

The Path to Excellence:
A View on the Athletic Development of U.S. Olympians
Who Competed from 2000-2012



Initial Report:

Results of the Talent Identification and Development

Questionnaire to U.S. Olympians

Sport Performance
And
Coaching Education
Divisions
2014

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CONTENTS

I.	Origin and Design of Questionnaire	6
II.	Data Collection Procedures	8
III.	Data Analysis	9
IV.	Results and Discussion of the Path to Excellence Survey	
	A. Demographics	11
	a. Gender	
	b. Race	
	c. Age at First Olympic Games	
	d. Economic Status of Family	
	e. Sport	
	B. Development of Olympic Dream	15
	C. Factors Directing Olympians to Sport	18
	D. Motives for Participation in Sport	20
	E. Motives for Pursuing Excellence in Sport	23
	F. Frequency of Physical Activity and Sport Participation	26
	G. Type of Program at the Time of Initial Participation in Sport	29
	H. Type of Program at the Time of Pursuing Excellence in Sport	31
	I. Regular Sport Participation by Age	33
	J. Multisport Athlete	35
	K. Value of Participating in Multiple Sports	36
	L. Importance of Coaching at Various Stages of Development	38

M. Important Qualities of a Coach	40
N. Coach Selection and Involvement	42
O. Utilization of College to Train and Compete	44
P. Utilization of Collegiate Post-Graduate Program to Train and Compete	45
Q. Utilization of Olympic Training Center at Various Stages of Development	46
R. Value of Training Locations	47
S. Financial Support from Various Groups	48
T. Timing of Financial Support	49
V. Implications and Discussion	
A. Milestones	50
B. Motivational Factors	51
C. Sport Involvement	51
D. Coaching	53
E. Training and Training Sites	55
F. Funding	55
VI. References	56
VII. Appendices	
Appendix A: Talent Identification and Development Questionnaire	57
Appendix B: The Number of Olympian Respondents by Sport	65

Introduction

To continue to perform well at the international level, the United States Olympic Committee must, to some extent, seek ways to improve the quality and effectiveness of programs focused on talent identification and development. The Path to Excellence survey is one present method that aims to gain insight directly from Olympians on their achievement of elite-level performance, on factors related to athlete identification and development. This study mimics the original Path to Excellence survey that was conducted with Olympians from 1984-1998 – please note that throughout this summary report, this version of the survey will be referred to this as the initial survey, while the Path to Excellence survey conducted on Olympians competing from 2000-2012 will be classified as the current survey. In addition to gathering information on the athletic development of U.S. Olympians, the USOC coaching education division also intended to discover if after 15 years, there were any discrepancies between survey findings in terms of what athletes report about their development and the factors contributing to their success.

Origin and Design of Questionnaire

Jay T. Kearney, former USOC sport physiologist, decided to survey U.S. Olympians in the initial survey, while the sport science and technology division provided assistance in designing the actual questionnaire. The team identified several areas related to talent identification and development to poll U.S. Olympians on:

- Performance at the Olympic Games
- Motives for participation and pursuit of excellence in sport
- Physical activity during childhood, adolescence and adulthood
- Age and amount of training at each milestone of athletic development
- Performance factors related to coaching
- Performance factors related to financial support
- Long-term progression in performance
- Dropout in sport
- Factors that contributed to the achievement of success
- Obstacles faced in journey to the Olympic Games

Based on results from the initial study, along with feedback from the sport performance division on the usefulness of the findings, the survey was modified slightly prior to its redistribution in 2013. In addition to the rewording and deletion of a few items (e.g., state of birth and amount of training at various milestones), additional questions were included to address specific topics, such as how athletes use each of the various

Olympic Training Centers, financial incentives for competing, and the role of collegiate athletics in athlete development.*

Two open-ended questions that related to factors contributing to success and obstacles faces along the way were not included in this report as they require a more detailed analysis. As with the initial survey, the findings from these questions will be analyzed and summarized in a supplemental report.

**Refer to Appendix A for the Path to Excellence survey that was distributed in 2013.*

Data Collection Procedures

The initial survey polled both Summer and Winter Olympians that competed from 1984-1998 through a simple paper and pencil questionnaire format. Surveys were mailed to Olympians with explicit directions, and then responses were entered into a database upon receipt. For the current study, an online version of the questionnaire was developed and distributed via email to Summer and Winter Olympians that competed from 2000-2012. Several measures were taken to increase the number of Olympians asked to participate in the online survey, including:

1. The USOC Alumni Relations Department emailed the survey to all 2000-2012 Olympians in their database. A follow-up email was sent as a reminder for athletes to complete the survey if they had not done so already.
2. In addition, the USOC International Games Department distributed the survey to all 2010 and 2012 Olympic athletes listed in their database from each of the Games.
3. In combining those two databases, a total of 1,720 Olympians were invited to participate in the survey.
4. To reach those Olympians not listed in the aforementioned databases, the USOC coaching education division solicited help from each National Governing Body. Contacts within each NGB were asked to distribute the survey to Olympic athletes that competed from 2000-2012, or provide a contact list to the USOC coaching department. Summer sport NGB contacts responded to the inquiry at a rate of 75 percent, along with 63 percent of the Winter sport NGBs, and provided means for their athletes to be included in the survey. .

As several avenues were taken to share the survey with athletes from the 2000-2012 Olympic Games, it is difficult to accurately determine the number of athletes that received the survey, and therefore, it is also challenging to calculate an accurate response rate. A total of 2,887 athletes competed in the 2000-2012 Olympic Games, although some of these are repeat athletes that competed in multiple Olympic Games. While not all Olympians received the survey, the 309 survey responses from the potential pool of athlete candidates represents 11 percent of the Olympians that competed from 2000-2012.

Data Analysis

To effectively analyze results from the present survey, the USOC coaching division examined each question individually, reported any apparent averages or trends, and compared relevant findings to those of the initial survey. Statistics were generated through Qualtrics, an online platform used to record and analyze survey responses. In the final report of the initial survey, survey analytics focused on differences based on gender, as well as athletes competing in Summer versus Winter Olympic Games. However, in examining results of the current survey, it was determined to be more valuable to analyze results of all the Olympians that completed the survey, thereby combining male and female data. If upon further review and discussion of the findings, it is considered important to assess the results based on gender, sport, etc., these results will be adjusted and examined further.

In the following sections, each survey question and relevant findings are reviewed individually. For some of the questions, a comparison is made to the findings from the initial survey, and in many cases, the actual figure from the initial survey is included in the report. To help distinguish between figures from the two Path to Excellence survey reports, all figures from the current survey will be labeled with the figure number followed by the year in which the survey was conducted (2013), and all figures from the original study will be given a figure number followed by 'A'.

Results and Discussion of the Path to Excellence Survey

Demographics

The preliminary questions in the current survey collected demographic information for each Olympian. Included below is a snapshot of the 309 Olympians who completed the survey.

Gender: Of the 299 Olympians who completed this question, 58 percent were female (174) and 42 percent were male (125). As a means of comparison, in the 2000-2012 Olympic Games, 46 percent (1,338) of the athletes were female athletes, while 54 percent (1,549) were male athletes. The gender breakdown was reversed in the initial survey conducted in 2000, as 41.7 percent of the respondents were females and 58.2 percent were males.

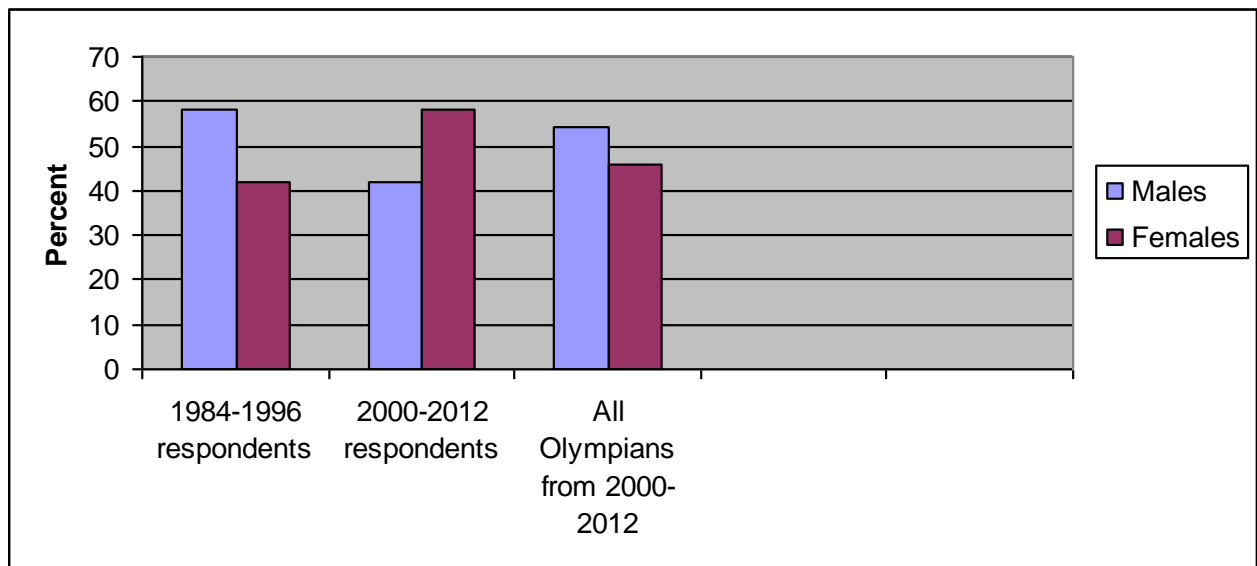


Figure 1 (2013): Path to Excellence gender demographics

Race: In the current survey, a new question was added to gather demographic information related to race. Of the 299 Olympians that completed this question, the majority of athletes classified themselves as white, with 85 percent of respondents selecting white (255), followed by 5 percent African-Americans (14), and 4 percent of respondents identifying with two or more races (12). We are unable to report accurate race demographics for all Olympians that competed from 2000-2012.

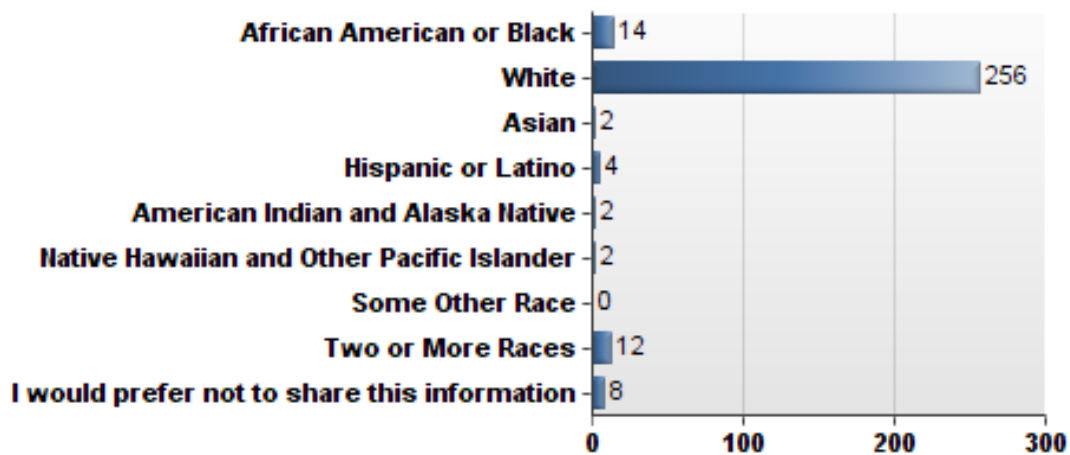


Figure 2 (2013): Path to Excellence race demographics

Sport: Appendix B contains a list of the sports represented by Olympians who completed the survey.

Age at first Olympic Games: To better understand athlete development, it is important to determine at what age athletes reach various milestones. In this question, athletes were asked at what age they first made the U.S. Olympic Team, in order to place the athlete's age at first Olympic Games in relation to the Olympian's overall athletic career. About one third of the athletes were between the ages of 21-24 years old, and another 33 percent were between the ages of 25-28 years old. The initial survey revealed that on average, males made their first U.S. Olympic Team at 24.6 years old, while females averaged at 23.6 years old. While the current study only ascertained an average age range, it's apparent that the ages at which athletes made their first U.S. Olympic team is very similar between the two studies.

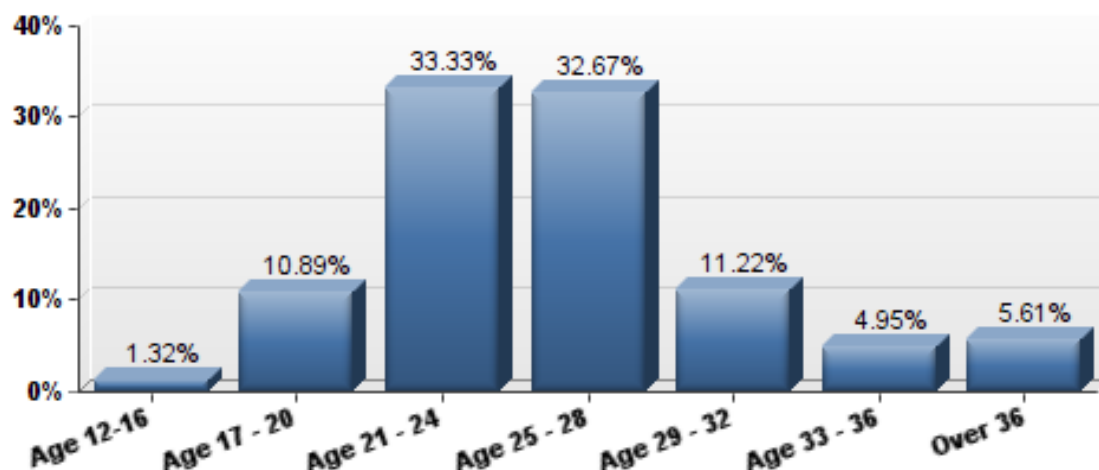


Figure 3 (2013): Age at first Olympic Games

Economic Status of Family at time of initial participation in sport: As seen in the graph below, there is a large range in terms of family income reported for Olympians at the time they began participating in their sport. Almost 20 percent of Olympians reported household incomes between \$80-125,000, while 19 percent reported household incomes between \$40-60,000 and 17 percent reported household incomes between \$60-80,000. As a means of comparison, the median household income in the U.S. in 2000 was \$41,994, and \$51,371 in 2012 (U.S. Census Bureau). The second figure below compares the household income of Olympians and medalists from 1984-1996.



