (Joreskog, 1997).

Table 7. Czechs playing outside Czech

	Total	Austria	Belgium	Bulgaria	Cyprus	Finland	France	Germany	Hungary	Italy	Kuwait	Luxemburg	Holland	Poland	Serbia	Slovakia	Slovenia	Spain	UK	USA
98–99																				
99–00	**11**	3						2								4				2
00–01	**22**	6					1	5						1	1	4	1	1		2
01–02	**33**	6				2		6		2					1	7	1	1		7
02–03	**43**	9			1	2		11		3						12	2	1		2
03–04	**44**	10				1		11		3						12	2	1		4
04–05	**51**	12			1	1	3	15	2	3						8	2	1		3
05–06	**61**	11		1	3	1	4	18	2	3		1				12	2	1		2
06–07	**67**	10			3	3	3	15	3	3		1		1		10	4	2	4	5
07–08	**90**	12		1	6	3	2	18	4	2		1	4	1	2	14	3	4	4	9
08–09	**100**	13	2		8	2	4	19	3	5	1	2	3	2	2	12	5	2	6	9
09–10	**94**	12	1		7	2	3	18	3	3	1	2	3	2	2	11	3	12	5	4

Table 8. Foreigners playing in Czech

Year	Total	Bermuda	Brazil	Canada	Congo	Croatia	England	Finland	France	Greece	Hungary	Latvia	Lithuania	Macedonia	Moldova	Poland	Russia	Serbia	Slovakia	Slovenia	USA
98–99	**11**					3				2							1	1			4
99–00	**20**					4				1							2	2	5	1	5
00–01	**37**					7				1					1		3	6	10	1	8
01–02	**23**					2				1							2	2	7		9
02–03	**29**					4				1								4	10		10
03–04	**29**					5				1			1					2	11		9
04–05	**39**		1			5							1			3		5	13		11
05–06	**49**		1			3	1				1		2	1		2		12	9	2	15
06–07	**54**					4	1	1	1	1						2	3	7	13	2	19
07–08	**44**	1				3		1	1	1						1		4	8	1	23
08–09	**50**			1						1			4			4		2	10	2	26
09–10	**45**			2	1		1			1		1	3			2		1	11		22

DISCUSSION

The quantitative statistics and models presented are meant to test the theories observed in previous qualitative studies, aiding in an examination of sport migration from a management perspective. The quantitative results are not meant to replace or supersede the qualitative results of other studies, and also must be observed within the cultural context of Czech sport, where basketball is a secondary sport. Falcous and Maguire found that immigrant athletes were positive for team success in their study of Leicester basketball (2005). Our study supports this correlation between teams over a 12 year period.

A significant factor considered in our study was hall capacity, as it is directly correlated to fan attendance (0.67 in table 6). Perhaps in order to keep up with the increases in fan attendance, or perhaps driving the increases in fan attendance, the capacities of the basketball halls in the MNBL have increased dramatically. The lowest average hall capacity was 1425 in the 2001–2002 season; while the highest was 2626 in the 2006–2007 season. In any given year, these halls have been about 40% full, with a low of 27% in 2007–2008 and a high of 51% during the 2002–2003 season.

Now we move to the quantitative representation of the correlations between the use of immigrant athletes and team success. We begin at the within-team level, which represents each team measured against itself for each year they were in the MNBL. At the within-team level we do not find many strong correlations beyond team composition. A negative correlation (−0.54) between the number of foreigners and number of Czechs is observed here, and verifies the qualitative findings of other researchers that, as the number of foreigners increases, the number of nationals on a team decreases. The negative correlation (−0.43) between home attendance and final place shows that there is some effect on the performance of the team and the resulting attendance from year to year (as home attendance goes up, final place goes down, meaning that it improves), but it does not appear to strongly effect fan attendance. The correlation between home attendance and number of foreigners (0.26) is not strong at this level. Finally, there appears to be almost no correlation between fan attendance at basketball games and the presence of the primary sport teams of ice hockey (−0.12) or football (−0.01) in the same market from year to year. These three correlations at the within-team level seem to indicate that the local market for the secondary sport of basketball is relatively stable in the Czech market, and is not heavily effected year-to-year by a team's use of foreigners, final place, and whether or not there are other extra-league teams in primary sports competing for fans in the local market.

