

cal state

For University Alumni and Friends

east bay

m a g a n e



Light After Dark

Students power Africa
with solar energy

Digital Death

Grief and mourning
in the online world

THE AGE OF WATER

Professor digs deep into California's
diminishing groundwater stores

FALL 2015

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KENT KAVASCH



COURTESY OF LAWRENCE LIVERMORE NATIONAL LABORATORY



GARVIN TSO



GARVIN TSO

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east bay

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PRESIDENT'S MESSAGE

WE ARE A UNIVERSITY THAT IS READY TO SOAR.



Last fall, I made it clear: we no longer wanted to be regarded as a “hidden gem” or “best kept secret.”

Since I arrived in 2011, I have found Cal State East Bay to be a place filled with incredibly talented people, who are enthusiastically committed to the success of our students and the university at large. Thanks to the hard work and dedication of our university community, Cal State East Bay has definitively moved beyond the point of discovery to being increasingly recognized as a “rising institution” within the CSU system. Clearly, we are moving on to the next great chapter in our story.

This shift can be seen all around us: businesses, organizations, foundations, and public and private agencies are selecting to work with Cal State East Bay as a partner; new faculty and staff choose our institution to advance their careers; and growing numbers of students

are deciding on CSUEB as their first choice.

We are heartened to see and hear this message everywhere we go. It is one thing for us to tell others about the greatness of this university, but quite another to have people tell us how great we are — and with such frequency. We have heard from community members, industry leaders and elected officials about Cal State East Bay — that our graduates improve the quality of life in the communities we serve; significantly contribute to the regional economy and workforce; and stimulate important intellectual, cultural, and artistic thinking in the East Bay. Cal State East Bay creates opportunities for the thousands of students who are transforming their lives. This is the power — and it cannot be said enough — of Cal State East Bay’s vital impact on our graduates and the surrounding region.

There are periods in the history of a university that you can point to and say, “That’s when the university turned the corner.”

I firmly believe we are now at that juncture — now is when people will reflect back upon our history, point to this time, and say, “That’s when Cal State East Bay was recognized as a leading institution both regionally and nationally.” Without a doubt, we are a university that is ready to soar!

Go Pioneers!

Dr. Leroy M. Morishita

UNIVERSITY NEWS

MALAVALLI FAMILY FOUNDATION PLEDGE

\$1 Million in Support of STEM Education and Outreach

Cal State East Bay announces the Malavalli Family Foundation has pledged a gift of \$1 million to create an endowment in support of science, technology, engineering, and math (STEM) education and outreach at the university.

“I chose Cal State East Bay both for the university itself and the surrounding area,” said Kumar Malavalli, groundbreaking tech entrepreneur and CSUEB Educational Foundation board member. “I believe STEM education lays a strong foundation for students to succeed throughout their journey, all the way from kindergarten to the university, and for them to become engaged members of their communities.”

With particular emphasis on early math literacy in grades K-3, Cal State East Bay will receive generous annual support to continue building deeper relationships with East Bay schools, parents, and teachers, and prepare the future teachers who will transform STEM education for decades to come.

President Leroy M. Morishita, who is a member of the CSU President’s Council on Underserved Communities, and Presidential Coordinator for the Asian American/Pacific Islander Initiative, spoke about what this relationship with the Malavalli Family Foundation means to the university and the Bay Area at large.

“What makes this endowment particularly impactful is that it provides strategic support for students and is a sustaining commitment to developing a STEM-savvy workforce,” Morishita said. “Mr. Malavalli’s gift will enhance the great work our faculty here at Cal State East Bay has already accomplished — they are the cornerstone of success for our diverse student base, of which 60 percent are the first in their families to go to college.

“We are grateful and excited to partner with a visionary entrepreneur such as Mr. Malavalli,” Morishita continued. “His innovative, pioneering work in the technology industry exemplifies what we hope to offer our students and what we want them to be inspired to achieve.”

Stephanie Couch, PhD, and CSUEB’s Interim Associate Vice President for Research and Professional Development, explained the importance of laying the groundwork for STEM learning at an early age. “We know from research that early math literacy is key to young people’s future success in STEM fields. The gaps we see in who is good at math and who is not, is a reflection of



Kumar Malavalli was a driving force behind Fibre Channel, the standard operating technology that has led to the development of Storage Area Networks (SANs).

GARVIN TSO

“What makes this endowment particularly impactful is that it provides strategic support for students and is a sustaining commitment to developing a STEM-savvy workforce.”

Leroy Morishita
PRESIDENT, CAL STATE EAST BAY

current inequities in STEM learning opportunities,” Couch said. “And we also know that helping all the people in children’s lives understand how to help them develop early math capabilities is an essential piece of cementing the right foundation.”

The Malavalli Family Foundation's Director of Giving Ranjini Malavalli agreed. "One of the most critical things we can do, especially for girls, is to make sure, at a very young age, that they have access to interesting and engaging STEM learning opportunities and positive role models."

Interim Provost and Vice President of Academic Affairs Carolyn Nelson also expressed her excitement for the opportunities the endowment will create. "CSUEB is working closely with many community partners who are focused on bringing early STEM learning opportunities to all students. This funding provides sorely needed resources that the campus and its partners can now count on as we design and implement new offerings for young people, parents, and teachers," Nelson said. — **K.D.**

University Wins 2015 HEED Award for Excellence in Diversity

For the second straight year, California State University, East Bay has been awarded a coveted Higher Education Excellence in Diversity (HEED) award from *INSIGHT Into Diversity* magazine.

The annual award is a national honor recognizing U.S. colleges and universities that demonstrate an outstanding commitment to diversity and inclusion. Receiving the award again in 2015 is a testament to CSUEB's continued efforts in serving its diverse student population.

"Cal State East Bay is proud to be awarded our second HEED award," said Dianne Rush Woods, CSUEB's diversity officer. "This year's application was more rigorous than last and we had to demonstrate that we are not only maintaining student success programs, but also that we continue to grow these 'students first' programs."

Over the last year, Cal State East Bay has taken several steps to expand its diversity programs, including establishing Sankofa, an Afrocentric program that supports transfer students, and Kaleidoscope, a mentoring program for first-year and



CSUEB Diversity Officer Dianne Rush Woods pictured with the 2014 HEED Award for Excellence in Diversity. — **STEPHANIE HAMMON**

transfer students. These programs are similar to Cal State East Bay's award-winning GANAS program (Gaining Access 'N Academic Success), which focuses on Latino/a transfer students.

Another area of focus has been gender, which CSUEB is addressing through a "preferred name" policy; increasing the number of gender-neutral restrooms on campus; and focusing on the expansion of hours for lactation rooms.

Finally, 2015 also marks the second year of a diversity-advocate program that aims to increase the overall size and diversity of potential faculty members.

The oldest and largest diversity-focused publication in higher education, *INSIGHT Into Diversity* has recognized 92 institutions as 2015 HEED award winners. They will all be featured in the November 2015 issue of the magazine. For more information about the HEED award, visit insightintodiversity.com. — **S.H.**

CAL STATE EAST BAY EARNS Maximum Accreditation from WSCUC

Noting its accomplishments in the areas of diversity, inclusiveness and developing students' core competencies, the Western Association of Schools and Colleges Senior College and University Commission (WSCUC) has reaffirmed accreditation for California State University, East Bay.



The Senior College and University Commission is the review board for the broader Western Association of Schools and Colleges (WASC).

Earning WSCUC's maximum 10-year accreditation — the longest reaffirmation possible — caps off a two-and-a-half year review process that included an extensive self-study report by the university, a campus visit by a WSCUC evaluation team last April, and consideration by the commission at its June 17 meeting in Oakland.

"Beyond the 10-year reaccreditation, there is much to celebrate," Cal State East Bay President Leroy M. Morishita said. "It is worth noting that the commission 'found evidence of the seriousness with which CSUEB took on (the accreditation) work, which will not only help the institution ensure that students receive an excellent education, but also provides examples of best practices for the region.'"

"The university was a pioneer in addressing new report components including the meaning, quality, and integrity of the degrees, and the assessment of core competencies," wrote

Mary Ellen Petrisko, president of the accrediting commission, in her notification letter to Cal State East Bay.

The commission recognized CSUEB as "the most diverse public university in the mainland United States" and commended the university "not only for making 'inclusiveness and diversity' one of its eight core values, but for supporting that diversity both on campus and in the broader community."

In addition, the commission described Cal State East Bay's self evaluation as one prepared with "thoroughness and candor,"

and focused on an examination of its mission after a time of serious budget cuts and the leadership of a new president.

WSCUC is one of six regional associations that accredit public and private schools, colleges, and universities in the United States. Through its review processes, WSCUC confirms that an institution has the resources, policies, and practices in place to achieve its educational goals.

To read the visiting team report and WSCUC action letter visit wasenior.org/institutions/california-state-university-east-bay. — **K.T.H.**

U.S. DEPARTMENT OF EDUCATION GRANTS

Assist First-Generation and Disabled Students

Grants from the U.S. Department of Education totaling nearly \$3.5 million over the next five years have been awarded to two Student Support Services (SSS) programs at California State University, East Bay. The EXCEL program and Project IMPACT offer in depth, long-term academic assistance to first-generation, low-income, and disabled students.

"This funding will help more CSU East Bay students succeed, graduate, and accomplish their goals," Rep. Eric Swalwell (CA-15) said, while offering his congratulations. "This is a boon for the university and students in my district."

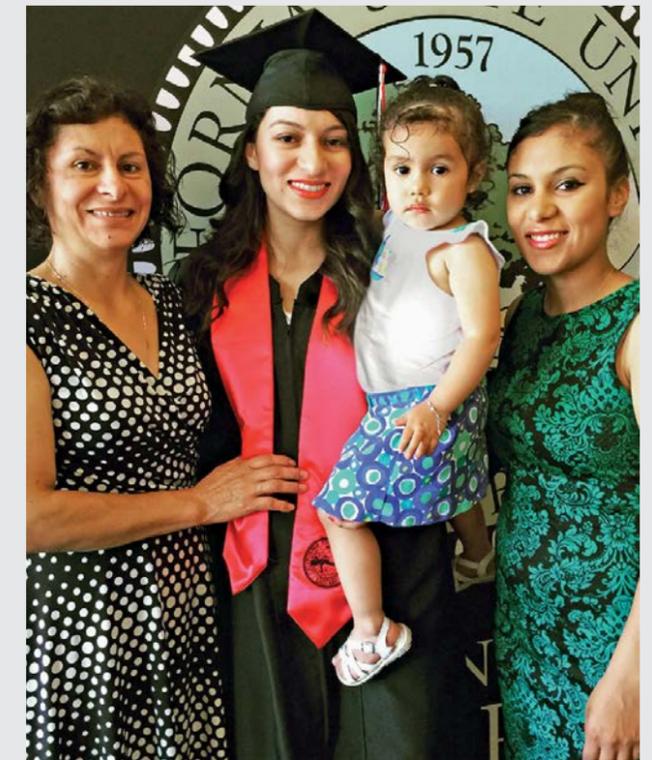
"We are excited to continue providing services to our current and future program participants," said Diana Balgas, special assistant to the vice president for Student Affairs and principal investigator on the award.

