

REFLECTIONS ON SUCCESS:



U.S. Olympians Describe the Success Factors and Obstacles that Most Influenced their Olympic Development

**Phase II: Results of the Talent Identification and
Development Questionnaire to U.S. Olympians**

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Summary

Introduction: The successful development of a U.S. Olympian is the result of a long-term process, which requires high levels of training and support. To understand this complex development, the Athlete Development Division administered the *Talent Identification and Development Questionnaire* (TID) to over 2100 U.S. Olympians who competed in Winter and Summer Olympic Games from 1984 to 1998. The initial report from the TID Questionnaire, titled “The Path to Excellence,” described the general patterns and trends that characterized the career-long training and development of U.S. Olympians. Two important questions from the TID questionnaire asked U. S. Olympians to list the five factors which they believed contributed most to their success and to list the five most significant obstacles they had to overcome in order to achieve success in their sport.

Purpose: The purpose of this summary is review the top 10 success factors and the top 10 obstacles as reported by U.S. Olympians who responded to the questionnaire.

Results: The top 10 success factors and top 10 obstacles made up 67 and 64 percent of all responses, respectively.

Top 10 Success Factors	Top 10 Obstacles
1. Dedication and Persistence	1. Lack of Financial Support
2. Support of Family and Friends	2. Conflict with Roles in Life
3. Excellent Coaches	3. Lack of Coaching Expertise or Support
4. Love of sport	4. Lack of Support from USOC and NGB
5. Excellent Training Programs and Facilities	5. Mental Obstacles
6. Natural Talent	6. Lack of Training/Competition Opportunities
7. Competitiveness	7. Medical Problems
8. Focus	8. Lack of Social Support
9. Work Ethic	9. Physical Limitations
10. Financial Support	10. Failure

Conclusions: The most significant influences among success factors and obstacles were: dedication and persistence of the athlete, effective coaching, support from family and friends, a love of sport, excellent training and competition opportunities and strong financial support.

- Olympians placed great importance on coaches who were superb teachers. They valued coaches who demonstrated commitment to their profession and the athletes they coached.
- Family and friends played a large supportive role in the success of U.S. Olympians. In some cases, family and friends provided technical sport expertise, financial support, and acted as coaches.
- Olympians reported love of sport as a key factor of success.
- Olympians reported the importance of having opportunity and access to high quality programs and training facilities at all developmental phases and conversely reported a lack of access to programs and facilities as an obstacle to overcome.
- Finally, U.S. Olympians reported that a lack of financial support was the number one obstacle to overcome and reported having financial support as one of the Top 10 factors of success. They experienced the greatest financial hardships at the national and international competitive phases. This suggests that as the performance level of Olympians improved the demand for more financial support also grew.

Introduction

The successful development of an Olympian is the culmination of many years of training and the support of numerous individuals and organizations. It is a long-term process, both complex and intensive, which requires high levels of training, education, and support. By studying this developmental process, we can gain a greater understanding of the path taken by U.S. Olympians and Olympic medalists.

To understand this complex development, the Athlete Development Division (recently renamed the Community Outreach Division) administered a questionnaire to over 2100 U.S. Olympians who competed in Winter and Summer Olympic Games from 1984 to 1998. Over 800 U.S. Olympians completed the 2000 Talent Identification and Development (TID) Questionnaire. The initial report from the TID Questionnaire, titled “The Path to Excellence,” described the quantitative data that characterized the career-long training and development of U.S. Olympians.* Olympians described their motives for participation, the training and development, and the people and organizations that helped them reach the top in their sport. It was the first in-depth study conducted by the U.S. Olympic Committee (USOC) to provide a comprehensive view of the development of U.S. Olympians.

Two important questions from the TID questionnaire were of a qualitative nature (open-ended questions). Respondents were each asked to list the five factors which they believed contributed most to their success, and to list the five most significant obstacles they had to overcome in order to achieve success.

The following report analyzes those responses and interprets the top 10 success factors and top 10 obstacles of U.S. Olympians.

For the sake of simplicity the word “Olympian(s)” or “U.S. Olympian(s)” in this report will mean Olympian respondents to the 2000 TID questionnaire specifically, and may not necessarily reflect the thoughts or opinions of all U.S. Olympians.

***A complete report (Adobe® pdf® file) is available online at www.usolympicteam.com/excellence/**

Process for Identifying Categories

The 760 U.S. Olympians who responded to the two qualitative questions of the TID questionnaire reported over 6000 different success factors and obstacles. In order to make sense of this large data set, several investigators collaborated using the following procedures:

1. Three investigators each received the same large sample of success factors and obstacles, approximately 20 percent of the total responses. Each investigator independently grouped and categorized like responses.
2. Upon completion of independent categorization, investigators met via telephone conference call to come to consensus regarding the identification of the factors, the precise definition of each factor, and the items that fit within each factor.
3. Two investigators created definitions for each factor.
4. Upon establishment of factors and definitions, one investigator then applied the top 10 factors to the remaining 80 percent of the responses.
5. Over 30 factors were created for each question. Many factors were reported by only a small percentage of Olympians. In order to provide a meaningful interpretation of the data, investigators focused on the top 10 most reported success factors and obstacles.

Results of the Top 10 Success Factors

Success at the Olympic Games is the result of many factors. These factors come from the individual athlete and the people and organizations that support an Olympian's development. U.S. Olympians reported a total of 3178 success factors and the top 10 factors included 67.3 percent of all responses. (Table 1). Of the 760 Olympians who reported success factors 56.6 percent were males and 43.4 percent were females. For a detailed listing of the top 10 success factors by gender, sport season and performance see Appendix A.

Table 1. Top 10 success factors of U. S. Olympians from 1984-98.

Rank	Success Factors	Frequency	Relative Percentage*
1	Dedication and Persistence	441	58.1%
2	Support of Family and Friends	395	52.0%
3	Excellent Coaches	375	49.4%
4	Love of sport	206	27.1%
5	Excellent Training Programs and Facilities	169	22.3%
6	Natural Talent	166	21.9%
7	Competitiveness	114	15.0%
8	Focus	99	13.0%
9	Work Ethic	88	11.6%
10	Financial Support	87	11.5%
	TOP 10 Total	2140	
	Other Non-Categorized Responses	1038	
	Total Number of Responses	3178	

* Relative Percentage is the frequency this factor was reported divided by the total number of athletes responding.

Dedication and Persistence

Definition: *Dedication and persistence were the qualities that enabled athletes to remain fixed to a long-term goal and committed to the work that was necessary in order to become an Olympian.*

Sample of Responses from “Dedication and Persistence”

- *Determination to succeed*
- *Desire to excel, really dreamed of Olympic participation*
- *Internal tenacity, perseverance, and desire to achieve*
- *Dedication to becoming the best I could be*
- *Personal commitment and desire to be an Olympian*
- *Determination - continuing on despite failure and disappointment*
- *Intense need/drive to be successful*

Support of Family and Friends

Definition: *Family and friends made up the people closest to Olympians who were the heart of a support network.*

Sample of Responses from “Family and Friends”

- *My father: introduced me to rowing and was my first coach*
- *Wife – psychological coach – motivator*
- *My family's support emotionally and physically*
- *My parents contributed the most towards my success*
- *Parents financial support of training and competition*
- *My family is full of international competitors. I knew it was possible together.*
- *Balance of life from family*
- *My parents are always supportive, they are there, but do not push me*
- *A core group of supportive friends and family who believed in us*

Excellent Coaches

Definition: *Coaches were the people who provided sport expertise, skills, and motivation to Olympians.*

Sample of Responses from, “Coaches”

- *Good coaches in development phase*
- *Top coaching at all levels*
- *Exposed to very good, dedicated coach at the right age (15)*
- *Outstanding coach (knowledgeable, motivating, dedicated, committed)*
- *Superior coaching (knowledgeable, personality)*
- *Great encouragement from coaches*
- *I had a coach that believed in me for the last 20 years.*
- *Encouragement and involvement with national team coaches on a regular basis*

Love of Sport

Definition: *Love of sport was about the passion or love that many Olympians had for their sport.*

Sample of Responses from, “Love of Sport”

- *Passion for the sport/ activity*
- *Love of the game*
- *I had a tremendous love for the game*
- *Love of sports and competition*
- *Enjoyment of sports challenge*
- *Love of competition and winning*
- *It was fun – challenging and stimulating*

Excellent Training Programs and Facilities

Definition: *Training programs and facilities represented the organized training programs and training facilities that contributed significantly to the development of Olympians.*

Sample of Responses from, “Training Programs and Facilities”