Now we move to the between-team level where each team is measured against all other teams. At the between team level, the effect of foreigners on both home (0.63) and away (0.65) attendance is correlated much more strongly than we observed at the within team level. Additionally, the correlation between the number of foreigners and the final placement of the team is strengthened at this level (−0.39). The more foreigners a team has, the better final place they achieve compared to those teams with fewer foreigners. We also observe a stronger negative correlation in team composition at this level (foreigners to Czechs: −0.76). The more foreigners a team has, especially non-EU foreigners (−0.93), the fewer Czechs the team will employ. Again this verifies the qualitative findings of others. Foreigners do indeed take the playing spots of national players. The correlation between home

attendance and final place is also strengthened at this level between teams (−0.66), so while individual teams appear resilient in their fan attendance from year to year, the better a team does it will draw more fans than a weaker performing team in another city. Finally the presence of extraleague teams in the primary sports of ice hockey (−0.04) and football (0.05) do not take away from secondary sport basketball fans attending games between teams.

When we examined the three years for which we have team budget information our observed correlations remained stable. More foreigners improves final team placement (−0.40) and decreases the number of Czechs on a team (−0.72). The second strongest correlation to budget is that of final place (−0.62), which suggests that money buys success. Specifically, we saw that 4 million Czech crowns ($206,186, EUR 149,813) yields an improvement of one final place. Budget had no real correlation to home attendance (0.06), and only marginal affect (0.35) on the number of foreigners purchased. Since we do find a strong correlation between number of foreigners to final place and home attendance at the between-team level, we interpret these findings to mean that a larger budget does not allow a team to purchase more foreigners, as they are using the maximum allowed by the rules already, but to buy higher quality foreign and Czech players.

Interestingly, we observe that the presence of ice hockey (−0.64) and football (−0.51) teams decreases the available budget to the team. This goes hand in hand with population (−0.61), in that higher population cities have more teams in the extra-leagues of the primary sports, and thus less money for the secondary sport of basketball. So while one might expect teams in higher population areas to have higher budget teams, the opposite is actually true due to the money flowing to the more visible sports in the culture present in those cities. Thus on the team level the presence of extra-league primary sport teams has a much greater effect on fan attendance than either the use of foreigners or final placement in the league.

At the league level the correlations are significantly stronger than were seen previously, but this must be tempered with the low sample size of 12 seasons. The highest correlations exist between the immigrant and emigrant Czech players (−0.92). Of course, this goes hand in hand with foreigners taking roster spots of Czech players, where we see a correlation of −0.86 at the league level. The more Czechs leave to play in other countries, the fewer Czechs are left to play in the MNBL. The more foreigners come to play in the Czech MNBL the fewer spots there are for Czechs in the home league and the more emigrate to play in leagues outside the country. This process appears to be somewhat strongly correlated to average home attendance in all three areas of number of foreigners in the league (0.73), number of Czechs in the league (−0.81) and number of Czechs outside the league (0.70). This seems to indicate that fans are positively disposed to the presence of foreign players and not negatively affected by the exodus of Czech players. The fans actually seem to like it better when there are less Czechs playing. This is a very different finding from many previous qualitative studies (Falcous & Maguire, 2005; Jackson & Andrews, 1999; Klein, 1991a; Maguire, 1996; Olin & Penttila, 1994).

As per youth membership in the CBF the correlations are similar to those seen with home attendance (0.68). Youth appear to be drawn to playing the game with the presence of foreign players, and the exodus of Czech players is also correlated to youth playing the game (0.60). Again this is contrary to the majority of the literature on the use of sporting immigrants to date. The strongest correlation observed is that between home attendance

and youth participation (0.96), meaning that the more youth who are playing the game of basketball, the more will attend basketball games.

