Addendum to the testimony of Dorothy Bedford, 2/27/14 on HB 5113

Because I was called to testify so late in the day, I believe I can make useful comments pursuant to the testimony given by earlier witnesses.

1. Re: the CAS-CIAC statement that *not one other state has legislated limits* on full contact practices.

   While technically true, this statement glides over the fact that in at least one case (Texas), the legislature's impending action, approximately a year ago in the spring of 2013, motivated the high school athletic association to enact its own limits on full contact. The Texas University Interscholastic League (UIL) quickly surveyed the high school coaches as legislative momentum built. It discovered that 85% of coaches were not conducting more than two full contact practices per week (in season). The UIL reasoned that a state-wide policy introduction would not meet with much local resistance, and the outliers should probably be reined in anyway. Hence, local Texas press reported that the coaching community found the limits on full contact were "no big deal."

2. Re: Dr. Cantu's statement disclosing that high school football players are subject to, on average, 1,000 hits per season (A figure which studies indicate may range from 600 to 2500)

   "No hit to the head is a good hit to the head." We count pitches in Little League, and steps for cardiac health – so it makes sense to count hits to the head. New, certified, hit count sensor technology will be commercially available later this year. An alternative NO COST and viable public policy option for reducing contact exposures immediately is the proposed limit on full contact practices, which will help reduce the average number of hits per player per season. I support the 90 minute rule, and await detailed language to address Chris Coyne's concerns.

   BTW, the sensoring company Triax, of Norwalk, was present in the gallery, observing the hearings. Because I have had confidential conversations with two manufacturers, I would like to make two general comments on this technology. Although not specifically relevant to HB 5113, the committee should be up to date on the concept of sensors. Researchers are delivering new information every month in the area of concussion safety.

   First, for the foreseeable future, outfitting an entire team with sensors will prohibitively expensive for public schools (at roughly $100 per). Yet, even a few sensors per team will be very useful, because units can be shared or redeployed among individual athletes. The hit data accumulated can be used to teach better technique (to reduce the number of contacts), to adjust position assignments (to reduce frequency of contact as the tally mounts), or retire a player for the season. We know from research studies that certain players in any data set are huge outliers in hit count. Either they have very poor technique or perhaps they play "both ways" and have more exposure to hits, as stalwarts of their teams. With the sensors available as a teaching tool, a coach has access to good data, and can address any one player's technical weakness or safety profile.

Second, there is a significant sociological element to the introduction of sensors. The "culture of silence" about brain injury is a well-known phenomenon. Kids do not want to be seen as weak, and they don't want to let anyone down: coach, teammates, parents or themselves. Sensors take the responsibility for the decision to report a hit away from the player. It becomes the sensor's job to say "you're benched." The coach has data on a hit he may not have even seen, and the child doesn't have to rat himself out. According to the researchers, kids on teams in studies love their sensors.

3. Re: Dr. Thomas Trojian's testimony

"More voices representing different point of views make better public policy," this was a favorite quote of former NJ Governor Christie Todd Whitman. She was referring to getting more women into senior elected and policy positions, but the same holds true for any multi-disciplinary problem, such as concussion.

Dr. Trojian appeared as a member of the CAS- CIAC Sports Medicine Advisory Committee, or SMAC. (The chair of the committee, Dr. Carl Nissen, was also in attendance earlier in the day). Dr Trojian's appearance reminds me that the committee should understand that the CAS-CIAC SMAC is very narrowly comprised of MDs (orthopedists, pediatricians, family doctors and one allergist). In contrast, the SMACs in many other states are comprised of a wide mix of health professionals: MDs, neuropsychologists, certified athletic trainers, nurses, plus school administrators (superintendents). I suggest that Connecticut *would not have fallen behind* current concussion standards of care if the voices of ATCs, neuropsychs and administrators had been represented on the committee. These two specific health professional groups have been very active nationwide in calling attention to the crisis. After Dr. Cantu, two of the most prominent members of the concussion safety movement are neuropsychs: Dr. Michael Collins, PhD., of the University of Pittsburgh Medical Center's Sports Concussion Clinic, and Dr. Gerald Gioia, PhD., of Children's National Medical Center in Washington, DC. (Like Dr. Cantu, Dr. Gioia donates a considerable amount of his time to concussion safety. He was not able to attend your hearings due to a conflict with CDC meetings in Atlanta. I asked, and he agreed, to try to submit a letter of support, but I am not sure he made the deadline.) Similarly, in terms of school officials' participation, in Princeton it was our superintendent who recognized the threat hiding among student health statistical data and reports of school days lost due to concussions in soccer, lacrosse and field hockey. As a result, she asked the Board of Ed to act on head protection in those sports in June 2013.

4. Concern for litigation: Professor Hosea Harvey's testimony

I want to point out that the vast majority of lawsuits over concussion safety to date focus on *failure to inform.* More communication with parents and students about standard of care are likely to *prevent* future lawsuits. Parental and (high school) student informed consent forms help put the risk and liability where it belongs: on the family, when properly informed.

5. Coach concussion safety training.

   I noticed the proposed bill language called for coach refresher training every five years. Given how fast the neuroscience of concussions is expanding, literally month by month, five years is much too long. If we think back to where our concussion knowledge was five years ago in 2009, the first model concussion safety law still had wet ink. I recommend the language be changed to *re-certification in concussion safety every two to three years.*

6. The *need for education data* related to student's *lost class time* due to brain injury

   "You measure what you care about." As a point related to the Princeton story in comment 3, above, if the legislative process doesn't call for accountability by way of state-wide data collection, your action will be much less likely to be able to contribute furthering concussion safety thinking to benefit Connecticut students. Schools are already required to maintain attendance records. As a Board of Ed member, I reviewed many attendance reports. It's no big deal to capture whether an absence is related to concussion ("Class Days Lost"). I also recommend you consider capturing "Days of Academic Adjustment" (anything less than a full day of school). It's less important whether you capture "days until return to play" because that is not an EDUCATIONAL statistic. Similarly, the attendance data can still be collected even if the concussion originated from youth/ recreational sports or "other" accidents (school bus, playground, vehicle collisions, or domestic events).

7. The need for trainers.

   Knowledgeable observers say that having a trainer available is the single best protection for young athletes against irresponsible coaches, over-enthusiastic parents, and brain-washed players.

   Connecticut probably has either a law or educational policy that a school building must have a chief building officer. It also follows that to have a football team there must be a coach, even if that isn't written anywhere. What is the coach's job? It is to condition the athletes, run practices, and manage play during competition. It is much less his or her job to be the athlete's advocate, because that might represent a conflict of interest in compiling a winning record. The person charged with responsibility for the athlete's medical condition should be a medical professional: the ATC.

   In Princeton, we have made a commitment to our students to have one full time athletic trainer. She is a very busy person. On any given afternoon, she may be found at any of our athletic facilities, circulating via golf cart and available to any given team via walkie-talkie. On game days, she does not travel but is responsible for treating both the home and visiting teams for any sport.

In North Carolina, after the SIS death of high school player Jaquan Waller in 2008 (the same year as Matthew Gfeller's death due to traumatic cervical injury), funding was found in Wake County for a three-year trial of part time trainers, and they immediately became so indispensable to both the coaches and the students that continuity of the program has been assured. (This is run out of Wake Forest Baptist Medical Center). North Carolina became very attentive to issues of sports safety after the pair of fatalities. The Gfellers, who have roots in Connecticut, now run the Gfeller Foundation, which is a big name in North Carolina athletics. You have a letter of support for HB 5113 from the Gfeller Foundation, written at my request. Charles Gfeller, the uncle of Matthew, is an attorney in West Hartford and has been involved in other youth sports safety conversations here.

Many states, counties, districts, and schools struggle to come up with funding for trainers, asking parents for financial support, for instance. To me, having a trainer is a no-brainer. If a school chooses to participate in contact sports, there must be a trainer to protect students as both LEARNERS and ATHLETES. Otherwise, eliminate the contact sports. The districts would save even more money.

8. Protecting athletes of modest financial circumstances.

I observed that there were a number of personal concussion stories submitted to you, many by high school athletes from Fairfield County which is a relatively wealthy area. (I am well aware that Greenwich has many students receiving free or reduced lunch, as do Stamford and Bridgeport. Surprisingly, Princeton also has a significant number, at about 15%). In most cases, these stories have *relatively* happy endings due to the focused efforts of educated parents, adequate access to medical care, and supportive schools. However, the Connecticut students who need the most protection are those who do not have access to those resources, whatever their ethnicity. The parents, high school students and even coaches, may be focused on the child's winning an athletic scholarship as a ticket to a college education. An invisible injury seems like a distant threat. There is a conflict of interest between the financial incentives to continue playing vs. protecting the student's long term brain health. It is important that the committee keep these students in mind as legislation or policy is developed.

9. Re: my own testimony on what constitutes a "concussion-forward" district.

I realized upon delivery of my statement that I had omitted one important point from the written testimony. To wit: The Princeton Public schools include a required check box on all facility rental forms related to use of athletic facilities, by which the renting organization acknowledges that its staff is aware of the New Jersey State concussion safety guidelines. Princeton does not ask for related documentation of any kind, but we feel that this checkbox protects district assets and heightens concussion safety awareness among youth sports organizations.

10. The day after the hearings (Feb 28th), I attended a concussion safety conference at New York University Medical School. I typically attend two per year to stay up to date. I want to report a very interesting finding about baseline testing (not the computerized kind).

    The talks I am referring to were delivered by Dr. Laura Balce about visual processing disruption due to concussion. She noted that vision is such a fundamental sense that it is processed through the brainstem. Dr Gerard Varlotta then presented data that strongly suggests the combination of the Sideline Concussion Assessment Test (SCAT), the Balance Error Scoring System (BESS), and the King-Devick® visual processing assessment (a card-based test) can get to virtually 100% accuracy in detecting concussion on the field. The BESS and King-Devick ® require base-lining. While many districts have declined to institute mandatory computerized neuro-cognitive baseline testing (such ASAM, Mind Reader or ImPACT) due to cost, I want the committee to know that BESS is free and King-Devick® cards can be purchased for $45 (ten score sheets), plus $5 per every set of 50 extra sheets.

Thank you very much for your continuing interest in the public health problem of youth concussion safety