- *Environment/access to facilities when younger*
- *Accessibility to multiple sport programs as a kid*
- *Tremendous support from my club there in all aspects*
- *Ease of access to sport at college and national team all in one city*
- *Summer Junior Olympic program training camps at the OTC*
- *Good school programs: both high school and college*
- *Great workout facilities (University)*
- *Junior and National Team programs*
- *Resident athlete program (including sport medicine and sport science)*
- *Training at the USOC – great environment to excel*

Natural Talent

Definition: *This category refers to the importance of innate talent (genetic predisposition) or natural athletic prowess found in athletes.*

Sample of Responses from, “Natural Talent”

- *Natural talent*
- *God given talent*
- *Natural athlete*
- *Natural endurance*
- *Physiological capacity*

Competitiveness

Definition: *Competitiveness referred to the drive to compare ones abilities to self and others.*

Sample of Responses from, “Competitiveness”

- *Love of competition*
- *Competitive spirit*
- *Hungry for competition*
- *Need to compete*
- *Competitiveness: always wanting to win*
- *Competitive nature*
- *Enjoy competition*
- *Competitive personality*

Focus

Definition: *Focus referred to the ability to maintain attention on the goal of becoming an Olympian.*

Sample of Responses from, “Focus”

- *Unwavering focus*
- *Concentrate on what was important*
- *Stay focused on one sport*
- *Focus and tunnel vision*
- *Ability to focus*
- *Focus on goal*

Work Ethic

Definition: *Olympians cited the ability to work hard in order to achieve their goal of becoming an Olympian.*

Sample of Responses from, “Work Ethic”

- *Work ethic*
- *Hard worker*
- *Passion for hard work*
- *Good work habits*
- *Willingness to work hard*
- *Love of labor*

Financial Support

Definition: *Financial support referred to the funding from a variety of sources, which supported the Olympian in all areas of development.*

Sample of Responses from, “Financial Support”

- *Financial rewards*
- *College scholarship*
- *Support from sponsors*
- *Financial assistance by interested parties*
- *Fundraisers - community support to help financially*
- *Olympic Job Opportunity Program*
- *Financial independence*

Results of the Top 10 Obstacles

Just as there are factors leading to success for all Olympians so are there obstacles to overcome. In order to achieve success, these Olympians had to overcome many obstacles. Several of the top 10 obstacles represent the converse side of success factors. For example, financial support was reported as a top 10 success factor and lack of financial support was the number one reported obstacle. Respondents reported 2653 obstacles and the top 10 obstacles made up 64 percent of all responses. (See Table 2). Of the 756 Olympians who reported obstacles, 56.6 percent were male and 43.4 percent were female. For a detailed listing of the top 10 obstacles by gender, sport season, and performance see Appendix B.

Table 2. Top 10 obstacles of U.S. Olympians from 1984-98.

Rank	Obstacles	Frequency	Relative Percentage*
1	Lack of Financial Support	401	53.0%
2	Conflict with Roles in Life	253	33.5%
3	Lack of Coaching Expertise or Support	222	29.4%
4	Lack of Support from USOC and NGB	166	22.0%
5	Mental Obstacles	164	21.7%
6	Lack of Training/Competition Opportunities	150	19.8%
7	Medical Problems	150	19.8%
8	Lack of Social Support	85	11.2%
9	Physical Limitations	59	7.8%
10	Failure	49	6.5%
	TOP 10 Total	1699	
	Other Non-Categorized Responses	954	
	Total Number of Responses	2653	

* Relative Percentage is the frequency this factor was reported divided by the total number of athletes responding.

Lack of Financial Support

Definition: *A lack of financial support referred to the absence of or a limited amount of financial resources, contributing to the financial hardship of the Olympian.*

Sample of Responses from, “Lack of Financial Support”

- *Financial insecurity*
- *Financial stress- housing, food, clothing, travel, club fees, tuition*
- *No money*
- *Financial obstacles early on. Parents sacrificed to make sure I could compete.*
- *No financial support to compete in national or international competitions*
- *Financial - spent too much time working to support my efforts to play*
- *Lack of financial support from companies, NGB, others outside of family.*

Conflict with Roles in Life

Definition: *This category was about the conflicts between roles in life such as work, career, school, family, and training full-time.*

Sample of Responses from, “Conflict with Roles in Life”

- *Time commitment while maintaining a full time job to financially support myself*
- *Giving up time with family and friends*
- *"Time" to train and compete while working to pay the bills*
- *Put career on hold*
- *Giving up post-secondary educational opportunities*
- *Time commitments to other activities – school, work*
- *Finding time to train while working full-time*

Lack of Coaching Expertise or Support

Definition: *Principally, the main factors of this category were a lack of or poor coaching and clashes with coaching style or personality.*

Sample of Responses from, “Lack of Coaching Expertise or Support”

- *Poor coaching system*
- *Limited coaching/knowledge of sport*
- *Struggles with coaches at various times*
- *Finding proper coaching during certain stages of my career*
- *Not having a choice of coaches*
- *Poor coaching from NGB*
- *Difficult nature of national team coach*
- *Working with coaches who care about their ego*

Lack of Support from USOC or NGB

Definition: *This category specifically referred to the lack of support by the U. S. Olympic Committee or a specific National Governing Body.*

Sample of Responses from, “Lack of Support from USOC or NGB”

- *The ability of our NGB to set long term goals and put measures in place to achieve them*
- *Dysfunctional NGB*
- *The NGB - rarely did I get any encouragement*
- *USOC’s bureaucracy - funding*
- *My NGB's failure to see the big picture, long term development of athletes in an elite sport*
- *At the time (1975-89) no money for international competition from NGB or USOC*
- *The NGB - still a major problem*
- *Disorganization and ineptitude of the NGB*
- *Lack of USOC and NGB mental preparation programs*

Mental Obstacles

Definition: *This category referred to the mental obstacles Olympians encountered such as a lack of self-confidence, motivation, focus and mental skills.*

Sample of Responses from, “Mental Obstacles”

- *Perfectionist personality*
- *Belief in myself*
- *Lack of psychological/mental skills – access to sport psychology*
- *Mental focus*
- *Psychological barriers (disbelief)*
- *Lack of motivation at times*
- *My head is my greatest asset, but also my worst enemy*
- *Pressure to perform – anxiety driven matches*
- *Learning how to deal with competition pressure*

Lack of Training and Competition Opportunities

Definition: *This category referred to the lack of sport programs, facilities, and quality competitions.*

Sample of Responses from, “Lack of Training and Competition Opportunities”

- *Lack of developmental programs for my support*
- *Lack of programs for college graduates*
- *Lack of competition between world championships or Olympics after college*
- *Quality of competition*
- *Not getting as much international experience as my major international competitors*
- *Lack of visible programs in the U.S. - forcing me to move to Canada, Indonesia and other countries for training*
- *Training facilities*
- *Access to proper training (had to go overseas)*

Medical Problems

Definition: *This category included specific medical issues such as injury, surgery, and illness.*

Sample of Responses from, “Medical Problems”

- *Injuries*
- *Staying injury-free*
- *Overcoming 3 knee surgeries*
- *Two ACL reconstructions*
- *Asthma*
- *Illness/injury*
- *Kidney failure*
- *Hip disease as a child, sickness*

Lack of Social Support

Definition: *Olympians encountered several different groups such as family, friends, and peers who provided no support or discouraged their involvement in Olympic sport.*

Sample of Responses from, “Lack of Social Support”

- *Family discouragement*
- *Disbelievers*
- *Pressures from friends to do something else besides sports*
- *People telling me I couldn't achieve*
- *Family - lack of support*
- *Negative people*
- *Peer pressure to participate in other things*

Physical Limitations

Definition: *Physical limitations referred specifically to the body size (weight, height) and/or lack of physical qualities (strength, endurance) of the Olympian.*

Sample of Responses from, “Physical Limitations”

- *Physical stature (5'8 in a sport for tall people)*
- *Being overweight*
- *My small size*
- *Strength (lack of)*
- *Physical strength and endurance*
- *Physical limitations, i.e. height*
- *Body size and weight*

Failure

Definition: *This category refers to failure experienced in competition or over a competitive season and the resulting “lessons learned” from such failure.*

Sample of Responses from, “Failure”

- *Fear of failure*
- *Realizing and accepting failure as part of the journey*
- *Learning from failures*
- *Overcoming a disappointing season*
- *Repeated failures*
- *Getting over a big loss in competition*
- *Learn from your mistakes*
- *Collegiate failure after hugely successful high school career*

Crossover Categories

U.S. Olympians reported several categories that were identified by investigators as both a success factor and an obstacle. These categories included:

- Financial Support
- Coaching
- Training and Competition Opportunities.

These “crossover categories” are compelling for several reasons. First, statistical differences revealed the extent of a category to facilitate or obstruct Olympic development. Secondly, some surprising findings emerged regarding specific athlete groups, such as differences between male and female athletes, winter and summer sports and medalists and non-medallists Olympians. The following section will explore the relationship of these categories that are both a success factor and an obstacle.

Financial Support as a Success Factor and an Obstacle

U.S. Olympians reported a lack of financial support as the number one obstacle to success and reported financial support as the tenth most important success factor. A greater percentage of U.S. Olympians reported a lack of financial support as an obstacle (53%) than did those who reported financial support as a success factor (11.4%). This indicates the extent of the problem of the lack of financial resources. One of the more surprising and distinct trends that emerged from a “lack of financial support” was that this obstacle appeared to be tied to performance level. For Summer Olympians, the better the performance level, the more they perceived a lack of financial support as an obstacle. However, the reverse was true for Winter Olympians; the better the performance, the less likely financial support was seen as an obstacle.

There may be a complex set of factors intertwined here. Other categories of obstacles listed by Olympians such as “conflict with roles in life” and a “lack of support from the USOC or NGB” may be involved. Olympians cited many conflicts while attempting to train full-time as an Olympic athlete. Sacrifices with family and friends, giving up career and school opportunities and making compromises with their training were predictably prominent. Strengthening these results are data from the initial report, which revealed the factors of why peers of Olympians dropped out of sport. (See Figure 1). Olympians reported “conflict with other life pursuits,” “financial pressures,” “failure to improve” and “conflict with work” as the top four reasons why their peers discontinued sport participation.

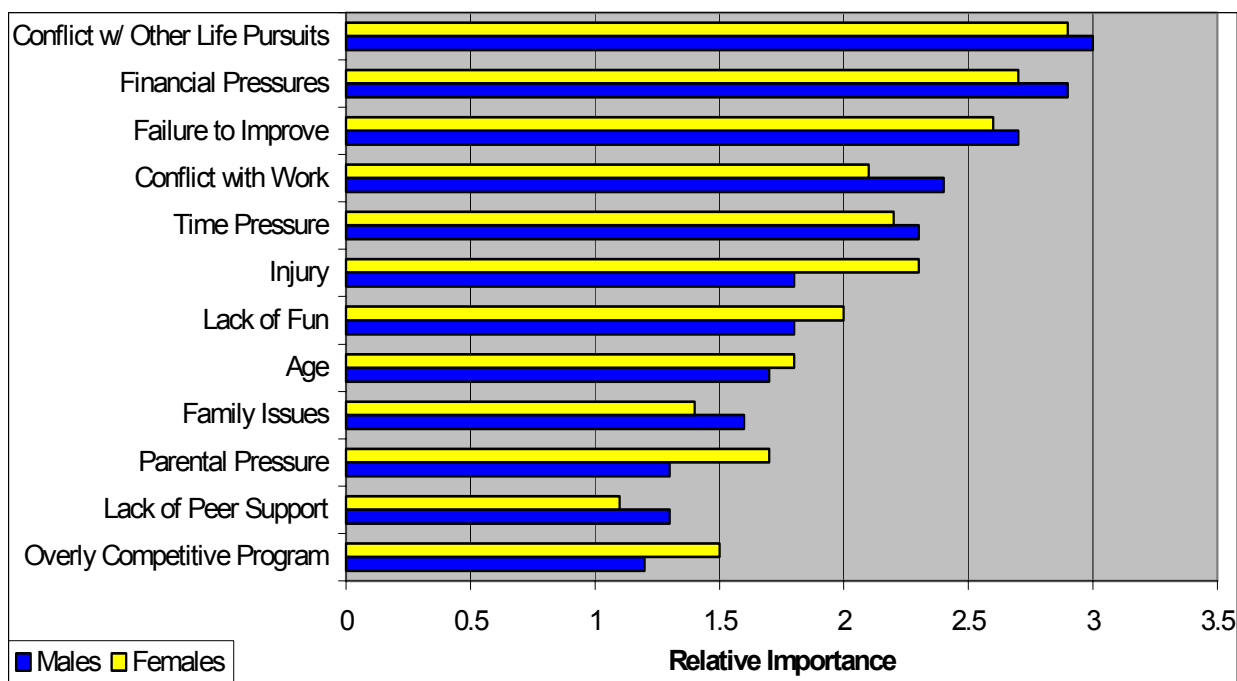


Figure 1. Factors thought to be the cause of dropout in the peers of Olympians.

The results from the questionnaire underscore the difficulty Olympic hopefuls and possibly, U.S. Olympians had in financing their athletic career while balancing full-time training and competition with the responsibilities of family and career. Further, many respondents (n =

166; 22%) reported a lack of support from the USOC or their NGB as an obstacle to success. In some cases, athletes listed specific cases of a lack of support such as insufficient funding for training, competitions and athlete financial support.

An apparent solution to this problem would be to increase financial resources to NGBs and stipends to athletes. In a time in which there are limited resources for Olympic athletes and NGBs, this may be an unrealistic solution. As an alternative solution to a lack of financial support, the USOC or NGB could realign existing resources, thereby reducing the size of the obstacle. This in turn may also reduce the “conflict with other life pursuits.” Emphasis on adequately funded training and competition opportunities may reduce the potential for role and life conflicts as reported by Olympians. Providing better support, or more emphasis, in those areas that athletes listed as success factors may ultimately be the best solution to overcome the lack of financial support reported by many U.S. Olympians.

Coaching as a Success Factor and an Obstacle

Predictably, a larger percentage of U.S. Olympians reported “excellent coaches” (n= 375; 49.4%) as a factor for success over a “lack of coaching expertise or support” (n= 222; 29.4%) as an obstacle. Nevertheless, a high number of responses overall indicated a “lack of coaching expertise or support” as an obstacle.

Some interesting findings also occur when comparing the responses of males and females in terms of coaching. Considering the overall responses to the whole survey, there were approximately 30 percent more men responding than women. In and of itself, this is not surprising since more men than women have competed in the Olympics. What is interesting, however, is the percentage of female responses over male responses citing “lack of coaching

expertise or support” as an obstacle to success. Twenty-six percent more female Olympians reported a “lack of coaching expertise or support” as an obstacle than male Olympians did. Within Summer Olympians, more female athletes (n= 86; 53.1%) reported coaching as an obstacle than male athletes (n= 76; 46.9%) did. Further, 14 more female athletes, who just missed medals (4th – 8th place), reported coaching as an obstacle over men who finished similarly. An equal number of male and female summer medallists (n = 25; 15.4%) reported dissatisfaction with their coaching. In greater proportions, women reported a “lack of coaching expertise or support” as an obstacle to success at all levels of Olympic performance.

As a whole, winter athletes also reported that a “lack of coaching expertise or support” was an obstacle to success and this trend held stronger for females than males. There is insufficient data to make any conclusions about the results of winter athletes when broken down by their performance at the Olympics.

Several conclusions can be drawn from the responses of Olympians regarding coaching as an obstacle or as a success factor. For one, these results suggest that female athletes may require different skills from their coaches than male athletes. For instance, in the findings from the “The Path to Excellence,” all athletes rated “teaching ability”, “ability to motivate and encourage” and “training knowledge” as the top three qualities they sought in a coach; however, women rated these categories slightly higher than men. (See Appendix C). U.S. Olympians reported that at the time of achieving their highest competitive success they were involved with coaches who were “assigned to the national team.” The second most popular response was that Olympians were involved with their coach based on the “coach’s previous record.” (See Appendix D). Perhaps, national team coaches and those selected by female athletes did not have the teaching ability required by female athletes.

Based on the results from the coaching questions we recommend that national team coaches may need to focus on their teaching skills, over other skills, more when they are coaching female athletes, particularly those who may be on the edge of winning medals. Additionally, when females do select their own coaches, they need to select based on teaching ability over the coach’s previous record.

Training and Competition Opportunities as a Success Factor and an Obstacle

Many Olympic sports require highly specialized facilities, structured training programs and appropriate competitive events in order for Olympic athletes to continue their upward progression of training and performance. A nearly equal number of Olympians listed “training programs and facilities” as a success factor as did those who reported a “lack of training and competition opportunities” as an obstacle in their development, (n=169; 22.2%) versus (n=150; 19.8 %), respectively.

One of the interesting trends in this crossover category was that more top eight athletes (n = 109, 14.3%) reported “training programs and facilities” as a success factor than athletes placing ninth or lower (n = 60, 8%). A second trend indicated that performance level was not a factor in the group of Olympians reporting “lack of training and competition opportunities” as an obstacle. (See Table 3).

Table 3. Percentage of Olympians, by performance level, who reported training and competition opportunities as a success factor or an obstacle.

	Medalist	Top 8	9th- 25th	26th +
Success Factor	37.3%	27.2%	17.8%	17.8%
Obstacle	23.3%	28.0%	23.3%	25.3%

This prompts the questions: What were the programmatic elements of the “training programs and facilities” that made those programs a success factor? Did top performers actually have more opportunities or do lower performers need more than top performers?

In addition, Olympians reported a lack of quality competitive events at the national and international level. This issue is discussed in further detail in the “Implications and Recommendations” section.

Implications and Recommendations

U.S. Olympians listed many success factors, which they believe contributed most to their success. They also listed many obstacles they had to overcome in order to achieve success.

Several of the factors and obstacles demonstrated significant trends deserving of further discussion and these topics include:

- Long-term Development
- Individual Characteristics of U.S. Olympians
- Medical Problems Encountered by Olympians
- The Importance of Effective Coaching
- Educate Support Group: Family and Friends
- Promote Love of Sport in Sport Programs
- Provide Better Training and Competition Opportunities
- Improve Financial Support

In this section, we discuss the implications of the findings and make several recommendations. In addition, we discuss the long-term development of U.S. Olympians in the context of success factors and obstacles.

Long-term Development and Viewing Success Factors and Obstacles

As reported in “The Path to Excellence,” the average length of development of a U.S. Olympian, from the time they first participated in their sport until they made their first Olympic team, was 12 years. Results from this study and research from Bloom (1985) described this development as complex, incorporating many factors over three phases of development. Bloom interviewed 120 people who had achieved excellence in such diverse fields as art, athletics (Olympic swimmers and tennis champions), music, and academics. The results of the study indicated that successful individuals had very similar learning and development phases. In his

book, "Developing Talent in Young People," Bloom divided development phases into the early years, middle years, and late years.

Play, exploration, and fun characterize the early phase when children learn fundamental skills and develop a love for their chosen field. The coaches and teachers of this first phase instilled a love of the activity in children. Bloom's subjects came from child-oriented families where children learned the value of hard work. Parents would often say to their children, "If it is worth doing, then it is worth doing well." Parents encouraged children to be self-disciplined and responsible.

During the middle phase, systematic learning takes place and a master teacher or coach promotes long-term development and instills technical skills. Four to six years was the typical period in which musicians and athletes were undergoing systematic training to prepare themselves for international performance. Athletes made a transition from "playing tennis to tennis player."

During the late phase, an individual continues to study with a master teacher or coach and train many hours a day. Often, athletes and musicians lived and trained with others who shared the same goals and commitment to sport and music. Each individual was able to translate training and technical skills into personalized performance.

Based on this model, it is important to view the success factors and obstacles of U.S. Olympians in a comprehensive picture that includes all three phases of development. Graduation from one phase prepares the athlete for the challenges and demands of the next phase. For instance, in the early phase coaches and parents are important for instilling in athletes a love of sport and a work ethic, which are critical for later success. As the athlete moves up the development ladder, additional factors become significant such as strong financial support and

excellent training and competition opportunities. Effective coaches and support from family and friends continue to be present throughout an Olympian's development. Any strategy to encourage the development of success factors or to remove obstacles should keep this whole picture of development in focus. By doing so, the most effective long-term development of U.S. Olympians can take place.

Individual Athlete Characteristics

Of the top ten success factors, U.S. Olympians listed five, which reflected individual characteristics:

- Dedication and persistence
- Natural talent
- Competitiveness
- Focus
- Work ethic

These results seem to confirm what coaches already know, that an athlete's individual characteristics are likely at the heart of their Olympic development. Four of the five factors describe facets of motivation and the ability to work hard. A traditional view of expert performance has described the role of innate (genetic) characteristics of the performer in the development of talent (Murray, 1989b). A more contemporary view of talent development closely relates the role of deliberate practice in becoming an expert performer (Ericsson et al, 1993). Without a doubt, effective coaches and quality training are important to the development of talent. However, these findings suggest that motivation and hard work may be just as important from the perspective of the athletes themselves.

External factors, on the other hand, included the individuals and organizations, which helped Olympians in their development. Coaches, training programs and supportive groups fell

into the external factors. Olympian respondents suggest that it takes both internal and external factors in order to become a U.S. Olympian.

Medical Problems

Nearly 20 percent of Olympians reported medical problems as an obstacle. Among the medical problems listed were injury, illness and surgery. Of interest, female Olympians reported more medical problems than did male Olympians (female n=81; male n=69), making medical problems the larger reported obstacle for females. This amounted to 24.6 percent of females and 16.1 percent of males, respectively.

Findings from the questionnaire further illustrate the medical issue. In 12 factors thought to be the cause of dropout in peers of Olympians, injury was the sixth most reported factor. (See Appendix E). Again, injury problems were ranked more important by female Olympians than by male Olympians. Medical support is one of the layers of support required for Olympians to achieve success. These data demonstrate that more female Olympians required medical support than did male Olympians. It is unclear whether female Olympians suffered more career affecting injuries and illnesses than males. It may be that the physical and mental impact of injuries and illnesses may be felt differently between male Olympians and female Olympians. We recommend that sports medicine providers understand that there may be different strategies, physically and mentally, needed to treat male and female athletes.

The Importance of Effective Coaching

Olympian respondents reported excellent coaching as a top success factor and, conversely, listed a lack of coaching expertise as a major obstacle. It is clear from the initial

report, “The Path to Excellence,” that U.S. Olympians value coaches who have the ability to teach, motivate, and demonstrate training knowledge, skill development, and strategic knowledge. (See Appendix C). Further, Olympians reported that coaches played the most important role in their development during three phases: skill acquisition phase, national competitive phase and the international competitive phase.

Additional research from the 1996 Atlanta and 1998 Nagano Olympic Games provides more insight into effective coaching (Gould, 1999). Researchers conducted interviews to understand the positive and negative factors influencing U.S. Olympic athletes and coaches at Olympic Games. In the area of effective coaching, researchers listed several common points including:

- Athletes who trusted their coaches
- Coaches with realistic expectations who believed in the athletes
- Coaches who were totally committed
- Coaches who kept things simple and focused
- Coaches who had clear performance plans
- Coaches who avoided over-coaching

Results from Gould et al. and this report provide a better picture of what constitutes effective coaching. In summary, Olympians place great importance on coaches who are superb teachers. They also value coaches who demonstrate commitment to their profession and the athletes they coach. They value someone whom they trust. At some point, the technical and strategic knowledge of an Olympic coach is important to high performance. It appears from several sources that outstanding teaching and a trusted relationship form the foundation of effective coaching. These qualities should be considered by individuals and organizations seeking coaches.

Educate Family and Friends

Not surprisingly, these results strongly suggest that support provided by parents, siblings, and friends is crucial for an Olympian's development and success. Olympians reported that in some cases, family and friends provided technical sport expertise, financial support, and acted as coaches. Additional evidence of this support comes from the findings of the questionnaire, "The Path to Excellence." The two most common methods by which Olympians were introduced to their sport were "unstructured activity with friends" and "family activity." In female Olympians, "family activity" and "unstructured activity with friends" were of greater importance for Winter Olympians than Summer Olympians, suggesting differences between how female Summer and female Winter Olympians were introduced to their sport. (See Appendix F).

By the time Olympians made a commitment to pursue excellence in their sport, "family activity" was the sixth most important type of program in which they were involved. Among male Winter Olympians, "family activity" was the second most important type of program behind three programs that tied for first: "private or commercial club," "NGB-sponsored program" and "unstructured activity with friends." (See Appendix G). These findings demonstrate the strong influence that families and friends had in a Winter Olympian's development and that, perhaps the strongest support group of Winter Olympians.

Based on these results, we recommend that the USOC and NGBs take a stronger role to educate the families and friends of emerging junior and senior elite athletes. Specifically, the USOC and NGBs could provide educational materials to family and friends of potential Olympians about the path an American athlete must take in order to be successful. These materials could include:

- Knowledge of the characteristics that make up highly successful coaching
- Expected time course of development

- Knowledge about training and nutrition
- The number of national and international competitions to be experienced
- An expectation of the financial cost

The more knowledge a support group has the better it can benefit a potential Olympian in his or her development.

Promote Love of Sport in Sport Programs

Olympians reported love of sport as a key factor of success. In addition, results from the questionnaire find that love of sport directed Olympians to their sport. (See Appendix H). These findings support previous research from Benjamin Bloom (1985). He found that those who achieved excellence such as Olympic athletes, artists, musicians, and scientists first developed a love of the sport (or activity) during their early years. Bloom discovered that the people most responsible for developing an athlete's love of sport were the initial coaches or teachers. Bloom found that, "During these early years much of the teaching and learning was playful. The child enjoyed the learning because it was so rewarding." Love of sport was the strong foundation that was present throughout the careers of those who achieved excellence.

We recommend that USOC and NGB coaches education programs include curriculum on youth sports. Content of the program should include the latest scientific research on the following topics:

- Understanding children's motives for participation in sport
- Developing programs to meet children's motives for participation
- Promoting motor skill and multi-lateral development
- Developing ways to promote fun, social interaction and a healthy love of sport

Provide Better Training and Competition Opportunities

Olympians reported the importance of having opportunity and access to high quality programs and training facilities at all developmental phases. In addition, they listed the lack of training and competition opportunities as one of the Top 10 obstacles to overcome.

Recently analyzed data from the TID questionnaire reinforces the importance of competition opportunities. In response to one of the open-ended questions from the questionnaire, U.S. Olympians listed the competition which helped them the most in preparing for the Olympic experience. Close to ninety percent of all U. S. Olympians indicated that international competitive events were important in this preparation. Forty percent of U.S. Olympians reported that national events were important to their preparation for the Olympic Games. Table 4 lists the top ten competitions that helped U.S. athletes prepare for Olympic competition. Not surprisingly, the World Championships, international competitions, and World Cup events made up the top three most important competitions.

Table 4. Top 10 competitions that helped U.S. Olympians the most in preparing for the Olympic experience.

Rank	Olympic Preparation Competitions	Number of Olympians
1	World Championships	204
2	International Competitions	188
3	World Cup	107
4	U. S. National Championships	92
5	NCAA Champs/College Competitions	78
6	Pan Am Games	74
7	U. S. Olympic Trials	71
8	U. S. Olympic Festival	52
9	World University Games	29
10	All Competitions	28

A further breakdown of the results of the top eight U.S. finishers by winter or summer sport demonstrated some unique differences. (See Table 5). The World Championships,

international competitions, and the U.S. National Championships received top ranking among both Winter and Summer Olympians. World Cup events also stood out as an important competition for Winter Olympians in their preparation. Summer Olympians ranked the NCAA Championships and college competitions third and the Pan American Games fifth in helping them prepare for the Olympics.

Table 5. Competitions of top eight U.S. Olympians that helped them the most in preparing for the Olympic experience.

TOP 8 U.S. Winter Olympians	TOP 8 U.S. Summer Olympians
1. World Championships	1. International Competitions
2. World Cup	2. World Championships
3. International Competitions	3. NCAAs and College Competitions
4. U.S. National Championships	4. U.S. National Championships
5. U.S. Olympic Trials	5. Pan American Games

These events demonstrate the importance of top quality competitive opportunities, both at the national and international level for the successful development of U.S. Olympians. We recommend additional competitive opportunities at the national and international level for emerging elite athletes.

Concerning training programs, collaborative efforts should be made to develop and promote grassroots programs and match talented and motivated athletes with high performance sport programs as they progress.

Improve Financial Support

U.S. Olympians reported that a lack of financial support was the number one obstacle to overcome and reported financial support as one of the Top 10 factors of success. The findings from the questionnaire suggest Olympians experienced the greatest financial hardships at the

national and international competitive phases. This suggests that as the performance level of Olympians improved the demand for more financial support also grew.

Funding and other resources for U.S. Olympians have generally come from three main sources: NGBs, USOC, and sponsors. For the purposes of analysis, this support was divided into four categories: competitions, supplemental stipend, equipment, and coaching. At the national competitive phase, the three organizations supported between 20-31 percent of Olympians (The Path to Excellence). At the international competitive phase, more Olympians received support, from 38 to 58 percent. This brings up two points. First, at the highest levels of performance, there is still a large percentage of Olympians, between 40-80 percent who did not report receiving support (The Path to Excellence). As reported earlier, a “lack of financial support” as an obstacle appeared to be related to performance level. For Summer Olympians, the better the performance level, the more they perceived a lack of financial support as an obstacle. However, the reverse was true for Winter Olympians; the better the performance, the less likely financial support was seen as an obstacle. Financial support provided by the three organizations (NGBs, USOC and sponsors) varied greatly across the four categories. At the international competitive phase, the NGBs provided support for the greatest number of Olympians. Second, it appears from the data that Olympians considered financial support insufficient. The next section discusses a possible solution to financial obstacles faced by Olympians and hopefuls.

Success Factors, Obstacles and PODIUM

U.S. Winter Olympians who competed in the 2002 Games received extensive and unprecedented support and resources from the USOC over a four-year period. This support came in four main areas: athlete stipends, coaching, training and equipment. Interestingly, U.S. Olympians who competed in Olympic Games from 1984 to 1998 listed many of these same categories as factors of success as well as obstacles they had to overcome in order to achieve success. A partial list of these success factors and obstacles are listed below and illustrates their importance:

Top 5 Success Factors

1. Dedication and Persistence
2. Strong Support from Family and Friends
- 3. Excellent Coaching**
4. Love of Sport
- 5. Excellent Training Programs and Facilities**

Top 6 Obstacles

- 1. Lack of Financial Support**
2. Conflict with Roles in Life
- 3. Lack of Coaching Expertise**
4. Lack of USOC/NGB Support
5. Mental Obstacles
- 6. Lack of Training and Competition Opportunities**

Partnering Olympic Dreams Into Utah Medals (PODIUM), a recent initiative of the U.S. Olympic Committee granted millions of dollars to Winter NGBs and specific winter sport athletes judged to have the potential to win medals at the 2002 Olympic Winter Games. Athletes selected to PODIUM were those who had demonstrated an ability to achieve sustained competitive excellence. PODIUM athletes received additional training and competition

opportunities, excellent coaching, cutting-edge equipment, scientific and technical assistance and increased financial support in the four years preceding the 2002 Games.

Essentially, PODIUM provided support and expertise in exactly the same areas that U. S. Olympians had identified as the most important success factors and obstacles. Evidence in the form the 34 medals won at the 2002 Olympic Winter Games, suggests PODIUM, among other important factors, was highly successful. The highest medal count for the United States in the Olympic Winter Games before 2002 was 13. Table 6 illustrates the medal count and top eight finishes for the United States in the Olympic Winter Games from 1988 – 2002. From 1988 to 2002, there was a progressive increase in the number of top eight finishes of U.S. Olympians from 22 to 75.

Table 6. U.S. medal count and top eight finishes in Olympic Winter Games from 1988 – 2002.

Year	Number of Medals	Number of Top 8 Finishes
2002 Salt Lake	34	75
1998 Nagano	13	51
1994 Lillehammer	13	35
1992 Albertville	11	25
1988 Calgary	6	22

There were many factors responsible for the success of American athletes at the 2002 Olympic Winter Games beyond PODIUM. Chief among these was the “home-field” advantage. Many U.S. athletes were able to train for many months on the Olympic venues, thereby possibly gaining a training and performance advantage. In addition, there was an immeasurable effect of having the Olympic Winter Games on American soil – American athletes competed in front of American fans at a time when U.S sentiment was strongly in favor of U.S. Teams.

Nonetheless, we have two unique sets of data. One set is pre-PODIUM which includes respondents from the U.S. Olympian Questionnaire (1984-98); the second set includes athletes

who were part of PODIUM from 1998-2002. A recent analysis of PODIUM funding broke down the categories in which athletes received support. Table 7 illustrates the percentage of dollars spent in each category. The top three categories, which spent the greatest dollar amounts, were: Athlete Stipends, Coaching and Support Staff, and Other Training.

Table 7. PODIUM categories and percentage of dollars spent.

Category	% of Dollars Spent
Athlete Stipends	25%
Coaching and Support Staff	23%
Other Training	21%
Venue Access (Ice Time)	9%
Salt Lake Training	9%
Technical/Scientific Assistance	5%
Junior Development	3%
International Competition	3%
Equipment	1%
Games Expenses	1%
TOTAL	100%

Athlete financial support (stipends) was the PODIUM category with the largest dollar amount. Increased financial support to the 2002 Olympians may have helped alleviate the problems associated with a “lack of financial support” that previous U.S. Olympians listed as the number one obstacle to overcome.

“Coaching and Support Staff” was the category with the second largest dollar amount. Athletes and coaches in PODIUM identified special coaching or additional support staff that they believed enhanced their training and performance. “Other training,” refers to special kinds of training such as altitude training. In fact, “Other Training,” “Venue Access (Ice Time),” and “Salt Lake Training” accounted for 39 percent of all PODIUM funding, indicating the extent to which sports and teams used funds to improve training and training environments before the 2002 Olympic Winter Games.

One of the main points to take away from these results is that PODIUM delivered extensive funding and resources over a four-year period in some of the same areas that Olympians identified as factors of success and obstacles they had to overcome in order to achieve success. While PODIUM was not the only factor responsible for success at the 2002 Olympic Winter Games, it does suggest the importance of extensive support in the areas of financial assistance, coaching, and training. Future TID Surveys may verify the impact that PODIUM and similar initiatives have on athlete performance.

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Appendix A. Top 10 Success Factors of U.S. Olympians.

760	Dedication		Family and Friends		Coaches		Love of Sport		Training Programs	
Sample size	441	58.0%	395	52.0%	375	49.3%	206	27.1%	169	22.2%
Female	195	44.2%	194	49.1%	166	44.3%	96	46.6%	73	43.2%
Male	246	55.8%	201	50.9%	209	55.7%	110	53.4%	96	56.8%
Winter	121	27.4%	112	28.4%	88	23.5%	60	29.1%	45	26.6%
Female	50	41.3%	52	46.4%	37	42.0%	26	43.3%	25	55.6%
Male	71	58.7%	60	53.6%	51	58.0%	34	56.7%	20	44.4%
Summer	320	72.6%	283	71.6%	287	76.5%	146	70.9%	124	73.4%
Female	145	45.3%	142	50.2%	129	44.9%	70	47.9%	48	38.7%
Male	175	54.7%	141	49.8%	158	55.1%	76	52.1%	76	61.3%
Medalists	137	31.1%	136	34.4%	148	39.5%	70	34.0%	63	37.3%
Winter										
Female	13	10.7%	12	10.7%	8	9.1%	7	11.7%	6	13.3%
Male	12	9.9%	7	6.3%	4	4.5%	4	6.7%	1	2.2%
Summer										
Female	53	16.6%	61	21.6%	60	20.9%	33	22.6%	25	20.2%
Male	59	18.4%	56	19.8%	76	26.5%	26	17.8%	31	25.0%
4 - 8th Place	121	27.4%	114	28.9%	103	27.5%	56	27.2%	46	27.2%
Winter										
Female	9	7.4%	15	13.4%	11	12.5%	10	16.7%	10	22.2%
Male	24	19.8%	17	15.2%	17	19.3%	7	11.7%	5	11.1%
Summer										
Female	51	15.9%	51	18.0%	37	12.9%	21	14.4%	14	11.3%
Male	37	11.6%	31	11.0%	38	13.2%	18	12.3%	17	13.7%
9 - 25th Place	109	24.7%	85	21.5%	75	20.0%	50	24.3%	30	17.8%
Winter										
Female	15	12.4%	10	8.9%	10	11.4%	8	13.3%	3	6.7%
Male	19	15.7%	18	16.1%	14	15.9%	13	21.7%	3	6.7%
Summer										
Female	27	8.4%	23	8.1%	22	7.7%	11	7.5%	6	4.8%
Male	48	15.0%	34	12.0%	29	10.1%	18	12.3%	18	14.5%
Olympic Team	74	16.8%	60	15.2%	49	13.1%	30	14.6%	30	17.8%
Winter										
Female	13	10.7%	15	13.4%	8	9.1%	1	1.7%	6	13.3%
Male	16	13.2%	18	16.1%	16	18.2%	10	16.7%	11	24.4%
Summer										
Female	14	4.4%	7	2.5%	10	3.5%	5	3.4%	3	2.4%
Male	31	9.7%	20	7.1%	15	5.2%	14	9.6%	10	8.1%

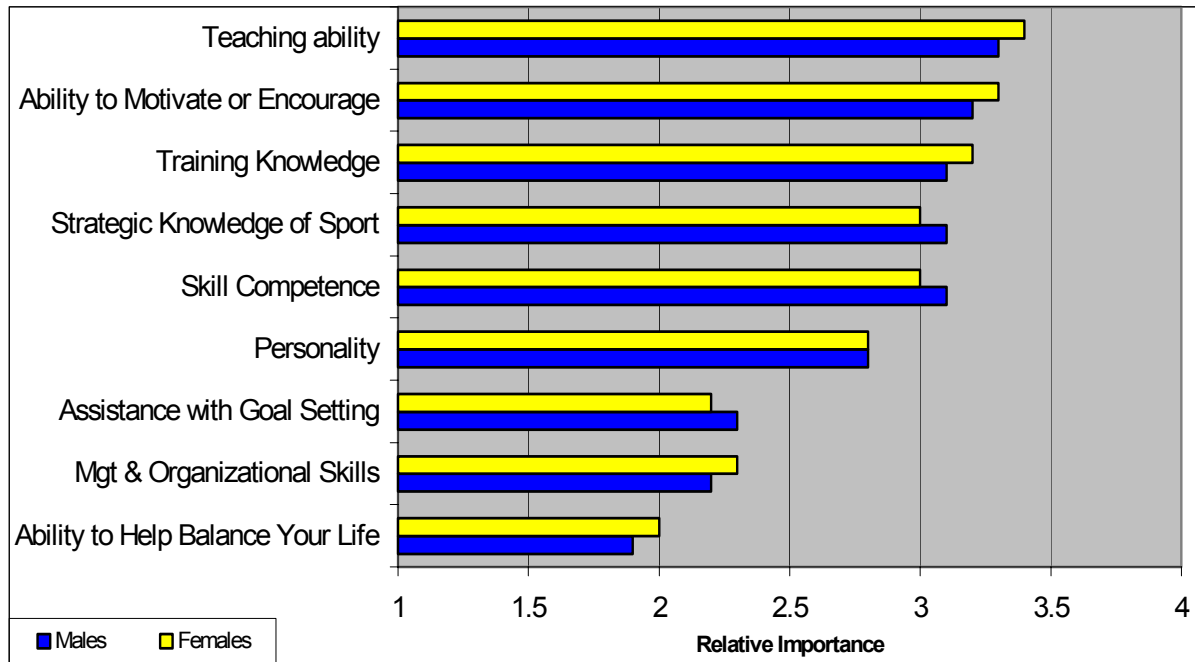
	Natural Talent		Competitiveness		Focus		Work Ethic		Financial Support	
Sample size	166	21.8%	114	15.0%	99	13.0%	88	11.6%	87	11.4%
Female	80	48.2%	51	44.7%	35	35.4%	34	38.6%	36	41.4%
Male	86	51.8%	63	55.3%	64	64.6%	54	61.4%	51	58.6%
Winter	47	28.3%	17	14.9%	16	16.2%	23	26.1%	18	20.7%
Female	22	46.8%	8	47.1%	8	50.0%	5	21.7%	3	16.7%
Male	25	53.2%	9	52.9%	8	50.0%	18	78.3%	15	83.3%
Summer	119	71.7%	97	85.1%	83	83.8%	65	73.9%	69	79.3%
Female	58	48.7%	43	44.3%	27	32.5%	29	44.6%	33	47.8%
Male	61	51.3%	54	55.7%	56	67.5%	36	55.4%	36	52.2%
Medalists	57	34.3%	45	39.5%	35	35.4%	33	37.5%	26	29.9%
Winter										
Female	5	10.6%	1	5.9%	2	12.5%	2	8.7%	0	0.0%
Male	4	8.5%	0	0.0%	0	0.0%	3	13.0%	2	11.1%
Summer										
Female	21	17.6%	18	18.6%	11	13.3%	17	26.2%	12	17.4%
Male	27	22.7%	26	26.8%	22	26.5%	11	16.9%	12	17.4%
4 - 8th Place	46	27.7%	31	27.2%	26	26.3%	21	23.9%	25	28.7%
Winter										
Female	4	8.5%	4	23.5%	1	6.3%	0	0.0%	1	5.6%
Male	5	10.6%	2	11.8%	3	18.8%	7	30.4%	6	33.3%
Summer										
Female	21	17.6%	17	17.5%	7	8.4%	7	10.8%	8	11.6%
Male	16	13.4%	8	8.2%	15	18.1%	7	10.8%	10	14.5%
9 - 25th Place	39	23.5%	17	14.9%	22	22.2%	19	21.6%	28	32.2%
Winter										
Female	10	21.3%	1	5.9%	3	18.8%	2	8.7%	1	5.6%
Male	9	19.1%	2	11.8%	3	18.8%	4	17.4%	6	33.3%
Summer										
Female	9	7.6%	5	5.2%	4	4.8%	2	3.1%	10	14.5%
Male	11	9.2%	9	9.3%	12	14.5%	11	16.9%	11	15.9%
Olympic Team	24	14.5%	21	18.4%	16	16.2%	15	17.0%	8	9.2%
Winter										
Female	3	6.4%	2	11.8%	2	12.5%	1	4.3%	1	5.6%
Male	7	14.9%	5	29.4%	2	12.5%	4	17.4%	1	5.6%
Summer										
Female	7	5.9%	3	3.1%	5	6.0%	3	4.6%	3	4.3%
Male	7	5.9%	11	11.3%	7	8.4%	7	10.8%	3	4.3%

Appendix B. Top 10 Obstacles of U.S. Olympians.

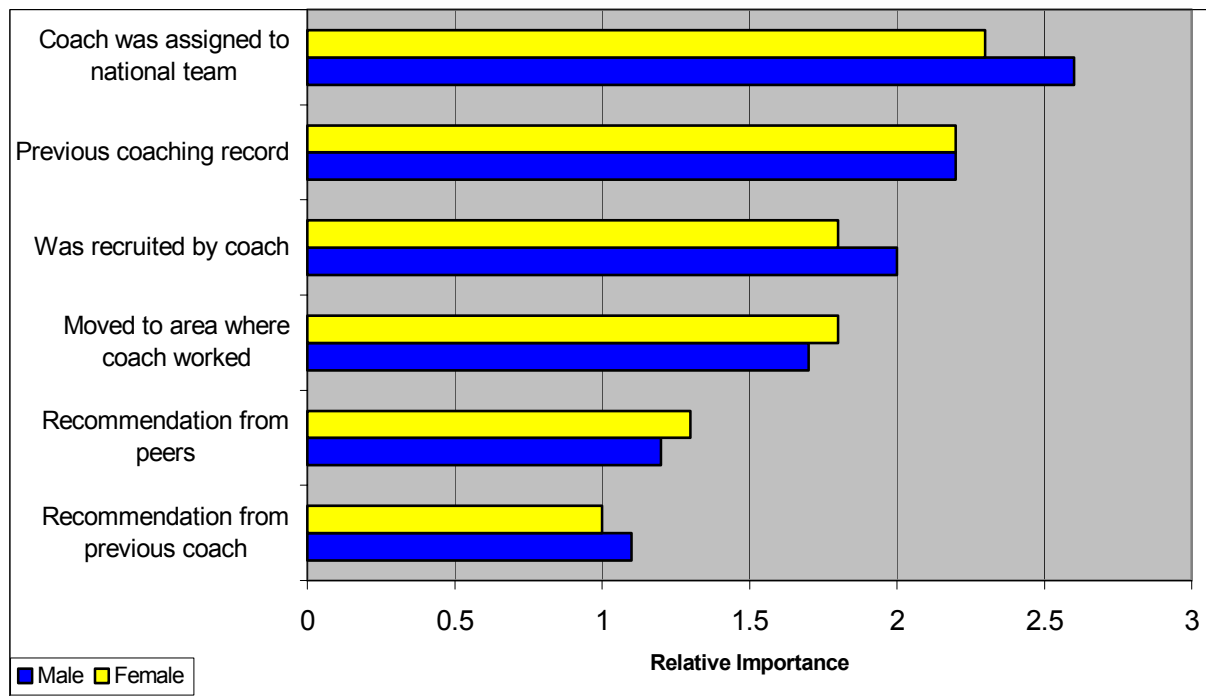
756	Lack of Financial Support		Conflict with Roles in Life		Lack of Coaching Expertise		Lack of Support from USOC/NGB		Mental Obstacles	
Sample size	401	53.0%	253	33.5%	222	29.4%	166	22.0%	164	21.7%
Female	165	41.1%	115	45.5%	113	50.9%	80	48.2%	82	50.0%
Male	236	58.9%	138	54.5%	109	49.1%	86	51.8%	82	50.0%
Winter	93	23.2%	58	22.9%	60	27.0%	47	28.3%	51	31.1%
Female	31	33.3%	26	44.8%	27	45.0%	22	46.8%	26	51.0%
Male	62	66.7%	32	55.2%	33	55.0%	25	53.2%	25	49.0%
Summer	308	76.8%	195	77.1%	162	73.0%	119	71.7%	113	68.9%
Female	134	43.5%	89	45.6%	86	53.1%	58	48.7%	56	49.6%
Male	174	56.5%	106	54.4%	76	46.9%	61	51.3%	57	50.4%
Medalists	126	31.4%	87	34.4%	56	25.2%	57	34.3%	70	42.7%
Winter										
Female	4	4.3%	7	12.1%	5	8.3%	5	10.6%	9	17.6%
Male	5	5.4%	4	6.9%	1	1.7%	4	8.5%	5	9.8%
Summer										
Female	51	16.6%	37	19.0%	25	15.4%	21	17.6%	26	23.0%
Male	66	21.4%	39	20.0%	25	15.4%	27	22.7%	30	26.5%
4 - 8th Place	117	29.2%	73	28.9%	65	29.3%	46	27.7%	41	25.0%
Winter										
Female	9	9.7%	9	15.5%	5	8.3%	4	8.5%	8	15.7%
Male	19	20.4%	12	20.7%	6	10.0%	5	10.6%	9	17.6%
Summer										
Female	50	16.2%	29	14.9%	34	21.0%	21	17.6%	13	11.5%
Male	39	12.7%	23	11.8%	20	12.3%	16	13.4%	11	9.7%
9 - 25th Place	83	20.7%	54	21.3%	53	23.9%	39	23.5%	31	18.9%
Winter										
Female	8	8.6%	5	8.6%	8	13.3%	10	21.3%	5	9.8%
Male	15	16.1%	8	13.8%	13	21.7%	9	19.1%	4	7.8%
Summer										
Female	25	8.1%	15	7.7%	17	10.5%	9	7.6%	14	12.4%
Male	35	11.4%	26	13.3%	15	9.3%	11	9.2%	8	7.1%
Olympic Team	75	18.7%	39	15.4%	48	21.6%	24	14.5%	22	13.4%
Winter										
Female	10	10.8%	5	8.6%	9	15.0%	3	6.4%	4	7.8%
Male	23	24.7%	8	13.8%	13	21.7%	7	14.9%	7	13.7%
Summer										
Female	8	2.6%	8	4.1%	10	6.2%	7	5.9%	3	2.7%
Male	34	11.0%	18	9.2%	16	9.9%	7	5.9%	8	7.1%

	Lack of Training				Lack of			Failure			
	Competition Opportunities		Medical Problems		Social Support		Physical Limitations		Failure		
Sample size	150	19.8%	150	19.8%	85	11.2%	59	7.8%	49	6.5%	
Female	53	35.3%	81	54.0%	29	34.1%	27	45.8%	22	44.9%	
Male	97	64.7%	69	46.0%	56	65.9%	32	54.2%	27	55.1%	
Winter	31	20.7%	39	26.0%	22	25.9%	16	27.1%	13	26.5%	
Female	11	35.5%	22	56.4%	7	31.8%	5	31.3%	7	53.8%	
Male	20	64.5%	17	43.6%	15	68.2%	11	68.8%	6	46.2%	
Summer	119	79.3%	111	74.0%	63	74.1%	43	72.9%	36	73.5%	
Female	42	35.3%	59	53.2%	22	34.9%	22	51.2%	15	41.7%	
Male	77	64.7%	52	46.8%	41	65.1%	21	48.8%	21	58.3%	
Medalists	35	23.3%	54	36.0%	28	32.9%	24	40.7%	22	44.9%	
Winter											
Female	0	0.0%	5	12.8%	0	0.0%	2	12.5%	2	15.4%	
Male	3	9.7%	2	5.1%	0	0.0%	2	12.5%	1	7.7%	
Summer											
Female	12	10.1%	27	24.3%	8	12.7%	10	23.3%	9	25.0%	
Male	20	16.8%	20	18.0%	20	31.7%	10	23.3%	10	27.8%	
4 - 8th Place	42	28.0%	37	24.7%	24	28.2%	16	27.1%	16	32.7%	
Winter											
Female	2	6.5%	3	7.7%	3	13.6%	1	6.3%	3	23.1%	
Male	5	16.1%	6	15.4%	8	36.4%	2	12.5%	2	15.4%	
Summer											
Female	18	15.1%	14	12.6%	6	9.5%	9	20.9%	4	11.1%	
Male	17	14.3%	14	12.6%	7	11.1%	4	9.3%	7	19.4%	
9 - 25th Place	35	23.3%	35	23.3%	18	21.2%	11	18.6%	9	18.4%	
Winter											
Female	5	16.1%	8	20.5%	2	9.1%	2	12.5%	1	7.7%	
Male	5	16.1%	2	5.1%	4	18.2%	4	25.0%	3	23.1%	
Summer											
Female	5	4.2%	12	10.8%	4	6.3%	1	2.3%	2	5.6%	
Male	20	16.8%	13	11.7%	8	12.7%	4	9.3%	3	8.3%	
Olympic Team	38	25.3%	24	16.0%	15	17.6%	8	13.6%	2	4.1%	
Winter											
Female	4	12.9%	6	15.4%	2	9.1%	0	0.0%	1	7.7%	
Male	7	22.6%	7	17.9%	3	13.6%	3	18.8%	0	0.0%	
Summer											
Female	7	5.9%	6	5.4%	4	6.3%	2	4.7%	0	0.0%	
Male	20	16.8%	5	4.5%	6	9.5%	3	7.0%	1	2.8%	

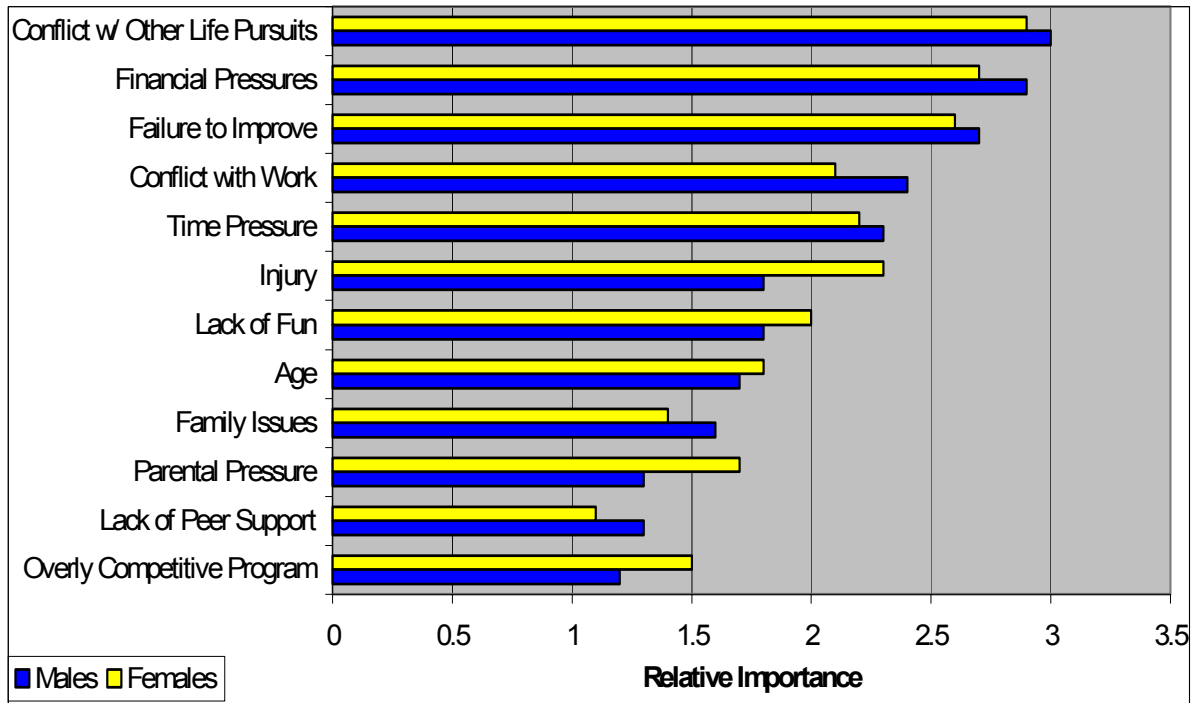
Appendix C. Important qualities of a coach for male and female Olympians (The Path to Excellence).



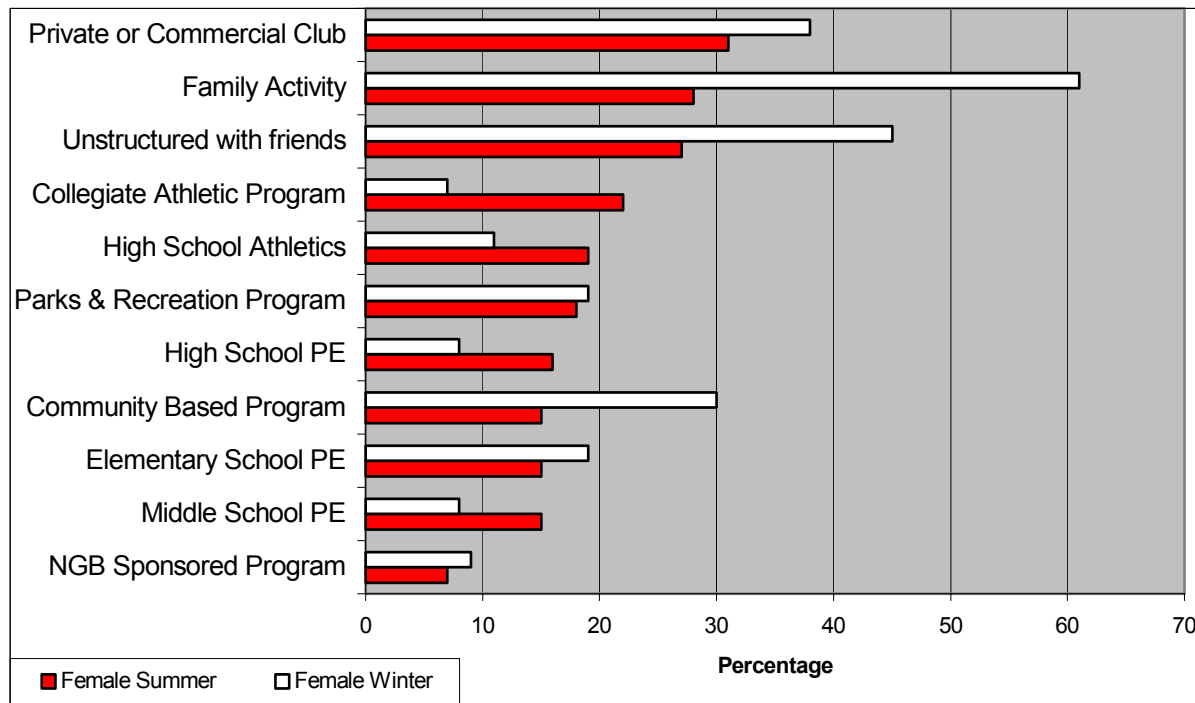
Appendix D. Factors that contributed to the involvement of U. S. Olympians with their coach (The Path to Excellence).



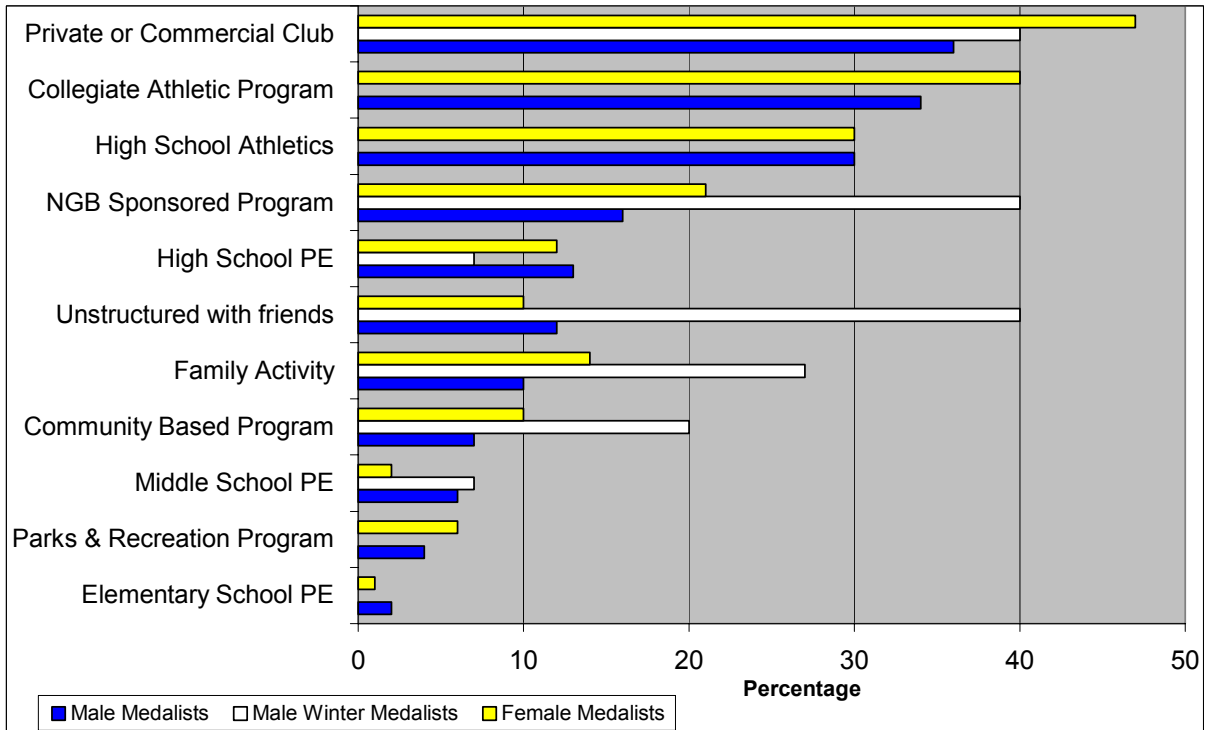
Appendix E. Factors thought to be the cause of dropout in the peers of Olympians (The Path to Excellence).



Appendix F. Initial program in which female Olympians began their sport(The Path to Excellence).



Appendix G. Program in which Olympic medalists made the commitment to pursue excellence (The Path to Excellence).



Appendix H. Influential factors that directed male and female Olympians to their sport (The Path to Excellence).