Figure 4 (2013): Economic status of family at time of sport participation

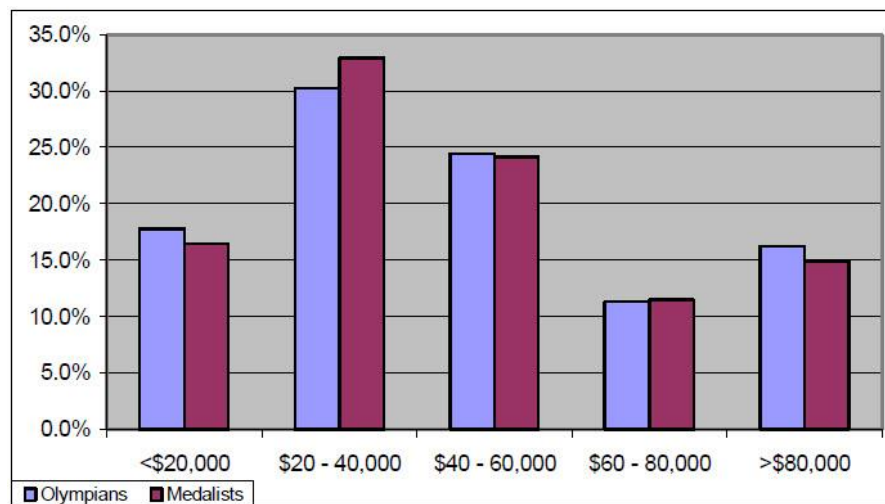


Figure 4A: Economic Status of family at time of sport participation

Development of Olympic Dream

In an attempt to understand the length of time between various mental milestones tied to athletic development, survey participants were asked to indicate the age at which they reached the following stages of development in their sport:

- Introduced to the sport;
- Achieved local competitive success;
- First dreamed of becoming an Olympian;
- Actually started making decisions that would contribute to actualize that dream;
- Believed it was possible to become an Olympian.

This question provides a snapshot of the chronological age in which Olympians achieved certain mental milestones, as well as the length of time between these milestones.

Figure 5 (2013) demonstrates a complete picture of Olympic athlete development, from the introduction to the sport to the age at which an athlete made the U.S. Olympic Team.

Results: Using the information that was provided, the average ages at which Olympians reached these milestones were calculated:

- Introduced to the sport: 11.4 years old
- Achieved local competitive success: 14.2 years old
- First dreamed of becoming an Olympian: 14.0 years old
- started making decisions to make Olympic dream a reality: 17.5 years old

- Believed it was possible to become an Olympian: 19 years old
- Made first U.S. Olympic Team: 25.5 years old (calculated based on the midpoint of the selected age-range).

Therefore, the average length of time from when an athlete was first introduced to the sport until making first U.S. Olympic team was 14 years (11.4 – 25.5 years of age). In addition, the survey revealed the average length of time that passed between each milestone. As seen in Figure 6 (2013), an average of 2.8 years transpired from when an athlete was first introduced to the sport to achieving local success; an average of 0.2 years transpired from dreaming about being an Olympian to achieving local success; an average of 3.49 years transpired from first having dreams of being an Olympian to taking action to make the Olympic dream a reality; and an average of 1.5 years transpired from taking action to make the Olympic dream a reality to believing that the dream was possible.

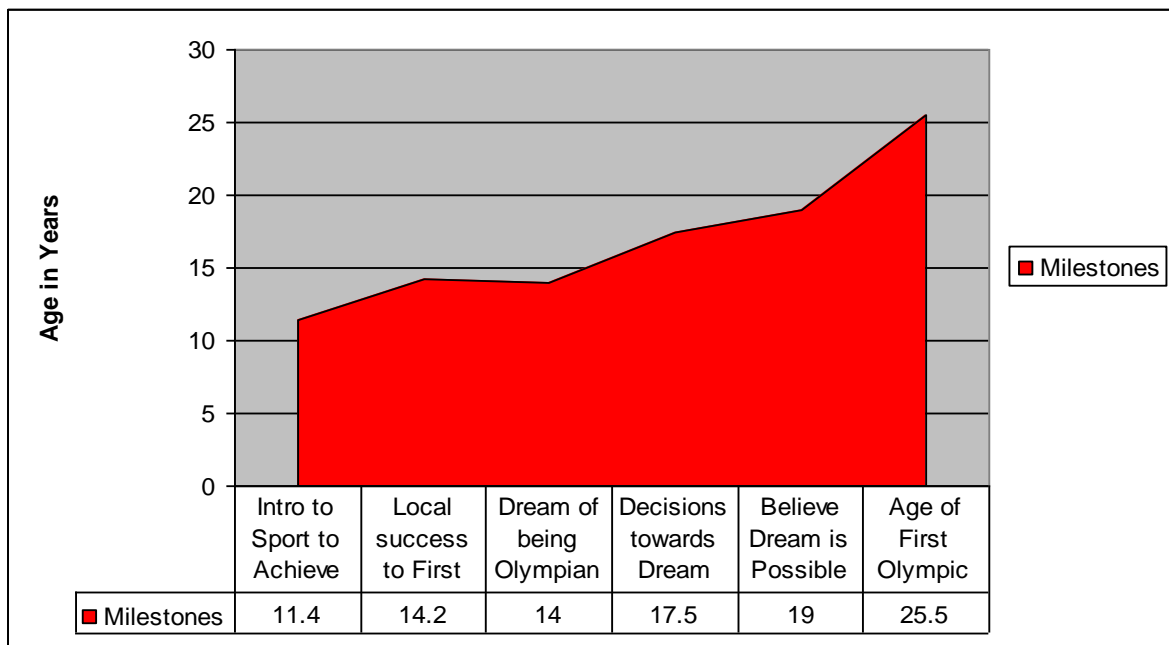


Figure 5 (2013): Age of accomplishing milestones toward development of Olympic dream

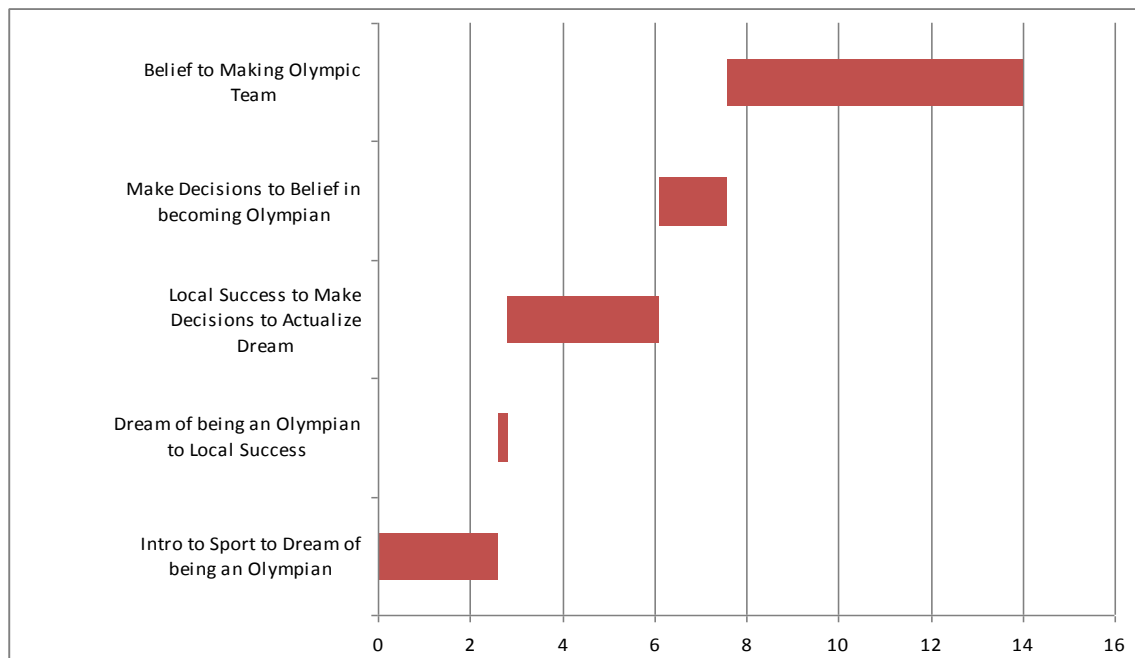


Figure 6 (2013): Length of time, in years, between various milestones

These findings are similar to the findings from the initial survey, as depicted in Figure 6A below (note that the graph from the initial study does not reflect the time from 'belief in coming an Olympian to making the U.S. Olympic team). Findings from the initial survey include:

- An average of three years transpired from the introduction to a sport to achieving local competitive success
- Athletes dreamt of becoming an Olympian around the time of achieving local success
- Similar to the present study, an average of 3.5 years of development occurred before athletes started making their dream of becoming an Olympian a reality

- An average of 1.7 years transpired before these athletes believed it was possible to become an Olympian

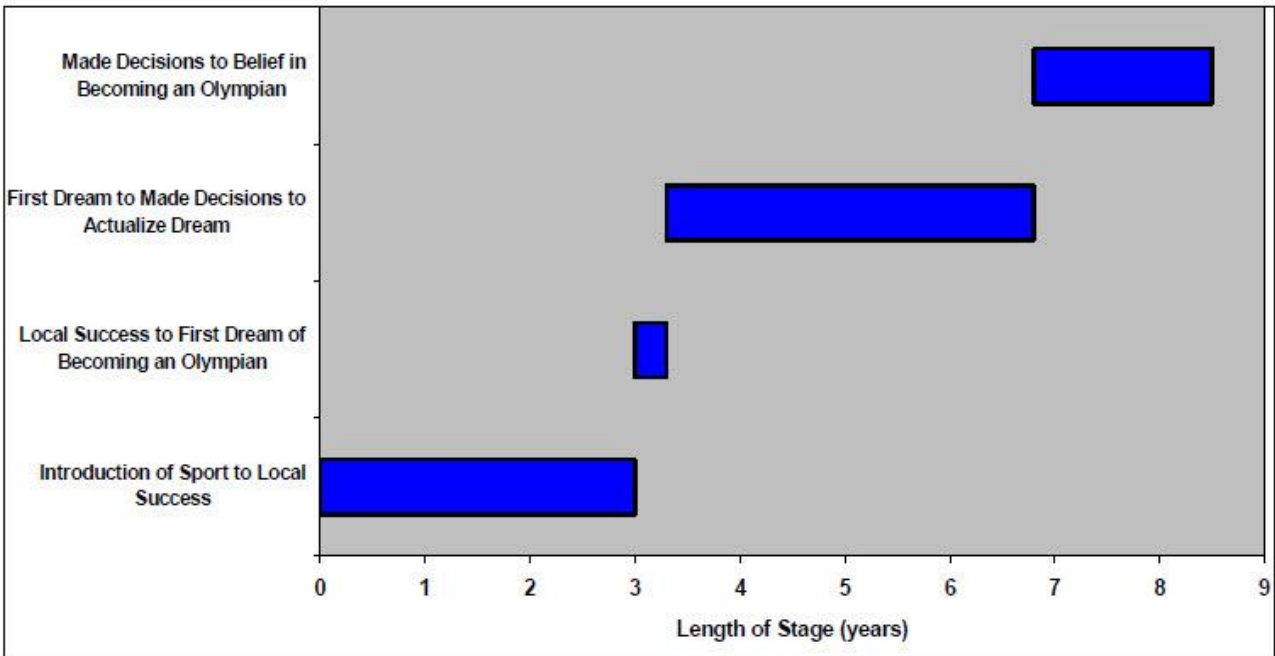


Figure 6A: Length of time in years between various milestones

Factors Directing Olympians to Sport:

Athletes were asked to rate the relative importance of numerous factors directing them toward a sport, including:

- Parental influence
- Encouragement from a physical education teacher
- Peer recruitment
- Sibling recruitment
- Early success
- Intrinsic love of activity

- Love of the sport
- Coach recruitment

Results: The findings demonstrate that the primary factors directing athletes to the sport were love of activity and love of the sport. As seen in Figure 7A, this is consistent with findings from the initial “Path to Excellence” survey. Additionally, when comparing the findings from the two surveys, there was a similar order to the other factors in terms of their importance as perceived by Olympic athletes. According to prior research conducted by Benjamin Bloom (1985) in the area of youth sport, those who achieve excellence in sport (and other performance fields) developed an initial love for the sport or activity.