EXCEL, which has been awarded \$455,842 per year totaling \$2.27 million over the five years of the grant, provides specialized assistance to 425 low-income, first-generation college students and individuals with disabilities each year. The goals of the program are to enhance participants' academic skills, thus increasing their retention, academic achievement, and graduation rates.

Project IMPACT will also receive an annual grant of \$231,103 for a total of \$1.15 million over the same period. IMPACT serves 125 CSUEB students with disabilities, providing them with comprehensive academic support and personal development services, including workshops on test-taking strategies, time management, and communication skills.

For more information on the EXCEL program: www20.csueastbay.edu/academic/academic-support/excel/.

For more information on Project IMPACT: www20.csueastbay.edu/af/departments/project-impact/. — **K.T.H.**



Family Pride: Gloria Gutierrez (BA '15, Human Development) was joined by her mother Esperanza, sister Margarita, and goddaughter Layla Hope at the Excel program graduation. She is in the process of applying for her master's in social work at CSUEB. — **JULIE WONG**

The Age of Water

**CSUEB Professor Jean Moran
Digs into the Mystery of
California's Precious Groundwater Stores**

**BY KRISTA DOSSETTI
PHOTOGRAPHY GARVIN TSO**

*"As long as the sun shines and the waters flow,
this land will be here to give life to men and animals."*

**Chief Crowfoot,
Siksika Tribe (circa 1825-1890)**

CAL STATE EAST BAY ASSOCIATE PROFESSOR AND DEPARTMENT OF EARTH & ENVIRONMENTAL SCIENCES CHAIR JEAN MORAN TAKES OFF ONE HIKING BOOT AND MAKES HER WAY BETWEEN TWO STONE WALLS EMBEDDED IN THE SIDE OF A MOUNTAIN SLOPE. The walls form a half-circle at their deepest point in the hill, where they shelter a shallow pool in the belly of an enclosure. In the water, a handful of tiny cyclones slowly twist beneath the surface. Their movement is so subtle, the fine sand bottom is barely disturbed — only by focusing on one small flurry does another come into view at its periphery, and then another, and then another.

According to the Winnemem Wintu ("Middle Water People") tribe, these tiny flurries — groundwater discharge points — are the genesis of life, and their location, Mount Shasta's Panther Meadows (elev. 7,500 ft.), is sacred ground. There was a time when the silent whirls were loud and vigorous twisters, an underground faucet turned on full blast.

In 2007, just a year after the walls were built to protect the spring, the water ran dry for the first time in the history of the indigenous tribe. ▶



Ground Study: Associate Professor Jean Moran spent more than a decade researching groundwater at Lawrence Livermore National Laboratory before coming to CSUEB in 2008.

(Opposite page) A topographical map helps the team locate groundwater sources on Mount Shasta.

Great Heights: Brad Esser of Lawrence Livermore National Laboratory and graduate student Elizabeth Peters pause to record data at the highest peak of the day, above 8,200 feet.

“We are providing information about watersheds and aquifer systems where very little is currently known — it's new information for the residents of the watershed, and for the water managers who may be deciding whether to drill a new well or not.”

Jean Moran
ASSOCIATE PROFESSOR,
EARTH AND ENVIRONMENTAL SCIENCES

DISAPPEARING ANSWERS

“All the water that will ever be is, right now.”

NATIONAL GEOGRAPHIC,
OCTOBER 1993

The last time Moran was at Panther Meadows was late April and there was snow on the ground. Now, after a summer of record heat, some of the water sources she intended to revisit are gone altogether. Even with just a few inches left at the coveted Native American spring, it's a chance for Moran to capture a particular type of sample at a critical place and time.

The professor is after groundwater. And she wants it right where it pushes up from deep in the earth, before any other elements can distort the hidden chemistry inside — the chemistry that tells the story of how old the water is, where it comes from, and how long it might last.

Keeping her shoed foot on the dry edge of the spring and slipping her bare one into the pool, Moran bends down to submerge a small amber bottle and take away just a few ounces of the groundwater for testing (see How It Works p.12).

Her team, made up of CSUEB graduate student Elizabeth Peters and Brad Esser, research scientist and expert lead at Lawrence Livermore National Laboratory (LLNL), is at the ready. Esser obtains GPS coordinates while Moran dips a digital probe in the water and begins calling out numbers. Peters scribbles the information down. When the process is finished, the group packs up, treks back to a federal government-issued van, and drives to the next trailhead.

AGE MATTERS

“The crisis of our diminishing water resources is just as severe ... as any wartime crisis we have ever faced. Our survival is just as much at stake as it was at the time of Pearl Harbor, or the Argonne, or Gettysburg, or Saratoga.”

JIM WRIGHT, U.S. REPRESENTATIVE,
THE COMING WATER FAMINE, 1966

“We're trying to figure out how long the groundwater resides in the subsurface, where

that groundwater gets into the subsurface, and how much of it turns over every year,” Moran explains. “Is it this year's snowmelt that's showing up in the groundwater? Or last year's? Or even longer? So that, if you have a year where not very much of it gets underground, how long will it take for you to notice that at the well, and how long can you keep pumping at the same level and not have a detrimental effect?”

These are the questions currently plaguing many parts of California, and what the State Resources Water Board's Groundwater Ambient Monitoring and Assessment (GAMA) program has contracted Moran through LLNL to find out. According to the professor, most of the state's groundwater capital has never even been measured, especially in the agricultural and rural communities that rely on it most.

The answers will tell public works agencies and residents in the areas surrounding Mount Shasta which water sources are most vulnerable and which are most vital to protect in the years to come.

“There's no control. There's no regulation,” Moran says. “It's been out-of-sight, out-of-mind; people have been happy to put their pump into the ground and pump the water and not have to worry about it.”

In fact, some regulations have been recently implemented, but it will be years before they make an impact. In 2014, California became the last state in the Western U.S. to regulate groundwater through the Groundwater Sustainability Act, requiring locally controlled groundwater agencies to produce sustainability plans for overdrafted basins by 2020.

Many, including Moran, worry it will be too little too late, but the results she is collecting in Shasta are part of the solution. Once gathered, they will be compiled into a larger, landmark network of information. “We've worked for about 12 years collecting groundwater ages from all over the state, which is a unique data set not just in California but the world,” she says.

Once the final research is in place, which includes locations in Southern California and several in the Central Valley, Moran will make them available to the water districts and consult on their sustainability plans for the future.

“We are providing information about watersheds and aquifer systems where very little is currently known — it's new information for the residents of the watershed, and for the water managers who may be deciding whether to drill a new well or not,” she says. ▶



Primary Source: Graduate student Elizabeth Peters captures water samples at Mount Shasta City Park, the headwaters of the Sacramento River.

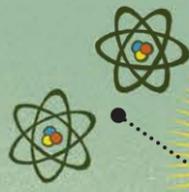
HOW IT WORKS

Moran's team calculates the age and origin of groundwater sources by two means. The first piece of the research is the **recharge temperature**. "The amount of gas that dissolves in a water sample is controlled by the pressure and temperature at the time of recharge," Moran says. "Just like your soda can, when it warms up it loses its fizz, colder water dissolves more gas and holds more dissolved gas. By knowing the concentration of the dissolved gases, we can calculate at what temperature that water entered the saturated zone."



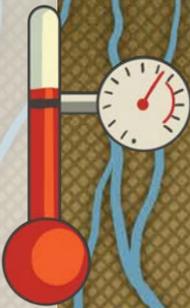
"Shasta is a high **evapo-transportation** area because the air is dry," Moran says. In times of drought, this exacerbates strained water resources and snowpack, a portion of which simply evaporates into thin air.

The second piece of the research is measuring **radioactive isotopes**, or unstable forms of atoms, which are produced in the atmosphere by cosmic rays and show up in surface water through precipitation. Because radioactive isotopes decay over time (each element has a particular half-life), they can be used to tell the age of things.

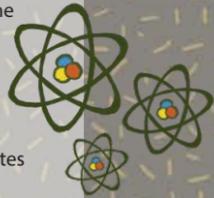


The **isotope tritium** is a mainstay of Moran's research project in Shasta, which has a half-life of 12.5 years and can be used to age water up to 60 years. For comparison, Carbon 14 is another type of isotope that is extremely slow to decay and has been used to date archaeological artifacts up to millions of years old.

"In a basin or a watershed where there is a lot of topography like Mount Shasta, there is a big temperature gradient with **altitude**," Moran explains. "The higher you go, the colder it gets. By getting this recharge temperature, we can estimate at what elevation that water got into the groundwater system." Water that originates at a high altitude could be more desirable, depending on where it surfaces — Moran says long flow paths correspond to older water that is more resilient and less vulnerable to contamination.



"There are a number of isotopes that can be examined once they infiltrate and move into the saturated system and become groundwater, to examine how long that water has been out of contact with the atmosphere," Moran explains. "So the clock starts ticking once those isotopes enter the saturated zone and are no longer exchanging with the atmosphere." In a time of drought, youth is the most dangerous issue, as young groundwater indicates water that is sinking into the aquifer and then resurfacing for human use quickly, providing little to no time buffer in years of low rain and snowfall.



"When water flows through a porous medium like sand and silt, it takes a very circuitous route — it gets mixed up as it flows, so when you pump that out at a well, you're not pumping a single age of water, you're pumping a distribution of ages that has been mixed," Moran explains of how the team will finalize its results in Shasta County. "So we make as many observations as we can, but we also do **mathematical modeling** to unravel the mixed age — to say X percent of this water is older than 100 years, and another fraction is between 60 and 100 years, and so on."



"We've gotten interested in **high-elevation groundwater** and one of the main reasons for that is the hydrologic regime is changing because of climate change — it's warming up," Moran says. "Less of the precipitation comes as snow, more as rain, and that changes when and where water gets into the ground."

In August, imagery released by NASA showed drops up to two inches per month in California basins due to "**voracious groundwater pumping**," according to KQED Science. The California Department of Water reports 46 percent or more of the annual water supply can come from groundwater in dry years.

The benefits of **storing water underground**, Moran explains, include not having to transport it via aqueducts, canals, trucks, etc., avoiding the harm to fish and wildlife associated with new construction, and finally, because there is ample room there for storage.