Falcous and Maguire found that local players became marginalized on the Leicester team with the presence of immigrant athletes. We found this correlation to hold at both the team level across time and between teams. However, the British basketball study cautioned that the increase of foreigners could lead to the under-development of the British game and found fans to accept the presence of these foreigners only on negotiated terms. Our study, while agreeing with Falcous and Maguire that fans like the spectacle and entertainment brought by foreign players, differs from their conclusion, since we observed increased youth participation in the sport in correlation with the presence of foreigners.

Olin also indicated that fans were in favour of quotas on the number of foreign players, while the owners insisted that foreigners were necessary to win in the Finnish context (1994). We have been able to quantify this stated necessity of foreigners to win. This was most evident at the between teams level of our path analysis diagram, where we saw that not only did the number of foreigners have a direct effect on final place, but also an indirect effect by adding a "sixth man on the court" in the element of fan attendance.

The Czech teams are getting closer and closer to using the maximum number of foreigners allowed and, as stated previously, changed their rules regulating foreigner use six times during the 12 years studied. The recent arguments they have used have not been about fan response to foreigners, but about the under-development of youth and the emigration of young Czech basketball players to play outside the Czech borders. Our quantitative findings show the argument from increased use of foreigners leading to increased emigration of young Czech players valid, but suggest the resulting under-development of youth to be invalid.

The question of youth development becomes one of who is developing a nation's athletes, or where are they being developed, in a globalized sport environment. As cited at the beginning of this article, most researchers have found that, in the case of sport emigration, the best athletes leave to go and play in countries of greater wealth and power. This finding also holds true in the Czech case as can be seen in table 7. The table of emigrants shows the rapid increase in players leaving to play in other countries over the last twelve years. It also shows that the majority go to wealthier, neighbouring countries like Austria and Germany. Note that there are increasing numbers going to the top basketball leagues in Europe (season 2009–2010, Spain: 12, Italy: 5). And finally we see that, as time has gone on, players are going to more places, which is the same globalization trend which could be observed in the primary Czech sports of football and ice hockey. Examining the basketball emigration data closer reveals that players are leaving Czech at younger and younger ages in order to pursue better development in foreign basketball academies, such as in Spain and Italy. So, while it is true that more Czech basketball players are leaving with the increase of foreign players, they are going to countries where there is more money and basketball is a more primary sport. Thus, from a youth development perspective, the increase in the number of foreigners and the success of Czechs outside Czech borders is drawing more Czech youth to basketball, and many of those who leave the country to play are actually going to countries with better development opportunities.

The table of immigrants playing in the Czech Republic (table 8) shows that the majority of players come to the Czech Republic from the USA and the former Yugoslav

republics. It is only in the second half of the period studied that we see players coming from other European countries. This can be attributed to the Czech Republic joining the European Union in 2004 and the consequent rule changes to the number of players allowed from the EU. Further we observe that the inflows of immigrant athletes are not only smaller than the outflows, but that the distribution of wealth and power represented is different as well. While most authors have stated this globalization flow as negative, Klein's anthropological studies (1991b) found such flows to help the growth of the sport in the home culture. Our quantitative analysis found similar correlations with the strong tie between foreigners coming to play in the Czech Republic and Czechs going to play abroad, to increased home attendance and youth participation in the sport.

We would suggest that the overall popularity of Czech basketball has increased to a limited level compared to other secondary sports in the Czech Republic with the increased use of foreign players. If true, this is remarkable, as the Czech Republic is largely a closed, homogeneous culture with a low percentage of immigration, and so acceptance of immigrants would not be expected (Gartner, 1989; Hofstede, 2001; Westerbeek, 1999; Burjanek, 2001; Hampl et al., 2007; Lolashvili, 2011). Thus we would suggest there is a limit to this acceptance which has not yet been met in the fandom of Czech basketball. Meaning that as foreign players come into the Czech league the affect will be positive on popularity only as long as the Czech players, or at least white European players remain the visible, dominant majority on the court. We speculate that the current ratio of 34% foreigners is approaching this cultural limit of acceptance.

