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# Sport Development Report 2007/2008

Analysis of the sports clubs' situation in Germany

Abbreviated Version

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## **Sports clubs in Germany**

Christoph Breuer & Pamela Wicker

### **1 Summary**

The Sport Development Reports' objective is to provide political and managerial information for policy-makers of organised sports. In the year of 2007, a total of n=13,068 sports clubs participated in the nationwide online survey.

The sports clubs in Germany contribute significantly to public welfare. Without them an adequate supply of sports would be hard to imagine. Thus, 56,500 sports clubs have sports offers for infants and preschool children. 84,000 sports clubs have sports offers for children and adolescents and over 84,000 sports clubs have sports offers for seniors over 60 years. Additionally, 30 % of the sports clubs in Germany offer programmes with explicit purposes of health promotion, prevention, and rehabilitation and consequently contribute significantly to the health care of the population.

Moreover, by owning 11,800 gymnasiums and sports halls as well as 23,500 sports fields, the sports clubs relieve public authorities to a significantly increasing extent concerning the availability of sports facilities. However, in the year of 2006 German sports clubs had to pay usage fees for public sports facilities more frequently compared to 2004. Only 29.1 % of the sports clubs use public sports facilities without charge or any other sort of compensation such as key authority, maintenance etc.

Although problems in the area of acquirement and adherence of voluntary workers seem to increase, organised sports still present the most important part of civic involvement. Altogether, the sports clubs of Germany hold about 2.1 m of voluntary workers. The average working hours of the voluntary workers increased significantly over the last two years. The impact of the sports clubs on the German labour market has increased. Especially in the areas of direction and administration of sports clubs the number of jobs has increased by 12 % over the last two years. In addition, sports clubs in Germany train significantly more people compared to the situation two years earlier.

Furthermore, sports clubs have contributed significantly to the representation of Germany in foreign countries. Around 21,000 sports clubs have regular international contacts.

Regarding financing, the average expenses for trainers and sports teachers as well as assurances both have increased by 14 %. This situation is deteriorated by the fact that in the meantime these increased expenses could not be compensated by any other decrease of costs.

From a sports clubs' perspective the support provided by the sport confederations should be optimised in the areas of general financial aid for sports clubs, support of voluntary work, information and consultation in the area of member acquisition and adherence as well as in the area of talent scouting and support.

## 2 Importance of sports clubs for Germany (knowledge of argumentation)

### 2.1 Sports supply for the population

The contribution of sports clubs to the sports supply of the population is irreplaceable in Germany. Especially for those population groups, which seem to gain special relevance against the background of demographic change: Infants, children, adolescents, and seniors. Thus, 56,500 sports clubs have sports offers for infants and preschool children. 84,000 sports clubs have sports offers for children and adolescents and over 84,000 sports clubs have offers for seniors over 60 years (see table 1).

*Table 1: Sports offers according to target group.*

	Proportion of sports clubs (in %)	Total
Offers for children under 6 years	62.5	56,500
Offers for children/adolescents (0 to 18 years)	92.8	84,000
Offers for seniors (over 60 years)	93.0	84,100

In this case, it is especially important that sports clubs guarantee organised sports offers, which are affordable for the mass-population. Consequently, 50 % of all sports clubs charge a monthly maximum membership fee of € 3.50, for adolescents a maximum of € 4.50, for adults a maximum of € 7.50, and for families a maximum of € 14,-. At the same time the development of the indexes reveals, that sports clubs were forced to increase their membership fees over the last two years (see table 2).

Table 2: Monthly membership fees and their development.

Monthly membership fees for	Median <sup>1</sup> (in €)	Index <sup>2</sup> Median (2005=0)	Mean (in €)
Children	3.50	+16.7***	9.22
Adolescents	4.50	+11.1***	11.59
Adults	7.50	+15.4***	22.32
Families	14.00	+16.7***	40.13
Passive members	4.00	+14.3***	12.03

More than half of the sports clubs do not even charge an admission fee. Over 60 % of the sports club do not charge admission fees for children, adolescents, and families. If there are admission fees, 50 % of these sports clubs charge a maximum of € 10,- for children, a maximum of € 16.50 for adults, and a maximum of € 25,-for families (see table 3). The longitudinal analyses show no increase of the average admission fee.

Table 3: Admission fees.

Admission fees for	Proportion of sports clubs which do not charge admission fees (in %)	Median (in €)	Mean (in €)
Children	63.7	10.00	16.54
Adolescents	60.4	10.00	21.75
Adults	52.3	16.50	66.68
Families	62.3	25.00	93.67
Passive members	70.7	10.00	31.45

In addition, the sports supply of the population benefits from approximately 100,000 courses which are offered to non-members. However, the number of courses as well as the number of sports clubs providing courses is slightly decreasing (see table 4).

<sup>1</sup> The median is described as the number separating the higher half of the distribution from the lower half. For the calculation of the median all values are arranged according to size. If the number of values is odd, the median is the value in the middle of the numerical series. If the number of values is even, the median is the average of the two middle values. Thus, the median of the numerical series 1, 1, 2, 3, 3 and 1, 1, 2, 4, 42 is 2 in both cases, because 2 is the middle value. In contrast, the calculation of the mean value ("average"): In the first numerical series the mean value is 2 again, whereas it is 10 in the second numerical series.

<sup>2</sup> The calculation of the indexes is explained in chapter 4.3.

*Table 4: Courses for non-members and their development.*

	G	Index Number of courses (2005=0)	Index Availability of courses (2005=0)
Proportion of courses of all sports offers (in %)	33.7	-14.0**	-8.2**
Number of courses for non-members (Total)	99,500		

With the absence of sports clubs competitive sports would hardly be possible. 13.7 % of the sports clubs are involved in competitive sports and have top-level athletes. Overall there are 12,400 sports clubs which are engaged in competitive sports (see table 5).

*Table 5: Proportion and number of sports clubs with top-level athletes.*

	G
Proportion of sports clubs (in %)	13.7
Number of sports clubs (Total)	12,400

## 2.2 Supply of sports facilities

Furthermore sports clubs contribute to public welfare by providing a considerable part of the sports facility infrastructure in Germany and thus relieve public households. Nationwide, 42.3 % of the sports clubs or 38,300 sports clubs respectively, own sports facilities (incl. club houses; see table 6). In this case, there has not been any considerable change compared to last time's results.

*Table 6: Sports clubs which own sports facilities.*

	G
Proportion of sports clubs, which own sports facilities (in %)	42.3
Number of sports clubs (Total)	38,300

A differentiated look makes the sports clubs' contribution to the sports infrastructure a lot clearer. Thus, sports clubs provide 11,800 gymnasiums and sports halls, 23,500 sports fields for football and hockey, 3,200 sports fields for athletics, 6,200 bowling alleys, 4,700 fitness centres and weight rooms, 22,000 shooting ranges, 5,800 horse riding facilities, and 700 swimming pools. Additionally, there are 31,800 club houses and 5,800 youth centres, which are remarkably important concerning the social functions of sports. Particularly in terms of gymnasiums, sports halls, and



sports fields there has been an increase of sports clubs' contribution to the German sports infrastructure in central sectors. Thus, sports clubs provide significantly more gymnasiums, sports halls, and sports fields than two years ago. Regarding the gymnasiums, sports halls, and sports fields, there has been a significant increase. However, there has been a significant decrease of sports clubs which own club houses (see table 7).

Table 7: *Owning sports facilities and its development (n.a.=not available 2005/06).*

	Number of sports clubs, which own facilities	Index Owning facilities (2005=0)	Number of sports facilities owned by sports clubs	Index Number of facilities (2005=0)
Gymnasiums and sports halls	8,600	+15.6*	11,800	+34.4**
Sports fields for football and hockey	13,100		23,500	+12.7*
Sports fields for athletics	2,900		3,200	
Bowling alleys	2,800		6,200	
Tennis courts	9,900		49,500	
Fitness-centres	4,300		4,700	
Club house	29,500	-7.4*	31,800	-7.2*
Youth centre	11,100	n.a.	11,500	n.a.
Shooting facilities	4,300		22,200	
Volleyball fields	1,600		2,300	
Water sports facilities	2,800		5,600	
Horse riding facilities	2,200		5,800	
Swimming pools	600		700	
Air sports fields	800		1,300	
Golf grounds	300		400	
Petanque areas	700		1,500	
Sports rooms (aerobic, dance)	1,100		1,500	
Winter sports facilities	900		2,100	
Fishing areas	100	n.a.	600	n.a.
Other facilities	2,900		6,400	

## 2.3 Health care

30 % of the sports clubs in Germany offer programmes with the explicit objective of health promotion, prevention, and rehabilitation and therefore contribute significantly to the health care of the population. Overall 14 % of the sports clubs are related to health care (see table 8).

Table 8: Sports offers in the health care section.

	Proportion of sports offers (in %)	Proportion of sports clubs (in %)
Health promotion and primal prevention	12.0	28.4
Rehabilitation/tertiary prevention	1.4	4.6
Disabilities/chronic diseases	0.6	2.2
Sum of categories related explicitly to health care	14.0	30.2

## 2.4 Cooperations

The numerous cooperations with other institutions also indicate the high public welfare character of sports clubs. Thus, more than two thirds of the sports clubs cooperate with schools in some kind of form, 47 % with kindergartens/day care centres and 36 % with the youth offices. Over the last two years, German sports clubs started significantly more cooperations. Especially cooperations with kindergartens/day care centres, commercial enterprises, health insurances, youth offices, commercial sports facilities, and health offices are increasing (see table 9).

Table 9: Cooperating sports clubs and their development (multiple designations possible).

Cooperation with	Proportion of cooperating sports clubs (in %)	Total	Index (2005=0)
Other sports clubs	79.4	71,800	+7.8***
Schools	69.9	63,200	+9.4***
Kindergartens/day care	46.7	42,200	+46.1***
Commercial enterprise	44.8	40,500	+57.4***
Health insurance	41.7	37,700	+63.5***
Youth offices	36.3	32,800	+34.9***
Commercial sports facility	36.2	32,700	+58.3***
Health offices	28.9	26,100	+105.7***

Here, 21 % of the sports clubs in Germany generate offers in collaboration with schools, 8 % with kindergartens and day care programmes, and 3 % with the youth office. Over the last two years, the number of sports clubs which collaborated with health insurance funds and kindergartens in order to generate offers increased significantly (see table 10).

*Table 10: Cooperating sports clubs while generating offers and their development (multiple designations possible).*

Cooperation with	Collaboration while generating offer (Proportion of sports clubs in %)	Total	Index (2005=0)
Other sports clubs	13.7	12,400	
School	20.8	18,800	
Kindergarten/day care	8.2	7,400	+25.9*
Commercial enterprise	6.0	5,400	
Health insurance	7.8	7,100	+43.7**
Youth office	3.2	2,900	
Commercial sports facility	2.9	2,600	
Health offices	0.4	400	

## 2.5 Convivial gatherings

Additional to the actual sports offers, convivial gatherings and offers intensify the public welfare character of sports clubs. The fact that members really attend these gatherings and therefore have an effect on the public welfare potential is demonstrated by the following facts: on average almost every second member participates in convivial gatherings. Overall 13.0 m people attended convivial gatherings of their sports clubs in the year 2006. However, this trend is slightly declining (see table 11).

*Table 11: Sports clubs' members who attended convivial gatherings in 2006 and their development.*

	G	Index (2005=0)
Proportion of members (Mean in %)	47.4	-5.1***
Number of members (Total)	13,000,000	

## 2.6 Civic involvement

Another central and offer exceeding feature of the public welfare character is presented by the civic involvement. Altogether the members of German sports clubs fill 2.1 m voluntary positions. Thereof 1.0 m work on the board level and 1.1 m on the executive level (e.g., trainers, judges, and referees). There are 1.4 m male and 670,000 female voluntary workers. Although these numbers are declining (see table 12), organised sports represents the most important part of civic involvement in Germany. Especially if you consider the fact that despite the development of the number of voluntary workers, the average working hours per voluntary worker have experienced a significant increase.

