

When Elite Track and Field Has Arrived

--Full Length Version--

Thomas VanZandt
etf.forward@gmail.com
1-818-388-2826

June 29, 2017

The sport of elite track and field (ET&F, or elite athletics) has a puzzling characteristic: somehow, a beautiful and simple set of activities (running, jumping, and throwing), easily understood and appreciated by large numbers of people worldwide, has not lent itself to a successful entertainment product. While it is the largest sport by participation numbers in US high schools (almost 1.2M athletes, including boys and girls; slightly larger than boy's football, and larger than combined boy's and girl's numbers for both basketball and soccer¹), retaining interest in the elite form of the sport has been very challenging. This is consistent with the professional sport's inability to provide meaningful financial support for a significant number of its top athletes. The various, dispersed forms in which ET&F is presented, to a potentially large customer base, amount to a fairly weak product and a small overall enterprise. This professional product appears to disappoint the sport's many fans and observers, just as much as it under-serves its professional talent. Problems of this type are relative. Observers feel that the business of ET&F performs poorly, in comparison to many other sports. Given the simple and accessible nature of the sport, and the large participatory numbers, this is confusing.

Knowledgeable followers of the business conclude that ET&F is not even worthy of being called a "minor sport", to borrow a pejorative often used to describe professional hockey (e.g., the NHL), professional golf (the PGA Tour), and professional tennis (the ATP/WTA Tours²). Some unflattering comparisons are obvious. For example, the average NHL team valuation is \$517M³, within a thirty team league. Nobody would imagine that ET&F valuation is even a small fraction of this \$15B "minor" professional enterprise. In fairness, the NHL is only "minor" in comparison to even larger sports (e.g., American and international football, professional basketball, or professional baseball).

More surprising is to note that the size of ET&F is nowhere near that of professional tennis (PT), a sport that conducts highly successful men's and women's "Tours". The PT business sponsors a combined 130+ tournaments annually, with "financial commitments" (read "athlete-directed prize money") of at least \$340M⁴⁵. ET&F pales in comparison to this. According to published estimates for the major professional ET&F series⁶⁷, the collective businesses will sponsor 34 total events, including both men and women, in 2017. The estimated prize money for these events is circa \$19M.

Continuing with the tennis comparison, the combined ATP/WTA tours also sponsor four "major" tournaments (so-called "Grand Slam" events) every year. These four competitions alone disburse about \$78M in earnings, among a potential 2300 individual athletes⁸. Recent year aggregate event revenues are circa \$870M⁹. In contrast, ET&F puts on one "major" fixture per year¹⁰. Adding the quadrennial Olympic Games, there is an average of 1.25 major events per year. By far, the largest prize money is distributed at the biennial IAAF¹¹ Outdoor World Championships (a combined \$7.2M in 2015¹²). Less compensation (about \$2.5M in the 2016 version¹³) is available at the IAAF Indoor World

Championships. Prize money at the Olympics only consists of national federation payouts to medal winners, which on average are fairly small (generally tens of \$K, when published financial awards¹⁴ are weighted by the domiciles of actual ET&F Olympic medal winners). In terms of headcount, the 2015 IAAF Outdoor World Championships admitted 1771 athletes¹⁵. As for topline revenue, the minimum budget for an Outdoor World Championships is \$40M, per IAAF bidding rules.¹⁶ Estimates are that the 2021 version (Eugene, OR) will have revenues of around \$100M.¹⁷ While being one of the bigger undertakings in ET&F, this is still small, relative to the major PT events.

In the area of individual athlete compensation, about 100 men and 100 women on the combined PT tours each earned more than \$293K in prize money in 2016¹⁸. Roughly speaking, about 400 combined men and women in tennis earn more than \$100K per year. In contrast, ET&F, through its major tour (IAAF Diamond League), provided \$100K+ to only ten athletes in 2016¹⁹. 400th place on the ET&F list (the ranking position corresponding to ~\$100K annual prize money in PT) was worth only \$4K in the Diamond League!

The data indicate that PT puts on a larger number of events at all levels, and that it provides a much larger amount of direct athlete compensation (~18X, relative to ET&F). Currently, PT supports a franchise of annual “happenings” (major events) that are much larger, and more frequent.

Readers might ask an obvious question: why aren't you considering athlete endorsement income? Don't ET&F athletes make as much, or more, money from shoe and apparel deals, than they do from performance prize payouts?

Good question. They probably do, in a handful of cases. However, PT generates much more external value for its top players. According to one compilation²⁰, six PT players are among the world's top 100 sports endorsement talents. Their combined deals are about \$185M (in 2016). A single ET&F athlete (guess who!) comes in at 11th (\$30M). It seems likely that there is a strong correlation, and causative relation, between the size of the overall enterprise and its athlete endorsement potential: a larger enterprise (PT) begets more endorsement money, and a smaller one (ET&F) makes endorsement deals more difficult to find.

My intent here is not to disparage the enterprise connected to ET&F. In fact, I have a great respect for many recent efforts at improving the product. Honest and fruitful energy is being spent globally to make the sport larger and more lucrative to its athletes. For example, most readers would recognize the excellent events that are being hosted at Tracktown USA²¹, by a rejuvenated development effort at the University of Oregon. It is also hard to miss the IAAF's efforts to improve its own competitive offerings. In addition, numerous, smaller enterprises have popped up from time to time²², in an attempt to offer ET&F athletes greater exposure. Good people are trying hard to move the sport forward. Having said that, my goal is also NOT to generate a long list of low-level (tactical) steps and proposals that might serve to generate only incremental gain for ET&F.

I believe that there is more value in stepping back to consider the apparent potential of ET&F, in view of the demonstrated performance of PT. As such, this document is more of an aspirational template for ET&F. While both “minor sports” suffer from the oft-used putdown that they are “not team sports”, one of them generates an enviable level of commercial success. I believe that the physical activities demonstrated (to near perfection!) in both ET&F and PT are basic, compelling, and comprehensible by nearly anyone.²³ Nevertheless, in relative terms, one sport seems to thrive at the professional level,

while the other struggles. This is clear from the most basic measures. Rather than simply asking “what ET&F should do in the future”, I believe that there is value in trying to understand those critical attributes of PT, which ET&F may be lacking.

Essentially, this exercise is about considering the expected look and feel of ET&F, when it reaches the level of success of PT. Put another way, I suggest that professional tennis can serve as a structural archetype for an improved version of ET&F, and that it can point to ways along which ET&F might reach a higher level of business performance. Quite simply, I will try to describe what ET&F will be like when it has “arrived”. Implicit in this is my opinion that simply reaching the status of professional tennis would be an excellent goal for the stakeholders of ET&F. It would represent a great improvement!

The word “structural” above is important. I have concluded that many of the important differences between the two sports are organizational in nature. With this in mind, I point to the following ideas:

1. A Structured “Tour” is the Valuable Commodity.

The PT Model

There is one real source of tennis-generated income for PT participants. It is the all-inclusive ATP/WTA Tour²⁴. Everyone at the elite PT level participates in this Tour's events. They all follow its very clear rules, and they benefit from its overall scope. As discussed above, hundreds of athletes derive a significant level of income from their service to this entity. The PT Tour sets the events, and it imposes a high degree of standardization and hierarchy on how they are conducted. It is essentially the only game in town for tennis athletes of the highest level. It is important to recognize that the PT Tour is above any of the individual talents and personalities of its members. Regardless of whether Federer/Djokovic/Nadal/Murray/Williams (or Becker/Lendl/Graf/Navratilova, from an earlier era) are all participating in major Tour events, the show goes on. It proceeds with the same competition format, it provides the same prize money to its athletes, and it generates nearly the same interest for its paying customers. New stars are often born, and fans and followers consistently find new reasons to follow the Tour. As such, retirement of profound talents does not create a significant existential challenge for this business. The Tour is the dominant enterprise in the sport, and any alternative efforts (e.g., World Team Tennis²⁵) are relatively insignificant.