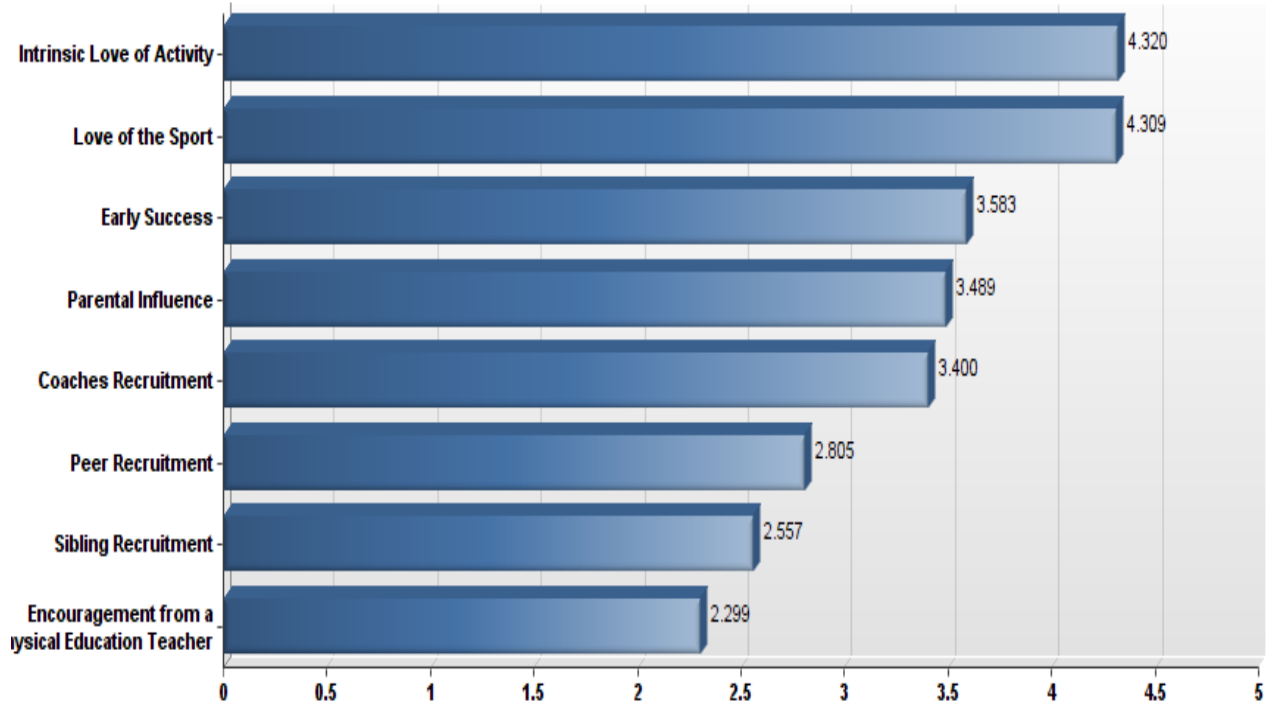


Figure 7 (2013): Factors influencing an Olympian’s sport decision

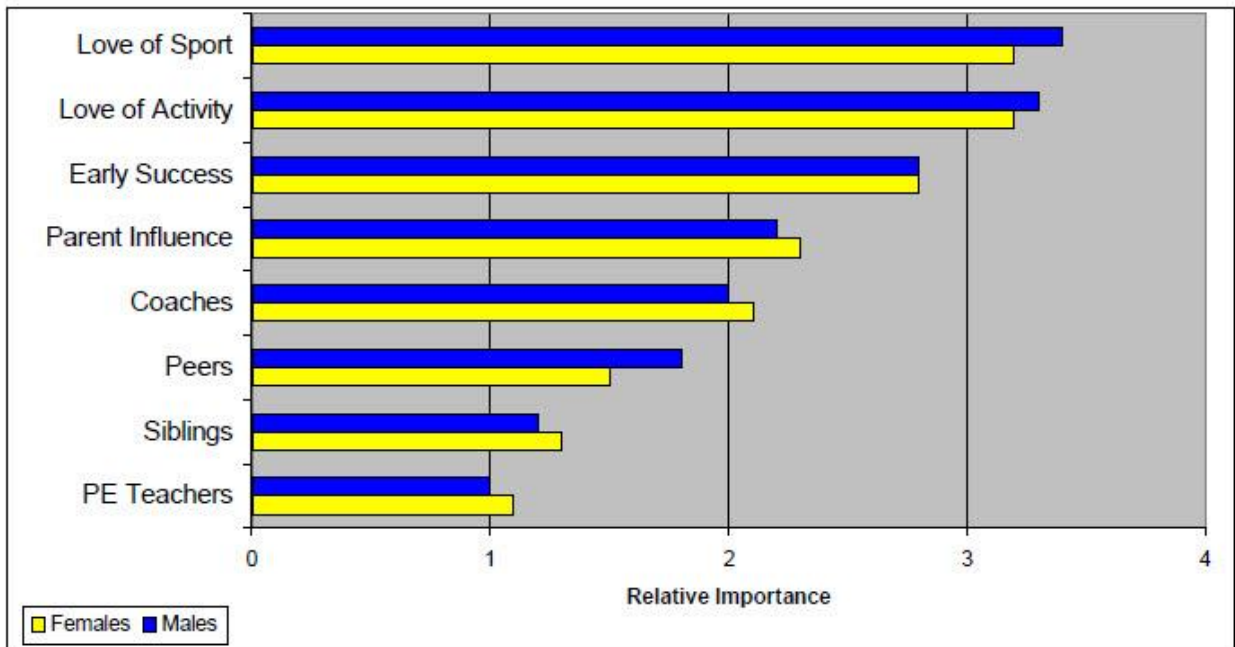


Figure 7A: Factors influencing an Olympian’s sport decision

Motives for Participation in Sport:

Athletes were asked to rate the importance of the following factors in motivating their participation in sport (one being the lowest and five the highest), including:

- Dollars
- Recognition
- Desire to be successful
- Acceptance in a peer group
- Pleasing parents
- Scholarship incentive
- Fun
- Intrinsic value of the sport

- Acquisition of skill
- Desire to improve fitness
- Competitive outlet
- Challenge/love of competition

This question is designed to assess the athletes' motives for participation. Research on motivation in youth sport has shown that the primary reasons kids participate in sport include having fun, developing skills and being with friends (Ewing and Seefeldt, 1990).

Results: As seen in Figure 8 (2013), the top-rated motivation factors for Olympians surveyed in the current study were:

1. Challenge/love of competition
2. Desire to be successful
3. Competitive outlet
4. Fun

These four factors are consistent with the top-rated factors from the initial survey, as seen in Figure 8A. As young athletes in sport, these Olympians reported being motivated to participate by competition, fun and a desire to be successful.

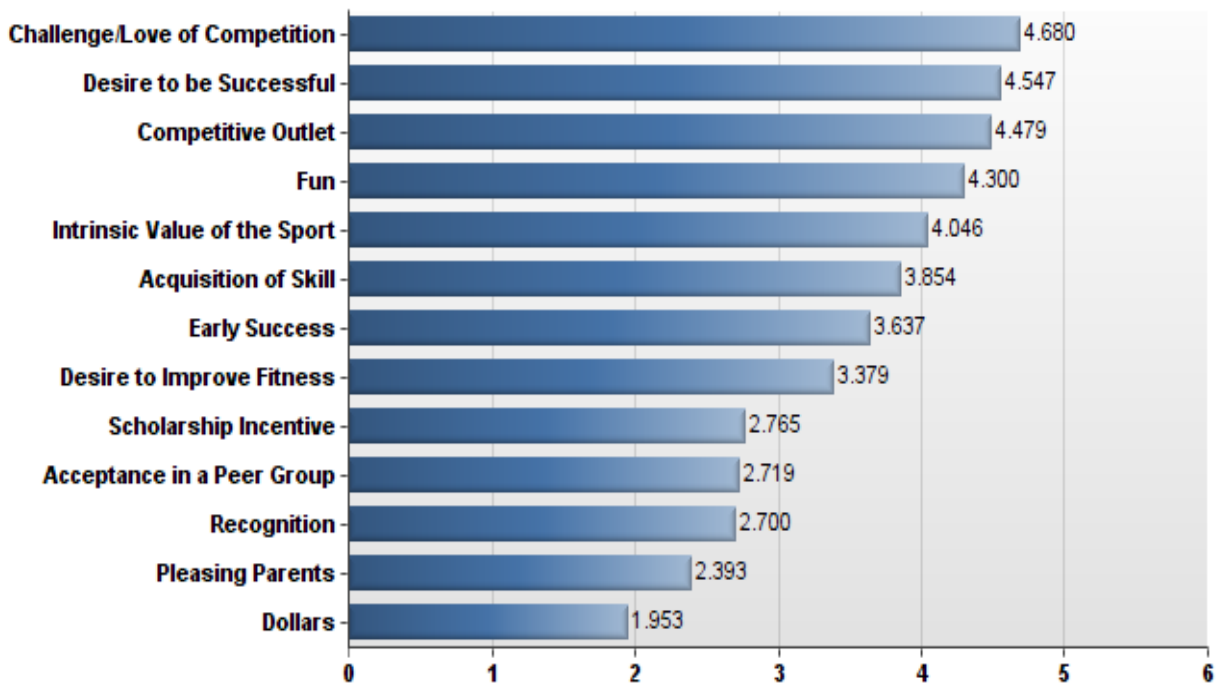


Figure 8 (2013): Factors influencing Olympians' motivation to participate

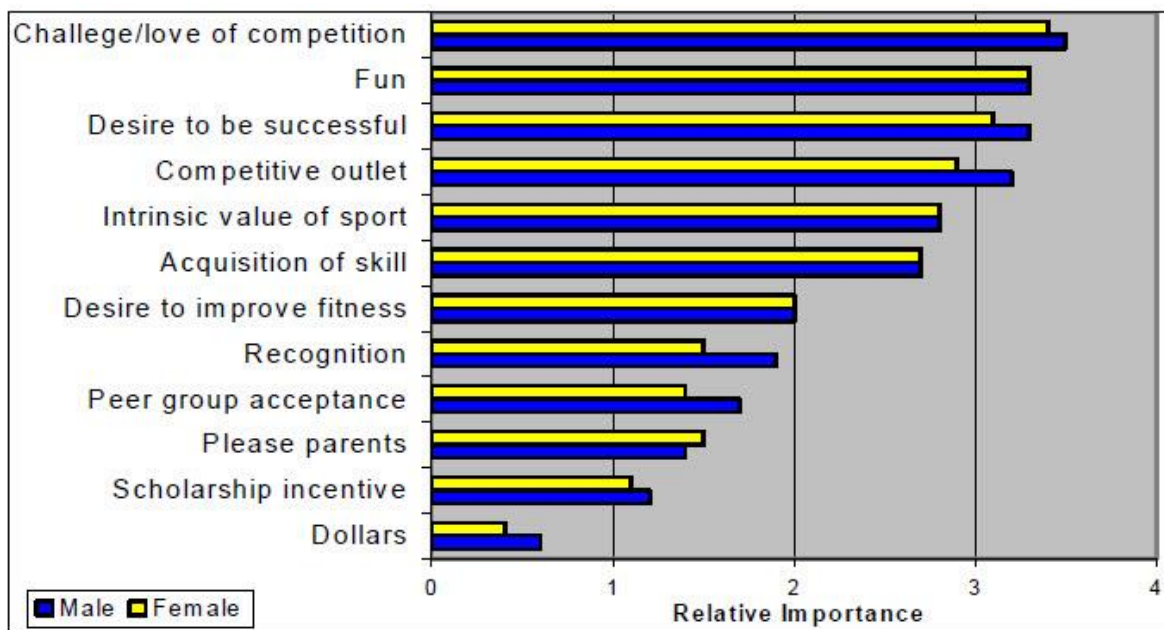


Figure 8A: Factors influencing Olympians' motivation to participate, based on gender

Motives for Pursuing Excellence in Sport

Athletes were asked to rate factors influencing their motivation to pursue excellence in sport (one being the lowest and five the highest). The same factors analyzed in the previous question relating to one's motivation for participating in sport were assessed in this question, including:

- Dollars
- Recognition
- Desire to be successful
- Acceptance in a peer group
- Pleasing parent
- Scholarship incentive
- Fun
- Intrinsic value of the sport
- Acquisition of skill
- Desire to improve fitness
- Competitive outlet
- Challenge/love of competition

The question was designed to ascertain the factors influencing an athlete's decision to transition from simply participating to committing to the pursuit of excellence in that sport.

Results: As seen in Figure 9 (2013), there are similarities in the factors that motivate an athlete to participate in sport, and then to pursue excellence in that sport. The

survey revealed that challenge or love of competition, desire to be successful, competitive outlet and 'Fun' were the highest-rated motives to pursue excellence in sport. Additionally, these motives align with the findings from the initial survey, as seen in Figure 9A.