What is interesting to note, from the raw data obtained, is that attendance numbers went up in the smaller cities when more foreigners were used, but only for the first year. It is thus hypothesized that, after the first year, the interest from fans in someone or something different, tapered off back to the previous home attendance numbers. This was reflected in the low within-team correlation between number of foreigners and home attendance. However, when we look more closely at the data, home attendance did not taper off when the level of team play rose significantly and then remained at the higher level in consequent years. This is partially reflected in our path analysis diagram in the results. It also tapered off less in cities where the star foreigner stayed for more than one year (although teams performing outside the top three in the league and yet retaining a star foreigner was very rare – only 6 occurrences in 12 years). As shown in a related study regarding the use of foreigners in marketing, this lack of retention of star foreigners outside of top teams represents a lack of understanding of fandom on the part of the owners and team management (Crossan, 2015). Mullin, Hardy, and Sutton suggest that consumers are constantly filtering and interpreting cues about sport products relative to their self-image, and thus there must be a convergence of the core sport product (the extra-league team and its star players) and the consumer (the fan and/or the potential youth participant) (2007).

CONCLUSION

This study has attempted to study the phenomenon of sport migration within a secondary sport using quantitative analysis. The phenomenon of sport migration has previously been studied predominantly in primary sports using qualitative analysis.

Additionally sport migration has been studied primarily as a sociological phenomenon within the realm of globalization. We have attempted to draw from this sociological framework and bring practical managerial significance to those working within sport clubs and federations.

We set out to study the use of migrant athletes to build a secondary sport and its effect on sport growth in that country. Specifically, we measured the correlation between the use of foreigners and the effect on attendance and youth development. Consistent with other research the reliance on foreigners was highly correlated to a decrease in reliance on home-grown, Czech talent. However, in contrast to most other sport migration research, we found a corresponding increase in fans attending MNBL basketball games and increase in the number of youth choosing to play basketball. So we can tentatively say based on our results that the use of foreigners has increased the popularity of the secondary sport of basketball in the Czech Republic.

The use of multilevel hierarchical analysis, regression analysis and path analysis as quantitative tools in the study of the observed globalization phenomenon of athlete immigration appears to be a useful addition to the previous research. By isolating and quantifying the effect of immigrant athletes on fan attendance through final place we are able to aid the local club deciding whether the use of foreigners will benefit their business model. These tools, with particular emphasis on multilevel analysis and path analysis are particularly helpful when examining this form of globalization as historical, cultural, economic, and emotional factors can each be taken into account. Additionally these tools allow one to examine both the intended and unintended results of the legislation changes the Czech Basketball Federation has made with regard to the use of foreigners. There are obvious limitations to the quantitative model we have used based on the variables measured. However multilevel hierarchical models are robust and other variables could be substituted or added to measure their effect on the sport in a culture. We have applied this model to measure the effect of sport migration in a secondary sport, but applying this model to primary sports and comparing correlations between cultures could add much to our understanding of the effects of this form of globalization within and between cultures.

While we found strong correlations between the use of foreigners and the home attendance at games as well as the use of foreigners and the number of youth registered to play the game of basketball, there are numerous limitations to this research. The most significant of these limitations is that this research has been carried out on a secondary sport, meaning a cultural space less tied to national identity and more malleable to the forces of globalization. As Maguire and others have cautioned, even when commodified acceptance of the use of foreigners is found in a culture, there are still limits to the culture's tolerance of this form of globalization (Klein, 1991b; Falcous & Maguire, 2005; Farred, 2006; Poli, 2010). As the repeated rule changes of the Czech basketball federation evidence, just as sport managers use sporting immigrants in order to maintain competitive balance, so there remains a need to balance the use of immigrants with the use of national players, while building strong sport clubs and the sport within the culture.

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