*Table 12: Voluntary positions per sports club as well as average working hours per voluntary worker and their development.*

Number of voluntary workers	Mean	Total	Index (2005=0)
... on the board level	10.7	968,000	-15.0***
... on the execution level	12.3	1,113,000	-27.5***
... male	15.6	1,411,000	-20.5***
... female	7.4	670,000	-19.3***
Overall	23.0	2,081,000	-20.1***
Average working hours per voluntary worker (hours/month)	17.6	36,600,000	+13.2*

Voluntary workers work 17.6 hours a month on the average. Nationwide this adds up to 36.6 m working hours, which are served in the sports clubs every month in order to attain public welfare purposes. This results in a nationwide monthly added value of € 550 m and respectively a yearly added value of € 6.6 bn. Also important is that in this calculation the performance of voluntary workers of special employments of labour (festivals, sporting events, renovations, cleaning etc.) is not considered. Yet, 6.6 m members participate in special employments of labour.

## 2.7 Integration of migrants

Against the background of the population's internationalisation the performance of sports clubs concerning the integration of migrants becomes much more important for the evaluation of their public welfare character. Over 10 % of the members of German sports clubs have a migration background<sup>3</sup>. This amounts to 2.8 m people with a migration background, which are integrated in about 90,000 sports clubs (see table 13). In 13.5 % of the sports clubs migrants even do voluntary jobs (see table

<sup>3</sup> The proportion of people with a migration background in a broader sense was 18.4 % in 2006 in Germany, the proportion of foreigners amounted to 10.8 % (Federal Statistical Office, 2008).

14). Overall 2.6 % of the voluntary workers have a migration background (see table 13). 8.4 % of the sports clubs in Germany have taken actions and initiatives to integrate migrants such as the installation of specific offers, targeted consultation, and anti-racism campaigns (see table 15).

*Table 13: Members and voluntary workers with migration background.*

	G
Proportion of members (Mean in %)	10.1
Number of members (Total)	2,760,000
Proportion of voluntary workers (Mean in %)	2.6

*Table 14: Voluntary workers with migration background according to positions.*

Voluntary workers	Proportion of sports clubs (in %)	Total	Number of migrants (Mean)	Total
... on the board level	7.4	6,700	0.2	16,900
... on the execution level	9.9	9,000	0.4	38,100
Total	13.5	12,200	0.6	55,000

*Table 15: Initiatives to integrate migrants in sports clubs (MB=migration background; Assessment in school grades from 1=very good to 6=unsatisfactory; multiple designations possible).*

Initiative of integration	Proportion of sports clubs which took initiatives (in %)	Proportion of all sports clubs (in %)	Grading of the initiative (Mean)
Special actions	59.7	5.0	2.26
Special training offers	30.2	2.5	2.22
Support	29.7	2.5	2.04
Forming/employing workers with migration background	12.3	1.0	1.82
Targeted consultation	9.1	0.8	2.35
Cooperations with other public institutions	7.1	0.6	1.75
Installation of social contacts	3.9	0.3	2.39
Campaigns (Anti-racism, Violence prevention )	3.7	0.3	1.97
Club is for or by people with migration background	1.5	0.1	1.56
Other	17.9	1.5	2.11

## 2.8 Supporting democracy

Sports clubs are often called schools of democracy, especially for adolescents. Thus, the more extensive the possibilities to participate are for adolescents, the higher is the corresponding public welfare character. Overall, these possibilities to participate are relatively high for adolescents. Out of the 91.4 % of the sports clubs, in which adolescents are organised, 49 % hold the office of a youth representative or a youth referent in a chair of the entire board. In 37 % of the sport clubs the youth representation is elected by the youth itself. In 35 % of the sport clubs adolescents have the right to vote in the general assembly. 29 % of the clubs have an adolescent youth-speaker and in 21 % of the clubs there is a juvenile executive board (see table 16).

*Table 16: Possibilities to participate and their development (multiple designations possible).*

Possibility to participate	Proportion of sports clubs (in %)	Total	Index (2005=0)
Youth representative, youth referent in a chair of the entire board	49.1	40,600	
Election of the youth representations by adolescents	37.0	30,600	
Election of an adolescent as youth-speaker	28.6	23,600	
Adolescents' right to vote in the general assembly	35.3	29,200	
Juvenile executive board	20.9	17,300	-11.2*
Election of the youth representation on the department level by adolescents	13.3	11,000	
None of these possibilities	24.0	19,800	

## 2.9 Employments

32.4 % of the sports clubs employ staff members for a fee and 4.4 % of the sports clubs employ paid executives. In the longitudinal analysis, the proportion of sports clubs which employ paid staff members has decreased (see table 17). This can be traced back to a decrease of paid staff members in the areas of sports, training, supervision etc. (see table 18). Meanwhile, the proportion of sports clubs, which have employees in the areas of direction and administration, has increased.

Almost 20 % of the executives earn more than € 3,000,- (pre-tax) per month. About one third earns between € 1,000,- and € 3,000,- and half of it earns only up to

€ 1,000,-. Altogether, the existing employments in sports clubs equal 40,000 full-time jobs.

*Table 17: Paid staff members and respectively executives and their development.*

	Proportion of sports clubs (in %)	Total	Index (2005=0)
Paid staff members (incl. paid executives)	32.4	29,000	-7.7*
Paid executives	4.4	4,000	+57.2***

*Table 18: Paid work according to field of activity.*

Field of activity	Proportion of sports clubs (in %)	Index (2005=0)	Number of staff members (Mean)	Total
Direction and administration	13.0	+11.9*	0.9	84,100
Sports, training, supervision etc.	25.9	-7.8*	8.9	808,800
Technology, maintenance etc.	16.9		1.0	94,100
Total	32.4	-7.7*	10.9	987,000

The importance of sports clubs concerning the job market is also made obvious by the significantly increasing number of training positions, positions for voluntary gap years, and specific job types for unemployed people (so called "Hartz IV"-jobs) over the last two years (see table 19).

*Table 19: Other employments (proportion of sports clubs in % which employ paid staff members or plan to do this) and their development.*

	Existent	Total	Index existent (2005=0)	Planned
Trainees	2.4	2,200	+125.0*	0.6
Social services	1.1	1,000		0.9
Voluntary gap year	3.3	3,000	+49.9*	3.0
Additional jobs (Hartz IV)	8.0	7,200	+118.1***	3.6

## 2.10 Representation of Germany in foreign countries

Furthermore, the sports clubs have made an important contribution to Germany's representation in foreign countries. Around 21,000 sports clubs are in regular contact with other international sports clubs (see table 20). Out of these 21,000 sports clubs, 13,800 participate in international competitions, 11,600 regularly invite foreign teams and respectively athletes to their own competitions, 6,300 engage in youth-encounters with adolescents of foreign countries and 5,000 participate in collective training camps with teams of foreign countries (see table 21).

Table 20: Sports clubs with international contacts.

	G
Proportion of sports clubs (in %)	21.3
Number of sports clubs (Total)	20,900

Table 21: Type of international contact (multiple designations possible).

	Proportion of sports clubs with international contacts (in %)	Proportion of all sports clubs (in %)	Total
Participation in tournaments and competitions in foreign countries	71.2	15.2	13,800
Invitations of foreign teams/athletes to tournaments and competitions	60.3	12.8	11,600
Youth-encounters with adolescents of foreign countries	32.7	7.0	6,300
collective training camps with teams/athletes of foreign countries	25.7	5.5	5,000
Other contacts	16.4	3.5	3,200

## 2.11 Prevention of doping in sports clubs

At present sports clubs in Germany do not reach their full potential regarding the prevention of doping. There are 3,300 (3.6 %) sports clubs which try to prevent doping. After all about 10 % of the sports clubs with national athletes have taken measures regarding the prevention of doping (see table 22).



*Table 22: Sports clubs which have taken measures regarding the prevention of doping.*

	All sports clubs	Competitive sports clubs (at least one national top athlete)
Proportion of sports clubs which have taken initiatives (in %)	3.6	9.6
Number of sports clubs (Total)	3,300	1,200

If measures were taken in the club, educational advertising seemed to be of central importance (see table 23). 60 % of the active clubs informed athletes and especially adolescent by having educating conversations, by organising educating festivals, or by distributing information material (e.g., pamphlets). In this context, topics such as fairness and health are addressed equally. Over 33 % of the active sports clubs participated in seminars of the sport youths or of the national governing bodies of sport. At least 22 % of the active sports clubs have carried out special actions or participated in ongoing campaigns. At this, the participation in the initiatives “Don’t give drugs a chance” (“Keine Macht den Drogen”) and “fairness first” (“Fair geht vor”) have to be mentioned. Additionally, posters are put up and events with special mottos like “Fight Drugs” (“Zoff dem Stoff”) or “Against drugs and violence” (“Gegen Gewalt und Drogen”) are organised. 12.4 % of the active sports clubs have banned drinking and smoking in general from their clubs or at least from special events.

This exemplary listing shows that the term doping is seen in a broader scope by the sports clubs when it is compared to the actual definition of the World Anti-Doping Agency (WADA, 2008). In terms of this broader definition the consumption of all kinds of drugs as well as alcohol and cigarettes is considered to be doping. From a perspective of strategical prevention this makes the approach of doping prevention in sports clubs especially interesting and functional.

Slightly fewer than 9 % of the active sports clubs carry out doping tests themselves (see table 23). These doping tests are carried out on the occasion of tournaments and competitions or are demanded from the athletes during their normal training periods. They can either be instructed and therefore have to be paid for or they can be demanded blood or urine tests by doctors. Especially in the area of equestrian sports the measure of self-instructed testing is often applied. These tests should be also of importance on the leisure sports level.

Slightly fewer than 6 % of the active sports clubs have a written paragraph against doping in their statutes in order to add authority to the prevention of doping. 3.5 % of the sports clubs demand a written statement which rejects doping from their athletes (see table 23). Apparently these written statements should provide a basis

for sports clubs to exclude athletes from the club once the worst-case scenario occurs.

*Table 23: Measures of doping prevention in the sports clubs (multiple designations possible).*

Measure for the prevention of doping	Proportion of sports clubs which have taken initiatives (in %)	Proportion of all sports clubs (in %)
Active educational advertising/information	59.4	2.1
Seminars	33.2	1.2
Special actions/initiatives	21.8	0.8
Interdiction of alcohol and smoking	12.4	0.5
Doping tests	8.9	0.3
Statement in the statute	5.9	0.2
Written statement of rejection	3.5	0.1
Other	18.3	0.7

## 2.12 Women in sports clubs

The proportion of women has increased significantly in all age groups over the last two years (see table 24). However, girls and women stay underrepresented in sports clubs compared to their share of the population. This is especially the case for the older age classes. Here, the expansion rates are exceptionally high.

*Table 24: Proportion of girls and women of all members by age class.*

Age class	Mean (in %)	Median (in %)	Index Mean (2005=0)
Up to 6 years	45.0	48.2	
7 to 14 years	40.3	41.7	+4.8**
15 to 18 years	37.4	37.5	
19 to 26 years	35.0	33.3	+3.8*
27 to 40 years	36.2	36.4	+2.5*
41 to 60 years	34.8	36.8	+4.2***
Over 60 years	30.7	30.8	+6.3***
Total	35.8	37.0	

Thus, it is good to see that not only the proportion of female members, but also the number of female members increased in some age classes (see table 25).

Meanwhile, there are slightly fewer than 10 million female memberships in German sports clubs. The only critical development can be observed in the age class of the 27 to 40 year olds. Here, the proportion of female members increased significantly (see table 24), whereas the number of female members experienced a considerable decrease (see table 25).

*Table 25: Number of female members in sports clubs.*

Age class	Mean	Median	Total	Index Mean (2005=0)
Up to 6 years	7.0	0	650,000	
7 to 14 years	23.6	6	2,200,000	
15 to 18 years	9.2	4	850,000	
19 to 26 years	8.6	4	800,000	+4.4*
27 to 40 years	15.1	8	1,400,000	-11.4***
41 to 60 years	26.0	13	2,400,000	+4.1**
Over 60 years	14.4	4	1,300,000	+7.7***
Total	103.8	50	9,600,000 <sup>4</sup>	

By means of Data Mining (for methodology see chapter 4.4.1) it is analysed which criteria are important concerning the proportion of female members in a sports club. In comparison to conventional differentiations by size of the sports club the most important distinctive criteria are presented (the size of the sports club rarely presents the most important distinctive criterion). According to this Data Mining analysis the proportion of female members in sports clubs is predominantly dependant from the offers (see figure 1). Especially clubs with offers in the areas gymnastics (incl. aerobic), equestrian sports, and dance sports have high proportions of female members. In soccer clubs, this proportion is considerable below average, however.

<sup>4</sup> The calculated values regarding the gender distribution in this report are slightly above the values of the 2006 survey of the German Olympic Sports Confederation (DOSB). This can be traced back to the fact that the members of federations with special assignments (e.g., German Catholic federation of Physical Education and Sport) are not included in the designated gender distribution.

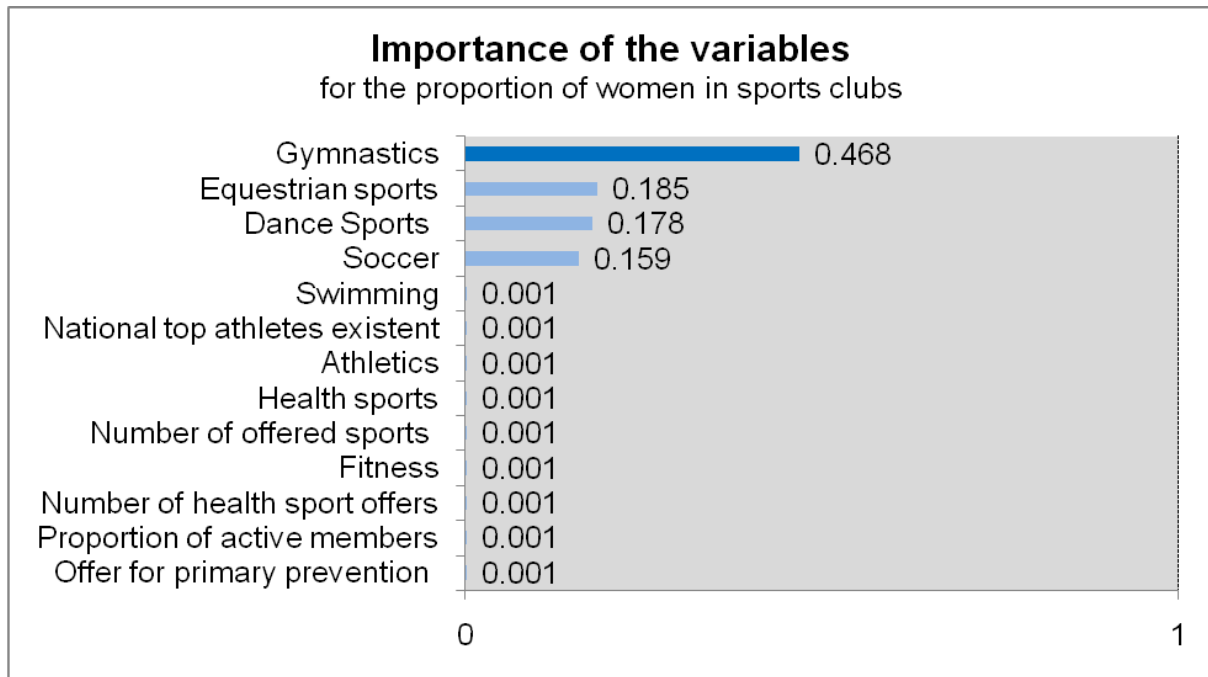


Fig. 1: Model for the proportion of women generated by means of Data Mining.

In German sports clubs 670,000 women do voluntary work. Thereof, 260,000 women work on the board level and 410,000 on the execution level (e.g., trainers, judges, and referees; see table 26). However, the general decrease of volunteers is also affecting female voluntary work in sports clubs. As a consequence, there were significant decreases on the board level as well as on the execution level.

Table 26: Women in voluntary positions.

Number of women	Mean	Median	Total	Index Mean (2005=0)
... on the board level	2.9	2	260,000	-11.9**
... on the execution level	4.5	0	410,000	-10.4*
Total	7.4	3	670,000	

On average, slightly over one fourth of the voluntary positions on the board level are held by women. On the execution level (e.g., trainers, judges, and referees; see table 26) there are almost 30 % women, with increasing tendencies (see table 27). The differences between mean and median can be traced back to the higher proportions of female voluntary workers in bigger sports clubs. For comparison: in 1996 the average proportion of women was 25.7 % on the board level and 26.5 % on the execution level (Emrich, Pitsch, & Papathanassiou, 2001).

Table 27: Proportion of women in voluntary positions.

Proportion of women	Mean (in %)	Median (in %)	Index Mean (2005=0)
... on the board level	26.3	25.0	
... on the execution level	30.0	25.9	+17.6***
Total	27.9	25.0	

### 2.13 Taxes paid by sports clubs

While public discussions treat the topic of public sports subsidisation primarily from the cost perspective the reality in sports clubs seems to be much more complex. Sports clubs do not only receive public money, they are also tax payers and consequently produce public money. Indeed the calculation of tax payments of nonprofit sports clubs is very difficult, because there are numerous special rules which have to be taken into account (see chapter 4.4.4). Therefore the presented values should rather be seen as tendencies. Here, it is assumed that the yearly tax payments are around € 820 m for German sports clubs (see table 28). Thus, they exceed the direct public subsidies (incl. subsidies from sports confederations and national governing bodies of sport) by over € 300 m.

Table 28: Overview of the estimated tax payments of the sports clubs.

Federal state	Taxes per sports club (Mean in €)	Taxes (Total in €)
Baden-Württemberg	14,779	167,700,000
Bavaria	10,533	124,000,000
Berlin	11,101	22,300,000
Brandenburg	2,738	7,800,000
Bremen	21,621	9,340,000
Hamburg	30,754	24,200,000
Hesse	7,416	57,800,000
Mecklenburg-Western Pomerania	9,391	17,700,000
Lower Saxony	8,449	80,500,000
North Rhine-Westphalia	9,072	181,200,000
Rhineland Palatinate	7,138	44,800,000
Saarland	3,188	7,000,000
Saxony	5,623	23,900,000
Saxony-Anhalt	4,068	13,000,000
Schleswig-Holstein	12,998	35,000,000
Thuringia	1,667	5,700,000
Germany (Total)	9,534	821,940,000

### **3 Possibilities and need of support (knowledge of action)**

#### **3.1 General problems**

While sports clubs' services are quite remarkable, the situation of sports clubs seems to be problematic at times. In the first instance problems can be for example: the adherence or acquisition of (1) voluntary workers, (2) adolescent competitive athletes, and (3) trainers. There is a need for support concerning (4) the adherence or acquisition of members as well as (5) the number of laws, orders, and directives for the sports clubs, which is often classified as to high and disturbing (see figure 2).

Over the last two years, the situation concerning the adherence or acquisition of voluntary workers, the demographic change or the local competition has deteriorated. However, the problems caused by the number of laws, orders, and directives as well as the problems caused by expenses for competition sport have decreased (see figure 2).

Although the problems' values seem to be very low on average, there is still quite a number of sports clubs with existential problems. These are 15.3 % of all sports clubs or respectively 13,800 out of the 90,467 sports clubs in Germany. In this case, the adherence or acquisition of voluntary workers or members and especially the financial situation present an existential problem for a bigger part of the sports clubs (see figure 3).

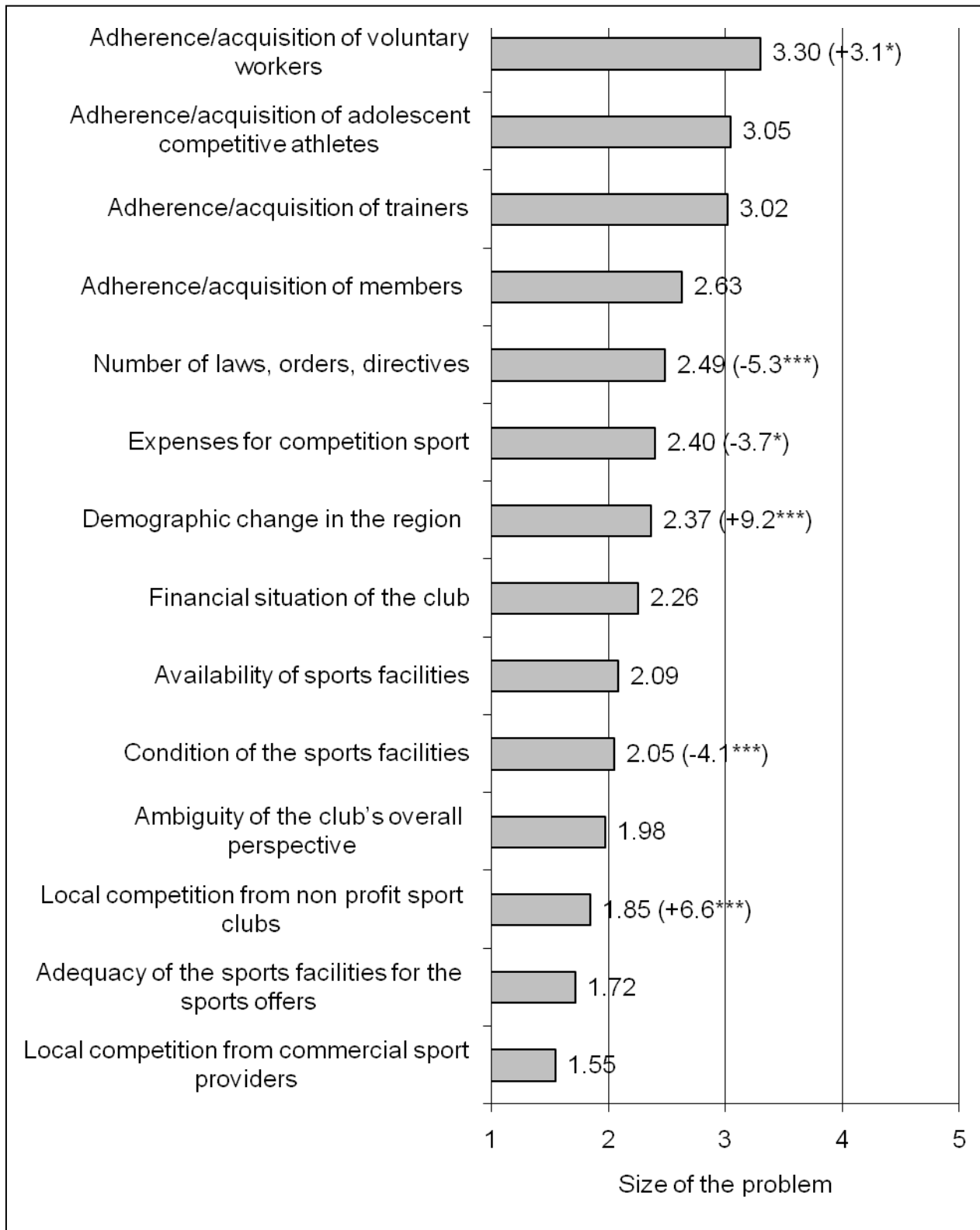


Fig. 2: Problems of sports clubs according to the dimension of the problem and their development (Means; 1=no problem, 5=a very big problem).

