

Table of Contents

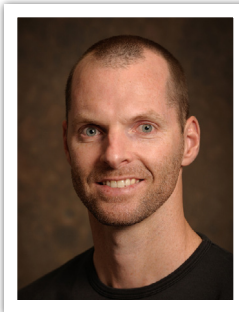
Decline in Cardiovascular Fitness of youth Worrisome Trend	1
Dressing for Exercise Success	2
Presidents' Column	
Looking Forward to Your Involvement in Your Organization	3
If You Really Want to Hear Our Views	4
The Knight Commission on Athletics Releases Data of Athletic Spending at 220 Public Institutions	5
Sport Gets a Cross-Disciplinary Look at George Mason University	6
Fit to serve: Should Physical Fitness Testing Protocols Be Modified for Women in the Marine Corps.	7
Technology	8
Faith, Fitness, and the Clergy	9
Is Research on Sport Performance Underserving of Federal Funding? At Least One Senator Thinks So	10
Editors' Two Cents' Worth	
What Online Courses Can't Do.	11
Injury Breakdown for NFL Season Focuses on Knees. . .	12
AKA Scholar Award Opportunities!!	13
Short Shots	14

Decline in Cardiovascular Fitness of Youth Worrisome Trend

By Siv Schwink, KT staff writer

Every adult who enjoyed a healthy childhood will remember a time when running, climbing, and jumping weren't any work at all. Youthful energy expressed through self-directed, physically dynamic movement felt good in the most elementary way. What a loss for today's youngsters if the culture and lifestyle can no longer support the natural maintenance of that vitality!

A research team led by Grant Tomkinson, an exercise physiologist at the University of South Australia, has found that cardiovascular fitness among children around the globe declined by about 5 percent per decade since about 1975. The researchers conducted a review of 50 running fitness studies from 28 countries between 1964 and 2010—including more than 25 million



Grant Tomkinson



children ages 9 to 17—and found that today's youth aren't keeping pace with their parents' generation. According to the study, youth today take on average 90 seconds longer to run a mile than their counterparts 30 years ago.

The same study showed that in the United States the decline in cardiovascular fitness among youth is slightly steeper than the global average, with a loss of 6 percent per decade over the same period. It showed a

[Continue on Page 24](#)

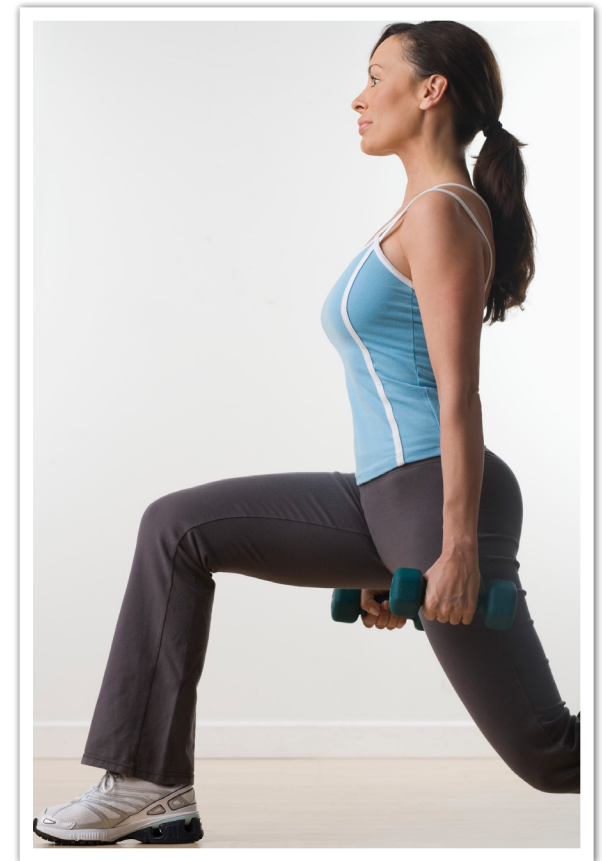
Dressing for Exercise Success

By Amy Rose, KT writer

There's a new term being kicked around these days: enclothed cognition. The term basically means that we perform certain tasks better depending on our impression of the clothes we are wearing at the time. The "Enclothed Cognition" research paper by Hajo Adam and Adam Galinsky, published in the February issue of the *Journal of Experimental Social Psychology*, found that participants who dressed in lab coats, which were identified as clothing for medical doctors, performed better on tasks that required attention to detail than those who did not wear the coats or identified them as painter's coats instead. Participants also performed tasks more accurately when wearing the coat rather than just viewing the coat in the work area. "This indicates that the physical connection of wearing the coat and the perceived connection with a profession that involves focus and an attention to detail had the most impact on participants' performances," said Adam, now a visiting assistant professor and postdoctoral fellow at the Jones Graduate School of Business at Rice University. Physical activity researchers and enthusiast might take note that this perceived

connection between clothing and behavior might also motivate people to become more active in the proper attire. It might also be an intervening variable in some kinds of physical activity research. Adam said that although research has yet to be conducted in the area of fitness clothing and physical activity, such a presumption would be consistent with previous findings. "If you wear something sporty, you are more likely to do sporty things," he said. "We don't have evidence to speak to that directly, but intuitively that makes sense." Not only the type of clothing but also what's on the clothing might affect performance. For instance, Adam said wearing a brand of clothing endorsed by your favorite athlete or sporting the logo of a favorite sport team might make someone more competitive or aggressive in athletic performance in a game.

Donna Burke, author of the Yoga in Heels blog and founder of Activewearoutlet.com, also believes that activewear, which makes people feel good about themselves, will motivate them to be more active. "It's a huge mental game," Burke said. "If you feel you look better, you will



be more motivated to work toward your goal." Burke suggests dressing for success in the gym just as you would on the job. The first place to start when purchasing activewear is investing in clothing that is of good

Continue on Page 18

PRESIDENT'S MESSAGE

Looking Forward to Your Involvement in Your Organization

By Penny McCullagh, AKA President



Penny McCullagh

Happy 2014 to all! I must say that 2013 gave me a lot of personal challenges, but I am moving forward with gusto into 2014. I officially took over as president of AKA on January 1, following our extremely effective past presi-

dent Wojtek Chodzko-Zajko. The organization started in 2009, and we have now moved to 151 member departments. The goal is to have 200 departments with us by 2016, so you are all encouraged to share the benefits of AKA with your colleagues. There is so much to share that I thought I would make it easy for you to see some of our recent accomplishments:

- The executive board met before the workshop, and numerous initiatives for the future were discussed. One of the major initiatives is to supply our members with resources that can help move their departments forward, and ideas were dis-

cussed and will be forthcoming.

- January 8 to 11, the National Association for Kinesiology in Higher Education (NAKHE) held a collaborative congress where six organizations involved with kinesiology came together to discuss challenges facing the field. Representatives from the American Kinesiology Association (AKA); American College of Sports Medicine (ACSM); National Academy of Kinesiology (NAK); American Alliance for Health, Physical Education and Dance (AAHPERD, soon to be SHAPE); and International Association for Physical Education in Higher Education (AIESEP) presented agenda for their various organizations. At the board meeting in San Jose, ideas for future collaborations were discussed.
- In 2009 AKA started working on the core curriculum in kinesiology. As a result, the "Christina Report," which you can find under White Papers on our website, started the conversations about what an undergraduate core in kinesiology

should look like. Since that time, a clear set of learning outcomes has been developed and samples of how various types of institutions meet these learning outcomes have been posted on the web thanks to the enduring efforts of past president Wojtek. On January 25, a preconference workshop led by Gil Reeve called Establishing Learning Outcomes for Core Categories in Kinesiology: Achieving the Appropriate "Fit" for Academic Programs Differing in Purpose and Content was held to help various campuses in their assessment process. In the age of accountability, and also with accrediting agencies coming to campus, it is excellent to be able to align your learning outcomes to a national association. The learning outcomes are quite broad and should be adaptable to most departments (www.americankinesiology.org/the-undergraduate-core-in-kinesiology).