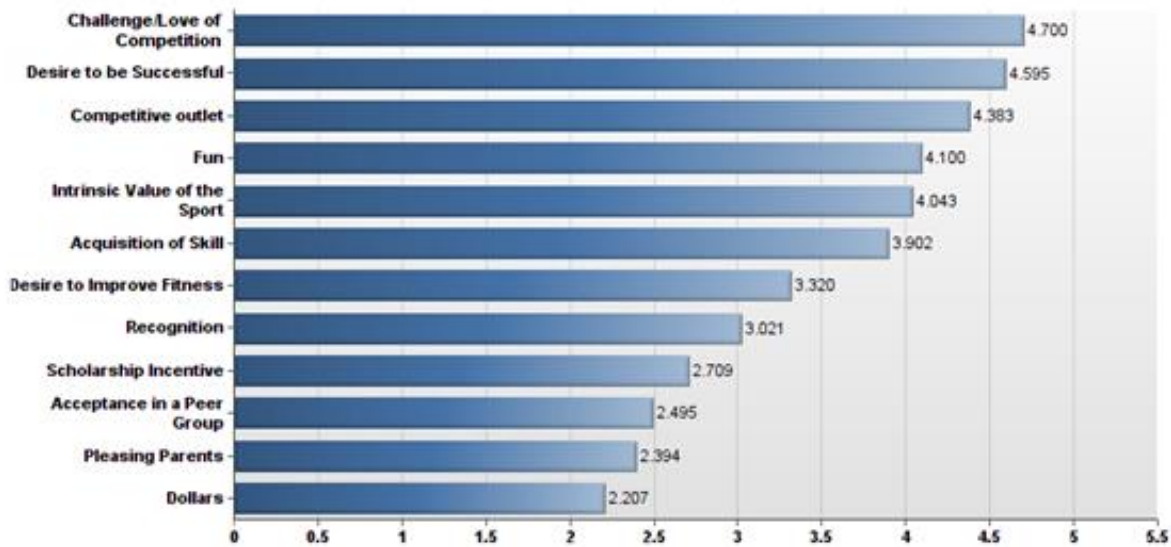


Figure 9 (2013): Motivating factors to pursue excellence in sport

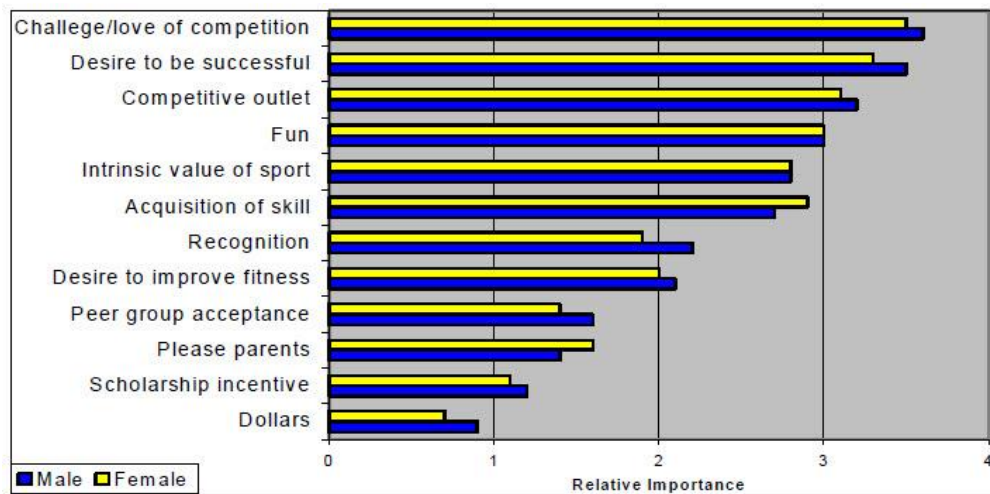


Figure 9A: Motivating factors to pursue excellence in sport, based on gender

Therefore, similar observations can be drawn from the current survey as were drawn in the initial survey regarding motivation. Olympians were directed to a specific sport based on a love for sport and activity, as well as early success in their selected sport. As each athlete developed and made decisions regarding advancement within the sport, the challenge and love of competition, a desire to be successful, fun and the importance of a competitive outlet were all critical motivational factors.

Sport Involvement During Athletic Development

The Olympians surveyed in this project were asked a number of questions relating to their involvement in physical activity and sport from childhood to adult years. Research in the field of talent development supports the notion that a general sport background prepares an individual athlete for the demands of specialization and advanced training in one sport. Several questions in the survey focused on identifying the number of sports and activities, as well as types of programs that each athlete was involved in throughout his or her athletic development.

Frequency of Physical Activity and Sport Participation

Olympians were asked to select the frequency of participation (four to five days per week, two to three days per week or zero to one day per week) at each level listed:

- Elementary school physical education classes
- Secondary school physical education classes
- Scholastic participation in other sports
- Participation in club or community-based program in other sports.

Given the importance of a general sports background to help prepare athletes for the demands of sport specialization, the survey helped to determine the frequency of participating in sport or physical activity, and the types of programs or opportunities that provided athletic training for these Olympians during early development.

Results: The findings suggest that the majority of surveyed Olympians were involved in physical activity and sport programs that spanned multiple sports. Over 50 percent of respondents reported participating in physical education classes at the elementary and secondary school levels on average four to five days per week. Additionally, 60 percent were involved in extracurricular scholastic sports on average four to five days per week and over 40 percent reported participating in club or community-based sport programs on average four to five days per week. The high frequency of physical activity and sport participation suggests that these Olympians acquired a strong athletic background.

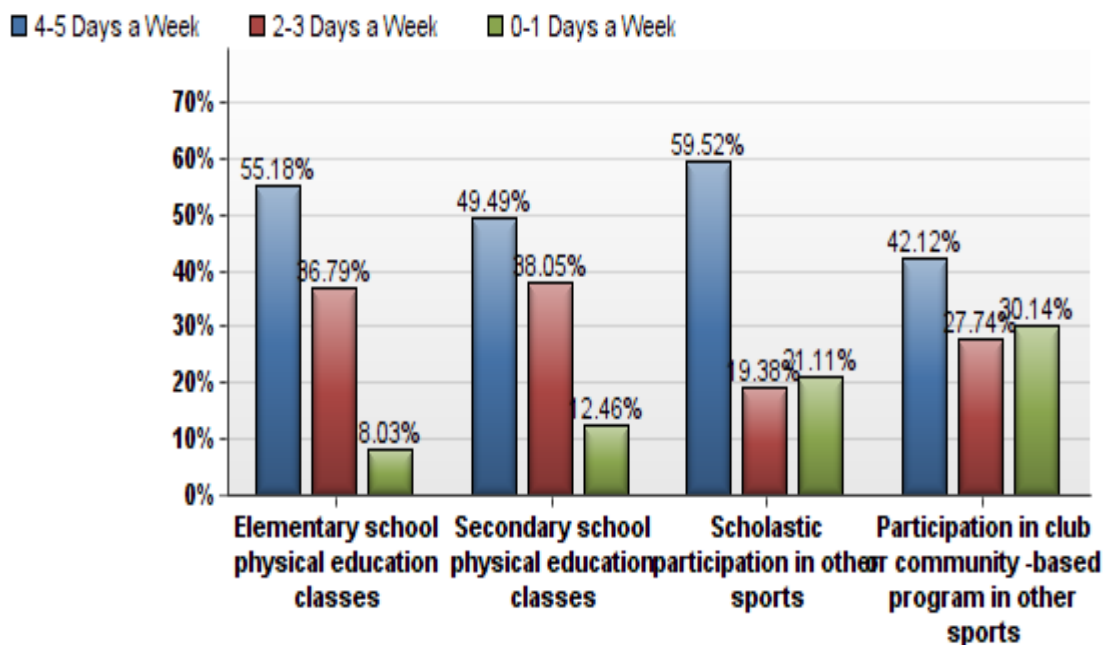


Figure 10 (2013): Participation in early physical activity and sport

Another way to look at the data is to compare the means for each of the categories by analyzing the average number of days per week that the athletes reported participating in the various activities. This also allows for comparison with data from the initial survey, as these findings were reported as means. The surveyed athletes selected a

range of participation in days per week (e.g., four to five days), and the responses were then averaged for each category. As seen below in Figure 11 (2013) and Figure 11A, the data from the current and initial surveys are quite similar in that, as a whole, the Olympians reported participation in physical education and scholastic sports at three or more days per week, and two and a half days in community/club sports. Therefore, it would seem that these sport and physical education opportunities continue to be instrumental in the athletic development of Olympians.

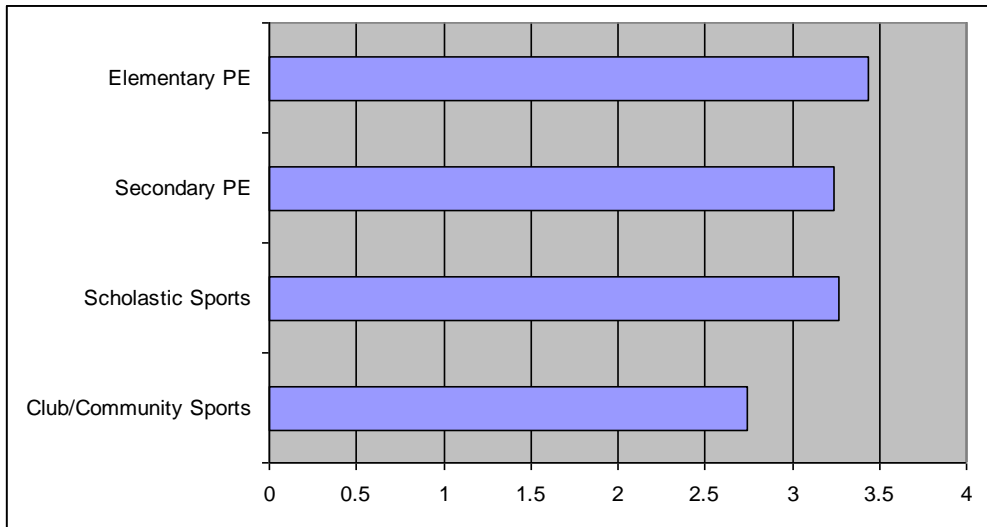


Figure 11 (2013): Frequency of athlete participation in days per week

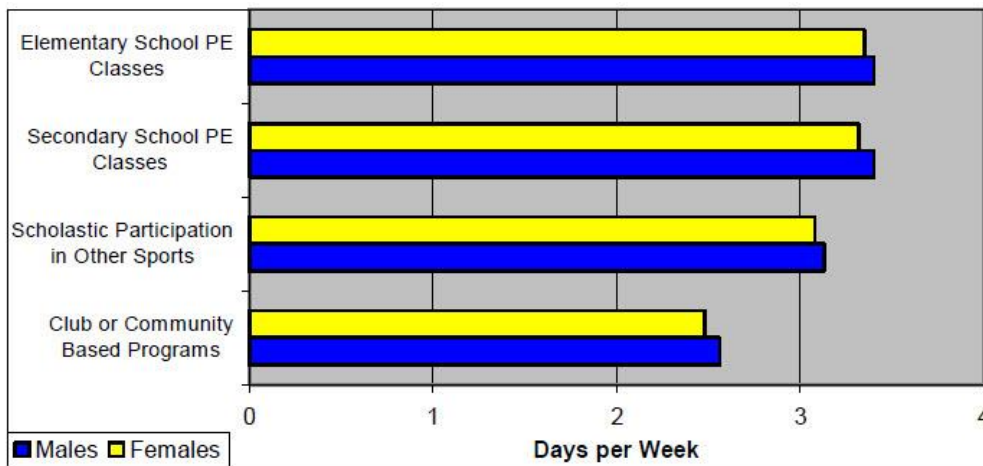


Figure 11A: Frequency of athlete participation, based on gender

Type of Program at Time of Initial Participation in Sport

Olympians were asked what types of programs they were involved in upon first participating in their sport. This question sought to identify which sport programs or activities served as the starting point in terms of introduction to a sport. The programs or opportunities listed included:

- Family activity
- Unstructured activity with friends
- Elementary, middle or high school physical education
- Parks and recreation program
- Community-based program
- NGB-sponsored program
- Private or commercial club
- High school athletic program
- Collegiate athletic program

Results: As seen below in Figure 12 (2013), excluding family and friends as a conduit to the sport, private clubs and community-based programs were popular avenues of introduction to the sport, more so than scholastic-based programs. These findings are similar to those from the initial survey. However, there was a decrease in the percentage of athletes reporting unstructured activity with friends as a means of introduction to the sport, with 24 percent of athletes reporting so in the current survey, compared to roughly 35 percent in the initial survey. Overall results from the current

survey suggest that private and community-based clubs are critical to the early stages of athlete development