The ability to age groundwater and determine its origins is made possible through a complete view of the hydrological cycle — from how radioactive elements develop in the atmosphere, to where water sinks into the ground, to how far it travels, and finally, to where it surfaces for human use. In Shasta, for example, "it's a mixed story," Moran reports of the preliminary findings. "The wells, most of them produced older water. But some of the springs are not resilient. And this year, the discharge (groundwater surfacing) at some springs was historically low." Although this means the wells residents rely on are healthy and deep, there is evidence that the springs are slowing and/or disappearing — and these are the sources, however hidden, that sustain the animals, businesses, people, and life on top. Begin at far left to discover how it works. **CHRIS GALL**

"There's a knee-jerk reaction that we're right next to the ocean, so **desalinization** is the answer. But on the scale that we need water and the agriculture that uses most of the water so far inland, desal isn't going to solve that problem at all," Moran says.

Artificial recharge and Indirect Potable Reuse (IPR) programs are good options for replenishing and recycling groundwater to meet the needs of the masses, according to Moran. However, finding just the right spot to do that is the challenge. Factors like surface exposure and agricultural chemicals can contaminate storage areas.

RESTORING RESOURCES

“Take a course in good water and air; and in the eternal youth of Nature you may renew your own. Go quietly, alone; no harm will befall you.”

JOHN MUIR

The next hike of the day is 1.7 miles up the Bunny Flat Trail to the historic John Muir House, the second half at a 40 percent incline. At the top, the team meets the site manager of the John Muir House, who accompanies them up another 400 feet.

At the top of a raised stone trail, placed squarely in the face of a small, rocky foothill, is a padlocked trap door. Inside is a pure groundwater source, approximately 8,232 feet above sea level — one of her highest, Moran shares.

She, Peters, and Esser quickly fall into their synchronized routine, averaging about 30 minutes to take down the necessary numbers and fill the amber bottles and the larger plastic cube, all of which must be hauled back down to 6,900 feet.

On the descent, Moran talks about her work in hydrogeology (groundwater distribution and movement), the state of California’s water emergency on the whole, and the silver linings she sees in the current drought situation — the science that could provide crucial solutions for nearly 40 million people.

It’s no surprise that for the professor, the problem and the solution are one and the same — groundwater.

“What we’re really lacking in the state for the way that we’re living now, for the number of people who are here and the amount of agriculture that we do, is places to store the water when there are excess flows,” she says. “We have these big reservoirs but ... there’s not many good locations left to put dams and we’re having less stored water in the snowpack,” which is what reservoirs were designed to capture.

For the professor, taking advantage of underground water storage is a two-part equation. First, she believes Indirect

Potable Reuse (IPR) programs, which actively inject treated wastewater into the ground, are a necessity in large, urban areas.

“Orange County is a world leader,” Moran says. She’s referring to the county’s robust IPR, which has been producing enough purified wastewater to sustain 600,000 people since 2008. “The technology is such that the water is perfectly potable. In fact, it’s better than potable,” she asserts. “It passes all of the water quality standards that people have, over many, many years, developed to keep people safe. Depending on the sophistication of the (above-ground) cleaning treatments, water can be pumped back out any time from 60 days to six months.”



Rare Find: Associate Professor Jean Moran’s post-doc research at Texas A&M resulted in her oldest groundwater sample, a 65-million-year-old brine.

In the Bay Area, “Santa Clara is furthest along in terms of going that direction,” she adds, but other water districts, including Alameda County, have explored the possibility of using their basins, too.

On a state level, “What we need (to think about) is, where are the good places to store water underground naturally? Where should we put some infrastructure so that when there is a big run-off event, we can divert that water, and allow it to infiltrate?” Moran continues.

Location is key to the conversation. Although the Central Valley covers the largest surface area and has

been relying on groundwater stores for more than 150 years, chemicals from agricultural runoff and land subsidence must be taken into account.

“There’s elastic subsidence and inelastic subsidence,” Moran says. “You can permanently lose storage by collapsing the clay materials,” which is the likely case in the southern Central Valley, where the water table has dropped by hundreds of feet and wells have completely dried up.

For the agricultural piece, “Typically you have some improvements in water quality (by putting it underground), but there definitely needs to be some caution because you can put in good water and pump it up and there could be a contaminant like nitrate or arsenic in it,” she explains.

Although the pending El Niño (see opposite page) is too imminent for farmers to benefit from intentionally sinking groundwater on a mass scale, Moran says many individuals could take the initiative to start building berms and hedgerows, among other anticipatory measures.

However, perhaps the most important piece of Moran’s ethos is the impact she’s having on generations to come. Of recharging groundwater for instance, graduate student Peters says, “I believe it’s the *only* solution.”

“It’s interesting,” Moran reflects, nearing the bottom of the trail. “My work began with the deepest groundwater I could find, and over time it’s gotten closer and closer to the surface. Now, I’m interested in what’s happening just underfoot, with the water that we drink, and use, and that impacts people. I’m interested in the water that we have to protect.” ■

“They don’t like to think of toilet to tap. You know, like drinking your toilet water. But you can make it as clean as the water on that table! You have to (have) confidence in this filtration system!”

CALIFORNIA GOVERNOR
JERRY BROWN

SATELLITE & RADAR

THE TRUTH ABOUT EL NIÑO

CSUEB Lecturer and NBC Bay Area Meteorologist Rob Mayeda Weighs in on the Coming Storm

Is the Predicted El Niño Really Coming?

NASA put out that there’s an alleged “Godzilla El Niño.” This is referring to a very strong-phase version of ENSO, El Niño Southern Oscillation. There is a 95-100 percent chance of an El Niño, but an El Niño doesn’t always guarantee you’re going to get average rainfall. It’s a moving target and as it continues developing we’ll hopefully be able to lock in what’s coming.

Will it Pull Us Out of the Drought?

The amount of water it would take ... we’re in a two- to three-year water deficit, so it would be very unlikely to get that in one year. Looking back at ‘82-‘83 and ‘97-‘98, in those two El Niño events you had almost statewide above-average rainfall totals, north to south. Usually though, it’s Southern California and we (in Northern California) have equal chances. But if the El Niño stays in a very strong phase, the Bay Area has a better chance. It’s a rare pinnacle to have an El Niño that could rival those years.

It could also be a good reservoir filler, but the way the water retention system is in many parts of the state, a lot of it will run back into the ocean. Flooding goes up and protection of life and property is paramount. And, the snowpack is the other half to the story, which El Niño might not impact at all due to the warmth of the rain.





Walk This Way: Livermore Mayor John Marchand spent 15 years on the Zone 7 Water Agency board prior to retiring to devote his full attention to the city.

THE FINE LINE

CSUEB Alumni Balance Tough Choices and Community Values

BY KIMBERLY TERE HAWKINS

PHOTOGRAPHY GARVIN TSO

A TWO-YEAR-OLD BOY HOLDS TIGHT TO HIS MOM'S HAND AND TESTS A TOE IN LIZZIE FOUNTAIN IN DOWNTOWN LIVERMORE. OTHER CHILDREN SQUEAL AND DODGE THE VERTICAL SPRAY OUTLETS THAT WERE INSTALLED WHEN THE FOUNTAIN WAS UPDATED IN 2010. IT'S A 95-DEGREE DAY IN THE TRI-VALLEY AND FAMILIES ARE FLOCKING TO LIZZIE PARK TO COOL OFF. REGARDLESS OF CALIFORNIA'S EXTREME DROUGHT, THE WATER HERE WILL KEEP RUNNING.

"I've caught some heat on this," says Livermore Mayor John Marchand (BS '76, Biological Sciences). Livermore has shut off three of its six fountains in downtown and cut the hours at Lizzie Fountain in half. The water is recirculated through the iconic fixture, but the city does replenish what is lost to evaporation and splash out.

"If the fountain was shut off, it would be a gesture, but not a meaningful gesture," Marchand continues. "The children would suffer for it. This is where families come to cool off on hot days."

Marchand chooses his battles. Despite criticism over keeping the fountain alive, the mayor has been using his 30-plus years of experience as a water chemist to go on a drought offensive. After news in 2014 that Livermore had just a two-year supply of groundwater, Marchand pushed his 85,000 residents to slash usage by 25 percent — a year in advance of state legislation. Marchand then stood at California Governor Jerry Brown's side while Brown announced new regulations and unprecedented residential penalties for overuse last April. Shortly thereafter, Livermore became the first city in the region to hike rates for daily water usage.

Yet with all the cutbacks, the mayor wants to make sure he's not cutting the opportunities residents equate with a high quality of life. ▶

THE FINE LINE

LIVERMORE ON THE RISE

In the mid 1980s, Livermore's downtown area was in disrepair. Citizens were scattered by suburban sprawl and the city's largest economic assets — the wineries — were on the fringes. State Route 84 cut through the heart of the town, making a once-historic gathering place undesirable for businesses, shopping, and foot traffic. According to the National Main Street Center, 1985 in Livermore marked an all-time high in vacant storefronts downtown.

Beginning in 2001, local government (Marchand was elected to the City Council in 2005 and became mayor in 2011) began a campaign to reimagine Livermore's "main drag." Urban growth boundaries were drawn to protect agriculture from encroaching on housing, and measures were passed to reroute 84, build new homes downtown, and incentivize businesses to take part in the revitalization.

By 2009, Livermore had won a Great American Main Street Award and in 2013, real estate giant Redfin named the city the fifth "Hottest Neighborhood in America."

FACING THE FUTURE

But the drought could change all that.

In addition to its hard-earned transformation, at stake is Livermore's historical identity. "The wine industry is a very important part of our agricultural heritage and our local economy," Marchand says.

"The tourism it generates and the jobs it creates is worth tens of millions of dollars annually. That makes best management practices for farming and good stewardship over the land all the more important when we are dealing with

a precious and limited resource like water."

Water needed to serve the economy but also protect it. The Tesla blaze, named for the road it started on in August, consumed more than 2,500 acres before it was contained.

"We have extended our (reclaimed water) into the northwest part of the city for fire hydrants and sprinklers," Marchand explains. "To get through the hot summer, we also invited residents to come to our wastewater treatment plant for nonpotable water to haul back to their homes for landscape irrigation." Livermore's state-of-the-art plant produces up to six million gallons of treated water per day — the equivalent of about nine Olympic-sized swimming pools.

POSITIVE FORECAST

With fingers crossed for rain, Marchand's plan is working. The city of Livermore reports a savings of 700 million gallons for off-site irrigation in 2014 alone. And the most recent State Water Board drought report card shows a citywide reduction of 49 percent.

"One of my professors taught me that what chemistry and the sciences do is, they teach you how to behave when you don't know the answer," Marchand says. "It showed me how to boil very technical things down to their simplest form, something everyone can understand."