- A workshop, titled the Future of Teaching and Learning in an Online World, was held in San Jose

Continue on Page 19

DO THE RIGHT THING

If You Really Want to Hear Our Views

By Samuel R. Hodge, Ohio State University



Samuel Hodge

In my adolescent years, I began to understand social justice issues through the music of such soulful artists as Marvin Gaye and Stevie Wonder as well as through civil rights and political leaders such as Martin Luther King Jr. and

Barbara Jordan, author and poet Maya Angelou, and legendary sports figures such as Muhammad Ali. On the musical front, Stevie Wonder's 1974 song *You Haven't Done Nothin'* from his *Innervisions* album was a political statement directed at former U.S. President Richard M. Nixon. The lyrics point to Wonder's view that Nixon had failed to address social and economic issues impacting Black Americans. The song's lyrics make Wonder's views abundantly clear.

*We are amazed but not amused
By all the things you say that you'll do
Though much concerned but not
involved*

*With decisions that are made by you
But we are sick and tired of hearing
your song
Tellin' how you are gonna change right
from wrong
'Cause if you really want to hear our
views
You haven't done nothin'.
It's not too cool to be ridiculed
But you brought this upon yourself
The world is tired of pacifiers
We want the truth and nothin' else,
yeah
And we are sick and tired of hearing
your song
Tellin' how you are gonna change right
from wrong
'Cause if you really want to hear our
views
You haven't done nothin'.*

Similarly, Black faculty in kinesiology programs and departments at predominantly White colleges and universities are asking, "Do you really want to hear our views?" They are saying that not enough has been done to address the underrepresentation

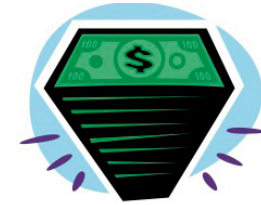
and compromised experiences that many Black faculty encounter at these institutions. For many Black faculty, their colleagues and administrative leaders have not done enough to address concerns regarding issues such as marginalized status.

The intent of this column is twofold. First, I present a summary of the narratives of kinesiology faculty regarding their position as Black men and women in academia. Second, I present strategies they use to confront, address, or avoid experiences that are discriminatory, marginalizing, or limiting to their daily work. The narratives were derived from the experiences of Black faculty teaching in predominantly White colleges and universities.

As part of an autoethnographic qualitative project, Black faculties were solicited using a method called snowball sampling. The four women and four men mentioned in this column are Drs. Franklin, Burke, Pickett, Frazier, Hamilton, Redding, O'Neal, and Flack (pseudonyms used). They hold the academic ranks of assistant, associate, and full professors. They all have received national awards for their professional contributions. They represent a variety of disciplines in

Continue on Page 20

The Knight Commission on Athletics Releases Data of Athletic Spending at 220 Public Institutions



In December, the Knight Commission on Intercollegiate Athletics released its Athletic and Academic Spending Database for NCAA Division I. The report, based on more than 220 public Division I institutions, is available at <http://spendingdatabase.knightcommission.org>.

The athletic financial data in the database comes from NCAA financial reports collected by *USA Today Sports* from public institutions in the NCAA's Division I that have a legal obligation to release the figures: www.usatoday.com/story/sports/college/2013/12/04/knight-commission-collegiate-sports-spending-database/3862595

The data base is thorough as well as user-friendly, permitting users to construct custom searches. The commission admits that there may be legitimate reasons that spending per athlete may be greater than education-related spending on a per-student basis but point out that the data clearly show unbalanced funding at some schools. The most troubling finding, says the commission, "is the continued rise of athletic and football spending at a time of stagnant growth in academic spending.

"College athletics has the potential for so much good, but the current trajectory of spending is unsustainable," William E. Kirwan, chancellor of the University of Maryland system and cochair of the commission, told *USA Today*. "We already see levels of spending at some universities that require them to divert substantial resources from their core academic responsibilities. We are hopeful this online database will help university leaders and policy makers develop practices and policies that bring better balance to athletic expenditures."

Some highlights of the report:

Athletic spending per athlete grew at a faster rate than academic spending per student; the largest gap is in the Football Bowl Subdivision (FBS) schools and those without football programs.

Coaching salaries in the five conferences with the largest athletic budgets increased as much as 54 percent (inflation-adjusted) between 2005 and 2011. (According to the AAUP faculty salaries during this period increased approximately 2 percent.)

The median spending per football scholarship player at all FBS schools is projected

to rise from \$138,424 in 2011 to \$212,303 in 2020, but in the top FBS bracket, median spending of \$243,900 per scholarship player is projected to rise to a median of \$400,000.

Institutional funding for athletics (per athlete) is proportionally larger at non-football schools.

The Big Ten siphons off the least amount of institutional funds for athletics but spends six times more on athletics per athlete than on academics (per FTE). The SEC siphons off from institutional funds for athletics only a quarter of what most other schools do, but spends 13 times more money on athletics per athlete as on academics per FTE.

The growth in institutional funding devoted to athletics grew 73 percent among FBS schools, twice the rate of growth for athletic spending at non-football schools.

Continue on Page 22

Sport Gets a Cross-Disciplinary Look at George Mason University

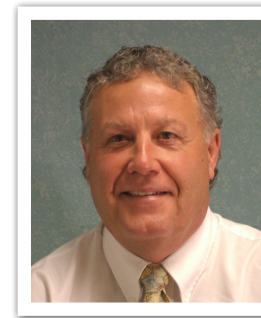
The Super Bowl has a way of reminding us just how important sports are in American society. Prices for a first-class seat in the \$1.6 billion stadium—up front on the 50-yard line—reportedly fetched over \$25,000 a ticket. Fox Sports demanded and got \$4 million per 30-second commercial, a seemingly outrageous rate rationalized by an audience of over 100 million viewers. Sport, rather than research and academic programs, has become the “front porch” of universities and colleges with athletic expenditures easily exceeding \$100,000 per athlete at some FBS schools. Youth sport programs have invaded and in many cases disrupted family life, and parents are chained to practice and game schedules.

Surely the rise of sport has been an entertainment boon for fans, but it also raises a host of questions, some of them thorny: Is all of this sport watching really

good for us? What does our devotion to sport tell us about ourselves, our values, and our collective imagination? Are the payoffs from playing sports worth the time, energy, and money we spend on them? (Could, for example, the \$25K fat cats are paying for seats on the 50-yard line have been better spent for the common good?) What place, if any, does sport deserve in the pantheon of artistic and creative endeavors, and what role has it played in our communal history? How does sport reinforce or challenge our conceptions of fairness, equality, and identity?

Addressing these and other important questions about sport would seem to be a natural for scholars interested in understanding and interpreting cultural analyses, but for the most part sport remains a grossly understudied cultural phenomenon. Even in kinesiology departments the study of the cultural significance of sport often takes a back seat to the study of exercise and methods of improving sport performance.

A brave corrective to this is under way by a coalition of scholars drawn from a variety of academic disciplines at George Mason University under the banner of the



Dave Wiggins



Chris Elzey

Center for the Study of Sport and Leisure in Society. Originally the brainchild of noted sport historian David Wiggins in the School of Recreation, Health and Tourism and his colleague John Nauright, now at University of Brighton in England, the center is poised to become a unique academic home for cross-disciplinary work on sport. “We realized early on in 2010 that there would be support for such a center and with energetic support from our provost, noted historian Peter Stearns, it became a reality,” says Wiggins. “I also tip my hat to the department of history and art history for recognizing the importance of sport in our society.”

The center is now led by codirectors Wiggins and Chris Elzey of the department of



Continue on Page 23

Fit to serve: Should Physical Fitness Testing Protocols Be Modified for Women in the Marine Corps?

By Siv Schwink, KT Staff Writer

The U.S. Marine Corps recently extended its deadline for standardizing pull-ups as a physical fitness requirement for its female recruits. The postponement was prompted by a 55 percent failure rate among female Marines who were administered the test.

The Marines, the fighting arm of the Navy and the military service with the reputation for the toughest admission standards and most challenging training protocols, had announced in December 2012 that a minimum requirement of three pull-ups would go into effect for female marines on January 1, 2014, to match the minimum standard for male marines. Ahead of that deadline, more time was allotted to consider best fitness testing protocols to ensure combat readiness among all marines. No new date has yet been announced for implementation of the pull-up requirement for women.

The Marine Corps is the only U.S. military branch that currently uses a pull-up test as a performance standard in its fitness testing. The other services use push-ups as the standard test for shoulder girdle strength.

Few, if any, professions outside of the armed services have such tremendously demanding job requirements. Ensuring that today's military personnel are fully capable and prepared to face the most extreme physical demands under the harshest environmental conditions—with all of the food restrictions, sleep deprivation, and psychological stressors that combat and training entail—is necessarily a top priority for each branch of the U.S. military.

Since 2004, the Department of Defense has issued several directives to its military services regarding maintenance of physical fitness, stamina, strength, and healthy body composition in servicemen and women, as required for successfully performing any mission. How to attain that readiness, however, is up to each service branch to determine for itself.

The Army, Navy, Marine Corps, Air Force, and Coast Guard each administers its own physical fitness training program and its own basic physical fitness test to monitor and sustain required levels of readiness among

enlisted men and women. The requirements are similar but not the same from branch to branch and within each branch are generally adjusted for age and sex.

Some occupational specialties require additional specialized fitness training (e.g., agility training) and additional fitness testing. In each branch are incentives and recognitions for those who receive the maximum physical fitness score across each requirement. For those who fail fitness testing, remedial fitness training programs are in place.

Since September 11, 2001, greater emphasis has been placed on combat readiness testing (as opposed to general health and fitness testing) for all branches, especially for the Army and Marine Corps, the two branches traditionally associated with ground combat.

Retired Marine corporal Jeff McCracken believes Secretary of Defense Leon Panetta's announcement at the end of January lifting the combat ban for women puts new urgency behind the question of physical readiness for servicewomen.

Continue on Page 26

Technology

Bowflex Select Tech Adjustable Dumbbells



Now with just a turn of the dial, a weight trainer can change resistance from 10 pounds to 90 pounds, allowing the full advantage of 17 different sets of dumbbells without consuming a lot of space. The Bowflex SelectTech 1090, priced at \$349, allows you to adjust weight in 5-pound increments. The weights you aren't using will stay in place in the dumbbell's cradle as you lift.

The 94Fifty Smart Sensor Basketball



From Apple comes this regulation basketball fitted with nine different sensors including three angular gyroscopes and three accelerometers that can track and relay back to the shooter information about the ball's speed, spin and arc plus furnish feedback on the force, control and speed of a dribble. Performers must have Bluetooth 4.0 capabilities on their mobile devices.

\$295
<http://shop.94fifty.com/>

WaterRower Natural Rowing Machine



A new concept in rowing machine that uses 4.5 gallons of water as "realistic" resistance to give the performer the feel of actual rowing. <http://www.waterrower.com/wrnatural.php>

See videos at: <http://www.waterrower.com/>
 \$1095

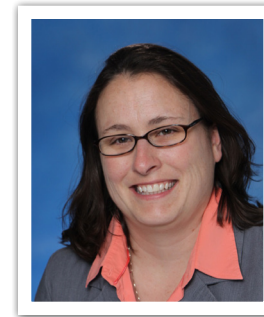
Faith, Fitness, and the Clergy

Faith and fitness have long been joined in the minds, if not always in the behaviors, of the devoted. There are videotapes and exercise programs (from the more evangelical *Sweating in the Spirit* and *Extreme Faith and Fitness* videos to *Cathletix*, a Catholic exercise routine described as being set to “the luminous mysteries of the Rosary and beautifully sung in Latin”). Fitness facilities at mega-churches sometimes dwarf those at commercial sites. The most recent nudge toward exercise from the religious camp is an exercise and diet plan published by Rick Warren, pastor of the 30,000-member Saddleback Church in Lake Forest, California. Brisk sales have kept the book in the top five on the New York Times’ “advice and how to” category.

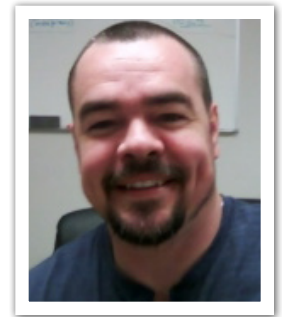
Whether, of course, all of this makes for fitter congregations is still an open question, but sociologist Ken Ferraro doesn’t think so. His research shows that although religious-minded people are less likely to smoke or overindulge in alcohol, they are more likely to be overweight. “Apparently,” says Ferraro, “many firm believers do not always have firm bodies.”

Who, one might ask, is responsible for spurring church congregations to more sensible diets and higher levels of physical activity? Except for the largest churches that employ fitness staffs, the mantle usually falls to ministers, priests, or rabbis who, through private counseling or from their “bully pulpits,” remind their flocks that they have not only a practical but a spiritual obligation to take care of their bodies. For modern clergy, helping adherents who struggle with life problems is all part of the job—a job according to some surveys that can consume as much as 20 percent of a minister’s workweek. Some of the problems congregants seek clerical help with are health-related issues. And, according to a recent study recent research suggests, many clergy are counseling their congregations on the importance of exercise.

A glimpse into clerical counseling on matters of exercise was offered by a study presented at the annual meeting of the American Public Health Association. The study was conducted by Benjamin Webb, a kinesiology doctoral student working out of Penn State’s Physical Activity and Public Health Laboratory, and Melissa Bopp, assistant professor



Melissa Bopp



Benjamin Webb

in the department of kinesiology. Although the study was of modest proportions, its findings were enlightening.

Webb and Bopp surveyed 415 members of the clergy representing a variety of denominations in Pennsylvania to determine how and how many addressed physical activity concerns in one-on-one counseling sessions or in sermons. A surprising 45 percent indicated that they counseled their congregations on physical activity during sermons; 25 percent claimed to offer individual physical activity counseling. Clergy who had received seminary education related to health counseling were more likely to offer counseling on physical activity; 60 percent reported that they themselves

Continue on Page 27

Is Research on Sport Performance Undeserving of Federal Funding? At Least One Senator Thinks So

Jessica Witt, formerly an assistant professor of psychological science at Purdue, led a team of international researchers who published a research article in April 2012 about putting in golf. They discovered that participants made more successful putts in a smaller hole when a visual illusion helped them perceive it as larger. In an interview by *Purdue News Service*, Witt said, “We know that how people perceive the environment affects their ability to act in it, such as scoring a basket or hitting a baseball, and now we know that seeing a target as larger leads to improved performance. In earlier work she showed links between perception and performance in softball, tennis, and football. Softball players who perceive the ball bigger or field goal kickers who perceive the goal posts as wider were more successful.

A few months later, Sen. Rob Portman (R-Ohio) issued the latest edition of his *Dollars Down the Drain*, a monthly website featuring wastefulness in government spending. One of the examples cited was Witt’s study, which was supported by a

\$350,000 National Science Foundation grant. In response, Witt, now at Colorado State University, told the *Cleveland Plain Dealer* that her work is applicable to a much larger range of human behaviors than golf.

“The description of the work in terms of athletic performance (e.g., in the abstract) was an attempt to put the work in a context that would be accessible to the general public. Using athletics as an experimental setting is not intended to improve athletic performance. Rather, it provides a window into how action might influence perception at a very fundamental level.

The potential impacts of this work are enormous. For example, older people typically have diminished physical abilities relative to those in their teens and 20s. Many injured veterans have lasting compromised physical capabilities. If your physical ability changes your perceptions of the world, then engineers could construct technologies to exploit or compensate for these differences. Such strategies could also encourage physical activity in our increasingly sedentary population by making goals

appear closer. These changes could be especially impactful for people who are obese, including those who struggle with childhood obesity.

Witt’s argument failed to impress those in Portman’s office, who noted that the title of the article “Get Me Out of This Slump, plus the fact that Purdue’s story on her research had her posing with a golf club, gave a much different interpretation of the aim of the study. Portman told the *Plain Dealer*, “I re-read my copy of the U.S. Constitution, and I still cannot find the section empowering Washington to spend tax dollars on golf tips.”

Why Witt didn’t defend her research on sport performance as legitimate and worthy of federal support is anybody’s guess. As of this printing, there has been no reaction from those in kinesiology departments whose research focuses on improving sport performance.

Witt, J. et al. (2012). Get me out of this slump, 23(4) 397-399.

-SJH

EDITOR'S TWO CENTS' WORTH

What Online Courses Can't Do

By Shirl Hoffman, KT Editor



Shirl Hoffman

For those of you who missed it, the AKA Annual Workshop in San Jose was truly exceptional. From Gerard Hanley's applications of MERLOT (Multimedia Educational Resources for Learning and Online Teaching) to kinesiology, to roundtables featuring demonstrations of online course materials, to panels describing online programs, to hearing directly from Mark Hargreaves about his exercise physiology course offered as a MOOC through Coursera in Australia (his talk and video were delivered via Skype), the workshop was a success. Enthusiasm trumped skepticism and left foot draggers feeling as though they had best get on the bandwagon because it was about to leave the station.

Still, there must be a reason that, of 2,251 professors polled by Gallup for *Inside Higher Education* (www.insidehighered.com/news/survey/survey-faculty-attitudes-technology), only one in five agreed that online courses can achieve learning outcomes equivalent

to those of in-person courses. Majorities described online learning to be of lower quality than in-person courses on many key measures. Clearly, professors who had actually taught an online class had a more favorable opinion but even here they were split with one third agreeing that online courses can deliver learning outcomes equivalent to face-to-face forms of instruction, one third saying it can't, and one third claiming neutrality on the question.

While online courses were given good marks for delivering content, 85 percent said they were of lower quality than in-person courses with respect to interaction with students; 78 percent rated them lower on the ability to reach at-risk students, 67 percent scored them lower on the ability to answer students' questions, and 62 percent marked them lower on interaction with students outside of class. Clearly, if the online train leaves now, legions of foot draggers will be left behind.

All of this got me thinking about where I stood on this question: Am I a foot dragger or at the front of the stampede or a middling plodder? Anyone who listened to the presenters at the workshop couldn't help

but come away excited about the power of technology in the hands of creative instructors to organize, design (in thought-provoking ways), and deliver content. I came away believing that well-designed online courses may even offer greater opportunities for student-to-student interaction than methods traditionally used in teaching large classes in kinesiology.

Still I am hesitant to put both feet on the bandwagon just yet, especially for models that rely totally on online systems—for two reasons. First, it seems clear that right now, the primary drivers of the online movement are funds, efficiency, and convenience. Optimism about online education seems less about its potential for improving instructional quality and more about massive infusion of funds for departments, making academic life easier for students and ultimately easier and more efficient for departments.

As a former department head, I can appreciate the importance of generating funds for discretionary use. At the same time, the financial motive, unconstrained by perspective, can distort and corrupt what, in and of itself, is a good thing. To cite one example, as the financial motive

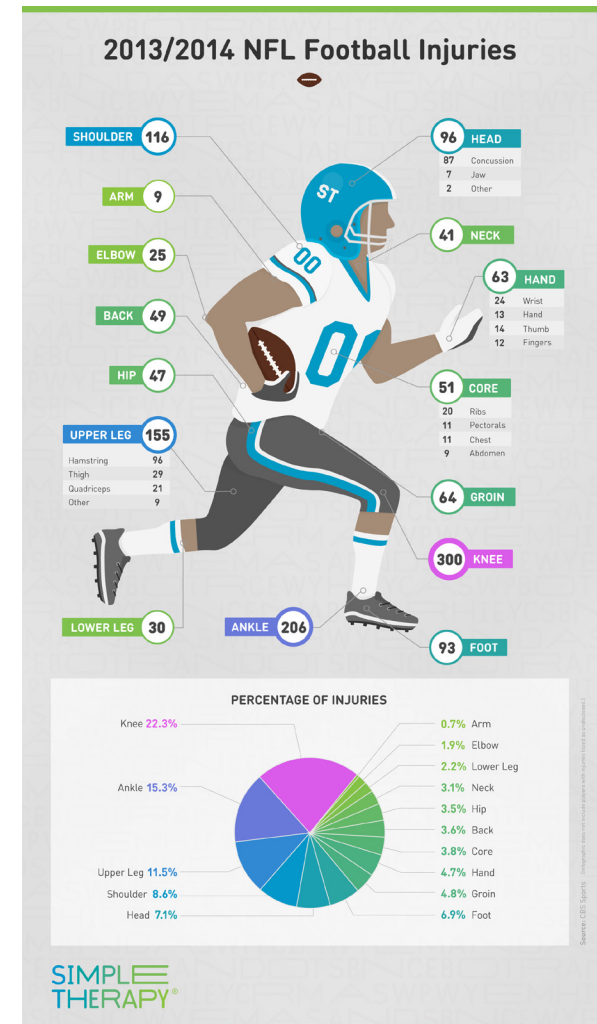
Continue on Page 21

Injury Breakdown for NFL Season Focuses on Knees

Recent data furnished by SimpleTherapy.com catalog the continuing toll taken on the bodies and lives of NFL players. A total of 1,300 injuries occurred during the 2013 season. Given the structure of the knee joint and its exposure to violent hits, it isn't surprising that it is the most injured joint in professional football (22.3 percent of the injuries). Orthopedic surgeon Nick Gay, founder of SimpleTherapy, told the *Wall Street Journal* that when the foot is anchored in the turf by cleats, the joint becomes especially vulnerable. Citing the

gruesome injury suffered by NaVarro Bowman in the NFC title game, Gay said when a player takes a hit in the leg or when the weight of another player falls on him (as happened in Bowman's case), "the knee ligaments become the weakest link. This rarely happens with the arms in football." Ankle injuries were the next most prevalent (15.3 percent) and total leg injuries counted for a full 63 percent of all injuries. Concussions represented approximately 6.5 percent of the total injuries.

-SJH



Graphic courtesy of Simple Therapy

AKA Scholar Award Opportunities!!

The annual AKA Scholar Awards honor a select number of students from member departments, recommended by department faculty, whose academic and leadership records are distinctive. The awards are intended to recognize and promote academic excellence, to further the professional competence and dedication of academically accomplished students and to promote kinesiology and its related fields. Awards are offered in three categories:

- Undergraduate Scholar Award
- Graduate Scholar Award
- Graduate Writing Award

Each student nominated by a college or university will be the designated Undergraduate Scholar, Graduate Scholar, or Graduate Writing Award recipient from their institution, pending final approval by the AKA Scholar Award committee. More information about the awards, including selection criteria, can be found on the [AKA website](#) or by contacting the AKA Awards Committee Chairperson, Dr. Melinda Solomon at msolmo1@lsu.edu.

Awardees will receive a certificate and their photos will be published on the AKA website. Announcements of awards will be sent to chairs and deans of the students' institutions soon after a decision is made (every effort is made to have certificates in time for your awards ceremonies). The Awards Committee has already begun the review process for the 2014 scholar awards and will continue until the May 1, 2014 deadline.

This year, in addition to the recognition of program-based awards for students at each institution, nominations will be accepted for the four new awards: a National Undergraduate Scholar Award, a National Master's Scholar Award, a National Doctoral Scholar Award, and a National Graduate Writing Award. One winner will be chosen by the AKA awards committee for each category. Depending on the student enrollment in the department, institutions can still submit one or more candidates for the program-based awards. However, only one nominee can be submitted for each of the National Awards. Along with the nomination form, a one-page vita or a one-page biography

of the student is required for the National Awards. Nominations are due April 1, 2014, and forms must be signed by the chair of the member department. To be eligible for the National Awards, students must graduate in the current academic year (i.e., December, May, or August) that the nomination is submitted. The AKA awards committee will select the four award winners, and their biographies will be published on the website. National award recipients will receive a \$250 gift certificate for Human Kinetics products.

These awards provide an excellent way to showcase the academic talents of undergraduate and graduate students in kinesiology and many member departments have taken advantage of this opportunity. If you have not already done so, please consider nominating your students for this year's awards.

Short Shots

Schools Serving Low-SES Students Less Likely to Have PE Teachers

A recent study of physical activity practices in 97 elementary schools in the San Diego and Seattle school districts underscored notable differences between schools serving students of high socioeconomic status and schools serving students of low socioeconomic status, or SES. Levels of in-school moderate to vigorous physical activity were recorded by accelerometers. Low-SES children had on average 5 minutes less of moderate to vigorous physical activity each day during school as measured by accelerometers, but the finding was not statistically significant, something the authors attributed to lack of power in the design. Even high-SES schools did not provide the state-mandated amount of physical education (100 minutes per week), although they were more likely than low-SES schools to have PE teachers. Schools with physical education teachers also were less likely to have classrooms

that were “supportive of physical activity,” such as providing physical activity breaks or incorporating physical activity into academic lesson plans. Low- and moderate-SES schools were more likely to offer after-school physical activity experiences than did high-SES schools.

Carlson, J.A. (2014). Socioeconomic disparities in elementary schools practices and children's physical activity during school. *American Journal of Health Promotion*, Jan-Feb (28, 3 supp).

Bionic Arm Offers Close to Normal Movement in Hand

The advances in bionic limbs keep growing. Now, implanted myoelectric sensors (IMES) can translate would-be movement into real movement. Just approved by the U.S. Food and Drug Administration, the IMES is the first implanted multichannel controller for prosthetic devices; it is now being used in an investigational device trial on staff Sargent James Sides, who lost his lower right arm to an improvised explosive device in Afghanistan. The device is much simpler than earlier models that attach over the skin and respond to a user's muscle feedback. It uses electrodes embedded directly into the muscles to pick up signals

from nerves that normally control muscles in the hand. The tiny platinum and iridium electrodes, about 0.66 inch long and a tenth of an inch wide, are embedded directly into the patient's muscle. They are powered by magnetic induction so there would be no need to swap batteries or plug them in—a crucial development in making them user-friendly. The device permits three simultaneous degrees of movement and translates muscle action into hand movement in 100 milliseconds. To Sides, it's instantaneous: “I still close what I think is my hand,” he says. “I open my hand and rotate it up and down,” Sides told *Popular Science*. “I close my fingers and the hand closes. It's exactly as if I still had a hand. It's pretty gnarly.”

Popular Science, January 15. See videos [here](#)

Participation Growing But Not in Most Popular Team Sports

In spite of what might appear to be a healthy growth in youth sport participation in the United States, rates in the most popular team sports are on a decline. According to the trade group Sports & Fitness Industry Association, combined participation in basketball, soccer, baseball, and football

Continue on Page 15

Short Shots

by 6- through 17-year-olds dropped by an average of 4% from 2008 to 2012. Tackle football participation fell by 5.4%, soccer by 7.1%, baseball by 7.2%, and basketball by 8.3%. Approximately 7 million kids participated in basketball in 2012, 6.6 million in soccer, 5.6 million in baseball, and a little over 3 million in tackle football. More encouraging were the growing numbers who participate in lacrosse (+158%) and ice hockey (+64%), although the total number of kids participating in these sports was relatively small (a little over half a million in ice hockey and three-quarters of a million in lacrosse). These sports did not tell the entire story, however. Of the 24 team sports tracked by SFIA, 15 of 24 grew in core participation (defined differently for each sport). On the other hand, casual participation (at least once a year) decreased. Since 2008, team sports have lost 16.1 million casual participants or 11.1% of all team participants. V.J. Mayor, SFIA's director of communications and research, said, "The degradation of the casual team sport participant cannot be ignored (since) casual participation is the gateway to more core participants. We have already begun to see a decline in

core participation among traditional team sports over the last five years, which is alarming. The drop could be influenced by several factors including increased single sport specialization, overuse injury, athlete burnout, safety concerns, and the marginalization of the recreation player."

www.sfia.org/press/view.php?id=607

New Survey Highlights Debt and Years to Graduation for PhD Students

According to the National Science Foundation's Survey of Earned Doctorates, students in the physical sciences and engineering take a faster path from baccalaureate graduation to PhD graduation and are more likely to earn their PhD in the same field as their baccalaureate than students in other fields, especially education. Average time from baccalaureate to completion of doctorate in all fields is 8.7 years, ranging from 6.7 for engineering and physical sciences to 11.8 for education. Average age of PhD graduates across all fields is 32 years, ranging from 30 in the physical sciences and engineering to 39 in education. Male PhD students outnumber female students 54% to 46%. Only 54% earn their PhD in


the same field as their bachelor's degree: 78% of engineering students versus 26% in education. Forty-seven percent of PhD students graduate with grad-school-related debt; approximately 8% graduate owing \$50,000 or more. Approximately 53% of students in the social sciences and 52% of those in the humanities and education graduate with debt, a much higher percentage than those in the physical sciences (22%), engineering (24%), and life sciences (31%). Unfortunately, there are no data enabling comparisons of kinesiology doctoral students to those in the previously listed fields. See data at www.nsf.gov/statistics/sed/2012/data_table.cfm.

Exercise Linked to Healthy Aging

A new study published in the *British Journal of Sports Medicine* by investigators at University College in London points to the benefit of exercise as a way to maintain health during the aging process. Lead researcher Mark Hammer and his associates followed 3,454 seniors between 2002 and 2010. They were part of the English Longitudinal Study of Ageing. Participants reported on levels of physical activity throughout the

Continue on Page 16


Short Shots

study. During follow-up, 19% of the group were found not to have developed any chronic diseases or depression or decline in mental status. Those who were active at least once a week at the beginning and remained active were more likely to have aged healthily as were those who began to exercise during the study. Those who remained active over the entire period of the study were more than seven times more likely to experience healthy aging than inactive participants. 

www.reuters.com/article/2013/12/05/us-exercise-healthy-idUSBRE9B414920131205

Data Show Women Still Behind in Coaching Jobs at FBS Institutions

The University of Minnesota's Tucker Center for Research on Girls and Women in Sport has a new report, "A Report on Select NCAA Division I-FBS Institutions 2013-1014," which highlights a small but disturbing increase in the number of males appointed as head

coaches of women's teams at schools in elite sport institutions. The data, compiled by Nicole LaVoi, associate director of the center, show that the ranks of female coaches fell by over a half percentage point over the past year. Currently (2013-2014) there are 352 female coaches of female teams and 536 male coaches. In 52% of cases where male coaches resigned, they were replaced by males. Female coaches were replaced by males 28% of the time but by females only 11% of the time. University of Cincinnati had the highest percentage of female coaches (80%) followed by Texas (65%), Miami (60%), and Penn State (60%). Earning a grade of F from the organization were Oklahoma State University, where only 12.5% of coaches of women's teams are women, along with University of Kentucky, North Carolina State University, and University of Arkansas, where the percentage is only slightly better at 16.7%. 

www.cehd.umn.edu/tuckercenter/library/docs/research/2013-14_Head-Coaches-of-Womens-College-Teams-Report_Dec-18.pdf

Statins May Interfere With Benefits of Exercise

Recently published revised guidelines on the use of statins as a cholesterol-lowering drug are expected to result in a drastic increase in the number of people prescribed such drugs as Simvastatin. Some have estimated that, based on the new guidelines, such drugs may be assigned to as many as 44% of men and 22% of women. Cholesterol can also be controlled through diet and exercise, but recent research suggests that the benefits of exercise to those also taking Simvastatin may be attenuated. In a study published in the *Journal of the American College of Cardiology*, obese, overweight, and sedentary participants who had at least two of three metabolic syndrome risk factors were given either a 12-week supervised aerobic exercise program or a 12-week exercise program plus daily 40 mg doses of Simvastatin (combination group). Total cholesterol decreased by 29% in the combination group but no such changes were observed in the exercise-only group. However, cardiorespiratory fitness in participants in the exercise group increased significantly, but no changes were observed in the combination group. Simvastatin also appeared to prevent exercise-training-induced increases in

Continue on Page 17

Short Shots

skeletal muscle citrate synthase activity, a marker of mitochondrial content. Investigators concluded that “given the strong independent cardioprotective effects of increasing cardiorespiratory fitness or lowering [cholesterol] the benefits and risks of each should be carefully considered when choosing treatment modalities.”

Mikus, C.R. et al. (2013). Simvastatin impairs exercise training adaptations. *Journal of the American College of Cardiology*, 62(8) 709-714.

The Iniesta Effect

In May 2009, Andres Iniesta of the Barcelona Football club Barca scored a last-minute goal to defeat Chelsea FC, allowing the club to move into the UEFA Champions League final. Precisely nine months later, births in the region increased 16%. The Spanish media were awash with talk of the “Iniesta effect,” suggesting that the giddiness of victory was not only celebrated in the streets but also in beds. To test whether or not the Barca triumph might have been responsible for the surge in

births, researchers compared the birth rates in two Catalonia hospitals during the ninth months following the victory (February 2010) to birth rates in a control period of 60 months from January 2007 to December 2011. There were significantly more births in February 2010 than in other Februarys (16 percent), and there was an 11% increase in births that March as well. “We may infer,” wrote the investigators, “at least among the target population, the heightened euphoria following a victory can cultivate hedonic sensations that result in intimate celebrations, of which unplanned births may be a consequence.”

Montesinos, J. et al. (2014). Barcelona baby boom: Does sporting success affect birth rate? *BMJ*, December 17, 2013. www.bmj.com/content/347/bmj.f7387.

Continued from page 2

Dressing for Exercise Success

quality and fits properly. Fit is more important than fashion, according to Burke. If a garment doesn't fit well, it will be uncomfortable to wear, which will keep you from exercising. Burke's blog and website are dedicated to helping women find good fitness clothing at a reasonable price. "There are a lot of brands out there making quality active wear for every budget and size." She recommends women invest in two good pieces to get started: a great sports bra that has been fitted properly to your figure and a pair of high-quality bottoms that will hold everything together and make you feel good. "If you find something that's comfortable, the more apt you are to go to the gym. It's a hard place to go to begin with, especially if you don't feel good about yourself," says Burke. As a personal trainer and cofounder of Chix in Training, Rebekah Hopkins finds that her clients change their dressing style as they see weight loss and fitness results. "They start out in a baggy t-shirt and gradually get smaller and tighter-fitting clothing as they get more fit," said Hopkins. "As soon as their body becomes a priority, then their fitness clothes become a priority." Even wearing shorts to class can be a major accomplishment for some women, says Hopkins. Potential participants have told Hopkins

they feel like they have to wear a matching fitness outfit to fit in to the class. Chix in Training has T-shirts available for those who feel like they need to dress a certain way to fit in. "It makes them feel a part of the team, and then they can take part in the motivation and support," said Hopkins. The idea of a gym-to-street lifestyle is also becoming more popular and accepted in society. People are dressing in more casual clothing that is designed to go from the gym to a casual workplace or running errands. Burke refers to it as the 10 a.m. uniform: yoga pants and a sweater or jacket that moves from dropping off kids to exercising at the gym to stopping at the grocery store without a full change of clothing. While Hopkins agrees that just putting on workout clothes first thing in the morning might help you get to your goal of working out later in the day, it may also give a false sense of working out if you never actually make it to an exercise class or piece of fitness equipment that day. So dressing the part is only a portion of the commitment to exercise. Once you are dressed to move, you must take that next step toward healthy activity on your own.

Continued from page 3

Looking Forward to Your Involvement in Your Organization

January 26 to 28. We had 70 participants and the air was bubbling throughout the entire conference. Many members presented their online experiences (both good and bad). Gerard Hanley (assistant vice chancellor for the California State University) shared the system's online learning portal MERLOT—no, it's not a wine! It is Multimedia Educational Resources for Online Teaching). **MERLOT** is a free and open peer-reviewed collection of online teaching and learning materials and faculty-developed services contributed and used by an international education community (www.merlot.org/merlot/index.htm). AKA will investigate the feasibility of establishing an online presence of kinesiology in MERLOT. Thanks to Kim Graber (chair), Jane Clark,

Steve Estes, and Gil Reeve for a fabulous workshop and to Kim Scott and Amy Rose at Human Kinetics for managing all aspects of the conference.

- The American College of Sports Medicine (ACSM) initiated a letter that was signed by a number of organizations (including AKA) urging President Obama to promote physical activity and healthy lifestyles in his state of the union address.
- The research and analysis committee conducted their annual survey this year on online courses. The full report will be on the website soon. We encourage all departments to participate in these surveys since they provide valuable information (e.g., salaries) for department chairs in providing information to their deans.
- I often use articles from our online sources such as *Kinesiology Today* or *Kinesiology Kinnections* to

inform students or my dean about exciting news in kinesiology. Be sure to pass these links on to your faculty so they can share with students.

- Look for new awards for kinesiology majors. Details to be posted soon on the web.
- We have many committees that keep our organization vibrant, and we are always looking for help. If you are interested in awards, communications, workshops, membership, publications, research and analysis, or diversity contact our executive director Amelia Lee (amlee@lsu.edu) to get involved.
- We are anxiously awaiting the opening of our new website that should provide better services to our members.

Continued from page 4

If You Really Want to Hear Our Views

kinesiology. They all hold faculty positions in kinesiology programs or departments at predominantly White universities across different geographical regions (Midwest, Northeast, South, Southwest, and West) in the United States. In addition, most of them hold administrative roles (e.g., department chair, graduate program director, associate provost).

These faculty were asked to talk about experiences at their universities. The data were analyzed using content and narrative analysis. The themes that emerged expose different forms of discrimination, marginalization, and limited opportunities.

Each of the Black faculty members acknowledged discriminatory and marginalized experiences while attempting to avoid implicating colleagues they still interact with at their respective universities and professional conferences and annual meetings. When asked whether he had experienced any of these situations, Hamilton replied, "Yes, but too many to elaborate [on], and it may implicate and disparage some current prominent people in the profession." This type of response was common, and a stressful paradox.

Common to the Black faculty narrative as well, Frazier described feelings of invis-

ibility at her institution. For example, she described situations where "other [White] faculty and administrators would not even acknowledge that I was standing [alongside] a White colleague during informal gatherings. I would think to myself, I am invisible." Another common experience is captured in Burke's statement: "It was not uncommon for me to be the only African American student or faculty member [in a kinesiology department]." This heightens the individual's sense of invisibility and isolation.

In the next section, I present strategies that the Black faculty articulated that they use to confront, address, or avoid experiences that are discriminatory, marginalizing, or limiting to their faculty life and daily work.

Recommendations

Mainly, the Black faculty felt that striving for excellence in all areas of their work, communicating their views effectively, and building relationships were the best strategies for confronting, addressing, or avoiding experiences that were discriminatory, marginalizing, or limiting to themselves and other faculty or graduate students of color. Dr. Flack explained, "I strive to make sure that my record of scholarship speaks for itself. I want to be the best researcher in my field and not have my race or sex a

factor that individuals consider. I try not to confront things head on, so I usually vent to other senior faculty of color and get feedback from them on how to proceed."

Likewise, Professor Hamilton said, "I have worked to publish studies and theoretical papers that challenge the dominant discourse on race." Further, he asserted, "While I believe it is important to challenge common ideology on all fronts, I believe published works add credibility to the counternarratives of scholars of color." Professor Frazier said, "Quality work in all areas." She stated that having a support system was extremely important. "I had to actively seek informal mentors," she said.

These professionals found it necessary to challenge the normalized discourse while also seeking personal support for self-preservation and professional validation. "I have engaged persons in conversations to challenge their thinking on issues of discrimination and marginalization," asserted Dr. Pickett. Moreover, he said, "I write about these issues, and in each class put my students in situations that test their comfort zone." Dr. Burke also believed that dialogue and relationship building were important. He asserted, "The most effective strategy for me to confront discrimination, injustice, or inequality is to provide education through . . . dialogue which addresses the taboo

Continued from page 4

If You Really Want to Hear Our Views

topics that in many instances people may avoid.” In the broad context, Professor O’Neal articulated views that resonate with many Black faculty. She explained eloquently,;

“First and foremost, I try to lead by example. I try to model inclusive language in meetings and in the classroom. When I hear people speak or observe them act in ways that are discriminatory or oppressive, I say why I think the talk or behavior was problematic and work with people to find a solution. These experiences are very difficult because it is so hard not to take them personally. Each and every day I have to remind myself that I am competent and deserve to be confident because of my professional, personal and academic background. I always do my best to ground my comments and behaviors in a way that is respectful and inclusive of others. I ask those that I work with and those that I teach to do the same.”

The preceding quotes are just a few examples of the approaches and strategies the Black faculty use in their daily narratives for self-preservation while challenging discriminatory, marginalizing, and limiting experiences. Over the years, various strategies have been identified to guide administrators and faculty in the ongoing

search for social justice in academia for faculty and graduate students of color. Of particular relevance in 2013, a series of papers were published in *Kinesiology Review* [volume 2] containing such strategies. We urge you to consult these works as well as other scholarly works on these topics. Although devoid of the lyrical brilliance of Stevie Wonder, faculty of color nonetheless are saying they are “tired of pacifiers, we want the truth [in social justice] and nothin’ else.”

Continued from page 11

What Online Courses Can’t Do

has been given free rein in intercollegiate athletics, we hear less about their role in educating young people and more about gate receipts, guarantees, ticket rights fees, and unfortunately some pretty depressing antics by coaches and players. I fear that the commercial imperative, once allowed to become the driving force for online education, can distort the teaching mission of departments by diverting our attention from the more *implicit* aspects of teaching, aspects that truly can be captured only in face-to-face meetings between student

and teacher.

Although organizing and delivering content are necessary for good teaching they are hardly sufficient. Good teaching is like witnessing. The most memorable teachers don’t simply deliver information; they are missionaries to the importance and the utility of the information. This isn’t something they offer in separate, canned lectures. It is something inseparable from their daily efforts to deliver information. Unlike what online education is or ever can be, good teaching is fundamentally an emotional process; it involves passion, enthusiasm, humor, sarcasm, criticism, encouragement, empathy, and a host of theatrical elements. And when it works, it produces not only learning but also learners—those who, like their teachers, have learned to love the subject matter.

When I look back at those very best teachers I was fortunate to sit under, it isn’t the information they conveyed that comes to mind as much as it is them and their bearing. I can’t explain to you what they did that so inspired me, I only know that in teaching me to love learning, they bestowed on me a gift I have treasured my entire life. Try as I might, I can’t imagine myself or anyone else saying the same thing about online instruction.

[Continued from page 5](#)

The Knight Commission on Athletics Release Data of Athletic Spending at 220 Public Institutions

Funding for Athletics and Academics

	Academics per FTE	Athletics per athlete	Difference (X)	Institutional funding for athletics per athlete
All FBS schools	\$13,736	\$96,948	7.00	\$ 20,562
Sun Belt	\$11,038	\$43,416	4.00	\$ 25,404
Mid-American	\$13,073	\$51,419	4.00	\$ 38,968
ACC	\$15, 893	\$108, 306	6.80	\$ 14,077
Big East	\$17,307	\$98, 700	5.70	\$ 26,216
Big Ten	\$18, 981	\$125,018	6.60	\$ 2,554
Big 12	\$14, 583	\$127, 646	8.80	\$ 6,094
Pac 12	\$14, 097	\$101,277	7.20	\$18,992
SEC	\$13,229	\$176,429	13.30	\$ 5, 932

Source: Knight Commission on Athletics.

Percent Growth in Spending 2005-2011

	FBS *	FCS**	Non-football
Athletic funding per athlete	58	47	30
Academic funding per FTE student	24	24	21
Institutional funding for athletics per athlete	73	51	36

Source: Knight Commission on Athletics.

Spending: Football vs. Non-Football Schools

	FBS *	FCS**	Non-football
Athletic funding per athlete	\$96,948	\$36,055	\$36,953
Academic funding per FTE student	\$13,736	\$11,945	\$12,662
Institutional funding for athletics per athlete	\$20,562	\$25,814	\$29, 607

*Football Bowl subdivision.

**Football championship subdivision.

[Continued from page 6](#)

Sport Gets a Cross-Disciplinary Look at George Mason University

history and art history. (Wiggins also holds an affiliation with the department of history and art history.) Although projects have already been launched under the center's banner, more are on the way. Books in an edited series by the University of Arkansas Press either are under contract or are planned, including one on the history of sport in Washington DC, one on the history of sport in Baltimore, and another on the history of sport in Philadelphia.

The history of urban sport doesn't exhaust the topics being studied. From its inception, the center has focused on the internationalization of sport and, says Wiggins, "We will continue to examine the interconnections among sport, race, and culture in America." The center also has helped spawn the sport

and American culture minor, which is overseen by Elzey. Through the minor, students can take a fascinating series of courses, including Football and American Culture, America Through Baseball, Basketball and the American Experience, History of Collegiate Athletics (offered by the history and art history departments), and Sport, Culture and Society (in the school of RHT).

Both Wiggins and Elzey recognize the advantages of eventually narrowing the scope of the center, but right now, says Elzey, that isn't a dominant concern. "At the same time, we find ourselves at a crossroad where some rethinking of the mission of the center might be in order. No matter how much we tweak the mission, we will continue to steer the center to be a platform

for education, access, and outreach. Culturally and socially, sport can reveal what is otherwise difficult to see."

Like most university-based centers, the Center for the Study of Sport and Leisure is responsible for finding funding to support its activities. To this end, Wiggins and Elzey, in collaboration with Ryan Swanson of the University of New Mexico, have a small grant pending with the National Endowment for the Humanities to fund a national conference on sport, place, and American sport in 2015. The hope is to have the University of Arkansas Press publish a book based on presentations at the conference.

-SJH

Continued from page 1

Decline in Cardiovascular Fitness of Youth Worrisome Trend

nearly 30 percent decline over the last 30 years in some countries, including China and other Asian nations, whereas it showed very little decline over the last 15 years for youth in parts of Europe, Japan, and Australia.

Tomkinson maintains that the findings have huge implications for the health of this generation into the future.

"It is important to understand that in adults, aerobic fitness is strongly and independently associated with cardiovascular disease and all-cause disease mortality and morbidity, as well as a range of cardiovascular disease risk factors and comorbidities," explains Tomkinson. "In young people, there are substantial associations between aerobic fitness and cardiovascular disease risk factors, total and abdominal adiposity, cancer and mental health (for example, depression, anxiety, self-esteem, and academic performance)."

"Both aerobic fitness and cardiovascular disease risk factors track moderately well from childhood into adulthood," he adds. "Fitness, therefore, is an important indicator of how healthy young people are now and into the future, and if a young person is generally unfit now, then they are more likely to develop conditions like heart disease and stroke later in life."

The researcher's findings, presented in

November at a scientific session of the American Heart Association in Dallas, received broad international media coverage. This is not the first study to point to a decline in physical fitness in youth, but it is probably the largest in terms of raw data.

Jim Morrow of the University of North Texas department of kinesiology, health promotion, and fitness has extensively studied youth fitness testing implementation in the United States.

He cautions that, though Tomkinson and his team did a thorough and excellent job of summarizing and interpreting an enormous amount of data for this study, it may not be enough to be able to say definitively that kids are less fit today than they've ever been.

"Health-related fitness consists of three components: aerobic capacity, body composition, and musculoskeletal fitness. It's difficult to compare all three of these across time in different cultures and based on varied tests. In one fitness test, kids forced to take a run may not have cared about their performance because it didn't count toward their grade. It's problematic comparing those fitness results with another group where the run was required as part of a grade. It's comparing one protocol with an entirely different protocol."

Tomkinson admits the toughest challenge in conducting the systematic review wasn't the large size of the data set. The

variability inherent in the data over time and from country to country made it difficult to compare like with like.

"It was difficult to piece it all together, and I had to make some assumptions along the way, for example, that the 1000-meter run is as valid a measure of aerobic fitness as the 1600-meter is, and that the validity of these tests hasn't changed with time. But by comparing the distance running performance of age and sex matched children from the same country over time (e.g., 10-year-old Australian boys tested on the 1600-meter run in 1975 and 1995), and repeating the procedure for every age by sex by test by country group available, I was able to generate the best estimate of time trends in young people's aerobic performance at the national, regional, and international levels."

Tomkinson and his researchers believe the evident global decline in children's ability to perform aerobically is largely due to an increase in this generation's adiposity, coupled with a reduction in exposure to prolonged and vigorous exercise over time.

Tomkinson says, "I have examined time trends in body fatness and compared them to time trends in aerobic performance both directly and indirectly. Indirectly, increases in fatness and declines in aerobic performance track well at the national level and are suggestive of a causal link. Directly, however, it is known that about 30 to 60 percent of the

Continue on Page 25

Continued from page 24

Decline in Cardiovascular Fitness of Youth Worrisome Trend

declines in aerobic performance can be explained by increases in fat mass. This evidence comes from studies that have used a matching analysis, where young people's aerobic performance at one time point (e.g., 1990) is matched by age, sex, and fat mass to their peers at another time point (e.g., 2010)."

"There are no good time trend data available for other health-related measures in young people," he adds, "although there are some indirect data showing that changes in aerobic fitness are reasonably well linked to changes in their exposure to prolonged and exhaustive exercise."

Janet Fulton, lead epidemiologist for the Physical Activity Branch at the CDC, also points out that, according to available statistics, U.S. children's daily physical activity levels fall far short of current recommendations.

"Right now, our main data source shows that less than 30 percent of kids meet the national guidelines for activity. In 2010, only 12 percent of high school kids met the aerobic and muscle strengthening physical activity guidelines."

Fulton points out that measures are being taken at the national, state, and local levels that have demonstrated the most effective

strategies or interventions to help American youth to meet national physical fitness guidelines. These have been reviewed and published for the benefit of local policy makers, public health officials, local schools, and local communities. The *Physical Activity Guidelines for Americans Midcourse Report: Strategies to Increase Physical Activity Among Youth* [[PDF, 2.2 MB](#)], published by the U.S. Department of Health and Human Services, is available for download free of charge.

"What we've found since the introduction of the national standards in 2008 is that there are three really promising settings where opportunities for physical activity can be improved," explains Fulton. "The first one is in schools, where introducing comprehensive programs does improve physical activity levels. We need comprehensive programs in our schools in a big way; this includes enhanced physical education programs and opportunities for physical activities at break time and after school.

"So schools are great places. But kids aren't in school all day long, so interventions are also needed within communities. Here an effective strategy is to look at neighborhoods and improve the built environment to encourage walking and biking, making the infrastructure more conducive to physical activity."

One promising way to get kids to be active is just to have them walk to and from school. Only about 12 percent of kids overall walk

to school these days, so that's one area we can work on, and it offers side benefits. Kids get activity, but maybe they walk with their parents and get time together while reducing the number of cars on road and reducing traffic, which might reduce emissions. That's another avenue that people should think about.

Another strategy is increasing physical activity in early childhood. Some approaches work better in early child care settings like preschools than in other settings, including providing play equipment and simply getting kids to go outside. That's a good strategy for increasing activity among little kids.

For schools that are ready to commit to improving physical activity levels among their students, Fulton says there may be financial support available through a new nationwide grant program administered through the Presidential Youth Fitness Program.

"By the end of February, this program will be in place in over 3,000 schools in the country. There are three pillars to the program: The first is fitness testing, making sure kids get an updated version of Fitnessgram, which is the best test for youth fitness; the second is making sure that teachers are well trained and able to provide good information to the kids; the third is providing recognition through awards for the kids."

Continued from page 7

Fit to serve: Should Physical Fitness Testing Protocols Be Modified for Women in the Marine Corps?

Says McCracken, “Once they’ve set a standard for physical fitness tests, that this is what’s minimally required to survive and perform the job, then how do you say—and I am not against women in combat—but how do you say men need to do this much and women this much? Either it’s needed or not, whether you are a man or a woman.”

“In the military, everybody needs to be able to carry their own weight,” he adds. “You need to know that the person next to you can do the same job that you need to be able to do to accomplish your mission—you can’t constantly worry about people being physically unable to meet the demands.”

Currently, the Marine Corps’ physical fitness test (separate from its annual combat fitness test, implemented in 2008) requires males to perform a minimum of three pull-ups regardless of age. There are just two other test components, and these are adjusted for age, with a more rigorous requirement for younger servicemen: Male marines must complete 40 to 50 crunches and be able to run three miles in 28 to 33 minutes.

In the Marine Corps pull-up test, marines must begin and end in a dead-hang position, with the arms fully extended and the body motionless, pulling the body up until the chin

is above the plane of the bar. The bar may be grasped in either a pronated (overhand) or supinated (underhand) position, and the hands may change position during the test, so long as the feet never touch the ground and only the hands touch the bar.

The current standards are different for female marines, who are required to execute a flexed-arm hang for a minimum of 15 seconds regardless of age, with the option of performing a minimum of three pull-ups instead. Female marines are additionally required to perform the same 40 to 50 crunches (dependent on age) as their male counterparts and to complete a three-mile run in 31 to 36 minutes (again, dependent on age).

The flexed-arm hang for female Marines is a timed isometric test that begins with the chin above the bar and ends when the body is lowered and the arms are fully extended. As in the pull-up test, only the hands may touch the bar and the feet may not touch the ground.

Exercise physiologist and professor Russell Pate of the University of South Carolina points out that the dead-hang pull-up is not an absolute measure of upper-body strength: It is a dynamic test of shoulder girdle strength relative to body weight and body composition. Other dynamic tests of shoulder girdle strength include the modi-

fied pull-up and the push-up.

The flexed-arm hang, on the other hand, is an isometric test of strength relative to body weight and composition. It doesn’t test strength through a range of motion in the same way a modified pull-up does. A modified pull-up is performed in a reclined straight-body position while grasping a bar about three feet off the ground so that the shoulder and torso come up off the ground and the feet remain on the ground.

Pate affirms that criterion-referenced fitness testing in the military—wherein benchmarks correspond to the actual rigors of work in the field—ensures both performance and safety on the job.

“During combat and combat training, military personnel perform tasks that require a good deal of muscular strength and the ability to move one’s body weight with upper-body musculature. So the question becomes what is the standard for performance on these items? How strong does a person need to be to perform the job appropriately and safely, with minimal risk of injury?”

But Pate also says that the most useful fitness testing protocols have test items that yield valid and accurate scores across a diverse sample. In other words, if there are a significant number of test participants who score zero—as with the Marine Corps pull-up test—the test item is not an effective

Continue on Page 27

Continued from page 26

Fit to serve: Should Physical Fitness Testing Protocols Be Modified for Women in the Marine Corps?

measure at the lower end of the sample's performance range.

"Women have less lean weight or muscle weight than males and less upper-body musculature than males," explains Pate, "so they are at a disadvantage in their ability to perform pull-ups. If any participant scores zero—and certainly there are men who likewise will have difficulty performing pull-ups—you are in essence saying that they don't have any upper-body muscle strength, which is ridiculous. You're not really measuring anything, and that's problematic when the aim of fitness testing is to measure something."

"I think what we're finding in today's military is that test items that have been used historically don't work very well for a lot of women, in that they are unable to perform the test item at all," observes Pate. "And that's where I think the test items should be revisited to ensure that the typical recruit will be able to perform the test. Now, there's still a need to set an appropriate standard on the test: If a new item is selected, it would need to be validated, and performance on the test would need to be calibrated to accurately predict the ability to perform required tasks in the field."

Continued from page 9

Faith, Fitness, and the Clergy

met the guidelines for daily physical activity.

Ministers have long been singled out for their poor health habits, not simply a result of overeating at church suppers but because they often lead lives that leave little time for exercise. For example, research by the Duke Clergy Health Initiative found that the obesity rate among North Carolina Methodist clergy was 40 percent, substantially higher than the 29 percent rate of obesity across the state. (More than 10 percent showed symptoms of depression, about double the national rate, and a significant number have chronic diseases such as asthma, arthritis, and hypertension.)

In Webb and Bopp's sample of clergy, 46 percent of those surveyed were obese; this, along with chronic disease, appeared to attenuate their willingness to address the topic in individual counseling sessions. On the other hand, those who reported being physically active were most likely to offer individual counseling on physical activity. For unexplained reasons, female clergy were more likely than male clergy to offer individual counseling on physical activity. Living a physically active life also appeared to play a part in the willingness of clergy to broach the topic in their sermons. Those

who are obese have chronic diseases are less likely to counsel on physical activity from the pulpit, while those who reported being physically active and those who received seminary training related to health counseling were more likely to mention the need for physical activity in their sermons.

"A number of clergy are talking with their congregants about physical activity, and it appears that clergy who are more active are the ones more likely to do so," says Webb. "The practical significance of these findings is that targeting the physical activity behavior of clergy could lead to broad dissemination of positive messages about physical activity. That should excite anyone interested in physical activity promotion on a grander scale."

-SJH

Kinesiology Today

KT Editor: Shirl Hoffman

Managing Editor & Writer: Amy Rose

Copyeditor: Jan Feeney

Staff Writer: Siv Schwink

Designer: Sean Roosevelt



Human Kinetics

P.O. Box 5076 Champaign, IL USA 61825-5076

www.HumanKinetics.com