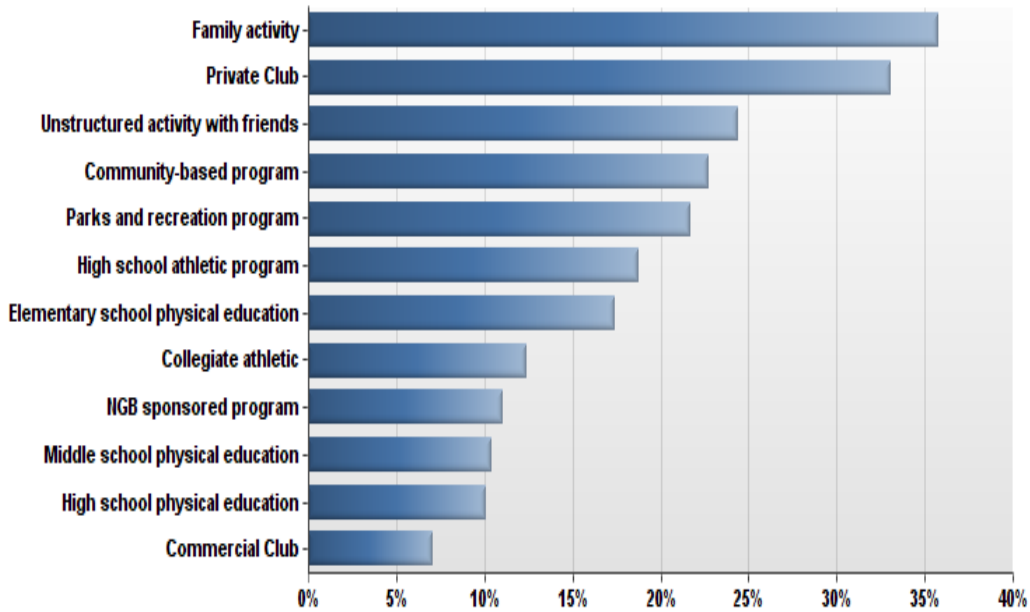


Figure 12 (2013): Type of program at time of initial participation in sport

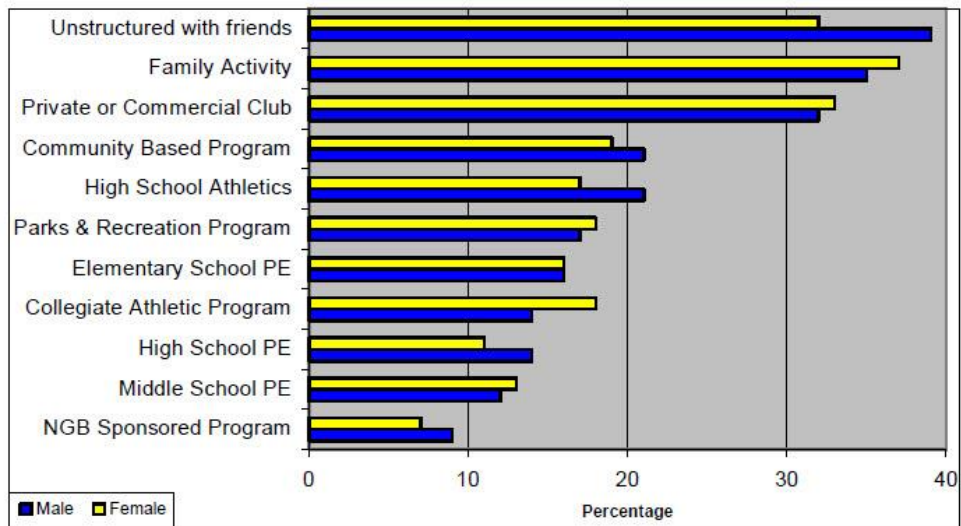


Figure 12A: Type of program at time of initial participation in sport, based on gender

Type of Program at Time of Pursuing Excellence in Sport

Olympians were asked '**what types of programs were you involved in when you made the commitment to pursue excellence in your sport?**' The programs or opportunities listed included:

- Family activity
- Unstructured activity with friends
- Elementary, middle or high school physical education
- Parks and recreation program
- Community-based program
- NGB-sponsored program
- Private or commercial club
- High school athletic program
- Collegiate athletic program

Understanding the sport programs that are critical in the development of Olympians could have important implications for the USOC and NGBs in making decisions on how to best support developing athletes.

Results: Olympians participated in the following top four types of programs when committing to pursue excellence:

1. Private club
2. Collegiate athletic program
3. High school athletic program

4. NGB-sponsored program

These four programs were also the most common programs identified by Olympians in the initial survey, as seen in Figure 13A, so little has changed in terms of programs that Olympians were involved in when deciding to pursue sport excellence. As suggested in the initial survey, it seems a highly structured club program is an important consideration for the future of Olympic sport.

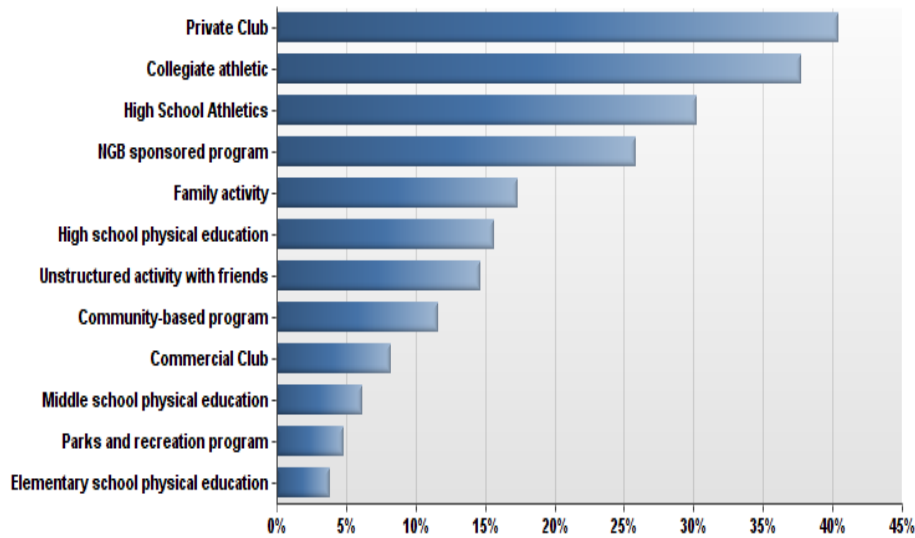


Figure 13 (2013): Type of program at time of pursuing excellence in sport

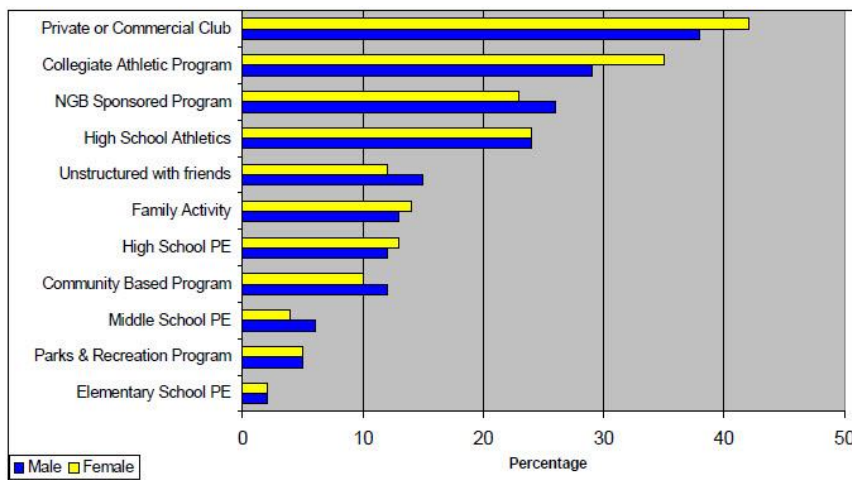


Figure 13A: Type of program at time of pursuing excellence in sport, based on gender

Regular Sport Participation by Age

Another question asked the Olympians to indicate the number of sports practiced regularly at each of the following ages:

- Less than 10 years old
- 10-14 years old
- 15-18 years old
- 19-22 years old
- Over 22 years old

This question sought to better understand Olympians participation in sport activity during childhood, adolescence and adult years. It is suggested that athletes require early skill development in sport to better prepare them for the demands of specializing in one sport (Bompa, 1994), which is referred to as multi-lateral development.

Results: The findings indicate that surveyed Olympians were involved in an average of three sports per year until the age of 14. From 15-18 years of age, athletes reported participating in an average of 2.2 sports per year. As seen below in Figure 14 (2013), surveyed Olympians had decreased involvement to an average of 1.27 sports during ages 19-22 and 1.31 sports after age 22.

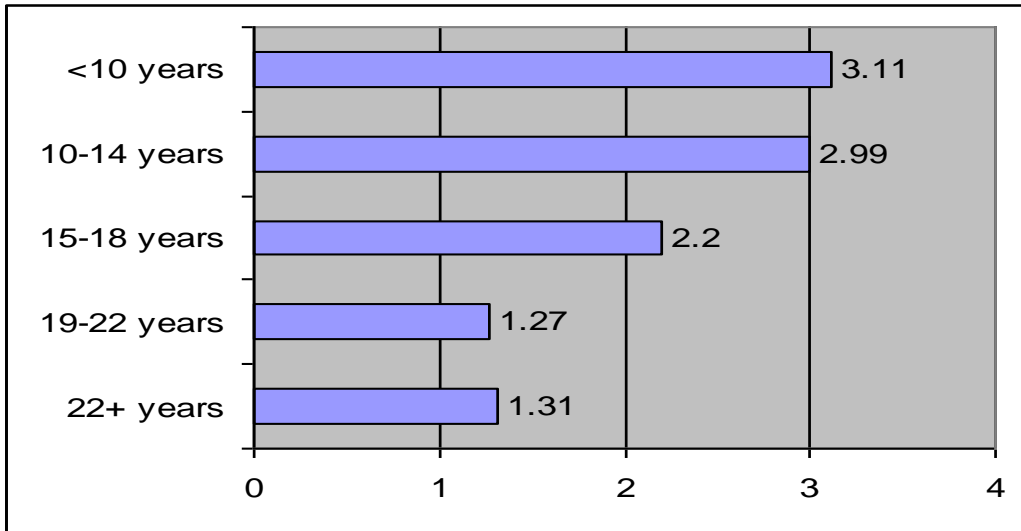


Figure 14 (2013): Average number of sports participated in, based on age

Figure 14A depicts findings from the initial survey. While the results are shown for males, females and males in Winter sports, a similar trend can be identified between the two surveys, in that U.S. Olympians were involved in multiple sports during childhood and teenage years, while the number of sports participated in consistently declined with age.

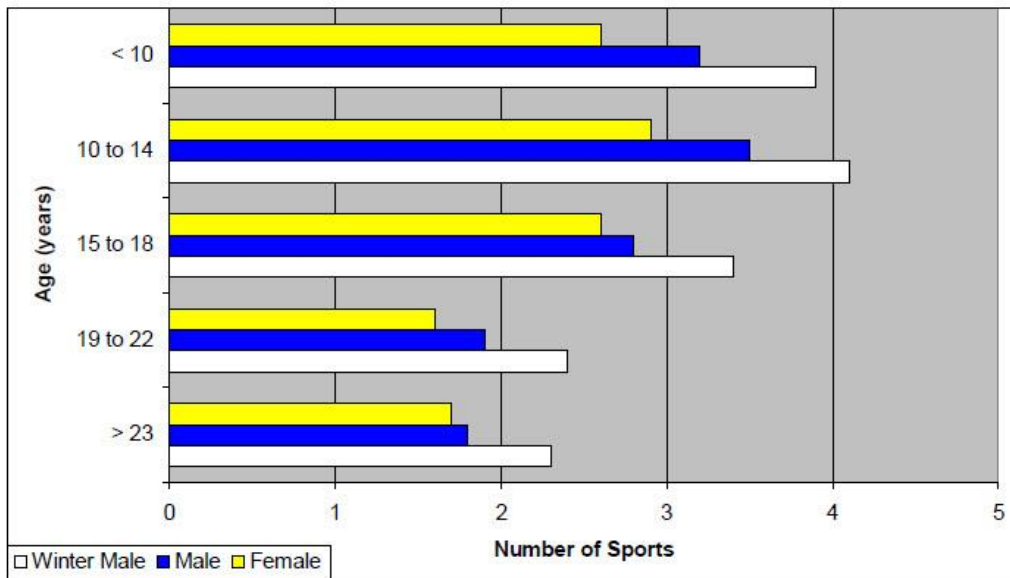


Figure 14A: Average number of sports participated in, based on gender

Multisport Athlete

Olympians were asked "Growing up, would you consider yourself as having been a multisport athlete as you developed?" This question was introduced in the current study to provide insight on surveyed Olympians participating in multiple sports during athletic development.

Results: As seen in Figure 15 (2013), 71 percent of the Olympians considered themselves to be a multisport athlete, which aligns with the results from the previous question that addressed the number of sports athletes participated in throughout their athletic careers.

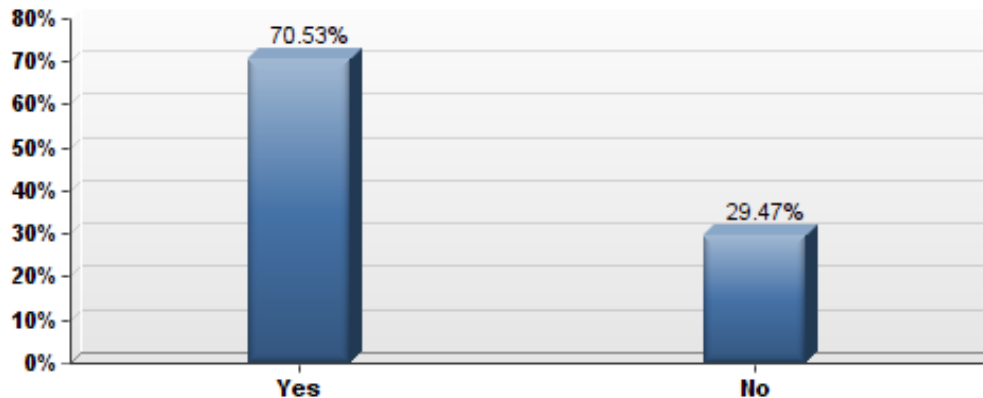


Figure 15 (2013): Multisport athlete classification

Value of Participating in Multiple Sports

Surveyed Olympians were asked 'How valuable was playing different or multiple sports in your development as an athlete?' As previously mentioned, research in the field of talent development supports the notion that a general sport background can prepare an individual for the demands of specialization and advanced training in one sport. While several questions in the survey asked athletes to identify the number and type of sports programs participated in throughout their athletic development, another means of addressing this topic is to get an athlete's firsthand perspective on whether playing multiple sports was valuable to their athletic development.