Fortunately, these are two skill sets that are in high demand. While Marchand's years of science help him make critical decisions about the drought and its implications for his community, it's a fundamental commitment, whenever possible, to pastimes like visits to Lizzie Fountain that preserve Livermore's quality of life. ▶

FLASHBACK



"(Local government) wasn't a path I set out to do. It was laid out before me," Livermore Mayor John Marchand says. "Every step along the way, I had the skills that were necessary to achieve those goals and a lot of that I credit to Cal State East Bay because it gave me the analytical thinking skills ... the wide range of skills and diverse background that I have been able to draw upon to succeed. I am very grateful for the time I spent up there." Marchand met his future wife and fellow Pioneer Sue McLennan (BA '79, Art) during his freshman year of college at Hayward's Little House Carriage Theater where he starred in *Babes in Toyland* in 1972. They've now been married 37 years.

© COURTESY OF MARCHAND FAMILY

Deep Clean: Water for irrigation and landscape at Livermore's Water Reclamation Plant undergoes a three-stage cleaning process, including ultraviolet disinfection to "duplicate nature's own purifying actions," according to the plant's website.



"One of my professors taught me that what chemistry and the sciences do is, they teach you how to behave when you don't know the answer. It showed me how to boil very technical things down to their simplest form, something everyone can understand."

John Marchand
MAYOR, CITY OF LIVERMORE



Tight Conditions: The same year Union City's Station Center opened, a city report showed nearly 14.6 percent of renter-occupied households were overcrowded, rates much higher than the county (8.5 percent) and the state (12.3 percent).

THE FINE LINE

UNION CITY'S TIPPING POINT

"I work hard every day to provide," says Taieba Hedary, a single mom and resident of Union City. She lives with her nine-year-old twins in a six-story affordable housing complex called The Station Center, which opened in 2012 across from the local BART station to make commuting easier for low-income families. "For years, we were all stuffed inside a one-bedroom apartment. No room. Now we have three bedrooms and the kids can go swimming and play outside."

She's talking to a woman she's never met before at The Station Center's park, where parents and neighbors often get to know each other while their kids run around. The woman listening to Hedary agrees that giving children a safe place to play is what all moms want. The night ends with Hedary gathering her twins for the short walk home, unaware she's just befriended Carol Dutra Vernaci (BA '76, Psychology), the mayor of Union City.

"It gives parents some peace of mind, a chance to rest from so much worry," Dutra Vernaci later explains of the park, which is an incremental piece of the larger 105-acre, master-planned Station District. The housing complex opened just a month before she took

office and now houses more than 150 families.

However, with 20 years of public service as mayor, vice mayor, council member, and planning commissioner under her belt, Dutra Vernaci knows the demand for affordable housing — and the refuge it provides families and children — still far exceeds the supply.

“The state as a whole is realizing the need to spend public dollars on education and rehabilitation, rather than incarceration — like our investment here.”

Carol Dutra Vernaci
MAYOR, UNION CITY

DIFFICULT PAST

The Station District is notable for its location — a symbol of transformation in Union City's historic Decoto neighborhood. "This is where I grew up,"

says Dutra Vernaci, a third-generation native. "The area had a bad reputation. I just started kindergarten when the annexation happened. I have certainly seen firsthand the changes over the years."

She's referring to the year 1959, when the neighboring towns of Alvarado and Decoto incorporated into a single city. Decoto, a booming farm and railroad hub, drew in large numbers of Latino workers, who still make up the largest segment of the neighborhood's population — nearly 60 percent according to the Alameda County Public Health Department. In the 1960s, sparked by the Chicano Civil Rights Movement and Cesar Chavez's United Farm Workers strikes, Decoto became a hotbed for rising ethnic conflict. And in 1974, the shooting of a man named Alberto Terrones snapped the strained police-community relations.

"There was so much tension in town," Dutra Vernaci recalls. "There was community outrage over the police shooting and killing someone who was stealing a ham." In an effort to bridge the divide, Union City Police Chief William Cann spoke at a local church where a sniper shot and fatally wounded him.

Although tensions have fluctuated over time, gang violence is deeply embedded in Union City's past and present. A 2008 study by the Youth Violence Prevention Coalition showed

FLASHBACK



"I loved it. I loved the library. I loved the hills ... As an elected official I work with people from all walks of life, and I make policy and budgetary decisions. But as mayor, you have to factor in the human component. My experience on campus and my psychology major gave me the life skills to deal with people, not just book learning." Dutra Vernaci will celebrate the 40th anniversary of her graduation from then-Cal State Hayward next year.

70 percent of surveyed students at James Logan High School reported they had been personally affected or known someone affected by violence. A staggering 45 percent felt gangs and racial tension were to blame. The survey also determined the average age of new gang members is 13 years old.

TURNING THE TIDE

In 2007, a summer of bloodshed that included the slaying of a 14-year-old in front of a middle school, two other fatal shootings of young men, and a record high in youth violent crime incidents (homicide, rape, and aggravated assault), forced the city to take action.

Measure UU was proposed on the November 2008 ballot and allotted \$500,000 of a parcel tax to youth-violence-prevention services. Dutra Vernaci, a councilmember at the time, was initially uncertain about the bill due to its increased taxation but quickly became one of its biggest proponents. The measure passed by a 46.5 percent margin.

“With the money, we put outreach workers on the streets,” Dutra Vernaci says. “We listen to young people and come up with solutions, whether it’s helping them find a job, giving them counseling, crisis intervention, or getting them involved in a program to improve their situation.”

One of the most popular city-run interventions is the 10th Street Boxing Program, which serves more than 100 teenagers. “It’s a safe haven for the youth to socialize,” coach Johnny Gusman says. “Some come in timid and you can see their confidence build. They are able to use what they’ve learned inside the ring out on the street.”

Since 2007, the Union City Police Department reports a 60 percent drop in youth violent crime. However, the parcel tax is set to expire in 2017, a major cause of concern for the mayor. Without voters supporting a continuation in 2016, she explains, the city will have to make tough decisions about what to cut.

“The state as a whole is realizing the need to spend public dollars on education and rehabilitation, rather than incarceration — like our investment here,” Dutra-Vernaci says as she hangs on the ropes, watching two kids go toe-to-toe. “Of course, I had no idea when I was in college that I would be mayor of Union City someday, but that education in psychology and sociology has helped me get where I am today and see my way through those decisions.

“It’s far from over though when it comes to straightening out people who we’d like to get on a brighter path,” she adds. “But because of our commitment to youth violence prevention, lives have been changed.” ■

“Some come in timid and you can see their confidence build. They are able to use what they’ve learned inside the ring out on the street.”

Johnny Gusman
10TH STREET BOXING COACH



Fan Base: Mayor Carol Dutra Vernaci cheers on (left) 12-year-old Rodrigo Aleman and 17-year-old Isael Chairez at Union City's 10th Street Boxing ring. Union City's array of youth-violence-prevention services replicate the Boston Ceasefire model that was implemented from 1994-96, after youth homicide spiked by 50 percent in 1990. The program resulted in a 68 percent drop in gun-related killings in the first year, according to the National Institute of Justice.

CITY BUSINESS

In the crowded and complex Bay Area, city managers seek a balance between business and community — operating efficiently and effectively while fostering collective, positive involvement. Their challenges may be very different, but these leaders all expressed a common goal: to not only live together and meet the basic needs of residents, but to flourish and grow.



NELSON FIALHO (BA '91, POLITICAL SCIENCE; MPA '96): PLEASANTON

"There are many people commuting to and from the Tri-Valley area along the I-680 and I-580 freeways. Finding ways to address constrained infrastructure is a challenge. We are working to extend BART into Livermore, which someday will encourage more commuting and ease congestion."

PENELOPE LEACH (MPA '08): ALBANY

"Affordable housing is the biggest challenge. It takes a public/private partnership, the space to do it, and the community buy-in. We're always pitching affordable housing and mixed-use projects to landowners and developers. The way we go about getting it done at this phase — education, education, education."

MARCIA SOMERS (MPA '85): LOS ALTOS

"We are focused on maintaining excellent customer service to our population, which is aging as well as becoming more culturally diverse. The police department conducts ongoing training in diversity, mental health, and elderly-related issues. It's important that all city employees recognize and understand the needs of our residents."

CARL CAHILL (MPA '00): LOS ALTOS HILLS

"The city is almost entirely residential. We're largely relegated to property taxes for revenue, which isn't enough to replace aging infrastructure before it fails. Citizens are reluctant to approve fee or rate increases unless they can see value. Part of the solution is public outreach, explaining why money is needed, while working with other cities and legislators to secure additional funding."

FRAN DAVID (BS '71, URBAN ECOLOGY): HAYWARD

"Graffiti was a problem. In 2009, we decided to focus on prevention through a Mural Arts Program rather than doing constant and short-term abatement. We started with utility boxes and moved on to an expansive citywide mural effort. The concept has won state awards and has been copied by more than 20 jurisdictions across the United States."

PAST TO PRESENT

The CSUEB alumni that have gone on to hold positions of civic leadership extend well beyond the Bay Area — mayors and city managers are scattered throughout California and beyond. Of the 25 listed below, more than half pursued a Master of Public Administration degree. "The CSUEB MPA program has always been different from other programs because of its normative, interpretive, and critical approaches to the study of public administration," explains Department Chair Jay Umeh. "In other words, our program infuses everything we do with a deep emphasis on human, social, and organizational realities. We're a program with soul — always asking critical questions and integrating theory and practice, and persistently asking our students to face the ethical, social equity, and social justice complexities of public administration."

Steven Baker (MPA '93): City Manager, Yreka; Former City Manager, Suisun; Oakdale

Yvonne Beals (MPA '00): Former Mayor, Pittsburg

Gary Broad (MPA '93): Former City Manager, St. Helena; Town of Ross

August Caires (BS '71, Business; MPA '78): Former City Manager, Farmersville; Shafter; Scotts Valley

Richard Cline (BA '95, Mass Communication): Mayor Pro Tempore, Menlo Park; Former Mayor, Menlo Park

Nora Davis (BA '76, Sociology; MPA '77): Vice Mayor, Emeryville; Former Mayor, Emeryville

Paul Eckert (BA '87, Public Affairs and Administration; BA '87, Political Science; MPA '89): City Manager, City of Mt. Shasta; Former City Manager, Sioux City, Iowa

Richard Farrington (BS '69, Earth Sciences): Former Mayor, Ferndale

Michael Garvey (MPA '72): Former City Manager, San Carlos

Elihu Harris (BA '68, Political Science): Former Mayor, Oakland

Gregory Jones (MPA '97): Former City Manager, Hayward

Elizabeth Kniss (MPA '85): Former Mayor, Palo Alto

Linda Koelling (BS '71, Recreation): Former Mayor, Foster City

Patrick Kwok (BS '70, Biological Sciences; BA '72, Chemistry; MPA '80): Former Mayor, Cupertino

Robert Lieber (BA '79, Special Major): Former Mayor, Albany

Luis Molina (BA '99, Liberal Studies): Mayor, Patterson

Andrew Moore (BS '85, Computer Science): Former Mayor, Erie, Colorado

David Norman (MPA '89): Former City Manager, City of Port Hueneme; Assistant City Manager, Camarillo

Beth Pollard (MPA '91): Former City Manager, Albany

Karen Smith (MPA '70): Former City Manager, Union City

Michael Sweeney (BA '72, Political Science; MA '74, Political Science): Former Mayor, Hayward

Ignacio Velazquez (MBA '05): Mayor, Hollister

Allen Warren (BA '89, Public Affairs and Administration; BA '89, Political Science): Vice Mayor, Sacramento

Amy Worth (MS '84, Counseling): Former Mayor, Orinda

William Zaner (MPA '71): Former City Manager, Palo Alto

D I G I T A L
D E A T H



How
Technology
is Transforming
the Afterlife

BY SIMON CONSTABLE

I'm not sure my mother understands Twitter or why I tell her millions of people love her — but she says she's ver[sic] touched," Scott Simon tweeted to 1.3 million followers on his mother's deathbed.

It was one of many such public announcements the NPR journalist and host of Weekend Edition Saturday made in the weeks leading up to his mother's passing:

"Heart rate dropping. Heart dropping." / "You wake up and realize you weren't dreaming. It happened. Cry like you couldn't last night." / "Between last minute flights, fees, lawyers, forms, cemeteries etc. how do families afford deaths?"

Simon wasn't the first to do so, but his broadcast of the before, during, and after-death experience inspired both intense public criticism and unfailing support. As one reviewer said, "He just needs an Internet bug." Another was less sympathetic: "What's with the tweet when he said he was holding his mother's hand? I imagined him by his mother's side doing just that ... and typing in his tweet with the other hand. It's his way of dealing, but in my experience, sometimes you're more in the moment if you just put your mobile device away." ▶



Associate Professor of philosophy Christopher M. Moremon's next book is focused on a Buddhist interpretation of zombie-lore.
 ☐ GARVIN TSO

So explores the chapter on “Tweeting Death, Posting Photos” in Department of Philosophy Chair and Associate Professor Christopher M. Moreman’s 2014 co-edited book, *Digital Death: Mortality and Beyond in the Online Age*. The collection of essays in this uncharted field of study was awarded the 2015 Ray and Pat Browne Award for Best Edited Collection in Popular and American Culture. “Digital reality is so prevalent and ubiquitous, it’s become a part of what it means to be a person,” Moreman contends. “If you’re going to study anything about a person physically, you now have to consider that person virtually.”

DIGITAL EVOLUTION

Composed of research on a wide variety of topics, *Digital Death* looks at everything from the serious (cyber-bullying), to the pragmatic (how to access information stored online), to the creepy (death images on Instagram and Pinterest), to the cult (online communities that mourn the death of fictional TV and gaming characters). For Moreman, who has devoted his life’s scholarship and teaching to the folklore and pop culture of death and dying, the book was a chance to explore a particular interest — online memorial.

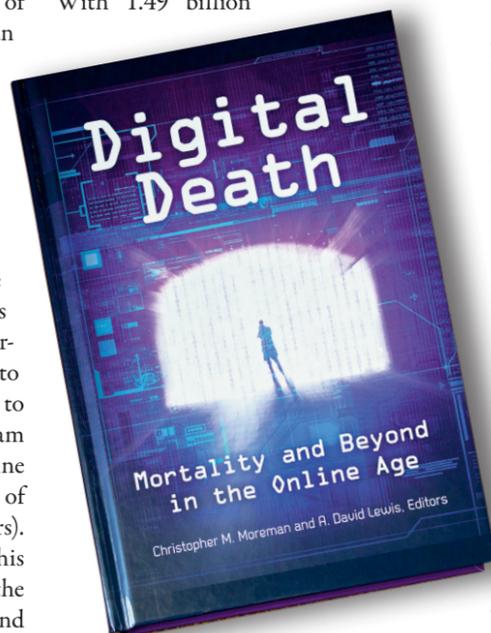
“There are now so many alternative ways to memorialize the dead,” Moreman explains. For instance, if a loved one dies halfway around the globe, it could be hard or expensive to get to a funeral — online provides easier access.

It also allows more freedom.

Moreman presents the situation of siblings cleaning out the home of a deceased grandmother. “One wants to throw everything away and be done with it, and the other wants to comb through items carefully and find things to remember her by. “Who’s to say which is healthier?” he asks. Taking this scenario digital, Moreman points out that an online memorial is simply another opportunity for “each person to explore grief in their own way.”

He is first to acknowledge, however, that social media can also be unsettling. Moreman recalls a personal example in which he learned about the passing of someone close via the post of an unknown third party on Facebook. “Usually you would get a phone call about such a thing. But, in this case, it enabled me to reach out to the family quickly and offer help to my friend, who was alone.”

There are the practical matters, too. With 1.49 billion



Moreman’s *Digital Death: Mortality and Beyond in the Online Age* was co-edited with A. David Lewis, an adjunct professor and graphic novelist. © GARVIN TSO

users worldwide (30 million of which are estimated to have already outlived their profiles, according to a company called Entrustet), Facebook’s reach into the world of digital death is vast, deep, and inevitable. The social media giant has long held a death policy, but a recent update shifts online memorial into the realm of afterlife planning. Previously, Facebook allowed families to memorialize or delete an account pending proof of death, but it now offers a “legacy contact” option — the pre-designated steward of the deceased’s postmortem digital existence. “It raises a lot of important questions,”

says Moreman. For example, how do you want your life curated after you die? Sanitized, perhaps? Who should inherit your social media profile and maintain it for how long? “We are just learning the answers to these questions now,” he says.

THE BUSINESS OF DEATH

As another point of interest, online memorial is also making its way beyond computer and tablet screens and into graveyards. Although digital death-inspired ventures span the gamut from a 99 cent app that prerecords messages to be played after a person’s passing to virtual flowers and candles, new headstone technology has the potential to turn cemeteries into interactive, virtual museums. For example, one company sells music chips that hold playlists for visitors to listen to at the gravesite. Some offer QR codes that route to online profile pages about the deceased through smartphones, which nearly any passing visitor could tap into. “Maybe it will change the way we look at privacy,” Moreman says.

FUNERAL REVOLUTION?

While many already feel the age of digital memorial affords greater access and builds community among mourners, others perceive finding out about it and sharing the experience of it through posts and tweets a crude abomination. So then, on a net basis, does the new digital world of death add something or does it take away? “It has the possibility to be better,” Moreman offers. “People now have more options about how they approach mourning. But, there haven’t been a lot of studies on these interconnections, and the purpose of the book is to show that there are important questions that need investigating.” What the book does do is give readers a good deal to chew on — to consider their own experiences and decide which emerging cultural norms to participate in, and which traditions to hold on to. ■



Living Memory: The age of digital death includes headstones that connect to online memorials where family and friends can continue to share memories, post comments and photos, and link to other social media sites. © COURTESY OF QUIRING MONUMENTS, INC. — LIVING HEADSTONES MEMORIALS

“People now have more options about how they approach mourning. But, there haven’t been a lot of studies on these interconnections, and the purpose of the book is to show that there are important questions that need investigating.”

Christopher M. Moreman
ASSOCIATE PROFESSOR,
PHILOSOPHY

SAVED BY THE SCREEN?

BY GRETCHEN REEVY, PHD

Online memorial is a way of dealing with death — perhaps it could be called cyber-coping — that allows users to employ a wide range of coping mechanisms that are not entirely different from the ways of dealing with “traditional” death. One of the most common approaches to categorizing how a person deals with any stressor in life is whether they engage or disengage.

Engagement coping mechanisms involve clearly acknowledging the stressor and, if it can be changed, dealing with it “head on.” In this case the stressor (a death) cannot be changed, but there is still the possibility of extensive engagement through creating, posting, contributing to, and/or regularly visiting an online memorial.

By contrast, disengagement coping mechanisms involve distancing oneself from the stressor — for instance, denying that it occurred or seeking distractions, frequently through unhealthy habits like drugs/alcohol, or other diversions, such as TV, work, etc.

Online memorial presents a twist to the engage/disengage categorization theory because it can function both ways — as a constructive way of experiencing and sharing grief, or as a type of ‘pseudo-engagement’ that perpetuates denial and distraction. For instance, a person could post a requisite comment/tribute on a memorial page and then possibly never deal with their grief in other ways. As a fairly extreme example, the person could tell himself/herself that the online post was adequate acknowledgment of the death, and thus feel “excused” from attending face-to-face burial or funeral gatherings. But, the public visibility of online memorial may create the misconception among family and friends that so-and-so is doing just fine.

At the same time, the above construction assumes that participating in an online memorial is an effective coping strategy, which it may well be, but it could also become a compulsion that hinders a person from moving forward in their own life, or a disengagement mechanism in and of itself. The important thing to remember is, there is nothing intrinsically healthy or unhealthy about the evolving cultural reality of online memorial — like so much that occurs in the virtual world, each individual brings their own psychology to the situation and creates their own emotional reality.



Gretchen Reevy has been a lecturer at Cal State East Bay in the Department of Psychology since 1994. She is the author of *Encyclopedia of Emotion* (2010) and co-editor of the books *Praeger Handbook on Stress and Coping* (2007) and *Personality, Stress, and Coping: Implications for Education* (2011).

📷 COURTESY OF GRETCHEN REEVY



FAST TRACK

BY TODD PREPSKY
PHOTOGRAPHY GARVIN TSO

THE COLLEGE OF BUSINESS AND ECONOMICS' NEW TRADING LAB PREPS STUDENTS FOR HIGH FINANCE

On a typical spring day in New York City in 1792, 24 men gathered under a buttonwood tree outside 68 Wall Street. The men were stockbrokers and merchants, and they were there to put their hands to the aptly named Buttonwood Agreement — a historic document that bound them to take no less than one-quarter percent commission on any sale to a client and deal solely with each other in negotiations. Although there were only about five publicly traded securities at the time, this pact set the course of the American financial system.

LIGHT SPEED AHEAD

Today, roughly 2,800 companies trade on the New York Stock Exchange (NYSE), with 1.5 billion shares exchanging hands each day. On the NASDAQ exchange, more than 4,000 stocks are traded. Trillions of dollars flow through the American financial system every 24 hours — and almost all of it is done digitally. In April 2012, the *Financial Times* published Morgan Stanley findings from the previous 10 years, stating, “Trading by ‘real’ investors is taking up the smallest share of U.S. stock market volumes.” Correspondingly, a January 2014 issue of *The Street* reported employment at the NYSE dropped from 5,000 to 700 in a decade, primarily due to tech upgrades. ▶



Work Ready: Much of CSUEB's finance curriculum runs parallel to professional certifications, says Associate Professor Eric Fricke, who teaches Investments and Portfolio Management. "That's really key. One of the things I try to do is encourage students to get certified in various platforms. If they know how to do research using current tools of the trade, that helps them get their foot in the door."

“People think you're better off because you have more to choose from now ... what more choices really means is that we have more to learn and we need to invest more in financial education.”

Scott Fung
PROFESSOR, FINANCE

For students planning to enter the financial world, this means a decentralized market landscape that resides almost entirely online — which has increased the number of people investing in the stock market exponentially. “Financial innovation and the amount and volume of information technology has changed everything,” confirms Professor Scott Fung, who teaches CSUEB's Derivatives Markets course. “How fast people respond to information and how fast they can trade and construct trading strategies, including *high-frequency trading strategies, has transformed the market.”

It also means that fluency in cutting-edge software and the ability to interpret rapid market fluctuations are the new linchpins of success. “People think you're better off because you have more to choose from now, for example we no longer trade just on direction but on volatility (risk) as well,” Fung says. “But it's a sort of paradox — what more choices really means is that we have more to learn and we need to invest more in financial education.

they will for trading, advising, or analyst jobs anywhere in the world. “Because the market is so dynamic and volatile, it can't be easily defined. The only way to understand it is to replicate it as closely as possible. Observing it in real time gives students a sense of those dynamics and how the market reacts to new information,” explains Associate Professor Sinan Goktan, who teaches International Finance.

Recent graduate Jeff Greene (BS '15, Business Administration) was among the first to use the new technology. “The lab sets up a competitive environment where you feel like you're actually trading. Our teams used StockTrak to help with our trading strategies, and the team with the greatest return won,” Greene said. “Having these tools that analysts and advisors actually use in the industry makes me feel like I could bring something to a new job on day one.”

While technology has made the process of buying and selling securities easier, faster, and more accessible, the market, its language, volume, and volatility are more intricate than ever — hardly a matter of sealing a deal with a handshake under a tree (though the buttonwood still stands guard outside the Exchange today). While the NYSE will probably always conjure up images of ringing bells and floor traders in the Mecca of finance, today's Wall Street is scattered across the world. Surviving and thriving in the market requires both technical fluency and razor-sharp analytical skills — tools that are readily available in CSUEB's Finance Trading Lab. ■

*HIGH-FREQUENCY TRADING

The world of finance has a language all its own — but no term is more controversial than high-frequency trading (HFT). According to Investopedia.com HFT “uses complex algorithms to analyze multiple markets and execute orders based on market conditions. Typically, traders with faster executions speeds will be more profitable than traders with slower execution speeds.”

“It's changing the nature of the securities market because the influx of such large volumes impacts volatility — it adds risk,” says Assistant Professor Robert Loveland, who teaches Financial Modeling. “There is anecdotal evidence of high-frequency traders front-running, or using information on customer demand for securities to profit themselves, but not enough is known about what's actually happening to say that it's illegal or file criminal charges. The law has not yet caught up with the digital world.”

PROVING GROUND

Both master's and bachelor's degree students from Cal State East Bay's Department of Finance competed in the 2014-15 Chartered Financial Analyst Institute Research regional tournament in March. The competition, sponsored this year by local biopharmaceutical company Gilead Sciences, requires students to research, present, and defend proposals for a complex investment portfolio. One of the two Cal State East Bay groups won their tournament bracket, pushing them into the final rankings assessment against other top Bay Area universities such as Stanford, San Jose State, UC Berkeley, Santa Clara, and The Wharton School.

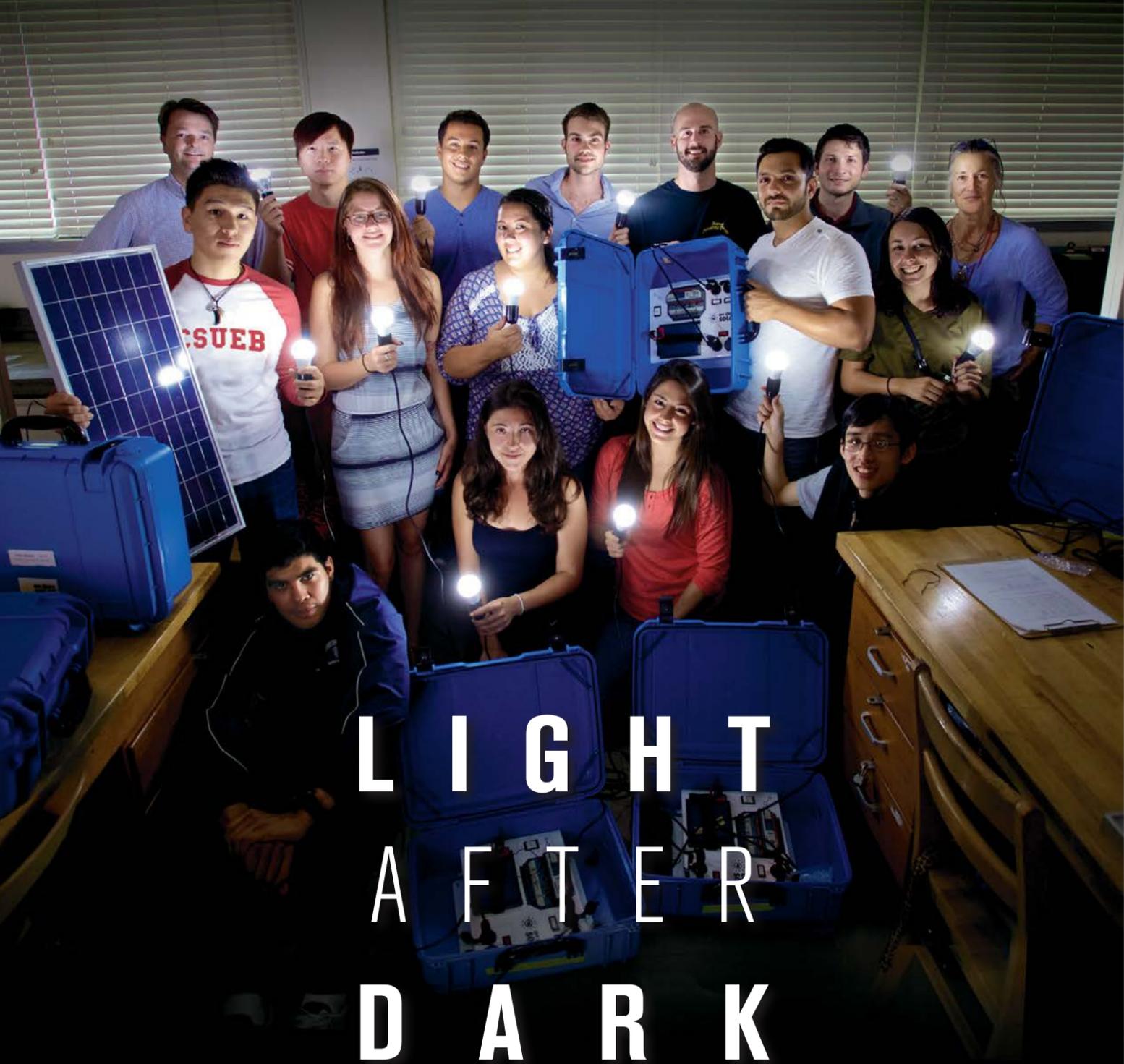


Cal State East Bay students comprised two teams that competed in the 2014-15 CFA Institute Research tournament in San Francisco in March. COURTESY OF THE COLLEGE OF BUSINESS AND ECONOMICS

MEETING THE MARKET

In winter 2015, CSUEB's College of Business & Economics (CBE) opened the doors on a new Finance Trading Lab in the Wayne and Gladys Valley Business and Technology Center (VBT) to teach students how to negotiate the complexities of today's financial markets.

Using \$1 million in virtual cash and a program called StockTrak that provides 24/7 market information, students manage portfolios and securities online, just like



LIGHT AFTER DARK

CSUEB JOINS THE EFFORT TO
POWER 1 BILLION PEOPLE

BY KRISTA DOSSETTI



KANO, NORTHERN NIGERIA

12.0000°N, 8.5167°W

“TODAY I AM BACK IN NIGERIA — THIS TIME IN KANO, A CITY OF 10 MILLION PEOPLE AND A MATERNAL MORTALITY RATE THAT ROBBS THE LIVES OF 1,250 WOMEN FOR EVERY 100,000 LIVE BIRTHS.

One community health officer described a breech delivery at night, and the danger of using candles. She was unable to see adequately under the dim luminance of a kerosene lantern and called to the patient’s husband to ask him to hold a candle for better illumination. This barely improved the lighting in the room and at two times the patient screamed out when hot wax dripped onto her skin ... in another clinic, a midwife told me about a breech delivery in the darkness. The baby’s body delivered first, and the head was trapped. She searched for a light, but the only flashlight in the facility was broken. The midwife grabbed a cell phone to utilize its small light, but the phone fell in a pool of blood on the delivery table, and no longer could function. By the time the delivery could be completed, the baby was stillborn.”

— From *Stories from the Night* by Laura Stachel, MD, MPH ▶



“Physics is a beautiful subject, and I love working with kids. Seeing the aha moment and the light bulbs go on over their heads, literally — it’s a great feeling.”

Erik Helgren
ASSOCIATE PROFESSOR, PHYSICS



Shine On: Associate Professor Erik Helgren walks students (from left) Stephanie Da Silva, Shelby Hoetner, Danielle McAvenia, and Freddy Flores through the science behind solar energy in an outdoor lesson.

First Class (p.34): Students from CSUEB’s inaugural hybrid environmental studies/physics course light up Solar Suitcases as part of a wider effort to resolve global energy poverty.

GARVIN TSO



CSUEB CAMPUS, SCIENCE LAB

37.6569° N, 122.0578° W

“It might take a little elbow grease,” Environmental Studies Professor Karina Garbesi calls out from the head of the classroom. It’s mid-August and she’s standing in front of a bright blue box surrounded by a riot of wires, ports, and circuits that must each find its connection. Eventually, they will make up the guts of a USB port, electrical outlet, charging station, and switchbox, concealed by a white panel on top. Once paired with a solar panel, the contents of the box (a suitcase actually) are designed to provide light and power in schools and orphanages a half a world away.

“Don’t break it, but, you know, you’re going to have to kind of muscle it in there,” Garbesi says of an unruly cable. It’s a much different sort of lesson than what the students — high school and middle school teachers from Hayward Unified School District — are used to. Instead of textbooks and experiments that illustrate theoretical concepts, today they are using old-fashioned trial and error to give a life-changing technology to people 10,000 miles away. According to the International Energy Agency, more than 1.3 billion people don’t have access to electricity worldwide, 95 percent of which are concentrated in developing countries. In Africa alone, a 2014 World Energy Outlook report projects 600 million people live in the dark — almost twice the total population of the United States. “This is not a partial credit kind of thing,” Garbesi adds. “Either it works or it doesn’t work.”

Which is exactly why the teachers are attending the two-day, 16-hour workshop — they believe it will work. As part of the handful of schools that make up the Hayward Promise

Neighborhood (HPN) program, a federally funded, five-year initiative to lift developmental and educational outcomes in the area, a top priority is curriculum that grabs students’ attention in Science, Technology, Engineering, and Math (STEM). “Usually in the lab we’re measuring the velocity or forces of something, and then when it’s over the pieces go back in the box, back in the cupboard,” says Ian Fry, a physics and chemistry teacher at



Special Delivery: Children gather to see the inside of a Solar Suitcase at a Haiti orphanage. COURTESY OF WE SHARE SOLAR

Tennyson High School. “We’ve never done anything like this before — create a thing that will be used by someone else for years to come.”

AJULU PARISH, UGANDA

2.7817° N, 32.3000° E

“It’s the first time many of them, adults or children, have even seen a light bulb. Their lives are governed by the

sun and the moon,” Marsha Campbell explains. She is a member of the Global Orphan Project (GO), a faith-based organization that has dozens of ongoing projects in 18 different countries. She is currently preparing for her next trip to Uganda to continue work on a new village and orphanage in Ajulu Parish, the site of one of the largest former Internal Displaced People (IDP) camps in Central Africa.

On her packing list is a conspicuously blue suitcase — the kind that would be impossible to miss (and too brightly colored to easily steal) on an airport luggage conveyor belt. Made of high-density polyethylene, the suitcase is built to shoulder bumps and spills on trains and jeeps, or float if it topples into a river from a barge or canoe. Inside is a portable solar light system with enough power to illuminate a multi-room school, orphanage, community center, or dormitory — up to 200 watts and 200 amp-hours of battery energy storage. Campbell estimates she has delivered more than 30 suitcases. “How do you explain it?” she muses. “The first time the lights go on ... the joy is childlike. Even the adults — just to see each other.”

CSUEB CAMPUS, SCIENCE LAB

37.6569° N, 122.0578° W

Associate Professor and Department of Physics Chair Erik Helgren is working alongside Garbesi with the HPN teachers. The pair spearheaded a new hybrid course this fall for CSUEB students to also take part in building the Solar Suitcases. Part environmental studies (Garbesi’s area of scholarship) and part physics (Helgren’s specialty), the class explores issues of social justice and energy poverty in the context of renewable power resources — which ▶



“There are data to show that students, and particularly female students, are much more interested in STEM fields when it has a human purpose — to help other people.”

Karina Garbesi
PROFESSOR, ENVIRONMENTAL STUDIES

Hands-On Power:
Students from the Utanni
Secondary School in
Pemba, Zanzibar learn
how to build the Solar
Suitcase to power their
all-girls, STEM-focused
school at night.
COURTESY OF WE
SHARE SOLAR

countries have what and for how much, and what students here can do to build sustainable solutions.

According to Garbesi, the transformation works both ways, for those who receive as well as those who give.

“There are data to show that students, and particularly female students, are much more interested in STEM fields when it has a human purpose — to help other people,” she says.

Sparking that interest is imperative to diversifying the STEM workforce of the future. According to a 2015 report by the Hispanic Foundation of Silicon Valley, Hispanics make up 30 percent of the local population (and 40 percent of CSUEB students) but occupy just 3 percent of high-tech jobs in the region.

“The majority of my students are English as a Second Language (ESL) learners,” agrees Jenny Blaha Dawson, a 7th and 8th grade science teacher at Cesar Chavez Middle School in Hayward. “Approaching lessons (through ESL) sometimes puts other things on the back burner. (The Solar Suitcase) gives them this view into what life is really about. I want the kids to see, if you’re interested in the world around you, you’re a scientist.”

“No one else is doing what we’re doing on this multilevel scale that encompasses the entire pipeline,” Garbesi adds, speaking about what differentiates CSUEB from other campuses that are building the Solar Suitcases (see The Backstory). The new hybrid course includes mentoring the HPN kids in their schools and also bringing them to campus. “One of the things we wanted to do in this class is have our students teach (younger) students, and work with the middle schools and high schools to teach what they’re learning here at Cal State East Bay,” Helgren explains. “It bridges the gap.”

For Sahil Rahimi, a third-year physics student, the chance to teach and the environmental/social justice components are what drew him to the project. “We *have* to do something to help the planet,” Rahimi emphasizes. “And we’re doing it here by helping ▶

people who lack a necessity of life, electricity. I'm going to continue taking this kind of class if I can."

On the opposite end, environmental studies student Teresa Gamber says she was ready for something hands-on. "I'm a little nervous about being among all these physics students and engineers," Gamber shares. "But most of the stuff we do (in environmental studies) is reading, so I'm excited to do something applied."

By the end of the quarter, the CSUEB students will complete six suitcases intended for continued teaching. The HPN classes will build five suitcases each, totaling

25 systems destined for the developing world this year.

For Helgren and Garbesi, it's a dream come true. "This is all I ever wanted to do with my life, with my professional career," Garbesi says. "To have this kind of opportunity come together, to be able to create a whole that is greater than the sum of the parts, to really make the world a better place — what could possibly be better than that?" ■



Garvin Tso

THE BACKSTORY BERKELEY, CALIFORNIA

We Care Solar, a nonprofit devoted to creating reliable electricity in low-resource areas, is the brainchild of Berkeley obstetrician Laura Stachel and renewable energy scholar Hal Aronson. Stachel traveled to West Africa in 2008 to study maternal healthcare and high mother-infant mortality rates. What she found shocked her. Although there were issues with equipment and facilities in regard to birth-related deaths, the most urgent issue was something else entirely — light.

Stachel returned home where her husband, Aronson, produced a portable

solar light system inside a suitcase to demonstrate how the technology could help the Nigerian hospital. When Stachel brought it to them, the staff begged her to leave the suitcase behind for immediate use; it was too valuable, even as a sample, to go to waste. Word-of-mouth soon led to requests for more, and the nonprofit Women's Emergency Communication And Reliable Electricity was born. The grassroots movement has since placed approximately 1,500 suitcases, which are now manufactured in Fremont, California, in 27 countries.

In 2012, Aronson teamed up with business executive Gigi Goldman to create We Share Solar, a new branch of the nonprofit that enables students to produce the suitcases. These Solar Suitcases are placed in schools, orphanages, and community centers, while the factory-built Solar Suitcases go to health centers. To date, more than 50 educational institutions have taken part in the We Share Solar program, amounting to 150 suitcases in six countries over the past four years.

"I want the kids to see, if you're interested in the world around you, you're a scientist."

Jenny Blaha Dawson
CESAR CHAVEZ MIDDLE SCHOOL



University Bound: "We're building a college-going culture here," physics and chemistry teacher Ian Fry (above) says of his 11th and 12th graders at Tennyson High. "Learning about solar energy is a real world application that prepares the students for college and shows them it is in the future."

GARVIN TSO



DONOR MEETS STUDENT

BY STEPHANIE HAMMON
PHOTOGRAPHY GARVIN TSO

ONE SCHOLARSHIP, ONE STUDENT, AND THE PEOPLE WHO MAKE GIVING POSSIBLE AT CAL STATE EAST BAY

The Student

“I thought scholarships were just, ‘OK, here, you won your prize!’” CSUEB student Xavier Duran recalls. He is remembering how he felt upon receiving the 2014 Albert & Agnes Chang Memorial Scholarship for computer science majors:

First, elation. Second, dread.

When Duran learned his benefactors wanted to meet face-to-face at a scholarship award ceremony, “I didn’t know how I was going to thank them or what I was going to say,” he says. “I felt negative about the experience. I thought ‘I shouldn’t have applied for the scholarship. I don’t know how to do these things.’”

The Donors

When Al Johnson (BA ’78, Black Studies; MPA ’82) tells the story of his life, it begins with his single mother and two brothers. “Watching her walk daily to work — rain, shine, or snow — to provide for our family, I couldn’t just sit back and watch her,” he says. “So, I started working at 10 years old. By 16, I’d had several jobs, including delivering milk at 3 a.m. As you might imagine, my grades showed it.”

Johnson, who dropped out of school to join the U.S. Marine Corps at 17, would eventually obtain two degrees from Cal State East Bay and retire as chief transportation officer at BART.

Under his leadership, the line to the San Francisco International Airport was opened.

His work at BART gave Johnson more than just professional success, however.

“Al was working in the Transportation Department and some of his duties required him to come to the Employment Office where I was working,” Patricia Johnson (BA ’96, Political Science; MPA ’00) says. “Everyone in the office would say ‘Hi, Al.’ I would just say ‘Hi.’ Eventually, he got up the nerve to ask me out for a cup of coffee. I told him, ‘I don’t drink coffee.’”

But Al persevered — and the pair

recently celebrated their 25th wedding anniversary.

After they married, he was also persistent in encouraging Patricia to go back to school. Having received her AA degree in the ’70s, Patricia, who completed her career as a financial advisor, chipped away at her BA and MPA degrees at CSUEB for 11 years, beginning when the couple’s son was just 5 years old.

The Gift

The endowment the Johnsons started three years ago is in honor of an aunt and uncle on Patricia’s side. “Although they grew up in extreme poverty, my aunt and uncle and their seven other siblings weren’t aware of it,” Patricia says. “My uncle received his PhD by the time he was 22. He retired from IBM after more than 30 years.”

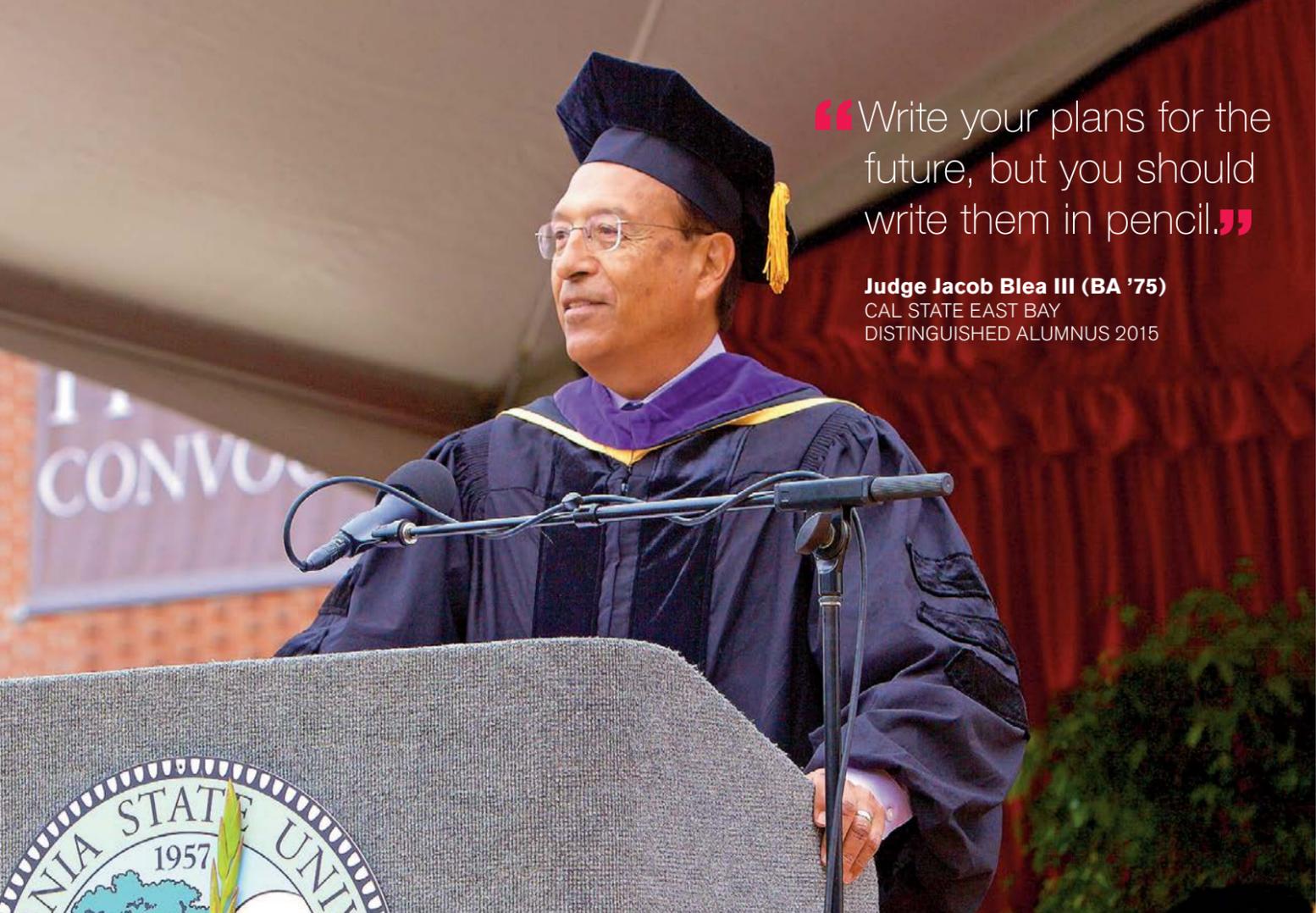
First Impressions: “You could see it all coming together,” Al Johnson recalls of meeting Xavier Duran, his mother, and sister at a 2014 scholarship award ceremony. “It’s a family that you’re helping.” (From left) Xavier Duran and Patricia and Al Johnson.

Although Duran won the scholarship money from the Johnsons in 2014, they jumped at the chance to reconnect with him over the summer.

This time, the college junior wasn’t nervous.

“I promised Patricia and Al that I would refuse to fail. I would make sure to graduate and continue to succeed, no matter what happens in my life,” Duran says.

“For once in my life, I tried to do something different and it actually worked out,” he continues. “And, it didn’t *just* work out. Now, I know there’s more value in meeting successful people than there is in money.” ■



“Write your plans for the future, but you should write them in pencil.”

Judge Jacob Blea III (BA '75)
CAL STATE EAST BAY
DISTINGUISHED ALUMNUS 2015

Words to Live By: Judge Jacob Blea III shared the lessons of his life with the Class of 2015 at Honors Convocation.

DISTINGUISHED ALUMNUS 2015

Judge Jacob Blea III (BA '75)

BY KRISTA DOSSETTI
PHOTOGRAPHY GARVIN TSO

Judge Jacob Blea III (BA '75, English; Multiple Subject Teaching Credential) had a simple, powerful message to share with the Class of 2015 at the Honors Convocation ceremony in May: “Work hard and give something back.”

It was advice given to him by California Supreme Court Justice Wiley W. Manuel when the 2015 Distinguished Alumnus of the Year was just starting his own career, and words he has strived to live by ever since.

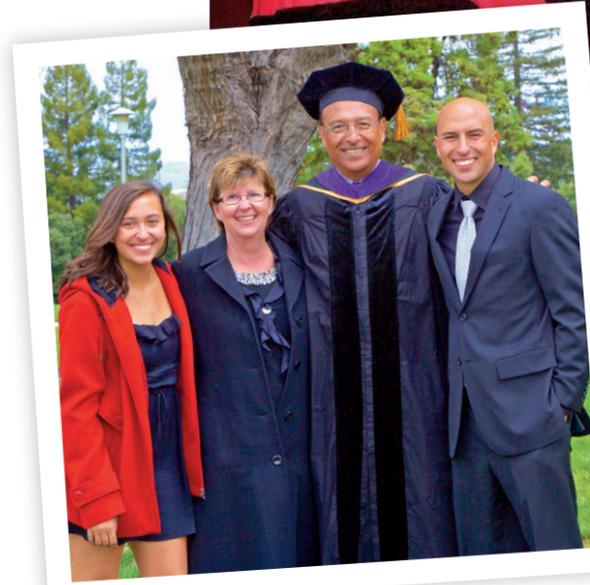
Blea continued by asking, “Well, why ... ?” of the graduates — why should they work hard and give something back — before definitively answering, “Because it’s the right thing to do.”

The keynote address came just a few weeks shy of the 40th anniversary of Blea’s graduation from then-Cal State

Hayward, which is “amazing,” he joked, “seeing as how I’m only 45.”

The distinguished alumnus entertained the honors graduates and their families with quotes from the likes of Harry Potter and Jerry Garcia, but there was a serious quality to his speech as well. The accomplished lawyer, judge, youth advocate, husband, and father would have led a very different life if he had stuck to his original plan of teaching and coaching basketball after graduating college (unless, of course, the NBA happened to call).

“If having things turn out the way you planned them is a measure of a successful life, then mine has been a failure,” Blea said. “Write your plans for the future, but you should write them in pencil.”



Honorable Moments: Blea caught up with President Leroy M. Morishita and commemorated the day with wife Cheryl and two of his four children, Joy and Jacob IV.

Blea went on to describe how he had intended to accept a teaching job in Southern California shortly after graduation until his father convinced him to try law school at UC Berkeley. Blea threw away all his books at a BART station after the first semester, vowing never to go back, because, as he shared with the graduates, “I hated law school.” Fortunately, a new girlfriend — now Blea’s wife of 36 years — persuaded him to stick with it.

“I’ve never regretted that decision — you can make all the plans you want, but you have to be willing to change your course,” Blea counseled the Class of 2015. “If I had been unwilling to change my plan, I would have missed out on a truly blessed career in law.” He went on to list the even more important things he would have missed, including his wife and four children —

children who have allowed him to fulfill his dream of coaching athletics over the years. “In fact, my newest assignment may be my favorite: assistant 8th grade basketball coach,” Blea proudly told the crowd. “Head coach, my son, Jacob Blea IV, who will be attending (CSUEB) in the fall.”

And, an offer to teach in Cal State East Bay’s paralegal program, which Blea has done for the past two-and-a-half decades, also took care of his other lifelong dream of teaching.

The moral of the story? “In the words of the great Yogi Berra, ‘If you see a fork in the road, take it,’” Blea said. “And if you do, maybe you’ll get everything you plan for in life — or if you’re lucky, like me, maybe you’ll get more!” ■

ClassNotes

1960s

Glenn Henry

(BS '66, Mathematics; MS '67, Mathematics) is the founder and president of Centaur Technologies, a microprocessor design



company he started in 1995. Previously, Henry worked at IBM for more than 21 years before becoming senior

vice president and chief technology officer at Dell Computers, serving directly under Michael Dell. Today, Henry holds more than 200 U.S. patents.

Bruce Roberts

(BA '68, English) was named Hayward's first poet laureate in June. Roberts is a Hayward native and active in the Hayward Arts Council and Hayward



Education Foundation. His appointment as poet laureate includes promoting the arts and writing one poem dedicated to Hayward before his yearlong tenure ends.

1970s

Michael Dance

(BA '78, Economics) retired in September from his position

as chief financial officer of Essex Property Trust, Inc., a real estate investment trust for multifamily apartment communities. Dance was with the company for 10 years. Previously, while also working with Essex, Dance was an adjunct professor at the Haas School of Business at UC Berkeley.

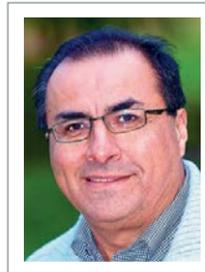


Don Gomez

(BA '76, Political Science) is an accountant with Cozad, Inc., a leading manufacturer of heavy hauling trailers for U.S. commercial industries, the military, and international companies.

Lou Miramontes

(BS '76, Business Administration) is an audit partner at KPMG LLP, an international cooperative of firms providing tax, auditory, and advisory services. In September 2014, he received the prestigious ALPFA



Lifetime Achievement Award. ALPFA is the largest Latino association in the United States. Miramontes has been an Educational Foundation trustee at Cal State East Bay since July 2014.

George "Jazzbeau" Spencer

(BA '70, Music) is a trumpet player, pianist, and musical director for the Junius Courtney Big Band, which he has been affiliated with for 40 years. The group has more than 1,000 songs in its repertoire, all of which are designated by number and follow the evolution of big band American musical history from the 1920s to the 1970s.



Milton Werner

(MS '78, Education) is the interim principal of St. Joseph Notre Dame High School for 2015-16. Previously, Werner was a superintendent in the Fremont Unified School District and has served as principal at several Bay Area high schools.



1980s

Robert A. Barnes

(BA '82, Music) is the vice president of service monitoring and automation at GoDaddy in Kirkland, Washington. Previously, Barnes was the director of benchmarking for Amazon and held several different positions at Microsoft.

Cathy Coste

(BS '88, