

# Factors Affecting Participation and Success

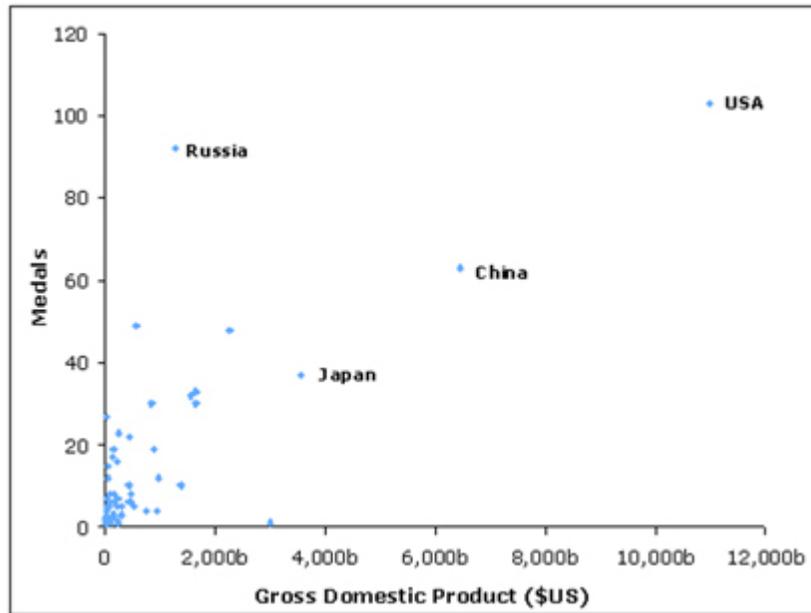
There are many factors that can affect individual and national participation in sport and also success in sport. Below are some of the most common factors, along with a few examples of people or teams who have overcome some of these factors to still be successful.

## Economic

Income: Income tends to have a very strong correlation to success. If you look at the medals from the 2004 Athens Olympic games then the top ten countries are all in the G20. If you look at the correlation below, it is positive and the only major anomaly is Russia. Russia is still a rich country, but it won more medals than you would expect from a country with its GDP. However, if you were to compare medals to GDP, you would get a very different medal table. In 2008, North Korea got the most medals per billion of GDP, followed by Jamaica. In summary, even though it is possible for countries with smaller GDP's to be successful, to get large-scale success, you do need to have a high GDP.

Rank	Nation	Gold	Silver	Bronze	Total
1	 United States (USA)	36	39	28	103
2	 China (CHN)	32	17	14	63
3	 Russia (RUS)	27	27	38	92
4	 Australia (AUS)	17	16	16	49
5	 Japan (JPN)	16	9	12	37
6	 Germany (GER)	13	16	20	49
7	 France (FRA)	11	9	13	33
8	 Italy (ITA)	10	11	11	32
9	 South Korea (KOR)	9	12	9	30
10	 Great Britain (GBR)	9	9	12	30

external image 2004tally.jpg



#### GDP - BILLION DOLLARS PER MEDAL

RANK	COUNTRY	TOTAL
1	North Korea	0.36
2	Jamaica	0.53
3	Zimbabwe	0.85
4	Armenia	1.28
5	Georgia	1.29
6	Tajikistan	1.40
7	Krygzstan	1.41
8	Mongolia	1.57
9	Togo	2.21
10	Belarus	2.46

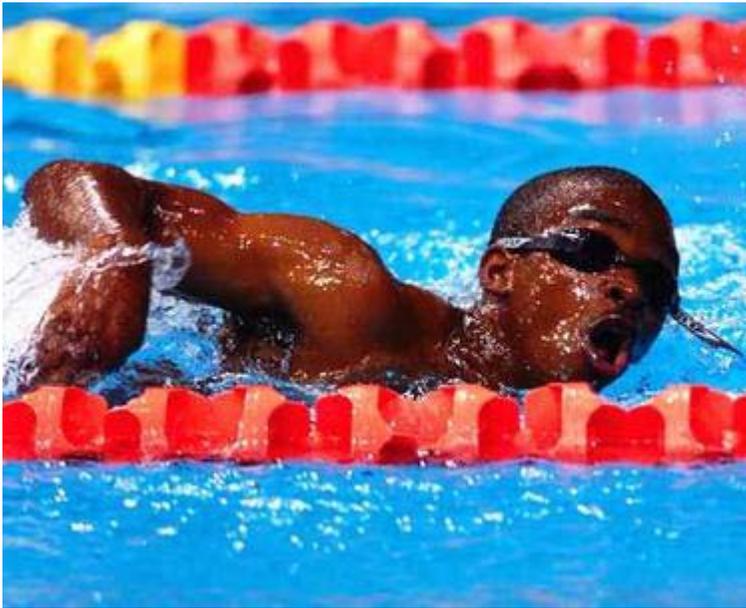
Because some countries are not rich, there are many talented individuals that do miss out. For example, Uganda has some of the most talented kayakers in the world (they train on the rapids of the White Nile). However, even though they have won medals in the past, there are many kayakers who cannot afford to go to competitions. Instead of competing internationally, they are working as safety kayakers on tourist rafting trips. In the UK it is now possible to get funding from the National Lottery as long as you meet certain performance criteria.

[National lottery to give more funding for arts and sports - BBC article](#)

[Money in sports - GDP doesn't always predict success - Huffington Post Article](#)

**Infrastructure:** Eric the Eel (Eric Moussambani Malonga) from Equatorial Guinea came to fame after competing in the 100 metres freestyle in 2000 Summer Olympics in Sydney. He gained access to the Olympics through a wildcard designed to promote swimming more globally. Before competing in the Olympics he had only ever been in a hotel swimming pool and had never seen a 50 metre pool. His time was nearly twice as slow as the fastest competitor. However, the Jamaican bobsled team portrayed in the film 'Cool Runnings' did overcome a lack of infrastructure to compete at three successive Olympics (Calgary 1988, Albertville 1992 and Lillehammer 1994). Although not achieving much in the 1st two, they actually finished 14th in Lillehammer, which was a head of the US, Russia and France.

The Jamaican team was an exception though. Normally individuals and teams only participate in and perform well in, sports that they have the infrastructure for. Often poorer countries can not afford to build expensive infrastructure like swimming pools, astroturf pitches and velodromes. That is why in poorer countries sports that only require little infrastructure are popular and successful e.g. football only needs a ball, cricket only needs a ball and a bat and running needs nothing.



external image eric\_wideweb\_\_430x301.jpg



external image jamaica+bobsled+team+1988+calgary+olympics+canada.jpg

## Social and Cultural

**Population:** If your country has a large population, it might mean your country has a better chance to win more medals. In the Beijing Olympics the US got the most medals and has a population of 311 million (the world's 3rd biggest), China came second and has a population of 1.34 billion (the world's biggest) and Russia came third and has a population of 142 millions (the world's 9th biggest). However, if you were just looking at population then India (2nd biggest), Indonesia (4th biggest), Brazil (5th biggest), Pakistan (6th biggest), Nigeria (7th biggest) and Bangladesh (8th biggest) should all appear near the top of the medal table, but they don't. Therefore there must be other factors at play apart from the size of the population. Also if you look at medals per population then you get a very different medal table, in fact the Bahamas with a population of just over 300,000 would have come top at the last three Olympics. Australia and Jamaica would also appear in the top five over the last three Olympics.

COUNTRY	●	●	●	TOTAL
UNITED STATES	36	38	36	110
CHINA	51	21	28	100
RUSSIA	23	21	28	72
BRITAIN	19	13	15	47
AUSTRALIA	14	15	17	46
GERMANY	16	10	15	41
FRANCE	7	16	17	40
SOUTH KOREA	13	10	8	31
ITALY	8	10	10	28
UKRAINE	7	5	15	27

external image medal\_count\_us.png

	Medals	Population	Ratio			
Sydney	Bahamas	2	300,000	150,000		5 medals
	Australia	58	19 million	330,000		43.4 million people
	Jamaica	7	2.6 million	370,000		2.8 million
	Cuba	29	11.1 million	380,000		20.3 million
	Norway	10	4.5 million	450,000		
						1 in 8.7 million
						65 <sup>th</sup>
Athens	Bahamas	2	310,000	155,000		6 medals
	Australia	49	19.9 million	410,000		45.3 million people
	Cuba	27	11.3 million	420,000		2.8 million
	Jamaica	5	2.6 million	520,000		20.6 million
	Hungary	17	10.1 million	590,000		
						1 in 7.6 million
						60 <sup>th</sup>
Beijing	Bahamas	2	330,000	165,000		1 medal
	Jamaica	11	2.8 million	250,000		47.8 million people
	Iceland	1	310,000	310,000		2.7 million
	Australia	46	20.9 million	450,000		13 million
	Norway	10	4.7 million	470,000		
						1 in 47.8 million
						80 <sup>th</sup>

external image Medal+population.gif

**Cultural Barriers:** In some countries it may be culturally unacceptable to participate in certain sports. In the UK, females have only recently started playing rugby, football and cricket on a large scale. Some sports like basketball only appeared in the Olympics in 1976 for females, but has been played by males in the Olympics since 1904 (demonstration sport). Boxing has often been associated with working class people and rugby with upper class. In the US golf is often played by the white population and basketball more by the black population. In the Muslim world, it is unusual to see sportswomen swimming or running because of social requirements to cover. Hassiba Boulmerka from Algeria was a groundbreaker who came into criticism and praise for running in shorts and a vest.



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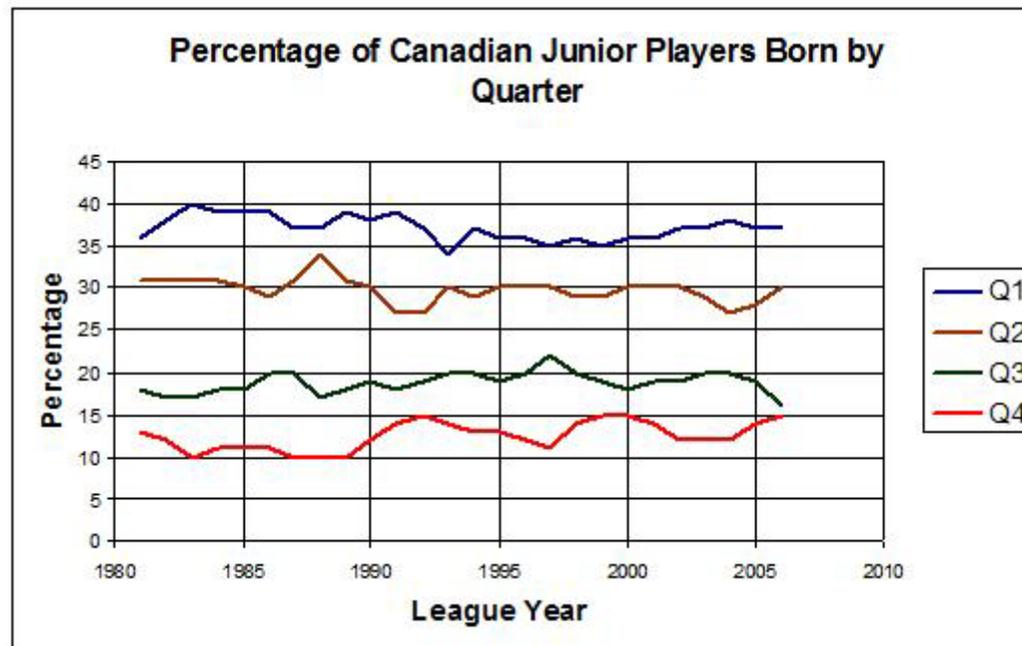
**Traditional Sports:** Some areas of the world are particularly strong in certain sports because of local traditions. These traditions may have developed because of a colonial history, like cricket in the sub-continent, the development of a new sport, like sumo wrestling in Japan, or traditional activities, like archery in Mongolia (Mongols did and still do hunt using bows and arrows). A country or region who has a tradition of participation in a particular sport is likely to see greater success. For example in the recent cricket world cup (2011), four of the semi-finalists came from the sub-continent (Pakistan, India and Sri Lanka).

**Publicity:** Some sports like the English Premier League (shown in over 200 countries) are very good at promoting themselves and their sport. Once a sport gets television coverage it tends to see an increase in interest and participation.

**Hosting of Major Events:** When countries host major sporting events there is often an upturn in participation and sometimes success. Athletes performing in front of their home crowd often find the inspiration to excel. Many international sporting bodies e.g. FIFA (Federation Internationale de Football Association) now like to spread competitions around the world to increase the participation in sport. This was one of the reasons why FIFA chose Russia to host the 2018 Football World Cup and Qatar to host the 2022 Football World Cup.

**Role Models:** Countries that have a role model to aspire to, often see an increase in participation in the role models sport. Pele has been a great role model and inspiration to Brazilian youngsters wanting to play football, likewise so has Sachin Tendulkar to Indian youngsters wanting to play cricket and more recently so has Yao Ming to Chinese youngsters wanting to play basketball. A teams success can also have a similar role, when England won the Rugby World Cup in 2003, more people started playing rugby.

**Luck:** Malcolm Galdwell in his excellent book 'Outliers' looked at the unusually large percentage of Canadian ice hockey players that were born in the first quarter (January, February and March). His studies found that the cut of date for age groups in Canadian ice hockey is January 1st. Therefore, someone born on 1st January would have a years growing (height and weight) advantage over someone born on 31st December. Because they were bigger and stronger they tended to get selected for school and club teams. Because they were playing for schools and clubs they got additional training and were then more likely to get selected for representative honours and again got more additional training and support. This process continued right up until the national hockey league. Because of this there are an unusually large amount of players with birthdays in January, February and March. He did a similar study with football in the UK where the cut of date for age groups is September 1st. As you might expect he found an unusually large amount of professional footballers with birthdays in September, October and November.



You may also be lucky if you have an exceptional coach in your school, or you have a local sports team very well equipped. You may even win a set of golf clubs or be invited to a football teams open day. Obviously luck is not everything, you also have to have talent and dedication to support your initial breakthrough.

## Physical (Environmental)

**Terrain and Climate:** The natural environment that you live in is going to have a big impact on the sports that you play. This is probably best shown by looking at the Winter Olympic Medal table from 2010. With the exception of the Netherlands in 10th place (who got the majority of there medals in speed skating), all the other countries have mountainous areas covered in snow for part or all of the year. Countries with no mountains and no snow traditionally do badly in the Winter Olympics because their populations have no where to train.



The image shows a 'Medals Table' for the 2010 Winter Olympics, sourced from [morethanthegames.com](http://morethanthegames.com). The table lists the top 10 countries by total medal count. Each row includes the country's name, its national flag, and the number of gold, silver, and bronze medals won. The background of the table features a scenic view of a city and mountains.

Medals Table		morethanthegames.com			
					
1.	Canada		14	7	5
2.	Germany		10	13	7
3.	USA		9	15	13
4.	Norway		9	8	6
5.	South Korea		6	6	2
6.	Switzerland		6	0	3
7.	China		5	2	4
7.	Sweden		5	2	4
9.	Austria		4	6	6
10.	Netherlands		4	1	3

Alternatively if you look at long distance runners, a lot come from East Africa (especially Ethiopia and Kenya). This is because they both have highland areas where athletes can train and increase their red blood cell count, making running at sea level much easier. Australia traditionally does well in many sports (rugby, cricket, rowing, swimming, cycling) and one of the contributing factors is its weather. It has a good climate most of the year so people can go out and practice.

One recent exception was Alinghi from Switzerland who won the America's Cup (sailing's greatest prize) twice (2003 and 2007) despite being a landlocked country.

[Alinghi secures America's Cup Win - BBC article](#)

## **Biological**

**Genetic:** Some people are genetically suited to certain sports. For example people with good eye sight might make good shooters, people who are tall might make good basketball players and people who are well built might make good rugby players. However, some scientists have argued that certain races are good at certain sports. For example the majority of sprinters are Afro-Caribbean and the majority of swimmers white. In the case of Afro-Caribbean sprinters, scientist believe that they have detected a higher than normal amount of fast twitch muscles.

[So Black Runners are Naturally Faster - Wrong - Times Article](#)

**Training:** Some athletes can improve their performance by the way they train or the place they train. For decades many endurance sportsmen have trained at altitude. The thinking here is to increase the amount of red blood cells which should increase the circulation of oxygen when competing at sea level.

[Altitude training - Challenging Conventional Wisdom - BBC article](#)

**Jamaican Sprinters:** Jamaica has a population of only 3 million and a GDP per capita \$8400. However, it has an unlargely high number of successful sprinters, two of the most famous are Usain Bolt and Merlene Ottey. Usain Bolt is the world record holder for 100 and 200 metres and The current Olympic Champion at both events. The 4X100 metre relay team with him in it also won gold. Merlene Ottey has won 33 major sprint medals and was still competing internationally at the age of 50.

Many questions have been asked why this is the case. The answer is probably a combination of reasons, One genetic reason might be a higher number of fast twitch muscles, but it can't be the only reason. Other reasons include the setting up of a

**Kenyan Middle Distance Runners:** Kenya has a population of about 41 million and a GDP per capita of only \$1,600. However, for decades it has dominated middle distance running. In the 3,000 metre steeplechase, Kenyans hold 18 of the 25 fastest ever times. In Beijing Kenyan men won 4 out of 6 medals in the 3,000 metre steeplechase and 5000 metres. Again scientists have asked the question why.

Again biology has some part to play. The majority of Kenyan runners come from Eldoret, which is about 2,500 metres above sea level. This is the optimum altitude for training. Again they now have a strong

competitive college athletics system 30 years ago, along with the introduction of better tradition and role models. Also like Jamaica, running is a possible coaches and scouts. Scouts looked for raw talent that could be coached. Jamaica now also has the tradition and role models and it is an escape from crime and poverty - Jamaica has the third highest per capita murder rate in the world.



external image 200-usain-bolt.jpg



external image KenyaSteeplechase.jpg

## Political

**School Sport:** To be successful at sport you normally have to start at a young age. In fact Malcolm Gladwell (author of outliers) calculated that you needed on average 10,000 hours of practice to be successful. Considering most major sportsmen reach their peak in their early 20's, this is a lot of practice. To achieve this then you really have to start at school and the best way to do this is through organised sport at school. Sport is compulsory in UK schools and therefore gets children involved. However, in many countries there is simply not the money or infrastructure to promote sport.

[Cameron orders rethink on school sports cuts - BBC article](#)

**Government Programs:** Some countries promote certain sports. For example gymnastics was heavily funded in the former eastern bloc. Because of this countries like Russia, the Ukraine, Romania, Belarus and China have always done well in gymnastics. Sometimes these programs are done on a massive scale, when China and Australia won the Olympics they started testing thousands of youngsters to try and find and train potential gold medal winners



**National Pride:** National pride can also play a very important role in participation. Some countries are extremely proud of their sporting traditions and will spend time and money on promoting sports. This national pride can also inspire athletes to sporting success and often underdogs will out perform their rankings. For example in the 2002 Football World Cup in South Korea and Japan, South Korea came third despite a highest ever ranking of 15 (and that was after they came third).