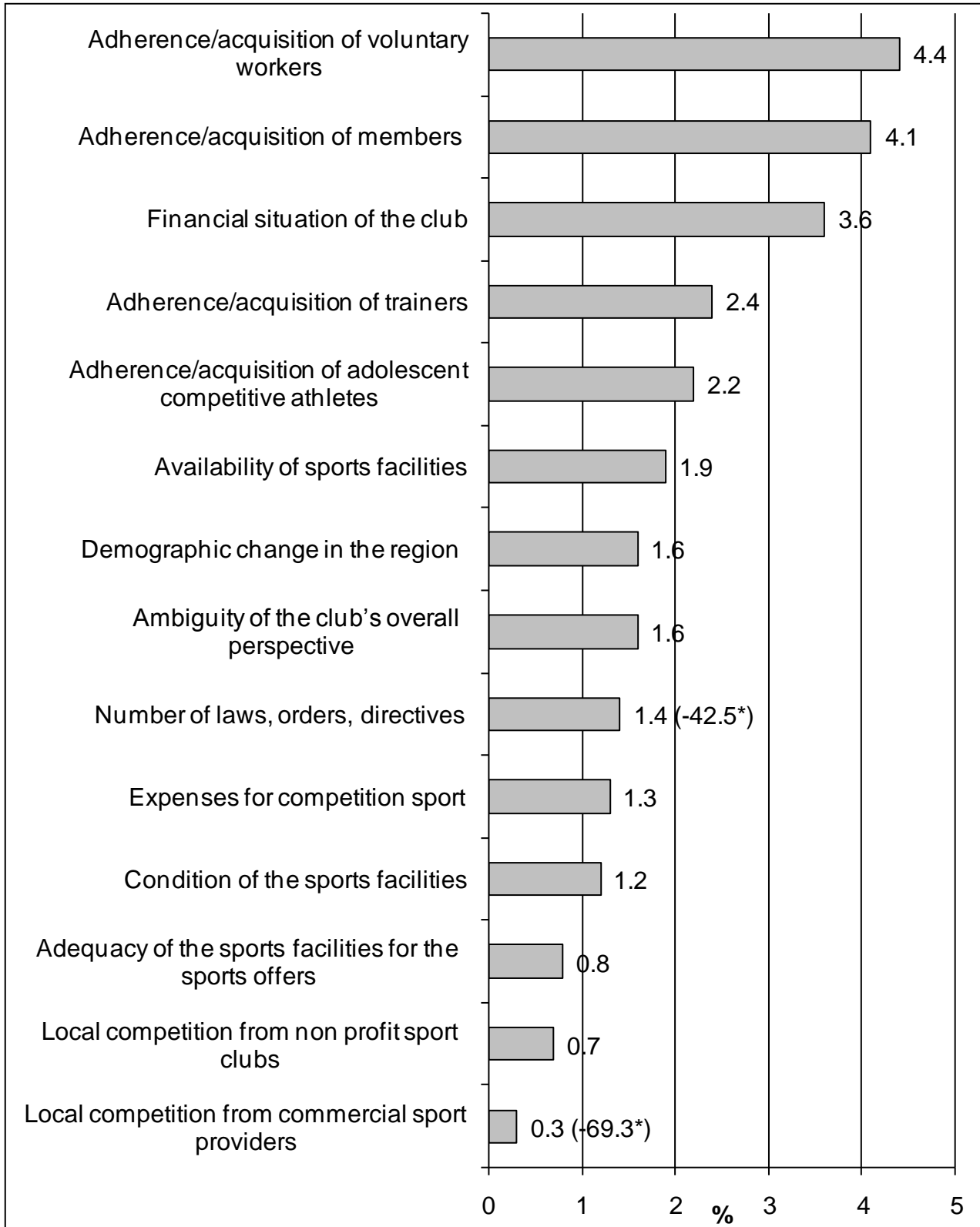


Fig. 3: Proportion of sports clubs with existential problems (in %) and their development.



### **3.2 Possibilities of support for sports clubs with a high proportion of women**

Sports clubs with a high proportion of women present numerous special features. In these clubs central problems are not as severe as in clubs with a low proportion of women. Thus, clubs with a high proportion of women have significantly smaller problems regarding the adherence/aquisition of new members, adolescent competitive athletes, and of trainers. Independent from the proportion of female members, sports clubs with a high proportion of women on the board level have smaller problems regarding the adherence and aquisition of trainers (see figure 4).

The same applies for problems regarding the demographic change. Problems of this kind are small for clubs with a low proportion of women in the club in general as well as for the clubs with a high proportion of women on the board level. Even financial problems are smaller in these kinds of clubs. This applies for the general financial situation of clubs, but also for the problems regarding competition fees. Interesting in this context is that not only a high proportion of female members goes along with small financial problems. At the same time and independently from the proportion of female members, a high proportion of women on the board level seems to have a positive influence on the clubs' finances. Sports clubs with a high proportion of women on the board level also have smaller problems concerning the number of laws, orders and directives. Thus, it seems like a high proportion of female members and board members presents a sort of protection element for numerous problems of the clubs development (see figure 4).

However, one should not look past the fact that some problem categories are stronger developed in sports clubs with a high proportion of female members. This is the case for problems in the area of sports facilities and the competition from commercial sport providers. Consequently, the general conditions in the area of the provision of sports facilities have to be improved if the sport political objective of an increased proportion of girls and women in German sports clubs is to be achieved (see figure 4).

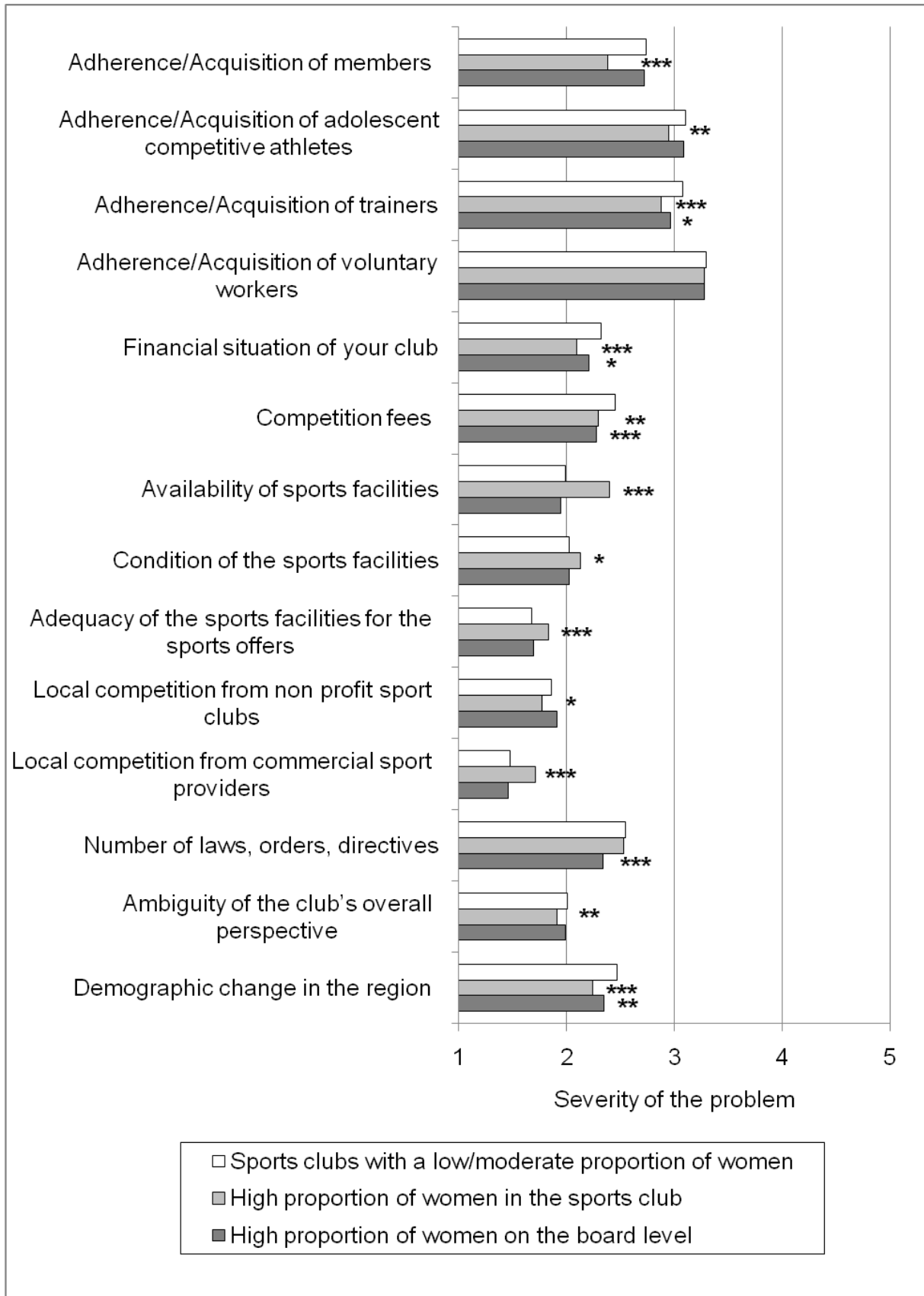


Fig. 4: Severity of problems by proportion of women.

The good constellation concerning the problems of sports clubs with a low proportion of women is also reflected by the small proportion of these sports clubs which have problems that threaten their existence. However, the only influence which is statistically relevant is the influence of the proportion of members. While 19 % of the sports clubs with a low proportion of female members have existential problems, this is only the case for 13.7 % of the sports clubs with a high proportion of female members. Independent from the proportion of members a high proportion of women on the board level reduces the risk of existential problems. This effect is statistically not significant, however (see figure 5). A good constellation of problems is mostly found in sports clubs with a high proportion of female members as well as a high proportion of women on the board level. Only 11.6 % of these sports clubs have at least one existential problem.

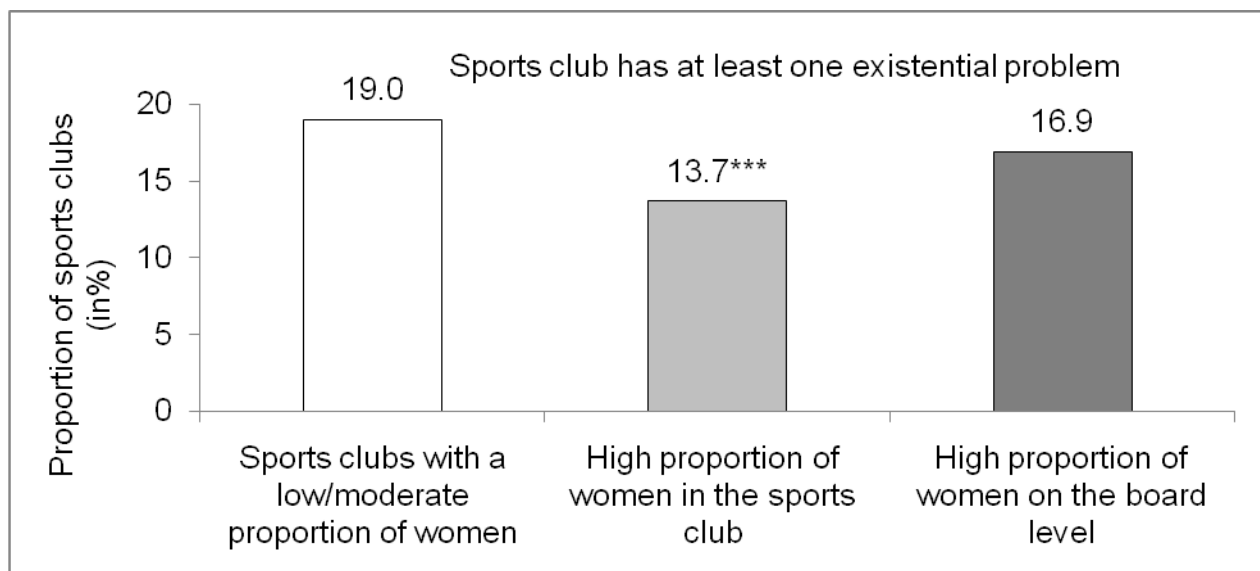


Fig. 5: Sports clubs with at least one existential problem by proportion of women.

According to this the average number of existential problems is smaller in sports clubs with a high proportion of women (see figure 6).

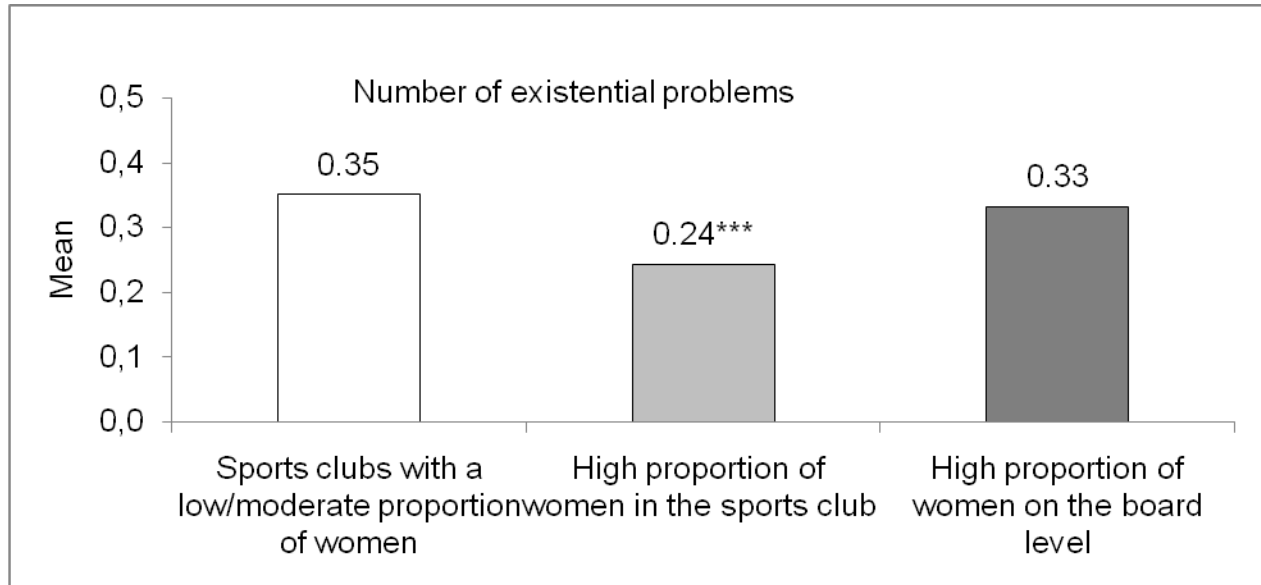


Fig. 6: Number of existential problems by proportion of women.

### 3.3 Public sports facilities

Only 61 % of the sports clubs use public sports facilities, which is even less than two years ago (see table 29). Altogether there are 56,000 out of the 90,674 sports clubs which use public sports facilities. Against the background of tense public households and new controlling measures, this structure of support seems to change, however. Thus, only 29.1 % of the sports clubs which use public sports facilities, neither have to pay a fee nor have to reciprocate in any other way like key power, maintenance etc.. On the other hand, 48 % of the sports clubs reciprocate in other ways for the use of public sports facilities. 43 % of the sports clubs pay user fees for the sports facilities. It has to be notified that the proportion of sports clubs paying fees for their sports facilities has experienced exceptional growth over the last two years. On average, sports clubs pay fees for 35.6 % of the hours in which they use public sports facilities.

Table 29: Use of public sports facilities and its development.

	Proportion of sports clubs (in %)	Total	Index (2005=0)
Use of public sports facilities	61.4	55,500	-4.7**
...which need to be renovated	60.7	33,700	n.a.
...for user fees	42.8	23,800	+24.9***
...for return service	47.5	26,400	
...free use (no service in return)	29.1	16,200	-16.5*

### 3.4 Finances

On average the highest expenses of sports clubs in Germany are for (1) trainers and sports teachers, followed by (2) the expenses for maintenance and service of sports facilities, (3) expenses for sports equipment and sports wear as well as (4) expenses for administrative personnel (see table 30). Furthermore it is important to mention, that two types of expenses have increased significantly since the year 2005. Both the average expenses for trainers and sports teachers and the average expenses for assurances have each increased by 14 % over the last two years. Making the situation worse is the fact that during this time there was no compensation by means of the decrease of other expenses.

*Table 30: Sports clubs' expenses in the year 2006 and their development.*

Expenses for ...	Mean (in €)	Index (2005=0)	Proportion of sports clubs with expenses in this area (in %)
Administrative personnel	3,122		16.6
Trainers, sports teachers	11,634	+13.9**	68.5
Athletes' salaries	1,076		9.9
Maintenance staff, ground keeper etc.	2,258		25.2
Expenses for sports equipment and jerseys	3,242		70.7
Expenses for the maintenance of own facilities	6,595		47.7
Rent for sport facilities	2,410		44.3
Travelling expenses for practices and competitions	1,803		44.0
Expenses for the realisation of sport festivals	2,101		52.4
Taxes to sports organisations	2,638		87.2
Taxes of all kinds	1,126		26.0
Gema fee	111		28.8
Administration costs	2,079		64.1
Assurances	1,210	+14.3*	68.1
Expenses for events which are not related to sports	1,547		49.7
Debt service	2,655		24.5
Accruals	1,344		16.1
Other expenses	5,079		34.7

These increasing expenses are currently compensated by increasing membership fees, which increased by 12 % during this time span. Regarding the revenues by means of subsidies it has to be taken into account that not all of the sports clubs benefit from direct subsidies of the public authorities and often other funding possibilities remain unexploited as well (see table 31).

*Table 31: Sports clubs' revenues in the year 2006 and their development.*

Revenues from...	Mean (in €)	Index (2005=0)	Proportion of sports clubs with revenues in this area (in %)
Membership fees	26,937	+11.8*	100.0
Admission fees	466		29.0
Donations	5,318		76.8
Public subsidies from sport organisations	1,589		51.6
Public subsidies from the federal state	697		19.3
Public subsidies from the district/municipality	2,661		54.3
European subsidies	31	n.a.	0.6
Other support programmes	597		4.6
Fund management (e.g. revenues from interests)	829		41.7
Self-managed restaurants	1,886		20.1
Sports festivals (revenues from entrance fees etc.)	1,487		40.5
Services with costs for members	1,802		16.9
Social events	1,480		35.0
Jersey and equipment	526		11.3
Boards	919		22.7
Broadcasting rights	234		0.6
Advertisements	616		16.2
Business operations	239		1.9
Sports course fees	1,303		17.3
Services with costs for non- members	945		11.2
Raising of credit	1,892		3.5
Other revenues	4,732		28.6

### 3.5 Survivability of sports clubs with declining subsidisation

One third of all sports clubs in Germany does not have a balanced budget. If one would exclude public subsidies (incl. subsidies of other sports organisations), half of the clubs would have negative budgets (see figure 7).

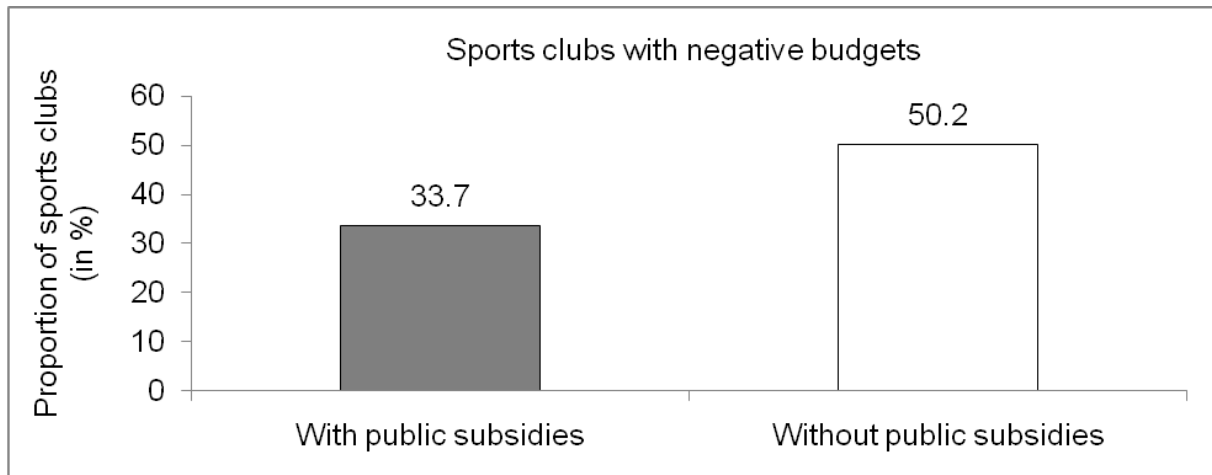


Fig. 7: *Proportion of sports clubs with negative budgets with and without public subsidies (in %).*

A look at the different federal states shows that the proportion of sports clubs with a negative balance budgets ranges between slightly under 27 % (Schleswig-Holstein) and slightly over 41 % (Brandenburg). It stands out that in the new federal states (Eastern Germany; Berlin excluded) most sports clubs would have negative balance budgets (see figure 8).

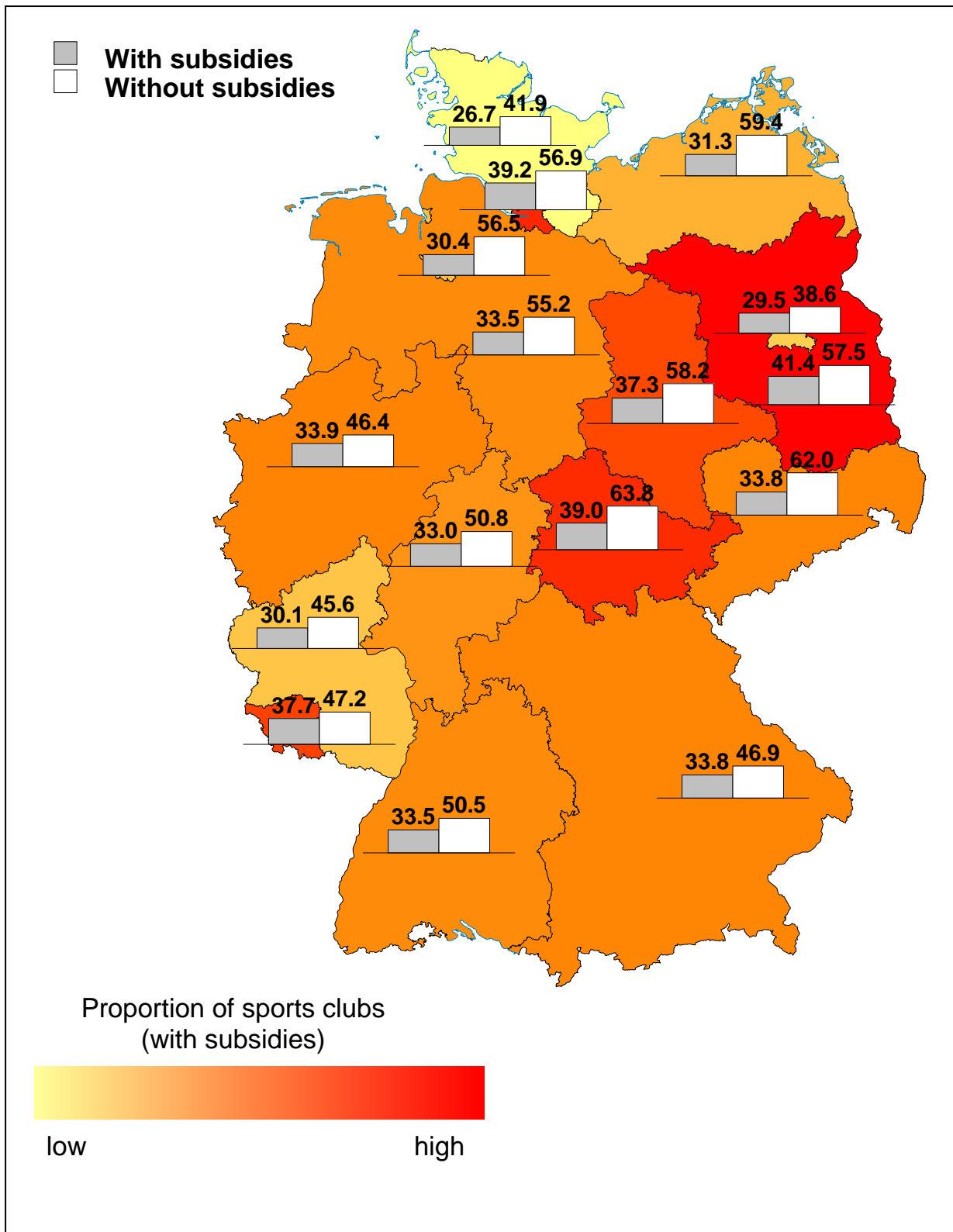


Fig. 8: Proportion of sports clubs with negative budgets with and without public subsidies by federal state (in %).



However, sports clubs can try to react to societal changes (e.g., a decrease of public subsidies) by increasing revenues from other sections such as membership fees and sponsoring. In this respect a subtraction of public subsidies can only show tendencies regarding the actual effects of a decrease of public subsidies. More informative and dependable are results from longitudinal analyses. Over 40 % of the sports clubs have received less public subsidies (incl. subsidies from other sports organisations) over the last two years (see tables 32 and 33).

*Table 32: Overview of the development of public subsidies (incl. subsidies from other sports organisations).*

Development (absolute)	Criterion	Proportion of sports clubs (in %)
Decrease	Decrease of more than 100 €	39.8
Stable	+/- 100 €	26.3
Increase	Increase of more than 100 €	33.9

*Table 33: Overview of the relative development of public subsidies (incl. subsidies from other sports organisations).*

Development (relative)	Criterion	Proportion of sports clubs (in %)
Decrease	Decrease of more than 2 %	43.3
Stable	+/- 2 %	5.6
Increase	Increase of more than 2 %	51.2

For those clubs with decreasing subsidies (incl. subsidies from other sports organisations) the average decrease was from € 9,630 to € 3,935 (see table 34). In 2006 slightly fewer than 17 % of this group did not receive public subsidies anymore, while in 2004 this whole group was still receiving public subsidies. For those clubs which receive increasing subsidies (incl. subsidies from other sports organisations) the average increase was from € 9,775 to € 15,607.

*Table 34: Development of the subsidies by subsidy group.*

Subsidy group (absolute)	Amount of the subsidy (Mean in €)		Porportion of sports clubs which do not receive subsidies (in %)	
	2004	2006	2004	2006
Decrease	9,630	3,935	0.0	16.9
Stable	890	888	51.1	46.7
Increase	9,775	15,607	16.4	0.0

An important question in this context is whether the increase or decrease of public subsidies can be compensated by other categories. At this, it has to be distinguished between revenues through members, public subsidies, economic revenue, and other revenues (see table 35).

*Table 35: Overview of the revenue categories of sports clubs.*

Revenue category	Included revenue items
Members	Admission fees Membership fees
Public subsidies	From sport organisations From the federal states From district/city/municipality From European subsidies From other subsidies
Economy	Jersey advertising Equipment Boards Broadcasting rights Advertisements
Other	Donations Asset management Self-managed restaurants Sport festivals Services with costs for members Social events Business operations Course fees Services with costs for non-members Raising of credit

A look at the longitudinal data shows that there are shifts between the different categories (see table 36). Overall the clubs generated higher revenues from membership fees and economic activities in 2006, whereas the amount and the proportion of the revenues from public subsidies experienced a slight decrease.

Table 36: Development of the revenues.

Revenue Categories	Revenues (Mean in €)		Proportion of revenues (Mean in %)	
	2004	2006	2004	2006
Members	27,493	31,037	55.0	56.4
Subsidies	7,379	7,092	10.9	9.7
Economy	1,403	1,585	1.8	2.2
Other revenues	29,318	29,272	32.3	31.7
Total	65,593	68,986	100.0	100.0

Interesting results can be found when the revenue structure is differentiated by groups (see tables 37 and 38). Sports clubs with decreasing public subsidies were able to generate more revenue through members and economic activities.

Surprisingly at first, the proportion of revenue through members is the highest for sports clubs which receive stable subsidies. However, stable subsidies imply stable non-subsidies as well which is explained by the low proportion of subsidies of the total revenues (see table 34). The proportion of the revenues from members is slightly decreasing over the course of time. In contrast the proportion of revenues from economic activities experienced a slight increase.

Sports clubs with increasing public subsidies obviously are able to disburden their members financially. The relative proportion of revenues from members has decreased. Finally it has to be noted that decreasing subsidies and stable low subsidies (as well as non-subsidies) result in higher fees for the members.

Table 37: Development of the revenues by subsidy group (Mean in €).

Subsidy group (absolute)		Members	Subsidies	Economy	Other revenues
Decrease	2004	27,264	9,630	1,689	27,225
	2006	29,401	3,935	1,871	23,788
Stable	2004	9,232	890	292	25,333
	2006	10,976	888	462	23,784
Increase	2004	41,930	9,775	1,929	34,864
	2006	48,519	15,607	2,119	39,958

Table 38: Development of the proportion of revenues by subsidy group (Mean in %).

Subsidy group (absolute)		Members	Subsidies	Economy	Other revenues
Decrease	2004	45.3	16.6	1.8	36.3
	2006	53.6	8.0	2.2	36.2
Stable	2004	68.9	4.7	1.1	25.3
	2006	68.2	4.8	1.8	25.2
Increase	2004	55.4	9.0	2.4	33.2
	2006	50.5	15.5	2.6	31.4

Altogether it can be argued that sports clubs only have limited abilities to compensate decreasing subsidies by increasing other sorts of income. A look at the development of households in the longitudinal data shows that a decrease of public subsidies implements a decrease of the sports clubs which have at least a balanced budget from 70.6 % to 63.3 %. In contrast, the proportion of these clubs has risen from 64.7 % to 71.8 % whenever public subsidies were increasing (see figure 9).

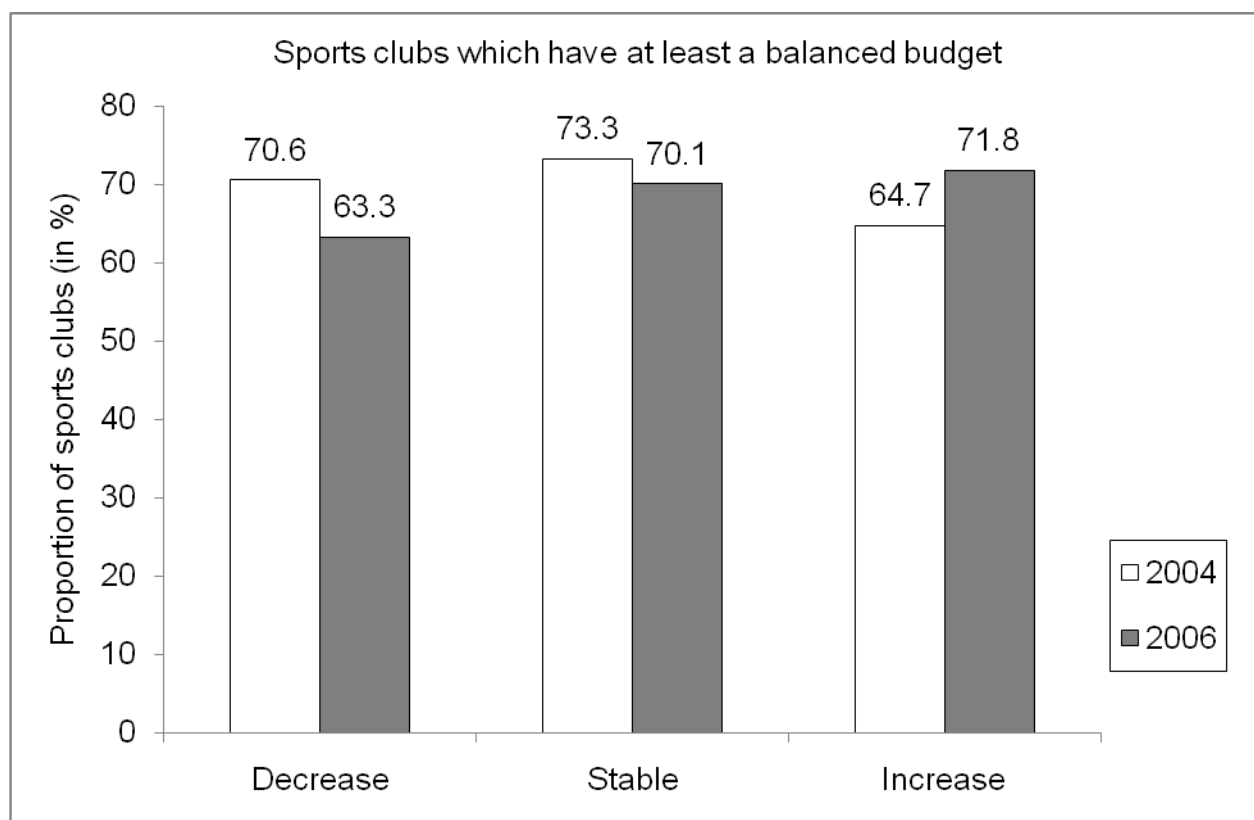


Fig. 9: Development of the household balances by subvention groups.

Consequently, with regard to all sports clubs it becomes clear that the risk of negatively balanced sports clubs increases with decreasing public subsidies. Many sports clubs are not able to compensate a shortage of public subsidies and are therefore dependent on public subsidies if they and therewith their common welfare services are to survive.

### 3.6 Importance of support

There are some points which sports clubs consider very important: the subsidies of the land sports confederations and federations in the areas of basic and advanced formation of the trainers, benefits for trainers, general financial support as well as support in the areas of working with adolescent athletes and the support of voluntary work. Compared to last times survey the importance of support in the area of cooperation of schools and sports clubs has increased, whereas classical managerial matters such as marketing, law/assurance, and quality management are still considered fundamental but at the same time tend to be of less importance (see table 39). Assumably, in these areas the promotion and consulting programmes of the land sports confederations get traction, particularly as the corresponding values of satisfaction are positive for the most parts.

*Table 39: Importance of and satisfaction with support sorted by importance and the development (Means; 3=very important, 1=not important; 3=satisfied, 1=not satisfied).*

No.	Area	Importance	Index Importance (2005=0)	Satisfaction
1	Basic and advanced formation of the trainers	2.66		2.71
2	Benefits for trainers	2.66		2.20
3	Financial support of the club's activities in general	2.64		1.96
4	Help regarding working with adolescent athletes	2.56		2.27
5	Support of voluntary work	2.56	n.a.	1.93
6	Information and consultation regarding law and assurances	2.47	-2.1*	2.43
7	Information and consultation for sports clubs in general	2.44		2.41
8	Information and consultation regarding finances/taxes	2.40		2.38
9	Financial support regarding the acquisition of sports equipment	2.36	-4.3***	2.05
10	Help regarding the cooperation of schools and sports clubs	2.33	+2.8*	2.22
11	Financial support regarding the	2.31	-6.2***	2.09

No.	Area	Importance	Index Importance (2005=0)	Satisfaction
	construction/ modernisation of sport facilities			
12	Information and consultation regarding the adherence and acquisition of members	2.30		1.87
13	Information and consultation regarding Marketing/Sponsorship/Public relations	2.08	-4.9***	2.02
14	Training courses of the club management	2.06		2.54
15	Help regarding talent scouting/ advancement	2.02		1.91
16	Help regarding the fight against doping	2.02	n.a.	2.11
17	Lobbying activities for organised sports	1.99	-3.5*	1.94
18	Information and consultation regarding management and construction of sport facilities	1.99	-3.4*	2.05
19	Benefits for executives and club managers	1.98	+6.2***	1.72
20	Information and consultation regarding Computing/Internet/Homepage	1.95		1.97
21	Information and consultation regarding Organisation and planning	1.92		2.20
22	Information and consultation regarding demographic change	1.89	n.a.	1.93
23	Information and consultation regarding social services in sports	1.85	n.a.	1.97
24	Information and consultation regarding sports and nature	1.84	n.a.	2.02
25	Information and consultation regarding the integration of immigrants	1.79	n.a.	2.02
26	Help regarding setting up sport offers for special groups	1.76		2.09
27	Information and consultation regarding advancement of women	1.72		2.01
28	Information and material regarding the German sports badge	1.69	n.a.	2.46
29	Information and consultation regarding quality management	1.68	-4.7**	1.93
30	Information and consultation regarding event management	1.68		1.98
31	Information and consultation regarding staffing	1.63	n.a.	1.92
32	Information and consultation regarding the use of public sport facilities	1.61		1.84

Here, the question comes up how the land sports confederations could optimise their consultation and support for sports clubs. The importance-satisfaction matrix is created in order to identify the room for improvement. The areas of support which

have to be optimised above all are those which are very important from a sports club's perspective and which, at the same time, the sports clubs are unsatisfied with (see figure 10; area "Make an effort!").

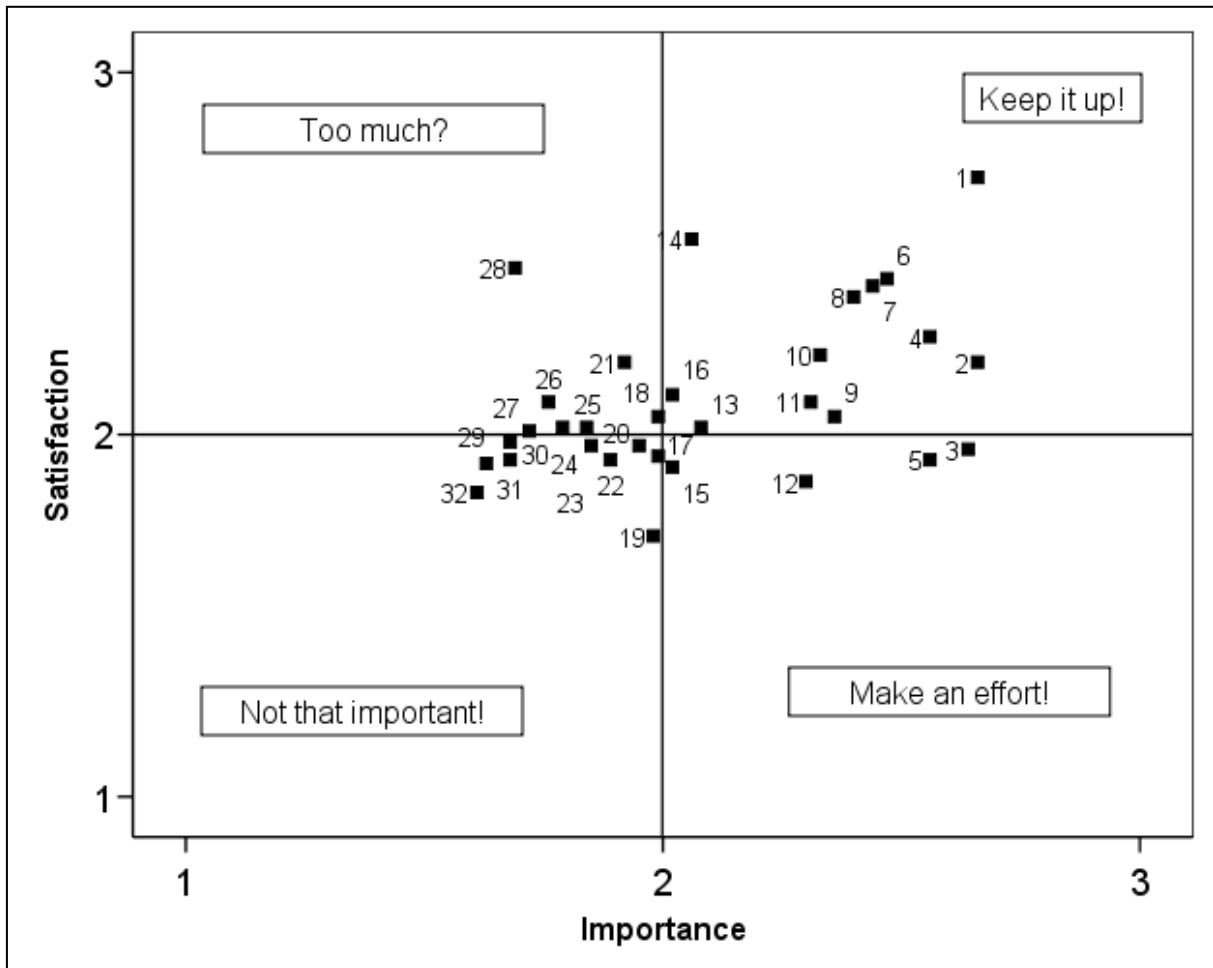


Fig. 10: Matrix of the importance and satisfaction with support (means; legend see table 39).

The following areas of support should be optimised from a sports club's perspective: (3) financial support of the sports clubs in general, (5) help regarding the voluntary work, (12) information and consultation regarding the adherence and acquisition of members, and (15) help regarding talent scouting/-advancement.

On the other hand, from a sports club's perspective the land sports confederations seem to do quite well in the areas of (1) basic and advanced formation of the trainers, (2) benefits for trainers, (4) help regarding working with adolescent athletes, (6) information and consultation regarding law and assurances, (7) information and consultation for sports clubs in general, (8) information and consultation regarding finances/taxes, (9) financial support regarding the acquisition

of sports equipment, (10) help regarding the cooperation of schools and sports clubs, (11) financial support regarding the construction/modernisation of sport facilities, (13) information and consultation regarding marketing/sponsorship/public relations, (14) training courses of the club management, and (16) help regarding the fight against doping.

The areas in which the land sports confederations are well positioned regarding the effectiveness of the support but in which they are on average too engaged regarding efficiency-considerations are the following: (18) information and consultation regarding management and construction of sport facilities, (21) information and consultation regarding organisation and planning, (25) information and consultation regarding the integration of migrants, (26) help regarding setting up sport offers for special groups, (27) information and consultation regarding advancement of women, (28) information and material regarding the German sports badge (see figure 10).

### **3.7 Management strategies for the integration of migrants**

For questions of the management of the integration performances in sports, it is interesting to what extent the integration of migrants benefits from certain strategies. According to the Data Mining model (see chapter 4.4.1), the proportion of migrants in sports clubs is especially high for sports clubs which have taken special actions and initiatives to integrate migrants over the last two years (see figure 11). Sports clubs which have taken special initiatives have an average proportion of 21.1 % of migrants. In contrast, sports clubs which have not taken special initiatives have an average proportion of 9.8 %. However, it is unclear whether the proportion of migrants is high because of special initiatives or if special initiatives are taken because of the high proportion of migrants. It is probably a mutual reaction, which implies that specific integration measures facilitate the acquisition of members with a migration background.



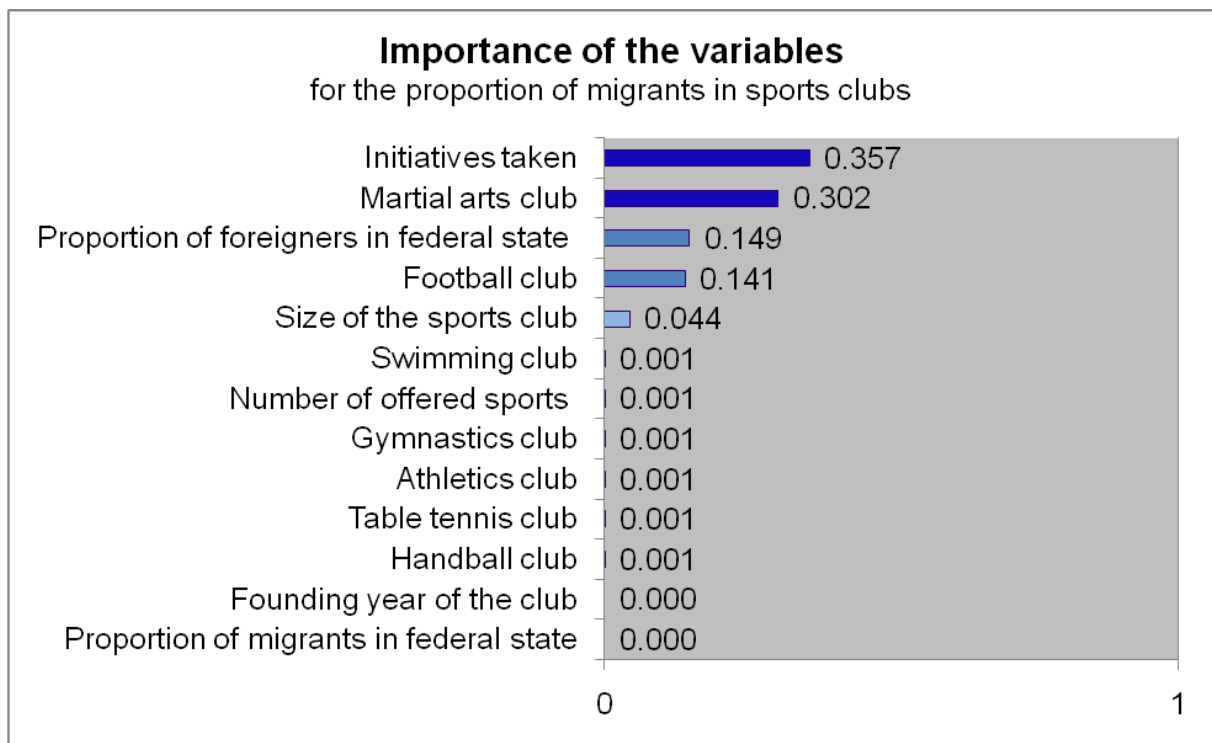
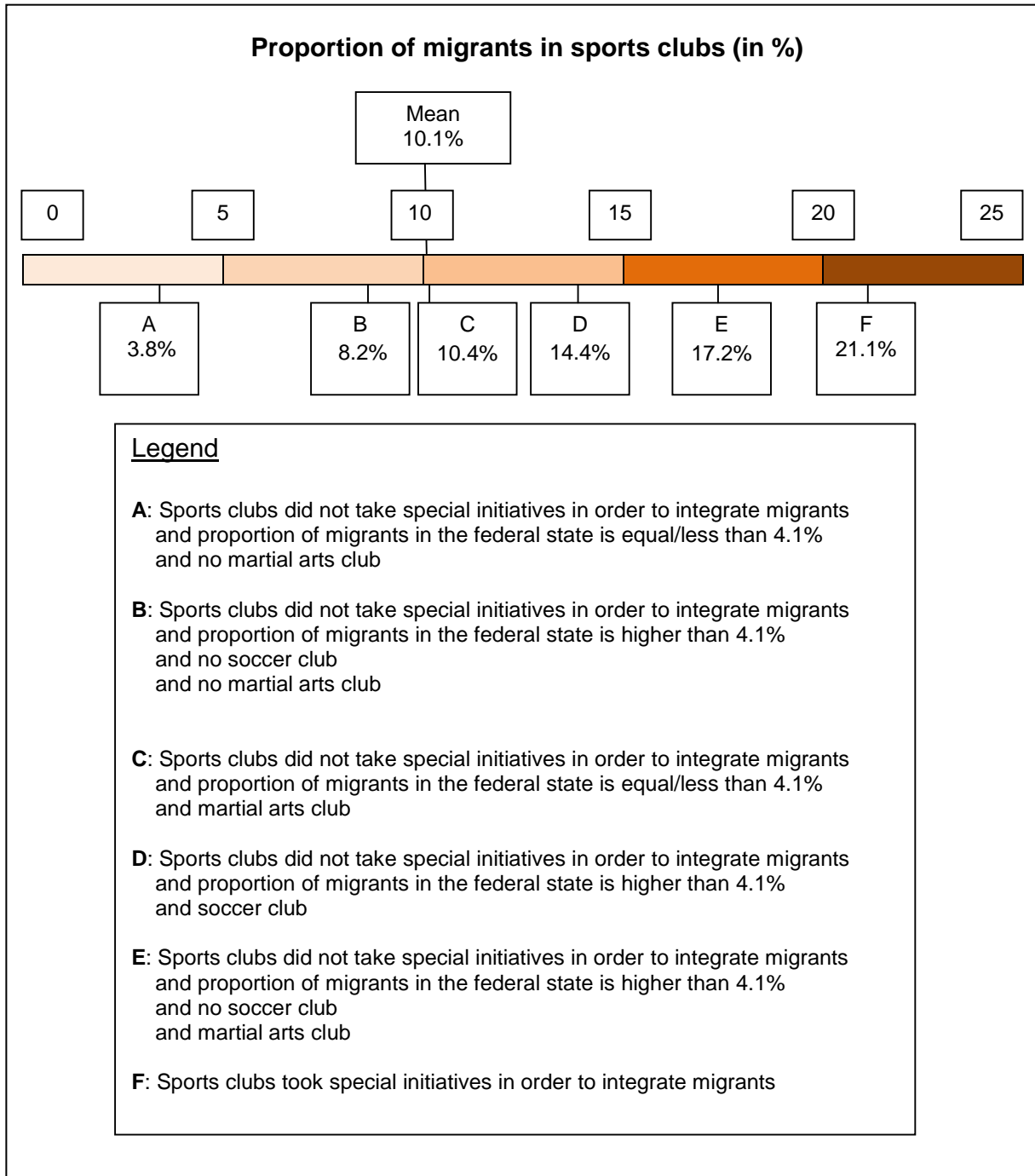


Fig. 11: Data Mining Model for the proportion of migrants in sports clubs.

Also very important regarding the proportion of migrants in sports clubs are martial arts sports offers (e.g. Boxing, Kickboxing, Judo, Ju-Jutsu, Aikido, Budo-Sports, Karate, Tae Kwon Do, Tai Chi, Kung Fu etc.). Thus, migrants seem to find martial arts especially attractive. From the management's perspective, this means that special initiatives as well as the implementation of new relevant sports offers facilitate the acquisition of members with a migration background. Soccer offers seem to have the same effect (even with a lower explanatory power), as demonstrated in the ray (see figure 12).



*Fig. 12: Ray for the proportion of migrants in sports clubs.*

## 4 Methodology

### 4.1 Background

The Sport Development Reports – “Analysis of the sports clubs’ situation in Germany” present an advancement of the financial and structural analysis of sports in Germany (FISAS). The objective is to provide policy-makers in organised sports with managerial and political information (knowledge of argumentation and knowledge of action). With the aid of this support, the competitive ability of organised sports should be sustained in times of a dynamic social change. This project is financed by the 16 land sports confederations, the German Olympic Sports Confederation (DOSB) as well as the Federal Institute of Sports Science (BISp)<sup>5</sup>. On June 26<sup>th</sup> in 2007 Univ.-Prof. Dr. Christoph Breuer from the Institute of Sport Economics and Sport Management of the German Sport University Cologne was assigned to carry out the second and third survey for the sports development reports. The methodological central idea was to create a panel design, which means that the same sports clubs should be questioned on their situation every two years. Therewith, the first two surveys of the sports development reports (2005/06 und 2007/08) present systematic information about the sports clubs’ development for the first time.

### 4.2 Sample and response rate

This survey was carried out by means of an online survey, so there was no change in methods compared to the first survey. The survey was carried out from September 17<sup>th</sup> to December 10<sup>th</sup> of 2007. The sample was based on the email addresses of sports clubs which were provided by the land sports confederations. Out of the 90,467 existent sports clubs in Germany 45,270 were made available. The number of provided email addresses was different from federal state to federal state. After the deletion of double provided email addresses, 44,367 sports clubs were contacted via email. Sports clubs, which could not participate for whatever reasons, were taken out of the sample. A bigger part of the failures (about 7,000) were due to false email addresses. Altogether, n=13,068 interviews could be realised, which equals a response rate of 35.1 % (see table 40). Compared to the first survey the sample was tripled and the participation rate increased by a factor of 1.7.

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<sup>5</sup> Reference number IIA1-080902/07-08.

Table 40: Sample of the Sport Development Report 2007/08 for Germany.

Sport Development Report 2007/08	N	Proportion of sample I (in %)	Proportion of sample II (in %)
Population	90,467		
Sample I	44,367	100.0	
False email addresses, person is not part of the sports club anymore, club no longer existent, refusal	7,161		
Adjusted sample II	37,206		100.0
Realised interviews	13,068		
Participation (in %)	14.4	29.4	35.1

### 4.3 Longitudinal data and calculation of indexes

With regard to the construction of a longitudinal database all sports clubs of the second survey were given unchangeable numbers (ids) which were also assigned to the first survey. This number makes an identification of the sports clubs possible which participated in both surveys. Altogether, n=1,648 sports clubs participated in both surveys.

Beginning with the second survey, changes of the common welfare production as well as of the problems of German sports clubs can be measured based on the longitudinal analysis. The dimension of this change is made clear by means of indexes, which demonstrate the percental change. The calculation of the indexes is based on the value of the 2005/2006 database and is set to zero. Accordingly, an index of +12 % would equal an increase of 12 % compared to the value of 2005/2006. Moreover, it was checked whether the indexes' changes were statistically significant (test of significance: t-test). The underlying report will only present the significant indexes. The probability of error which is important in order to determine the significance is demonstrated with the common designation (see table 41).

Table 41: Probability of error in statistical analyses.

Short form	Probability of error is
ns	... bigger than als 5 % (not significant)
*	... equal/less than 5 %
**	... equal/less than 1 %
***	... equal/less than 0,1 %

## **4.4 Data analysis**

### **4.4.1 Data Mining**

In several chapters (see chapter 2.11, 2.12, and 3.7) further analysis was conducted. For this purpose the programme Clementine 12.0 was applied. Data Mining stands for the non trivial automatic search for knowledge in large datasets (Lusti, 2002). From these datasets interesting findings and information can be drawn in order to obtain concrete recommendations of action (Petersohn, 2005). Thus, Data Mining possesses an increased explorative character compared to conventional statistics. Another advantage of Data Mining is that multiple procedures and algorithms can be conducted simultaneously. This can lead to a better quality of the results in the sense that patterns and structures are detected, which would have been undetected with conventional statistical analysis.

By means of Data Mining the most important structural features of certain clubs (e.g., clubs with a high proportion of migrants or a high proportion of women) can be identified. In comparison to a differentiation by e.g., the size of a club the most important distinctive criteria are analysed and presented. The number of members rarely presents the most important distinctive criterion. Various decision trees like e.g., the C&RT (Classification and Regression Tree) or the decision tree of CHAID (Chi Square Automatic Interaction Detector; Lusti, 2002) were estimated for these underlying analyses. The actual presentation of the decision trees was dropped for reasons of complexity. In fact, the important knots of the decision trees are presented by the model which the decision trees were based on, or a presentation by means of number rays.

### **4.4.2 Analysis of the effects of the proportion of women in sports clubs**

In order to analyse the consequences of an increased proportion of women on the member and board level for the management of the clubs and confederations (see chapter 3.2), sports clubs were divided by their respective proportion of women (see table 42). Afterwards, multiple regression analyses were carried out with the two dummy-variables high proportion of women in the sports clubs and on the board level (0=low and moderate proportion of women; 1=high proportion of women; see table 42). This makes it possible to analyse the influence of a high proportion of women in the clubs independently from the proportion of women on the board level and vice versa.

Table 42: Subdivision into groups by proportion of women in sports clubs and on the board level.

	Low and moderate proportion of women	High proportion of women
... in sports clubs		
Criterion	up to 3rd Quartile <sup>6</sup>	from 3rd Quartile
Proportion of women (in %)	up to 49,0	from 49,0
... on the board level		
Criterion	up to 3rd Quartile	from 3rd Quartile
Proportion of women (in %)	up to 40,0	from 40,0

#### 4.4.3 Analysis of the sports clubs' finances

The analysis of this paper is predominantly based on the expenditures of the sports clubs. It has to be noted that all statements regarding the finances of clubs refer to the household year before the survey. Thus, the sports development report of 2005/06 is based on the year 2004 and the sports development report of 2007/2008 is based on the year 2006.

While analysing the financial data problems of validity became apparent for a part of the sample. At times, respondents made financial statements in sizes that were hard to understand. This was for both the expenditures as well as for the revenues. In order to obtain dependable financial data, quality criteria were inducted retrospectively.

(1) Revenues from membership fees > (Number of members \* € 0.50),

(2)  $4 < \text{Revenues/Expenditures} < 0.25$ .

These quality criteria were met by 19.7 % of the cases, whereas it has to be considered that not all of the clubs gave information concerning their finances. All analyses concerning the finances merely refer to the clubs which met the above mentioned criteria. The dispersion of the financial statements was able to be constrained for both years.

#### 4.4.4 Estimation of the taxes paid by sports clubs

In chapter 2.13 the tax payments of sports clubs were calculated. The tax categories and tax rates which the calculation was based on are shown in table 43.

<sup>6</sup> Quartiles (Quarter values) separate the population of a variable in four equal sections. For the identification of the quartils all values of one variable are sorted by size. The value after one fourth of the numerical series is the first (lowest) quartile. The second quartile is the median. The third quartile is the value after three fourths of the numerical series. For the numerical series 1, 1, 2, 2, 3, 4, 5, 6 the first quartile is 1 and the third quartile is 5.

The clubs' statements concerning the finances were partially not detailed enough. Therefore only approximate calculations and estimations were conducted in some areas.

Table 43: Overview of the taxation of non-profit sports clubs.

Area	Categories	Tax rate
Administration of assets	Revenues from - Administration of assets - Broadcasting rights	7 % purchase tax
Non-profit sector	Revenues from - Sports festivals - Services with costs for members	7 % purchase tax; if > € 30,678, then 16 % purchase tax
For-profit sector	Revenues from - Self-managed restaurants - Social events - Advertisement: Jersey, Equipment - Advertisement: Boards - Advertisement: regular advertisements - Business operations - Services with costs for non-members  Expenditures for - General administration costs - Costs for non-sporting activities	16 % purchase tax, if revenues > € 30,678
Earnings from for-profit sector	Balance of revenues and expenditures (incl. non-profit services if it exceeds € 30,678)	Revenues are taxable, if revenue > € 30,678 and earnings > € 3,835. 30.5 % corporate income tax and 15 % business tax
Staff costs	Expenditures for - Administration staff - Maintenance staff - Athletes' salaries - Trainers	20 % earnings tax <sup>7</sup>

<sup>7</sup> The earnings tax can only be calculated overall, since there was no detailed information concerning the number of employees.

Area	Categories	Tax rate
Non-profit or for-profit sector	- Costs for the maintenance of club owned facilities	11.5 % purchase tax (mean of 7 % and 16 %) <sup>8</sup>
Non-profit sector	- Traveling costs for training and competition - Costs for the organisation of sports festivals - Licences etc.	7 % purchase tax
Consumption of sports	- Costs for equipment and clothing	16 % value added tax (as of 2006)
Non-profit or for-profit sector	- Renting and financial compensation for the use of facilities which are not owned by the club	7 % (mean of 7 % resp. 16 % for short term renting and 0 % for long term renting) <sup>9</sup>

## 5 References

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<sup>8</sup> Since there was no information concerning the duration of the tenancy the calculation was based on the average tax rate.

<sup>9</sup> As there was no information regarding the duration of the renting available, an average tax was applied for the estimations.