PT tournaments are conducted within a clear hierarchy²⁶. Qualification for higher events depends upon points and rankings from previous tournaments. It is critical to note that there are athlete appearance requirements (tournament numbers; roughly eight per season) in lower tournaments, for high-ranked players (say those in the Top-30)²⁷. Consistent with the general qualification requirements for all events, the Grand Slam tournaments (four per year) are restricted to players that rank approximately in the Top-100 of their respective tours. As I stress further below, winning (and advancing through rounds) in Tour events is essentially the only way to move up in the rankings. Without playing a relatively large number of lower-level tournaments, and achieving success and points in them, most players will not achieve a high-enough ranking to be eligible for the bigger tournaments (such as Grand Slam events). Also, seeding in these events (a partial factor to success) is based solely upon past performance (via an aggregate points ranking).

The ET&F Approach

ET&F appears to be much more of a “collection of sole proprietors”. This relates mainly to athletes (and their coaches) who very much seem to be on the hunt for “the best deal” that will maximize what is a relatively small amount of annual income. As one ET&F leader has recently suggested²⁸, the nature of the current sponsorship structure in their sport is success-limiting, and worthy of a re-think. While the whole notion of the power of shoe and apparel companies within ET&F is an important subject, I do not address it here. I simply suggest that financial influence in our sport relies too heavily on extramural income sources (endorsements), and too little on the business results of the ET&F Tour's events. Also, at risk of over-emphasizing a subjective concept, I suggest that ET&F has put too much emphasis on individual stars. The media speculation of the impending retirement of Usain Bolt is one example. The uncertainty that this inevitable event causes for ET&F (and even the entire Olympic movement²⁹) leads to the type of existential crisis that PT seems to avoid. This may be a sign that the ET&F Tour is not yet a strong enough, standalone entity. Similarly, it supports the idea this Tour is not much stronger than its marquee athletes.

The IAAF looks to have provided an increasing level of standardization to its various sub-tours (by imposing some basic prize money structures to the IAAF World Indoor Tour, the World Challenge Tour, and the Diamond League). However, the ET&F fan still looks upon many of the Tour events as independent, small enterprises. For example, in the flagship Diamond League Tour, event organizers apparently have wide latitude on allowing athlete access³⁰. The flexibility afforded Diamond League meet directors seems to allow them to populate competitive fields as they see fit (implicitly to maximize revenue and income for their event). It does not appear that any individual meeting (save from a point-seeded pair of Diamond League Final events³¹) is really supporting a stable and transparent competitive framework that defines the larger sport. In addition, the age-old practice of using appearance fees to generate compelling fields for individual meetings is still at work³². I argue that these limited, individual-to-individual transactions are at odds with creating a more powerful, structured Tour. While this may be a symptom of significantly lower performance-based compensation (prize money) available in ET&F, it is clearly not the model that PT successfully demonstrates. As far as I can see, there are no appearance requirements for athletes on the ET&F tours. Track athletes seem to be free to pick and choose which (if any) meets they appear in. One result of this is that the sport's (arguably) biggest star does not regularly compete on ET&F's major Tour!³³ This is a significant limitation to the perceived quality of the product, when one considers a paying fan base that would obviously like to see the best athletes compete at every event. More on this below. The one (or effective 1.25, including the Olympic Games) “major” meet per year in ET&F has a qualification standard that is defined primarily by a performance mark³⁴. So, the entirety of the Tour season does not really set the stage for this annual event, in any clear way.

All of this paints a picture illustrating that the ET&F events do not operate within a competitive structure that is as coherent as that of PT. There is only a mild level of hierarchy (or event-to-event connection) on individual ET&F tours. This de-emphasizes smaller meetings, as it deprives them of the ability to influence the structure and composition of more major events. In my opinion, this loose structure does not reward competitive performance (head-to-head wins and losses) to a sufficient degree. Also, there is an important difference between major event qualification based upon a single qualifying mark³⁵, and qualification that requires longer-term competitive success³⁶. The latter embraces a competitive build-up that strengthens the value of more of the PT Tour's events. The former tends to make ET&F's smaller and earlier seasonal events less relevant.

Achieving greater focus in product definition is a challenge in the world of independent sole proprietors. It seems an inescapable conclusion that spreading a finite talent pool among multiple, competing ET&F commercial entities is a bad idea. Condensing this same talent into a single, more structured product offering is a successful approach demonstrated by many of the leading professional sports leagues. Ultimately, the collective ET&F Tour that exists now is not successful in providing a significant and sustainable level of earning power for its participants. It is simply not a valuable enough commodity. A focus on building and strengthening a single competitive entity for ET&F is an obvious priority for its stakeholders. PT shows one example of what this focus can achieve.

2. More, Not Less, of Many Things

As limiting as ET&F's relatively nebulous organizational structure may be, I argue that the relative scarcity of the ET&F product is a greater problem. This scarcity is manifest in a number of ways.

First, ET&F athletes compete much less frequently than professional athletes in nearly any other sport. Sampling across the 19 individual events that comprise outdoor stadium track and field, and including athletes that hold world rankings of 1, 2, 5, and 10 (roughly placing them in the top 20, 40, 100, and 200 of a complete, gender-specific pool of ET&F athletes), one calculates an average number of races/events per male athlete of 9.92, within an average 8.12 distinct meetings, during the 2016 outdoor season³⁷. Where the sampled athletes also competed in indoor meetings in 2016, the number of additional races/events were typically 25% to 40% those in outdoor events. Aggregate (indoor + outdoor), per capita numbers are no greater than 13 events/races, within 11 distinct meetings, over the full year. No significant difference is observed within a similar sample of ET&F female athletes in this Olympic year. Quite simply, ET&F athletes do not compete very frequently.

By comparison, professional athletes in nearly all other sports are compensated on the basis of a much heavier competitive schedule. Obvious examples are found in the major non-contact (or limited-contact) team sports, such as basketball, baseball, and ice hockey. Typical annual event loads range from 90 to 190 for these sports, including preseason, regular season, and postseason competitions. In professional individual sports, much busier competitive schedules are also the norm. For example, on the combined world golf tours (PGA and European tours), players with similar rankings as above participated in a mean number of 23.25 multi-day tournaments during the 2015-2016 season. This amounted to an average of 81.25 competitive rounds (days) of golf³⁸. Within our PT archetype, it is observed that a similar sample of male ATP athletes competed in a per capita average of 22.25 separate tournaments in 2016, playing an average 61.19 individual matches³⁹. Women WTA players are similarly active: WTA Singles players played in a per capita 19.5 tournaments, involving 60.25 matches.⁴⁰

Another useful metric is the so-called “commodity focus”, defined and calculated here as the fraction of athlete starts that come within their respective Tour events.⁴¹ For ET&F, analysis of a subset of the above sample of ranked male athletes indicates that 76% of all starts were directed at the putative core product (IAAF Tour events). In PT, by comparison, 96% of men's player matches were conducted within ATP events. The fraction is very similar (93%) for women.

All professional circuits analyzed here present their athletes much more frequently than ET&F. There are more tournaments (meetings), and many more individual matches (rounds, races, etc.), in all other

sports. The differences with respect to PT are dramatic: athlete participation in nearly twice as many overall events, and almost 5X more individual matches. Assuming “engagement time” to be an important contributor to brand value in these sporting enterprises, it is fairly easy to conclude that ET&F does not offer enough of its product to its customers.

Tennis is relatively close to major team sports in terms of tournament and match numbers. I postulate that this is a factor in its financial success. Focus fractions may also be important. In PT, the ATP/WTA Tours are ~95% of the primary focus for their athletes. Again, for ET&F this factor is only about 75%. While only 1 in 20 matches are outside of the primary PT Tour, something like 1 in 4 ET&F athlete starts are unrelated to the IAAF franchise. Reduction of alternative events, while not the standard approach for free-market capitalism, may very well be a positive contributor to creating a stronger ET&F Tour. Even more constructive would be an increase in the number of primary ET&F Tour events. This would effectively increase the focus, while simultaneously growing the franchise.

Why are there relatively few ET&F Tour events and why do Tour athletes compete so infrequently, compared to their peers in other sports? The causation/correlation question (i.e., is lack of athlete interest, or lack of competitive opportunity, the primary driver?) is obvious, but not particularly important. All factors have combined to create a reality that it is not optimum. I would suggest that no answer is acceptable. Certainly, given the choice between 13 starts per season (ET&F) and ~60 (PT), a professional athlete would choose the former, assuming that each scenario provided a similar level of earnings. Injury potential would be lower and careers could, in principle, be extended.⁴² Everyone would like to reduce their workload! Unfortunately, the current money scenarios are nowhere near being equal. I propose that ET&F's overall competition structure, which limits meetings, athlete starts, and overall customer exposure, is a root cause of this disparity. To be blunt, ET&F Tour is not yet successful enough to indulge in a relatively short work schedule!

The structure of most ET&F events is also a factor. A number of forces have led to concern over the length (and field sizes) of individual track and field meetings. This has caused organizers to curtail the number of disciplines, and their athlete counts, at most elite meets. For many years, ET&F has gravitated to one-day/short-format meets for the large majority of its events. As an example, the IAAF Diamond League, which sponsors a season-long competition in 16 of the 17 main stadium track and field disciplines⁴³, limits events and fields severely at individual Tour stops. Typically, there are 13 or 14 total events at any one meeting, split among the genders, with field sizes limited at or below 13 athletes.⁴⁴ Essentially, less than 50% of the sport's disciplines are competed at a single Tour stop, with a relatively small number of elite athletes on display. The wisdom of this approach is informally debated by many stakeholders. Media interests, specifically television, are a typical bogeyman for those customers who do not favor the “T&F-Lite” approach. It is often assumed that TV networks are driving the downsizing. This is likely simplistic. Probably more important here are the well-intentioned marketing efforts that attempt to gauge live (gate-paying) customers' tastes. “Fans do not want to sit through a long day (or multiple days) to watch ET&F,” is an oft-stated product of such analyses. This conclusion is hard to accept, particularly in contemplation of the approaches applied within other sports. For example, the PT archetype does not embrace any part of the short-format approach. Even the lowest-tier ATP tournaments run for 7 days, with event fields of 28 for the singles event (and 16 for doubles). Grand Slam tournaments last 14 days, with draws of 128 and 64, respectively, for singles and doubles. With only a pair of competitors per match, this supports hundreds of individual, time-consuming competitions per tournament. As discussed already, this full-format approach supports a business structure that also provides for a larger number of these many-day tournaments per year. PT

seems to be all about more of its product, not less.

The strong sense I have is that ET&F does not have significant confidence in the overall value of its product. It makes numerous (seemingly rational) accommodations and adjustments to the format of what it does offer to its customers. As part of this, its event organizers have tried to trade quantity for the mere hope of greater quality. The athletes seem meekly accepting of a career structure that offers, with few exceptions, only part-time employment. The media does the best that it can with this relatively meager offering. ET&F customers go with the flow, while still grumbling. The more analytical of them become confused! While there is nothing wrong with various ideas of adding excitement to the in-event product⁴⁵, this is no real substitute for presenting a more complete version of ET&F meetings, within a much heavier annual schedule. Other major sports jam their core events full of unrelated entertainment features, however these do not reduce the amount of live competition that they offer. The Nashville Predators (NHL) are a recent example of the best of this.⁴⁶ The “house band”, organized cheering, and other non-hockey distractions are indeed exciting. Yet, the game is still 60 minutes of live action, and a playoff series is still a best-of-7 format. These extra things are independent of, and not replacements for, the live hockey.

Ultimately, the ET&F path leads to less: fewer meets, fewer events per meet, and smaller fields. It is inconceivable that a reduction in offerings can spawn the desired growth in the sport. Any purported improvement in the product is offset by its increased scarcity. This is likely a deflationary path. The alternative approach, proudly offering more of nearly everything (e.g., more and longer meetings, larger fields, more rounds of competition, etc.), seems far more consistent with the approach of PT. I argue that this holds greater potential for the growth of the ET&F enterprise. A stronger ET&F business will simply have a much larger competitive footprint.

3. Creating the Proper Relationship With TV

In 2017, television (TV) is a dated label that I use to describe a larger set of digital video offerings that show sports in motion. Video content provided to a remote customer can be supplied via any number of paths. Here, I simply use the acronym TV to cover all of these. The basic argument that I will make here is that ET&F has generally not created the proper role for TV in its overall efforts to grow the sport. Everyone involved recognizes a fundamental value of TV to the growth of the brand. However, I believe that much of the effort surrounding ET&F promotion misplaces the role of TV coverage, within a long-term process of brand improvement. I argue that TV has very little ability to be a primary driver in creating the large and sustainable enterprise that ET&F would hope to be. This is not to say that it cannot ultimately have great value to the sport. But, it is a specific statement that TV cannot create this value within an enterprise that has struggled to identify what its core offerings should be. The role for TV, I argue, is in extending access of a well-structured product to a larger customer base, rather than defining or driving its structure. At some level, this is about timing and phasing: structure and strengthen the sport first, and then provide a more compelling offering for TV to distribute.

Although my goal here is not to dissect every nuance of the good and bad of ET&F TV coverage, I would be remiss in not stating the apparent fact that many fans have a basic level of disgust for the nature of today's TV coverage. This is particularly true in the US. While the basic question of, “why is there not more track on TV” exists for many, the more important one, from the standpoint of brand definition, is “why isn't the coverage that is shown of better quality?” The same point about phasing of efforts could apply here: first, figure out the exact details of the type of coverage that you want to grow

the brand. Then, figure out how to increase its scope and frequency. Too much of the discussion about TV coverage that I read involves press releases heralding new TV coverage agreements.⁴⁷ This seems to put undue emphasis on providing only slightly more of a media product which needs to be improved.

What is wrong with most ET&F TV coverage? Briefly, I would say that it misses the simple opportunity to show more of a multi-faceted competitive sport, that is an effective three-ring circus of activity. I think that this is a consequence, and one of many examples, of ET&F stakeholders not having sufficient confidence in the total product. While professional golf and tennis do a relatively good job of using production room switching and editing to cover sports that have many simultaneous stories, coverage of ET&F generally follows a one-thing-at-a-time approach. It would not be hard to show, for example, many attempts (jumps) in a top-flight long jump competition, while interleaving coverage with numerous other, simultaneous track or field events. TV coverage of PGA events does this every week. Even casual golf fans would recognize that the words, “and now over to 17” indicate that they are being shown a very comprehensive picture of a large event. In an informal analysis of Fox Sport's coverage of the recent 2017 US Open golf tournament, I counted about 90 complete video sequences per hour, showing individual player shots. That is a lot of camera switching over 5 hours of live TV! In comparison, coverage of ET&F is not big on rapid switching between venues. Rather, it likes to limit, and to more heavily edit, what it does show. The general idea I get is that broadcasters do not really believe that viewers want to see the world's 20th ranked long jumper doing their thing. However, the same television producers are quite willing to tell me lots about the swing mechanics of the 100th ranked PGA golfer, on multiple holes. A fair question is, “how do they really know what is good, in either case?” The differences in basic coverage is important: it provides more golf and more familiarity with more golf athletes. Coverage of ET&F does not use as well the time and opportunity to connect me (visually) with more of that sport's outstanding talent. PT has their own, solid style of broadcasting, particularly at the four Major tournaments. Noone seems ashamed to present an outer court match between the 16th seed and an unseeded qualifier, in its near entirety! Admittedly, tennis has grown into an entity that commands longer windows of TV time. This allows for a more encompassing TV product. As an aside, I do wonder how broadcast TV would cover a 14 day ET&F meeting in January, from sunny Australia. I believe that they would need to grow into it!

I note that US coverage is often quite different from that in other countries, or from stock feeds from central broadcasters.⁴⁸ Broadcasters in other locations tend to show much longer sequences of events-in-progress. To be honest, this can come off as fairly bland and industrial content. It is likely that the best approach borrows bits of the best practices, from a number of coverage approaches.

ET&F coverage is seemingly too much about talk and too little about unfiltered video. Present broadcasters love preludes (telling me who, in advance, a race should be between, and how these athletes got there) and postludes (forced, often awkward interviews of who did well, unless it is an obligatory interview of a perceived favorite who is deemed worthy of discussion, regardless of their performance). They seem to place less value on embracing the many live events that are going on in front of them. This is limiting in that it often misses the excitement of the moment. It also a symptom of a problem discussed earlier: perceived stars are fundamentally more important than the sport (the Tour) itself. Note that talk and video are not mutually exclusive forms of media. Golf and PT, as examples, appear to do an excellent job in merging descriptive talk with the relevant and more constant moving pictures. Also, it is very clear that player interviews have a very carefully-defined place in these larger sports. They are short, limited in number, and not a primary focus of the coverage. The overall event is larger than the individual stars, and its coverage is more about watching the athletes

compete.

Delving into analytical details a bit, one observes that in the US, NBC Sports will devote approximately 58 hours to IAAF Diamond League coverage over the next three seasons. In 2017, this will amount to 10 hours of coverage of the 13 event series.⁴⁹ Realistically, no more than 10 events will be covered at about 1 hour per event. Outside of the Diamond League, NBC will broadcast about 13 hours in 2017, devoted to non-core (i.e., non-IAAF) meetings.⁵⁰ It is important to acknowledge that the NBC family of networks will cover the 2017 IAAF World Championships within approximately 16 separate time windows, spread around their various broadcast, cable, and streaming channels.⁵¹ This is fairly significant, as it may amount to about 30 hours of coverage. Also, I note that NBC, through its Gold access package of live and on-demand events, is providing an alternative path to Diamond League events, as well as a few other US-based meetings.⁵² While this probably provides somewhat greater video access to IAAF events for American customers, it is nearly impossible to understand how much of this is virgin content (i.e., different than that shown within the limited broadcast TV schedule). Unfortunately, NBC seems to only list start times for the on-demand package.⁵³ Durations are unclear, but no one would expect that on-demand coverage time of or any of the (one day) Diamond League events would greatly exceed the live event's duration. That is, broadcast duration will not likely be any longer than 4 or 5 hours per meet. Over the 14 meeting Diamond League schedule for 2017, it is hard to imagine that there is much more than 75 hours of total live broadcast time on NBC Gold.

In view of all of this, I believe that the TV situation that is fairly consistent with that of the competitive events themselves: incremental improvement is being made through honest efforts. I maintain the view that the totality of these efforts amounts to a business that is offering too little of a product to potential customers. Also, as far as I can observe, no significant financial payments for rights are going to the IAAF, or other meet organizers or sanctioning bodies, for these broadcasts. Or, it is more accurate to say that any financial details of rights are conspicuously absent from media reports.⁵⁴ For example, while NBC charges \$69.99 per year for its NBC Gold track and field content access, no mention of payments to the events, to the Tour, or to its sanctioning bodies is made.⁵⁵ Reasons for hiding large rights costs are hard to imagine, as paying a significant value may lend greater credibility to the events. Valuation of Olympic broadcast rights, which are significant, are freely and proudly disclosed.⁵⁶ Various media reports hint at IAAF World Championship rights being non-zero (e.g., bringing \$6M to IAAF in 2013 for Russian broadcast rights).⁵⁷ Still, such numbers pale in comparison to revenues needed to fund significant athlete payments, such as those supported by the PT enterprise. Closer to home, in the 2013 USATF financial statements, it is noted that television rights fees (related to certain USATF Championship properties) may be lumped into a larger "Events and Athlete Programs" line item. This line item has a total revenue of about \$1M. One expects that TV rights to USATF events are at or below this figure.

PT events seem to have a much larger television footprint, with higher value. For example, even at the current ATP250 event (Stuttgart), 58 hours of unique, live coverage are being provided on three broadcast outlets.⁵⁸ 58 hours is 3 years worth of NBC Diamond League TV coverage in ET&F! A simple way to provide a feel for the large scope of TV coverage of PT is to peruse the details of dedicated "Media" organizations that control and license broadcast rights for the core events of both the ATP and WTA Tours.⁵⁹ The four annual major events are apparently licensed separately. Nonetheless, these core events alone provide customers with 4600+ hours of live coverage, from almost 100 Tour events. On the ATP side alone, a strawman figure of \$130M annual revenue (\$1.3B over ten years) is discussed.⁶⁰ To this can be added core event rights revenue for the WTA side, and TV rights revenues

from the Grand Slam events. The latter is surely very significant. For example, the BBC acquired UK rights to Wimbledon for about \$112M for a three-year period to 2017.⁶¹ This circa \$37M annual fee is for only one broadcast market, for one of four majors. There are others. For example, in 2015 ESPN began an 11 year contract for exclusive broadcast rights to the US Open. The price tag is \$770M, averaging \$70M per year.⁶² Altogether, these figures should support the point that the scope and value of TV coverage for PT dwarfs that of ET&F.

Again, my intent is not to endlessly attack the current state of the ET&F enterprise. On the contrary, the archetype of PT offers an existence proof that points the way toward improvement. A key takeaway for me from this data is that in both cases, the value of TV to the each enterprise pretty much matches the size of the entity itself. While many critics of ET&F point to the need for the sport to “do better on television,” I argue that the TV product is completely consistent with the nature of the sport: a loosely affiliated collection of an insufficient number of events, few of which actually include the totality of elite talent. Coupled with this is a self-defeating desire to limit the competitive offering, based upon a flawed notion that live customers and TV viewers do want to see as much.

I postulate that TV generally cannot, and will not, be the primary driver for creating any healthy professional sport. However, once a sport has created the organizational structure that supports organic growth in live audience interest, TV will feed on this to the further benefit of the enterprise. With few exceptions, various accommodations for TV cannot be the near-term focus of ET&F's stakeholders. Quite simply, not enough broadcast time, or rights revenue, has been available to date to make this a sensible approach. No media partner has yet paid enough to drive the bus!

An alternative idea, and recommendation, is to make every effort to provide unhindered broadcast access to as many events as possible, on an expanded ET&F Tour. In essence, I recommend “giving the product away,” in an effort to provide the highest amount of customer access. Why spend a lot of time negotiating over sums that appear to be no more than a few \$M? Try instead to understand what ET&F needs to provide to media companies to encourage them to broadcast more of the live product. Allow broadcasters to be an aid to growth of the core Tour business. Then, sometime in the future, see if it can be a source of significant revenue.

4. The Olympics: Who Needs Who?

Adjusting and optimizing the role of TV may seem mild compared to another idea, which I expect to be more controversial. I believe that the long-term relationship that ET&F has had with the Summer Olympics is as good a symptom as any of the problems that plague the sport. First, it creates a quadrennial (once in four year) cycle of energy within the sport, in a manner that seems to inhibit the creation of larger annual events (let alone the four-per-year focus that PT major tournaments enjoy). I admit that this statement may undervalue the “once-in-a-lifetime” experience that Olympic ET&F athletes earn and deserve. However, I do believe that a rational discussion is warranted on the appropriate place of the Olympic Games and the IOC (Olympic Games controlling entity) within the business of ET&F. The apparent benefit of being primarily “an Olympic sport” in the public eye is likely outweighed by the opportunity cost imposed by “being unconditionally available” in Olympic years. Focusing on someone else's party can limit aspirations to create something of your own that is different and better. Any perceptions of the current value of the Olympics to ET&F seem irrationally high. At the very least, it is clear that the application of elite-level athletic resources to an enterprise that larger numbers of people follow only for a few weeks every four years, has limited commercial

potential. As much as the Olympic experience is great (as I have been told), I suggest that the annual, or semi-annual, experience of a PT-like Tour that hosts its own big events would be better, and more rewarding from a financial standpoint. Imagine a scenario, based upon the PT archetype, under which ET&F could host multiple major meets per year, with much larger prize money than is now available, and with a PT level of media attention. This would exceed a sport limited by a quadrennial cycle of interest, in almost every way.

Perhaps the value of the IOC/Olympics to ET&F is bigger than I understand. It may be, but no observable data seem to argue this point. Rather, I have concluded that the economic benefit to ET&F of Olympic participation is relatively small. Let's look at money flow to two important destinations. First, I note that IOC quadrennial revenues (money to the IOC) are significant. The only accurate (audited) financial information is gained by looking back one Olympic cycle. As annual IOC revenues are dominated by Winter Olympic and Summer Olympic years, we find 2014 and 2012 to be the primary revenue years for which plausible information is available. 2014 shows IOC revenues of \$1.83B, and 2012 brought \$3.32B.⁶³ The non-Olympic years are relatively sparse. For example, \$159M in 2013.⁶⁴ In rough terms, a four year period generates revenues of about \$5.5B. The number of relevance to ET&F is probably the 2012 revenue, as it represents a summer Olympic year, involving a large event to which ET&F is a prime contributor.

In the outgoing column, it is noted that the IOC does disburse a large portion of this money to smaller governing bodies. Over the four years of 2011-2014 (inclusive), these payments totaled \$4.68B. All of this seems good and defensible. And, it is clear that a lot of money is sloshing around the Olympic movement! The question I will ask is whether this money is being distributed in an “appropriate” manner, accepting the subjective nature of this adjective. By appropriate, I clearly mean “in a manner that is well-aligned with the value being provided by the specific recipients.” With respect to ET&F, I am not convinced that this is the case.

Some of these distributions are targeted for the US Olympic Committee (USOC). A very small portion of this goes to ET&F's US governing body (USATF). Between 2010-2013, inclusive, these payments totaled \$11.75M.⁶⁵ This is a miniscule amount of revenue sharing directed toward ET&F in one of the sport's dominant countries. And, there is no great likelihood that much of this sum goes directly (i.e., 1 to 1) to athlete compensation. In any event, it would make a negligible difference in athlete earnings, even if it was all directed to event prize money. What about IOC payments to the IAAF, ostensibly ET&F's controlling body? According to a single note in the 2015 IOC Annual Report, payments to the benefit of the IAAF are lumped into the “IF” (International Federation) category. In principle, it would be in line for a fraction of the distribution (\$4.68B) discussed above. It is hard to know how much of this fraction goes to track's federation. The IAAF itself seems to have stopped publishing reports of its audited financial statements. Requests to the organization for this data have gone unanswered. The most visible signs of IOC payments to the IAAF seem to involve allegations of unlawful payments in the past to various IAAF officials.⁶⁶ Regardless of legality, these seem to be very small. I also suggest that the inability to obtain an accurate number for IOC-to-IAAF payments is probably a fool's errand. It has already been established that IAAF budgets are miniscule in comparison to an archetypal sport (PT), and that they do not currently enable a sustainable level of support to a significant number ET&F athletes, at a level commensurate with peers in other sports. So, barring outright graft or money-laundering (which I am not claiming!), the simple explanation is that the IOC is not paying very much to the IAAF.

All of these points ultimately relate to the “appropriate” label. It is clear to me that as one of the flagship sports at each Summer Olympics, ET&F is not sharing sufficiently in a pot of revenue that it is helping to generate. Many informal rankings of the most popular summer Olympic sports put ET&F at or near the top of the table.⁶⁷ Track and Field is an original, iconic sport of the Olympic movement. Based upon fairness, or appropriateness, it seems reasonable to expect that ET&F athletes should earn significant income for their material support of the large business that the Olympics represent.

Unfortunately, fairness does not always drive things. Sometimes, a different approach has to be considered. An alternative way of looking at the position and value of ET&F in the Olympic business is to ask the thought-experiment questions: “What would happen if ET&F decided not to participate in the Olympics? Or, what would the IOC be prepared to pay to ensure its participation?” These are not completely academic questions.

For example, the NHL, in the past providing the highest-tier talent to a very popular hockey tournament, has decided not to participate in the 2018 Winter Olympics.⁶⁸ In part, this is due to the unwillingness of the IOC (and the IIHF governing federation) to pay basic expenses related to travel and hosting of NHL players. Other reasons are just as important. These include the risk of injury, and the disruption and dilution of the main NHL product (its regular season, leading into the iconic Stanley Cup Playoffs). The Olympics have been a great opportunity for NHL players in the past. However, the NHL itself (the hockey “Tour”) is ultimately bigger and more valuable than the Olympic experience. If the IOC really needs NHL players, then it will have to pay a greater amount to the NHL league owners. It is a fairly simple negotiation between an effective supplier and their customer. Time will tell what each side's approach is to be. One limit to the NHL's leverage is the overall size of a much larger global sport. The IOC may be able to “muddle through” using players from high-level professional leagues in other countries (e.g., Russia, Sweden, Finland, etc.). The overall Olympic hockey product may end up being “good enough,” regardless of who provides it.

ET&F, I suggest, could hold a much stronger bargaining position. The summer games are larger: ~2X larger IOC revenues are in play. Arguably, ET&F is a more iconic sport to the summer Olympics than hockey is to the winter version. Most important, ET&F is a small venture, providing a relatively limited amount of top-tier talent. I am not sure that a second-tier group of athletes would enable the same Olympic product that sponsors and broadcasters pay so much to promote and to distribute. That is, the risk of “leakage” of non-core talent into the event seems lower. The obvious challenge is for ET&F to develop its own strong product, to enable this bargaining exercise. This requires a structure in which the ET&F Tour is the singular focus, and attractor, of all elite talent. This is idea #1 of this paper. Beginning to generate a larger competitive product, competing more frequently within more extensive meetings, and creating annual or semi-annual major meetings of even greater extent (idea #2) will also generate greater leverage with the IOC.

Ultimately, an infrequent event, that is essentially free-riding on ET&F, commands too much attention from the current stakeholders of the sport. ET&F leaders need to consider the value of “rightsizing” their Olympic focus. But, just like with more lucrative broadcast rights, the improvement of the sport's structure needs to lead the search for a better Olympic deal. However, when ET&F has arrived, I argue that it is not outlandish to suggest that the IOC will pay the sport's athletes something on the order of \$250M per each Olympic cycle that they support. By no means is this an oversized sum: on an annualized basis it equates to prize money that is about 50% of that of the annual Grand Slam tournaments in PT. This seems “appropriate” given the scale of the quadrennial Olympic games, and

the prominence of ET&F within them.

ET&F's long-term connection to the Olympic movement (as the 2000+ year-old “original” sport) is somewhat unique. It is possible that it has draped the sport with cloaks of the backward-looking concepts of “amateurism,” “purity,” and “nationalism”, in a way that is suffocating. Many larger sports (golf and tennis to name a couple) got past the notion of amateurism pretty quickly. ET&F spent many years replacing quasi-amateurism with (first) “under-the-table payments”, (then) “trust funds”, and (finally) above-board earnings. One wonders if some still question whether this was a good idea.

Undoubtedly, the national focus of the Olympics has not been eliminated from ET&F. The composition of the sport's major events are significantly driven by per-nation athlete limits. Rather than simply allowing the top-32 400 meter runners (by mark, as the non-ideal metric is now) to compete at the IAAF World Championships, the sport imposes limitations based upon national boundaries. This is not ideal. For a long time, PT (and other sports) have not utilized nation-based quotas on their main Tours. Nobody asks, for example, “how many ATP points did Serbian athletes gain at Wimbledon 2016”. There is no “medal count”. It is about tennis, pure and simple. It seems to work well for PT. As such, it is worth considering in ET&F.

Moving Forward

Admittedly, I am all talk and only ideas! Still, it is interesting to consider what various monied interests, and sports management experts, might need to do to move ET&F forward in the areas I have described. As an example, I propose a set of steps that could be pursued within a 5-year development period. By the 5 year point, I suggest that ET&F would like to:

A. The Tour. Conduct a singular, annual tour of 60 meetings that include both indoor and outdoor events. This might include 44 outdoor and 16 indoor Tour stops. Kicking off with the fresh energy of January (as does the PT's Australian Open) seems wise. There may even be some merit in starting outdoors in the sunshine of the Southern Hemisphere, before moving to a more northern indoor set of events. This is outright emulation of PT. Finishing the competitive season in October would match the approach of other individual sports tours. On average, there would be about 6 meetings per month. This allows differentiation between “Premier” and “International” Tour events (borrowing from WTA labels), that would often occur simultaneously. The Tour and its events would not host separate men's and women's events. Rather, both sexes would compete together at any Tour stop. Each Tour event would feature a full track and field schedule, including all standard individual events, plus relays (ET&F's effective “quadruples” events!). Quite likely, the events can build upon current IAAF meetings: current Diamond League events would form an initial core of the Premier meetings and existing World Challenge/Tracktown Summer Series fixtures could be transformed into International-level events. The growth and transition would happen over five years, building up to the 60 meeting target. Event fields would depend upon the level of the meeting. By this point, I propose that 24 meetings be at the higher Premier level. I propose 32 athletes per event in Premier meetings and 16 in International ones. This would ensure between 2 and 4 competitive rounds in every event, increasing customer access opportunities. Necessarily, and much like the PT archetype, each meeting would last 4 to 7 days. Over the 5-year ramp, it should be a goal to reach a level at which the Tour attracts and retains 95% of the top-ranked worldwide talent in each event. This will effectively provide a commodity focus value that matches PT.

B. Money. Reach the point of funding \$150M in annual prize money for the combined 60 events. This asks the average meeting to provide athlete “financial commitments” of \$2.5M. Premier events would be somewhat larger and International ones would be smaller. Pay a minimum appearance fee to every athlete, and pay an increasing prize amount based upon finishing position. In rough terms, with 20 men's and women's events per meet (including relays), and an average of 24 athletes per meet (average value of Premier and International field sizes), this provides for a minimum payment of \$1K per athlete, an average per event payout of \$62.5K per meeting, and a nominal winners stake of about \$12K per each meeting event. In aggregate, over a 30 meet competitive season, a 5th ranked athlete would earn ~\$150K per year in any single event. Depending upon the mix of meets, it could be somewhat higher, or slightly lower. This seems significant. It would enable an average of 100 men and women to earn this amount. Looking at it another way, athletes in each discipline can pursue \$3.75M in prize money per year. With expected differences between the two classes of meets, any one athlete may expect to make somewhat more or less, depending upon their mix of Premier and International meeting appearances.

It is not too difficult to estimate obligated winnings, and the potential financial backstop needed with this approach. Assuming 5 competitive seasons in our build-up, and an annual payout growth rate of 25%, one calculates that total winnings (over 5 years) will be around \$500M. The first year would start at \$61.5M. This growth rate leads to the target value of \$150M in year 5. It is reasonable to assume that gross profits will fund some portion of this amount. Still, it is conservative to consider that there is risk in all of this, and that ET&F's backing entities and individuals may need to guarantee some fraction of this. Assuming a general confidence factor of 66%, a total financial backstop of around \$170M would need to be considered over the 5 year growth period. In the first year, where the World is watching carefully, but uncertainty is highest, financial backers may need to be ready to guarantee larger amounts (say \$40M of the \$61.5M purse total).

It is instructive to summarize a suggested scenario for the 5 year growth of the various attributes of an improved ET&F. This is shown in Table 1.

	Year 1	Year 2	Year 3	Year 4	Year 5
Attribute					
Number of Combined M & W Events Per Meeting	40	40	40	40	40
Number of Athletes Per Event at Each Premier Meeting	32	32	32	32	32
Number of Athletes Per Event at Each International Meeting	16	16	16	16	16
Number of Premier Meetings	17	20	23	24	24
Number of International-Class Meetings	13	18	23	27	36
Number of Competitive Days Per Year for Premier Events ⁶⁹	102	120	138	144	144
Number of Competitive Days Per Year for International Events ⁷⁰	52	72	92	108	144
Premier Outdoor/Indoor Meeting Mix	13/4	16/4	19/4	20/4	20/4
International Outdoor/Indoor Meeting Mix	11/2	15/3	19/4	22/5	30/6
Total Prize Money per Premier Meeting	\$2.81M	\$2.87M	\$3.04M	\$3.52M	\$4.0M
Total Prize Money per International Meeting	\$1.05M	\$1.08M	\$1.14M	\$1.32M	\$1.5M
Per Discipline Prize Money Per Premier Meeting	\$70.3K	\$71.8K	\$76K	\$88K	\$100K ⁷¹
Per Discipline Prize Money Per International Meeting	\$26.3K	\$27K	\$28.5K	\$33K	\$37.5K ⁷²
Per Discipline Full Season Premier Meeting Prize Money	\$1.20M	\$1.44M	\$1.75M	\$2.11M	\$2.4M
Per Discipline Full Season International Meeting Prize Money	\$342K	\$486K	\$656K	\$891K	\$1.35M
Total Tour Prize Money by Year⁷³	\$61.5M	\$76.8M	\$96.1M	\$120.1M	\$150M
5-Year Aggregate Prize Money: \$504M					
Estimated Financial Guarantees Required by Year ⁷⁴	\$40M	\$40M	\$32M	\$40M	\$50M
5-Year Aggregate Guarantee: \$202M					
Estimated Annual Winnings for 5th-Ranked Athlete in a Single Discipline ⁷⁵	\$94.0K	\$98.8K	\$104.5K	\$111.1K	\$137.5K
Athlete Recruitment Fraction (of Top 32-Ranked Athletes) ⁷⁶	75%	80%	85%	90%	95%

Table 1. Year-by-year evolution of some major attributes related to Tour event statistics and financials. Please contact the author to discuss details.

It is clear that there is both an informational benefit, and some reputational risk, in populating this table with such specific numbers. I feel that the strength is in showing a strawman, temporal estimate of growth of the various factors. It is interesting to note, for example, that by growing a Tour out of an initially larger fraction of Premier events (essentially modeled around current IAAF World Indoor Tour and Diamond League meetings), early-year, per meet and per discipline payouts start at a relatively high level, even with lower total financial obligations. This may be fortuitous with respect to athlete

recruitment. On the risk side, it is obvious that none of these numbers are correct at any fine level. No doubt, anyone with an alternative agenda could poke holes into many of the assumptions that lead to these numbers. I think that I could do this myself! Nevertheless, one can see an estimate of how things might grow over time.

Other key points are incorporated into this table. One idea is that an enhanced Tour is expected to begin with a complete, competitive format (all 20 stadium T&F disciplines, for both men and women), with full field sizes, in year 1. What is allowed to grow are annual meet numbers, owing to expected challenges in the organization and development of new meetings. As money is a very important attribute, it is important to reiterate that total Tour payouts per year also follow a significant annual growth rate (25% value selected here). This seems prudent, as generating the required gross profits to support this prize growth, mainly from Tour events, is probably challenging. To summarize, it is fairly easy to create larger competitive formats in existing events. However, is expected to be harder (i.e., it will require time) to duplicate them, and to grow their value. Athlete recruitment fractions are mostly a placeholder. Hopefully, anyone grasping one major message of this paper (the apparent value in having a single, all-encompassing Tour) will see the importance of these inclusion targets, and how they need to be significant, from the start.

Rough financial figures from various ATP events⁷⁷ can shed some light on what one would expect the financial footprint of ET&F events to become. At the lower end (ATP250 event in Memphis, TN), 2015 expenses were about \$2.5M for an event that provided circa \$700K in total prize money. This would be somewhat smaller than the putative ET&F International meeting. On the upper end of a non-major event spectrum, the Cincinnati ATP1000 tournament, with about \$5M in prize payouts, had revenue circa \$26M in 2015. Overall expenses were \$20.6M. This sort of event, clearly a money-maker, is somewhat bigger than the proposed ET&F Premier Tour event. Based upon scaling from ATP events, a rough estimate is that the year 5 event schedule (24 Premier and 36 International meetings--\$16M and \$5.5M per event expenses, respectively) would cost nearly \$600M to stage. Average event expenses would be \$10M. This is not a small sum, but it indicates that a large, multi-event Tour could be pieced together from a number of individual events that are themselves small fractions of the ET&F's largest undertakings (e.g., IAAF World Championships). In my view, the sport's stakeholders know how to walk upon a stage of this size. The challenge, it seems, is to how to do it once a week. The author continues to reach out to organizers of PT events in an effort to gain a greater understanding of their financial details. He believes that similar discussions with ET&F event promoters would be valuable.

C. Major Events. Create at least two “major” events per year. These are for the top 64 athletes in each event, as defined only from finish-related points earned in the preceding 60 Tour events. This mandates participation and success in the core events of the Tour. A major meeting adds one additional competitive round per event over Premier meetings. Meeting duration would likely be increased to 10-12 days. With just two majors per year, it is probably best that both are outdoor events. Reaching prize money of \$15M per major would put these closer level of PT major events. \$375K per individual event would be available for each major. \$750K for both events. This does not dominate the core Tour, but it should provide sufficient incentive to qualify for each major.

D. Be Generous to TV to Start. Create or support a meet-level physical infrastructure that allows the outright donation of television rights to broadcasters, in exchange for their commitment to minimum hours of live programming. Based upon the PT model, one would expect to see at least 1200 hours of live coverage of the ~62 events proposed here. Be willing to accept minimal commentary for some of

this coverage. Allow in-meet live video, switched actively between competition venues, to be the main visual product. After achieving this, one can look more aggressively at the monetization of this product.

E. Work-for-hire Within the Olympic Movement. After making the ET&F Tour into the main conduit to athlete earnings, and ensuring participation of nearly all elite talent, approach the IOC from a position of strength, to consider a continuation of a business relationship under new terms that are better for ET&F stakeholders. Participate in the summer Olympics if a satisfactory deal, relative to to opportunities provided by your own Tour product, can be negotiated.

While these steps look significant and challenging, achievement of the proposed scope and financial scale are not unprecedented within the global sports industry. With appropriate focus of the right entrepreneurial talents, I am confident that they could be achieved.

This is what the sport might be like when it arrives. When it does, numerous ET&F athletes will be supported at a sustainable level, and their fans will enjoy a much better entertainment product!

1 http://www.nfhs.org/ParticipationStatics/PDF/2014-15_Participation_Survey_Results.pdf

2 <http://www.atpworldtour.com/> and <http://www.wtatennis.com/>

3 <https://www.forbes.com/nhl-valuations/#60c82d311b2e> for 2016

4 Relevant financial information for these tours is available at: <http://www.atpworldtour.com/en/tournaments> and <http://www.wtatennis.com/calendar>

5 For the more graphically-inclined reader, very interesting data on ATP and WTA singles (only) prizes are shown at <https://cleaningthelines.wordpress.com/2016/03/24/57-analysing-atp-and-wta-prize-money/>

6 These include the IAAF Diamond League and World Challenge Meetings <https://www.iaaf.org/competitions/iaaf-diamond-league> and <https://www.iaaf.org/competitions/iaaf-world-challenge>, and the relatively new Tracktown Summer Series <https://www.gotracktownusa.com/events/tracktown-summer-series/>

7 Please contact the author for a breakdown of these numbers: thomasvanzandt@gmail.com

8 Naturally, the number of distinct athletes is somewhat lower, owing to the fact that some tennis players compete in both Singles and Doubles events.

9 <https://www.forbes.com/sites/alikocarter/2016/01/20/grand-slam-2016-tennis-four-majors-by-the-numbers/#462fdc507b0a> for 2016

10 This rotates annually between the IAAF Indoor and Outdoor World Championships.

11 The IAAF is the international governing body for the sport of athletics (track and field). <https://www.iaaf.org/home>

12 <https://www.iaaf.org/news/press-release/beijing-2015-money>

13 <https://www.iaaf.org/news/iaaf-news/portland-2016-prize-money>

14 <http://www.totalsportek.com/news/olympic-gold-medal-prize-money/>

15 https://en.wikipedia.org/wiki/2015_World_Championships_in_Athletics

16 <https://www.iaaf.org/eventbidding/iaaf-events/iaaf-world-championships>

17 Private communication with event organizers.

18 <http://www.atpworldtour.com/-/media/files/media-guide/2017/2017-atp-media-guide.pdf> and http://www.wtatennis.com/sites/default/files/basic_page_files/prize_money_2016.pdf

19 <http://www.track-stats.com/diamond-league-prize-money-2016/>

20 <http://opendorse.com/blog/2016-highest-paid-athlete-endorsers/>

21 <https://www.gotracktownusa.com>

22 For example, <http://www.americantrackleague.com/>

23 As an aside, I note that only 51,000 high school athletes played school-sponsored tennis in 2014-15.

24 Actually, these are two separate tours, but they have nearly identical attributes, even if they do have valuable differences in marketing potential.

25 https://en.wikipedia.org/wiki/World_TeamTennis

26 Tournaments range (in descending order of importance) for men from Grand Slam down to ATP 250 tournaments, with four levels. For women, they range from Grand Slam down to International level events, with ~4 levels.

27 e.g., <https://sports.stackexchange.com/questions/3372/are-masters-1000-mandatory-for-top-ranked-players>

28 <https://uk.sports.yahoo.com/news/sport-needs-types-sponsors-usatf-boss-154532308--spt.html>

29 e.g., <http://bleacherreport.com/articles/2658823-goodbye-usain-bolt-what-are-we-going-to-do-without-you>

30 <https://media.aws.iaaf.org/competitioninfo/4f1ec6aa-bfbc-4b10-94fd-608fefa83963.pdf>

31 <https://www.diamondleague.com/iaaf-diamond-league/new-format/>

32 At least in recent history (2013): <http://www.runnersworld.com/newswire/usain-bolt-to-get-300k-appearance-fee-for-200-meter-race>

33 <http://indianexpress.com/article/sports/sport-others/usain-bolt-to-return-to-diamond-league-after-six-years-4716912/>

34 To be accurate, this national team-based qualification may also require (in some larger countries) a high enough competitive placing in (typically) a single meet. For example, in the US, this would be selected National Championship or Olympic Trials meetings, both of which have only a one-time-performance qualifying standard themselves. So, some athletes may have to achieve both a qualifying mark, and a placing in a meet that is not part of the core IAAF Tour.

35 For example, see the 2017 IAAF World Championship Entry Standards at <https://www.iaaf.org/competition/standards>. Qualification outside of meeting the one-time standard is limited.

36 For example, qualification for PT's Wimbledon major event requires an approximate top-100 ranking, based upon competitive results. The 128 player singles bracket is then completed by a small number of wildcard entries, and from a separate, competitive qualifying tournament. See https://en.wikipedia.org/wiki/The_Championships,_Wimbledon#Players_and_seeding and http://www.wimbledon.com/en_GB/atoz/qualifying.html

37 The 2016 ET&F world rankings utilized are compiled by Field News at <https://www.trackandfieldnews.com/index.php/special-articles?id=3096>. Meet and race listings for each athlete are available by subscription at All Athletics, <http://www.all-athletics.com/>

38 World golf rankings from <http://www.pgatour.com/stats/stat.186.2016.html>; individual play statistics from <http://www.espn.com/golf/players> and <http://www.foxsports.com/golf>; Players missing the 36 hole cut in any one tournament only play 2 rounds.

39 Data available in and around <http://www.atpworldtour.com/en/rankings/singles>. Data analyzed includes match numbers for both singles and doubles.

40 Data available in and around <http://www.wtatennis.com/rankings>. Data analyzed includes match numbers for select WTA singles players.

41 For ET&F, we loosely define such events as those including formal IAAF Tours, national championships and qualifying meets, and regional and world championship events. For PT, we simply include sanctioned ATP/WTA events.

42 Many major sports have reached work contract agreements, via collective bargaining, which give up player compensation for a (slightly) less intense schedule for its athletes. For example, see <http://www.nhlpa.com/inside-nhlpa/collective-bargaining-agreement>

43 These events include both men and women, for a total of 32 separate competitions.

44 Details of this can be seen at <https://www.diamondleague.com/calendar/> . Longer track races offer more starting spots, while most field events offer less. In some cases, short-duration, high perceived-value events (e.g., 100 meters) might utilize two rounds. This increases field sizes somewhat, at selected meets.

45 For example, <http://www.americantrackleague.com/about/>

46 <http://www.post-gazette.com/sports/penguins/2017/06/04/stanley-cup-final-2017-penguins-predators-fans-bridgestone-arena/stories/201706040189>

47 For example, <http://www.usatf.org/News/2017-USATF-Championship-Series-returns-to-NBC--NBC.aspx> . As expected. Many of these discussions are overtly positive, while lacking in much absolute, or even comparative detail.

48 The Olympic coverage at <https://www.obs.tv/> is one example.

49 See <http://olympics.nbcsports.com/2017/04/06/nbc-diamond-league-track-and-field/>

50 See <http://www.usatf.org/calendars/TVSchedule.aspx>

51 See <http://www.nbcsports.com/track-and-field-schedule>

52 <http://www.nbcsports.com/gold-events-schedule#trackevents>

53 <http://www.nbcsports.com/track-and-field-schedule>

54 For example, <http://www.sportspromedia.com/news/nbc-pockets-iaaf-diamond-league-rights>

55 <http://www.usatf.org/News/Direct-To-Consumer-Live-Streaming-Product-Nbc-Spor.aspx>

56 https://en.wikipedia.org/wiki/NBC_Olympic_broadcasts

57 <http://thesportdigest.com/2016/01/exclusive-iaaf-in-hunt-for-25-million-sponsorship-payment-from-russian-bank/>

58 <http://www.atpworldtour.com/en/tournaments/tv-schedule>

59 <https://www.atpmedia.tv/DISTRIBUTION/> and <http://www.performgroup.com/brands/wta-media/> These rights cover ATP 500, ATP1000, and ATP World Tour Finals and WTA International, Premier, and Premier 5 events.

60 http://www.sportspromedia.com/quick_fire_questions/how_atp_media_is_keeping_mens_tennis_at_the_top_of_its_game

61 http://www.sportspromedia.com/news/bbc_retains_wimbledon_rights_until_2020

62 <http://bleacherreport.com/articles/1642956-espn-usta-are-big-winners-in-new-television-deal-for-us-open>

63 https://stillmed.olympic.org/media/Document%20Library/OlympicOrg/Documents/IOC-Interim-and-Final-Reports/IOC-Final-Report-2009-2012/IOC-Final-Report-Building-a-Legacy-Through-Sport-Vancouver-2010-London-2012.pdf#_ga=2.72734803.1992872656.1498061386.1575153943.1498061386

64 https://stillmed.olympic.org/Documents/THE%20IOC/Annual_Report/2014_IOC_AnnualReport_ENG_onscreen.pdf

65 <http://www.usatf.org/About/Annual-Report.aspx>

66 <http://www.reuters.com/article/us-olympics-rio-corruption-idUSKBN16A1QG>

67 e.g., <http://bleacherreport.com/articles/2656664-ranking-the-top-ten-olympic-sports-to-watch> , <http://www.topendsports.com/world/lists/popular-sport/olympics-2004articles.htm> , <http://www.kidzworld.com/article/27040-top-10-summer-olympic-events>

68 <https://www.nhl.com/news/nhl-will-not-participate-in-2018-winter-olympics/c-288385598>

69 This assumes an average 6 day meeting length for Premier events.

70 This assumes an average 4 day meeting length for International events.

71 In year 5, winnings per discipline per meet, for 32 starters, by place, are: Finalists: 1-\$14K, 2-\$10K, 3-\$8K, 4-\$6K, 5-\$5K, 6-\$4.7K, 7-\$4.3K, 8-\$4K; Semi-Finalists: 9 through 16-\$2.5K; Qualifiers: 17 through 32: \$1.5K

72 In year 5, winnings per discipline per meet, for 16 starters, by place, are: Finalists: 1-\$6K, 2-\$3.75K,3-\$3.25K,4-\$3K, 5-\$2.75K, 6-\$2.5K, 7-\$2.25K, 8-\$2K; Qualifiers: 9 through 16: \$1.5K

73 This assumes the aforementioned 25% per annum growth rate.

74 This is financial risk related to inability to cover “financial commitments” from gross income. This assumes a fairly ad hoc figure of 1/3 (33%) risk, with greater guarantees in years 1 and 2.

75 This assumes year 5 participation in 20 Premier and 10 International Events, or 50% of All Events. It assumes an average 5th place in Premier and 2nd Place in International Events. In Years 1-4, Premier and International appearance splits are 17/13, 20/10, 20/10, 20/10.

76 These are placeholder numbers that are very much debatable.

77 https://www.usta.com/content/dam/usta/pdfs/2015%2001_121514-association_final_signed.pdf