Results: As depicted in Figure 16 (2013), 88 percent of Olympians felt that playing several different sports was either valuable or very valuable to their athletic development. This question wasn't included in the initial survey, so it's not possible to compare results.

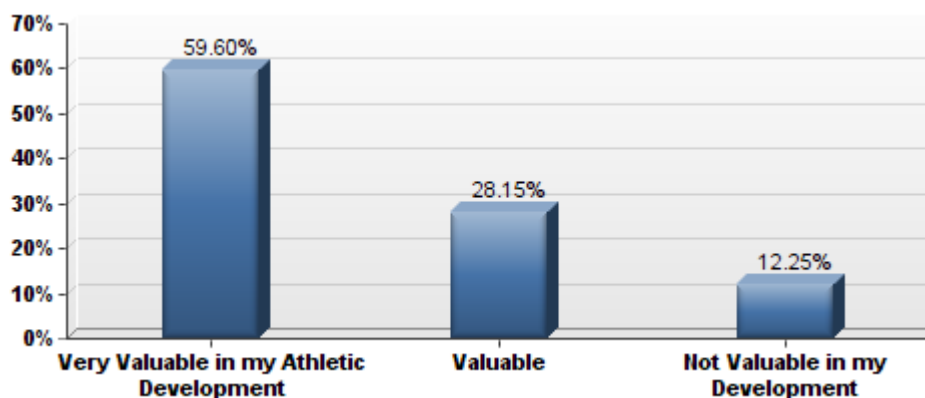


Figure 16 (2013): Perceived value of participating in multiple sports

As a further means of analysis, only those Olympians considered to be multisport athletes in the previous question were asked about the value of participating in multiple sports. Of the 213 multisport athletes, **97 percent** believe that participating in multiple sports was either valuable or very valuable in their athletic career.

COACHING QUESTIONS

Several questions in the current survey addressed coaching. As detailed below, the questions examined topics such as the importance of coaching at various stages of athletic development, important qualities in coaches and factors influencing athlete involvement with a coach.

Importance of Coaching at Various Stages of Development

Olympians were asked to rate the relative importance of coaching at the varying stages of development (one being minor to five being critical). The development stages addressed included:

- Initial contact
- Skill acquisition
- Early competitive phase
- Regional competitive phase
- National competitive phase
- International competitive phase

Effective coaching is critical to successful athlete development, whether it involves instilling love for the sport, providing motivation, teaching skills or periodizing training.

This question sought to understand Olympians' perspective on the importance of coaching at different phases of their development.

Results: Findings show that while surveyed Olympians perceive coaching to be most important during national and international competitive phases, they also consider coaching to be important throughout their entire athletic development. A similar result was found in the initial survey.

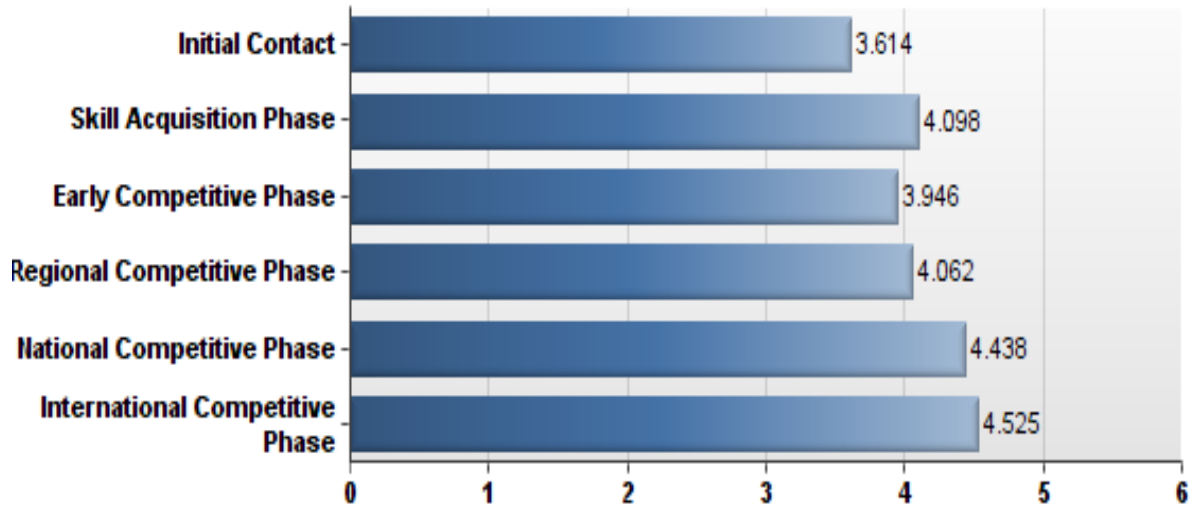


Figure 17 (2013): Importance of coaching in various development phases

Important Qualities in a Coach

Olympians were asked to rate the importance of specific qualities in a coach. The qualities addressed included:

- Teaching ability
- Skill competence
- Training knowledge
- Management and organizational skills
- Ability to motivate or encourage
- Strategic knowledge of the sport
- Personality
- Assistance with goal setting
- Ability to help you achieve balance in life

In the previous question, it was found that Olympians perceive coaching to be important; the present question seeks to determine the specific qualities in a coach that are viewed as most important. This question was deemed valuable as it may have implications for coaching education as well as coach selection and recruitment.

Results: Olympians rated the following as the three most important qualities for a coach to possess:

1. Training knowledge
2. Teaching ability
3. Strategic knowledge of sport

Skill competence and the ability to motivate or encourage were two additional qualities that were rated high, as seen in Figure 18 (2013). While the top-five rankings are ordered differently, these same coaching qualities were rated highest in the initial survey, as seen in Figure 18A.

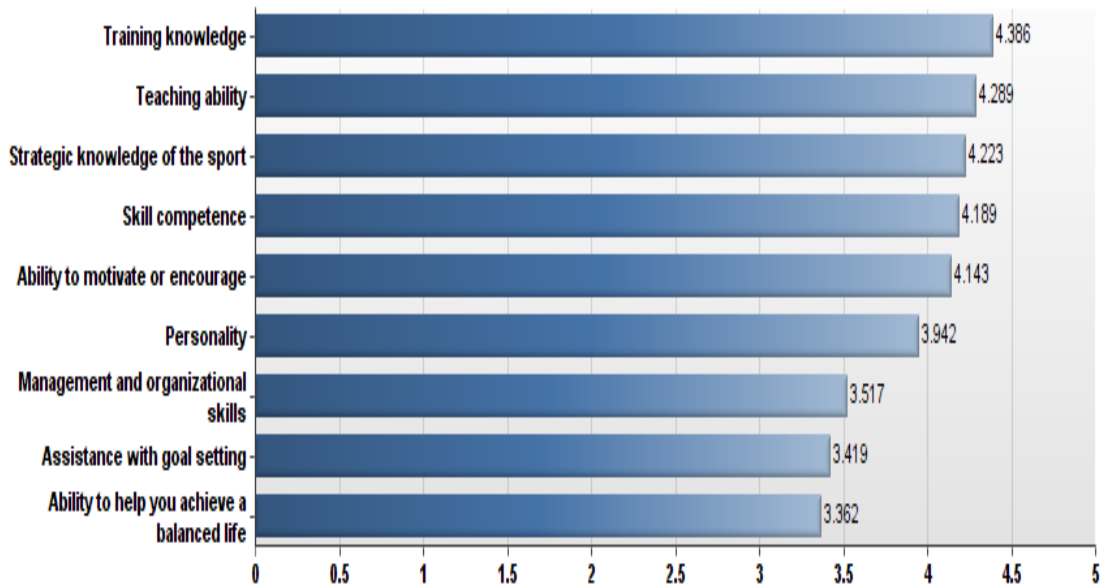


Figure 18 (2013): Importance of qualities in a coach

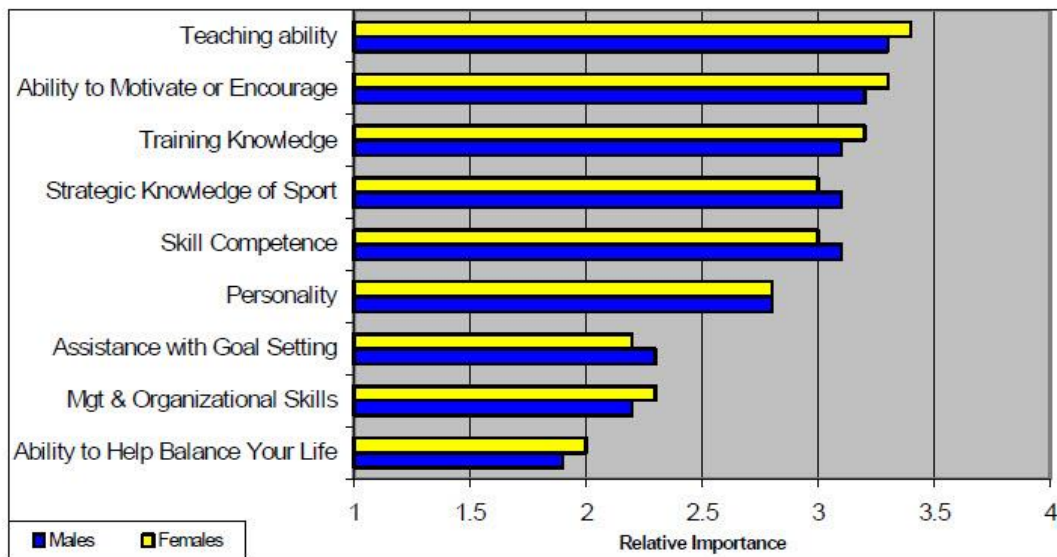


Figure 18A: Importance of qualities in a coach

Coach Selection and Involvement

A final coaching question asked Olympians to rate in order of importance the factors that contributed to their involvement with the coach at the time of achieving their highest competitive success. The factors addressed included:

- Recommendation from peers
- Recommendation from previous coach
- Previous coaching success of the coach
- Was recruited by the coach
- Moved to area where coach worked
- Coach was assigned to the national team

This question sought to identify reasons why Olympians chose a certain coach during the time of their highest success.

Results: As seen in Figure 19, having a coach assigned to the national team was considered the most important factor as to why Olympians were involved with their coach. A record of previous coaching success was the second-ranked factor, implying that the abilities and performance of a coach influences an athlete's involvement with the coach. In comparing these results to those of the initial survey, the rankings are identical.

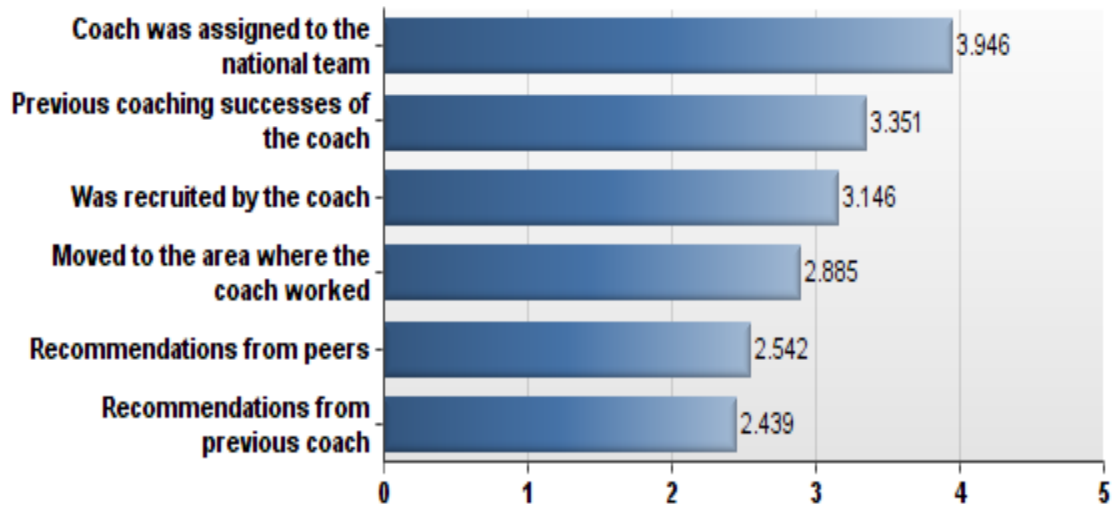


Figure 19 (2013): Factors contributing to athlete involvement with coach

Training Facilities and Training Sites

At the recommendation of USOC sport performance staff, a few questions assessing the role of training facilities were added to the current survey, as the organization continues to work with NGBs in hopes of providing the best environment to meet the training needs and preferences of their athletes.

Utilization of a Collegiate Athletic Program in Sport Development

Surveyed Olympians were asked if **'When going through your competition career - were you able to utilize college as a place to train and compete in your sport career?'**

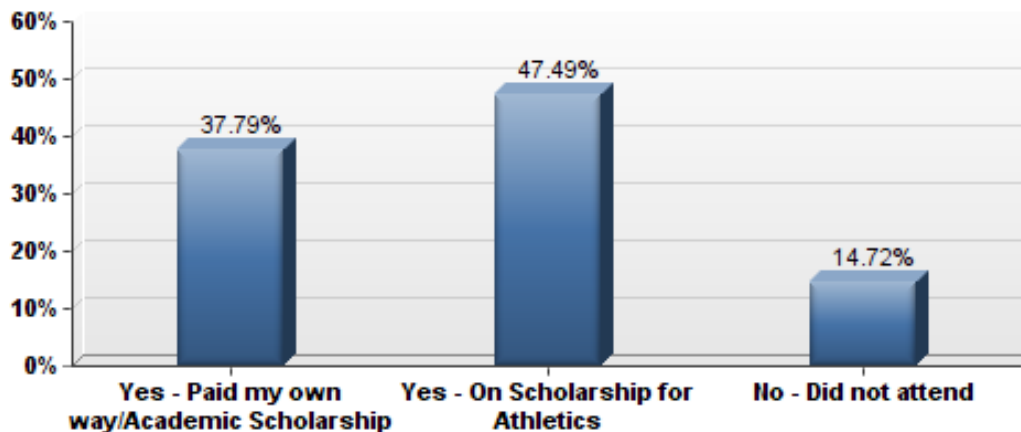


Figure 20 (2013): Utilization of collegiate athletics in sport development

Results: The majority of surveyed Olympians, 85 percent, used collegiate athletics as a path to elevate their athletic career. More specifically, 38 percent paid their own way through college or had an academic scholarship, while 47 percent received an athletic scholarship for college.

Utilization of Collegiate Post-Graduate Program in Sport Development

Along similar lines, Olympians were asked 'were you able to utilize a collegiate post graduate program (Masters) or graduate assistant program to continue training and utilize the collegiate system for support in your career path?'

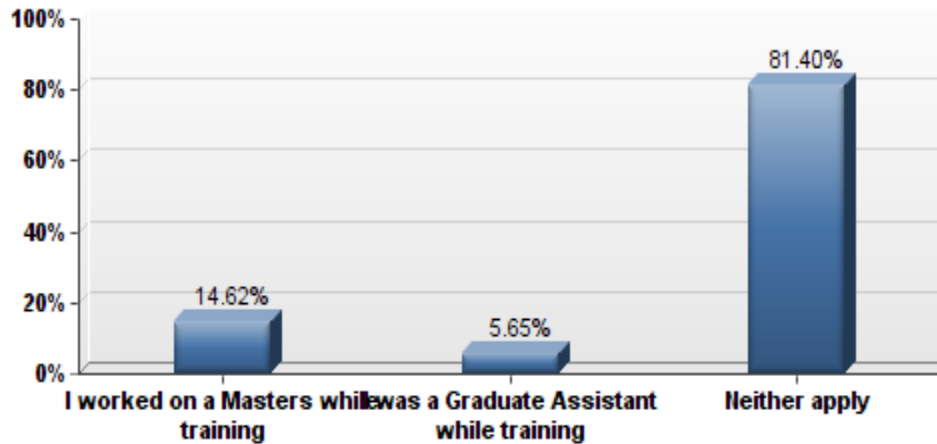


Figure 21 (2013): Utilization of a collegiate post-graduation program in sport development

Results: Only 20 percent of surveyed Olympians pursued a Master's degree or graduate assistant program while continuing athletic training, which is a much smaller percentage than those Olympians competing as an undergraduate in a collegiate athletics program to elevate their training. These findings have implications for when and how to provide support to developing athletes.

Utilization of Olympic Training Center During Development

Surveyed Olympians were asked 'While training during your career, did you utilize an Olympic Training Center for your training?'

- Early competitive/ developmental phase
- Regional competitive phase
- National competitive phase
- International competitive phase
- Olympic Games training

Results: The greatest percentage of athletes reported using the Olympic Training Centers later in their career. Specifically, 56 percent utilized the OTC while competing in national competitions, 84 percent while competing at the international level, and 65 percent while training for the Olympic Games.

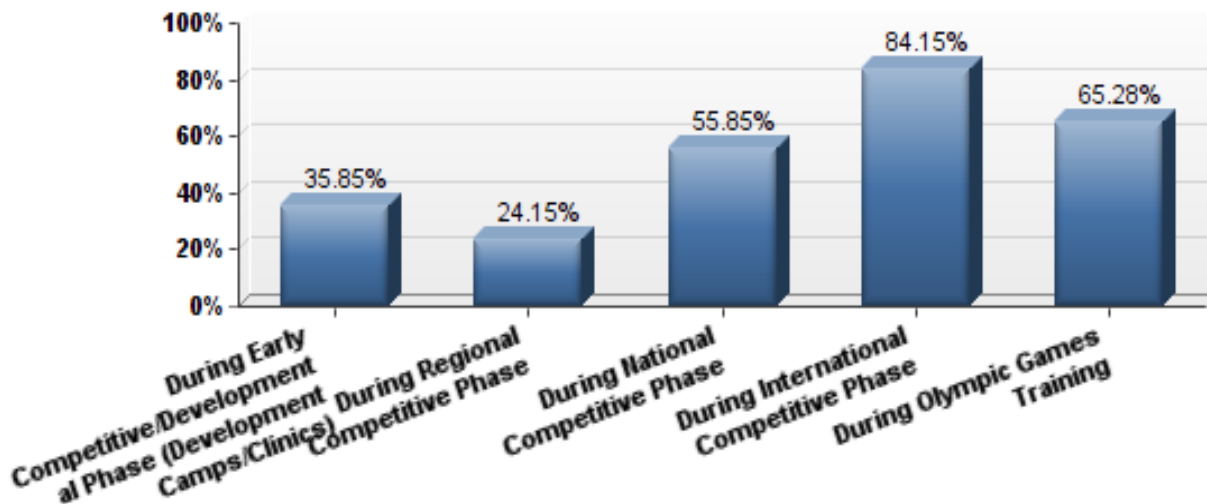


Figure 22 (2013): Utilization of Olympic Training Centers

Value of Training Locations

Olympians were asked to rate the value of the following training locations on a scale from one to five (one offering no value to five offering high value):

- Olympic Training Centers
- Hometown training locations
- Olympic training Sites
- Collegiate athletic facilities

Results: All of the identified training locations were rated as being of moderate-to-high value to the surveyed Olympians, with the Olympic Training Center receiving the highest rating at 3.96, followed closely by hometown training locations at 3.89.

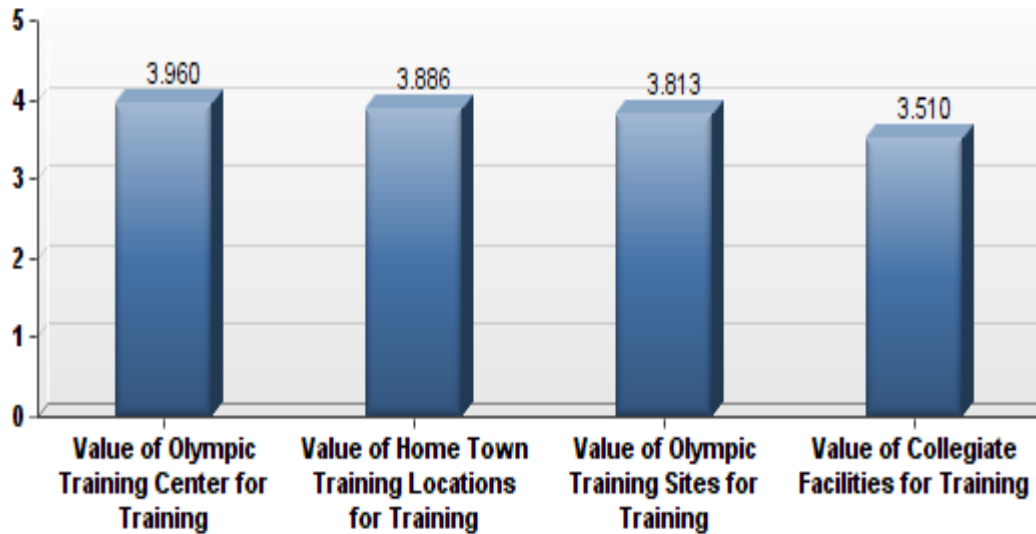


Figure 23 (2013): Value of training locations

ATHLETE FINANCES & FUNDING

Financial Support from Various Groups

Olympians were asked **'did you receive funding from any of these groups during your training/career – NGB, Sponsor, USOC? If so - What stage?'**

Results: For those athletes that had received funding, the majority received support from an NGB, sponsor or the USOC during the international competitive phase of their career. Specifically, in terms of NGB financial support, 93 percent reported receiving financial support when competing at the international level, while 51 percent received financial support during the national competitive phase. In terms of financial support from the USOC, 97 percent reported receiving funding during the international competitive phase, while 27 percent received funding when competing at the national level. Finally, 91 percent reported instances of sponsors providing financial support during the international phase, and 50 percent during the national phase of their athletic career.

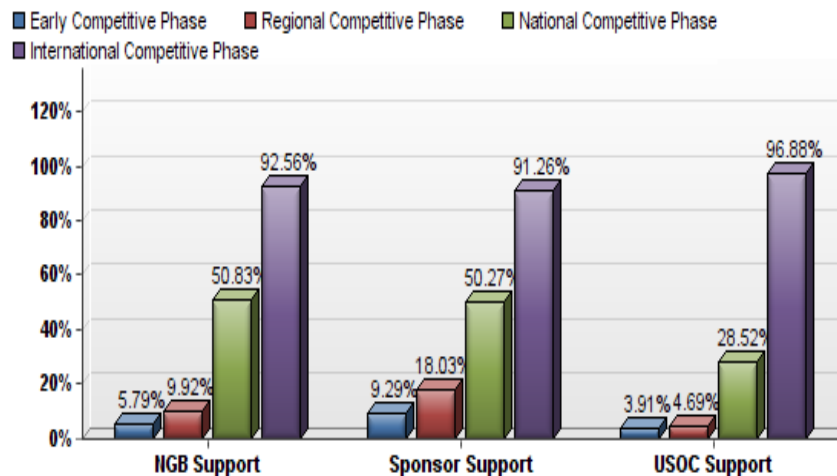


Figure 24 (2013): Financial support during athletic career

Timing of Funding

Olympians were asked 'If you had an option to choose funding to aid in your training before the Games, or money as a reward for winning a medal at the Games, which would you find to have been more beneficial to your overall goals as an athlete?'

Results: This question was added to the current survey to determine the optimal time for an athlete to receive funding. The majority of surveyed Olympians felt that additional targeted direct athlete support disbursed throughout the quad leading up to an Olympic Games would be most beneficial. Almost half reported that additional funds directed toward pre-Games training would be beneficial, while only 25 percent believed that post-Games financial rewards for winning a medal would be more beneficial. Note that Olympians were able to identify more than one of the funding choices in the survey as being beneficial.

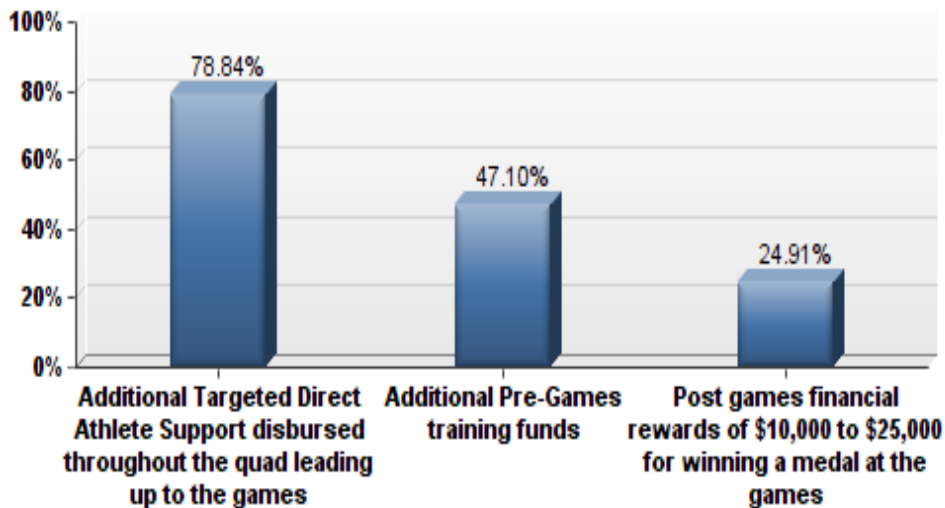


Figure 25 (2013): Most beneficial timing for funding to aid training

IMPLICATIONS OF SURVEY FINDINGS

Milestones:

Several findings tied to milestones in athlete development are worthy of further discussion. One such finding from the current survey is that the average age at which athletes report being introduced to their sport is 11.4 years old, which supports the USOC drive to focus on technical development at a younger age and less specialization until after age 15. It is not until after age 15 that U.S. Olympians are closing in on the milestones that lead to focusing on making the Olympic team. This trend matches the best practice suggestions of athlete development in the U.S. and across the world.

[USOC athlete development pushes early positive experiences for athletes under 12 years old, as well as multisport play at a younger age.]

Another relevant finding concerns the age at which athletes make their first U.S. Olympic team. Based on findings that 65 percent of surveyed U.S. Olympians reported making their first Olympic team between the ages of 21 and 28, the progression to the first Games for many athletes comes four years prior (ages 19-24). For most individuals, this age coincides with the end of high school and/or college. This highlights key ages in which the USOC can target efforts to directly impact athletes. Interestingly, at an average age of 19 years old, athletes reported believing that their Olympic dream could be a reality, as seen in Figure 5 (2013). This further supports the above comments regarding USOC efforts to better impact athletes and aligns with key athlete development concepts in the U.S.

Motivational factors:

Olympians reported being initially drawn to a sport by love for the sport, as well as intrinsic love of activity. The Olympians that completed this survey reported that they are motivated to participate in sport by the challenge and love of competition, desire to be successful, engaging in a competitive outlet, and having fun. These same motives influence the desire to pursue excellence in their sport, which stresses the importance of coaches and parents of young athletes striving to instill a love of the sport and enjoyment in the activity. These findings are further supported by the fact that the initial survey revealed the same top-four motives.

Based on these findings, a key focus for the USOC coaching department should be to emphasize these key areas to coaches. As similar motives were important at both early stages of an athlete's career and when deciding to pursue excellence, these findings are relevant for coaches working with athletes across the developmental spectrum. Coaches and administrators that can infuse competition with athlete-centric success and fun, will set up both athletes and coaches for a great experience. These concepts again support the athlete-centric approach to coaching in sports that is currently trending in 2014.

Sport Involvement:

An assessment of questions related to sport and physical activity reveals some findings that are worthy of being highlighted. For instance, it was found that participating in

unstructured activity with friends was the top-rated activity for getting involved in a sport (40 percent) in the initial study, while that activity dropped to third with 25 percent in the current study. Currently in the U.S., the rate of free and unstructured play is decreasing based on the limited access to facilities, over structuring of recreational activities and safety concerns held in society. This suggests that the USOC must continue to support and cultivate opportunities with community organizations.

Beyond that change, it's clear that private clubs and collegiate athletic programs have remained as key avenues for Olympians to capitalize on their path to pursue excellence in sport. This finding aligns with the milestone findings, which demonstrated that athletes make decisions toward realizing their dream of being an Olympian at this age.

The notion of being a multisport athlete bares further attention. Olympians reported playing an average of three sports until the age of 14, two to three sports from ages 15 to 18, and then one sport beyond those ages. Similar results were found in the initial survey. Not only did the surveyed Olympians report participating in multiple sports during their athletic development, but the majority were considered to be multisport athletes – of those multisport athletes, an overwhelming 97 percent felt that participating in multiple sports was beneficial to their development, which belies the notion that early specialization is critical to long-term success.

The USOC can use this information as additional support for athlete development concepts related to the coaching education department's work with Design to Move and the Aspen "Project Play" initiative. Early specialization does not appear to be a critical factor in Olympic success, according to these findings, whereas multisport play during development appeared to be beneficial to these Olympians.

Coaching:

A noteworthy finding, that may get overlooked, is the overall importance that Olympians place on coaching. From an athlete's initial contact with a sport to the international competition level, the surveyed Olympians rate coaches highly in terms of their role in achieving success, which suggests that a strong pipeline of coaches is critical for athlete development.

Interestingly, results from the current survey are very similar to those of the initial survey, in terms of what qualities Olympians value in a coach. Training knowledge, teaching ability and strategic knowledge of the sport were rated as the top factors, with the only discrepancy being that general training knowledge was considered the top-rated quality of a coach in the current survey. The emphasis on training could be a result of the overall fitness emphasis in the American education system over the past 20 years. It is also notable that teaching ability was still a desired coaching quality in both surveys, which emphasizes the importance of a coach's ability to teach and educate athletes. Both training and teaching ability are key factors beneficial to the USOC and

partners in coaching education and overall athlete development. Training support staff and coaches on athlete-centric styles of motivation, planning and implementation tactics will continue to benefit the athlete based on the findings from both Path to Excellence surveys.

Training Facilities and Locations:

The questions focused on training facilities and training sites were additions to the current survey, as the USOC aimed to gain data to help maximize training locations and experiences for athletes across the country. Therefore, it was essential to understand how Olympians perceive and use various training sites and environments.

With only 10 to 15 percent of the surveyed Olympians not attending college, it was eye-opening that over half of the athletes attending college received some sort of scholarship to attend and compete in collegiate athletics, which suggests that the college environment for undergraduates appears to be an important place during those critical years in athletic development. Equally meaningful was that very few Olympians stayed in college as a graduate assistant or to pursue a master's degree for the purpose of continuing their athletic training. This area should be explored further with specific follow-ups from the USOC to understand the value and returns on investment for each OTC.

Funding:

A key question that was added to the current survey sought to provide the USOC with a better understanding of when and how Olympians would prefer to receive funding for their training. It seems that the majority of Olympians would rather receive direct athlete support during the four years leading up to the Games or the moment they are named to the games, while only 25 percent of athletes would prefer to receive post-Games funding for winning medals. The other funding question examined when in their athletic career they received support and from what organizations – including NGBs, the USOC and sponsors – with the majority of athletes receiving financial support mainly while competing at the national and international levels, which is a similar result to the initial survey.

These funding insights will assist the USOC in the push for more targeted direct athlete support, as well as help with decisions for the future of athlete financial support.

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Appendix A: Talent Identification and Development Questionnaire

Talent Identification and Development Questionnaire Aspen

Q1. Gender?

Note: Disclosing GENDER is purely voluntary and you may freely skip ANY or ALL of these questions.

- Male
- Female

Q2. Race?

Note: Disclosing race or ethnicity is purely voluntary and you may freely skip ANY or ALL of these questions.

- African American or Black
- White
- Asian
- Hispanic or Latino
- American Indian and Alaska Native
- Native Hawaiian and other Pacific Islander
- Some other race
- Two or more races
- I would prefer not to share this information

Q3. Age when in first Games?

Note: Disclosing age is purely voluntary and you may freely skip ANY or ALL of these questions.

- Age 12-16
- Age 17 - 20
- Age 21 - 24
- Age 25 - 28
- Age 29 - 32
- Age 33 - 36
- Over 36

Q4. Sport(s)

Q5. Event(s)

Q6. What was the economic status of your family at the time you began participating in sport?

- \$0-\$20,000
- \$20,000 - \$40,000
- \$40,000 - \$60,000
- \$60,000 - \$80,000
- \$80,000 - \$125,000
- \$125,000-\$250,000
- \$250,000 +

Q7. Performance: Please check all appropriate lines:

	Medalist	4th - 8th	Top 25	Team Member	Trials	Not on Team
2000 Olympics - Sydney	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2002 Olympics - Salt Lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2004 Olympics - Athens	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2006 Olympics - Torino	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2008 Olympics - Beijing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2010 Olympics - Vancouver	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2012 Olympics - London	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q8. Please indicate the age at which you reached each of the following stages of development within your sport.

Introduced to the sport

Achieved local competitive success

First dreamed of becoming an Olympian

Started making decisions that would contribute to actualizing that dream

Believed it was possible to become an Olympian

Q9. Rate the relative importance (1 the lowest to 5 highest) of the following factors that directed you toward your sport.

_____ Parental Influence

_____ Encouragement from a Physical Education Teacher

_____ Peer Recruitment

_____ Sibling Recruitment

_____ Early Success

_____ Intrinsic Love of Activity

_____ Love of the Sport

_____ Coaches Recruitment

Q10. Please rate the importance (1 the lowest to 5 highest) of the following factors in motivating your participation in your sport.

_____ Dollars

_____ Recognition

_____ Desire to be Successful

_____ Acceptance in a Peer Group

_____ Pleasing Parents

_____ Scholarship Incentive

_____ Fun

_____ Intrinsic Value of the Sport

_____ Acquisition of Skill

_____ Desire to Improve Fitness

_____ Competitive Outlet

_____ Challenge/Love of Competition

_____ Early Success

Q11. Please rate the motivation (1 the lowest to 5 highest) for your decision to pursue excellence in your sport.

- _____ Dollars
- _____ Recognition
- _____ Desire to be Successful
- _____ Acceptance in a Peer Group
- _____ Pleasing Parents
- _____ Scholarship Incentive
- _____ Fun
- _____ Intrinsic Value of the Sport
- _____ Acquisition of Skill
- _____ Desire to Improve Fitness
- _____ Competitive outlet
- _____ -Challenge/Love of Competition

Q12. Please indicate the number of sports that you regularly practiced or competed in at each age.

- <10 years _____
- 10 -14 years _____
- 15 - 18 years _____
- 19 - 22 years _____
- >22 years _____

Q13. Activity and sport participation. Please check the frequency of participation at each level listed.

	4-5 Days a Week	2-3 Days a Week	0-1 Days a Week
Elementary school physical education classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Secondary school physical education classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scholastic participation in other sports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participation in club or community - based program in other sports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q14. What types of program were you involved in when you first started participating in your sport (check all that apply)?

- Family activity
- High school physical education
- NGB-sponsored program
- Collegiate athletic
- Unstructured activity with friends
- Parks and recreation program
- Commercial Club
- Private Club
- Elementary school physical education
- Community-based program
- High school athletic program
- Middle school physical education

Q15. What types of program were you involved in when you made the commitment to pursue excellence in your sport? (check all that apply)?

- Family activity
- Unstructured activity with friends
- Elementary school physical education
- Middle school physical education
- High school physical education
- Parks and recreation program
- Community-based program
- NGB-sponsored program
- Commercial Club
- Private Club
- High School Athletics
- Collegiate athletic

Q16. How valuable was playing different or multi-sports in your development as an athlete?

- Not Valuable in my Development
- Valuable
- Very Valuable in my Athletic Development

Q17. Growing up, would you consider yourself as having been a multi-sport athlete as you developed?

- Yes
- No

Q18. Please rate the relative importance of coaching at the varying stages of your development (1 minor to 5 critical factor).

- _____ Initial Contact
- _____ Skill Acquisition Phase
- _____ Early Competitive Phase
- _____ Regional Competitive Phase
- _____ National Competitive Phase
- _____ International Competitive Phase

Q19. Please rate (1 the least important to 5 highest) the qualities of a coach that were important to you.

- _____ Teaching ability
- _____ Skill competence
- _____ Training knowledge
- _____ Assistance with goal setting
- _____ Management and organizational skills
- _____ Ability to motivate or encourage
- _____ Strategic knowledge of the sport
- _____ Personality
- _____ Ability to help you achieve a balanced life

Q20. Please rate in order of importance (1 least important to 5 highest) the factors that contributed to your involvement with your coach at the time of achieving your highest competitive success.

- _____ Recommendations from peers
- _____ Recommendations from previous coach
- _____ Previous coaching successes of the coach
- _____ Was recruited by the coach
- _____ Moved to the area where the coach worked
- _____ Coach was assigned to the national team

Q21. When going through your competition career - were you able to utilize college as a place to train and compete in your sport career? (NCAA or Club)

- Yes - Paid my own way/Academic Scholarship
- Yes - On Scholarship for Athletics
- No - Did not attend

Q22. Were you able to utilize a collegiate post graduate program (Masters) or Graduate Assistant program to continue training and utilize the collegiate system for support in your career path?

- I worked on a Masters while training
- I was a graduate assistant while training
- Neither apply

Q23. Which competition helped you most in preparing for the Olympic experience?

Q24. Did you receive funding from any of these groups during your training/career? If so - What stage?

	Early Competitive Phase	Regional Competitive Phase	National Competitive Phase	International Competitive Phase
NGB Support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
USOC Support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sponsor Support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q25. If you had an option to choose funding to aid in your training before the Games, or money as a reward for winning a medal at the Games, which would you find to have been more beneficial to your overall goals as an athlete?

- Additional targeted direct athlete support disbursed throughout the quad leading up to the games
- Additional pre-Games training funds
- Post games financial rewards of \$10,000 to \$25,000 for winning a medal at the games

Q26. While training during your career, did you utilize an Olympic Training Center for your training? (Check all that apply)

- During early competitive/developmental phase (development camps/clinics)
- During regional competitive phase
- During national competitive phase
- During international competitive phase
- During Olympic Games training

Q27. Please rate the value of the following training locations. (Scale of 1-5, 1=no value, 5 = high value)

- _____ Value of Olympic Training Center for training
- _____ Value of Olympic Training sites for training
- _____ Value of hometown training locations for training
- _____ Value of collegiate facilities for training

Q28. Are you still active in sport today?

- Recreational
- Competitor
- Coach
- Administrator
- Other _____

Q29. Please list 5 factors (personal characteristics, abilities, programs, other people, etc.) you believe have contributed most to your achievement of success.

Q30. What do you believe were the 5 most significant obstacles that you had to overcome to achieve success in your sport?

Q31. If you would be willing to be interviewed in the future about your experience as an athlete, and your path to success in a manner to help the USOC and NGBs better aid other athletes in the future, click the box below and enter your information. We will contact you at the next phase of our research.

- I would like to be contacted (Please enter your email address)

- I am not interested in participating further

Appendix B: The Number of Olympian Respondents by Sport

Athletics	28
Baseball	2
Basketball	8
Biathlon	4
Bobsled	5
Curling	3
Cycling	11
Diving	3
Equestrian	1
Fencing	5
Field Hockey	3
Figure Skating	3
Gymnastics	2
Ice Hockey	3
Judo	5
Kayak	4
Luge	4
Pentathlon	1
Rowing	69
Sailing	5
Shooting	13
Skeleton	4
Skiing	8
Snowboard	2
Soccer	4
Softball	6
Speed Skating	4
Swimming	33
Synchro Swimming	11
Table Tennis	2
Tennis	1
TKD	3
Triathlon	2
Volleyball	15
Water Polo	6
Weightlifting	2
Wrestling	8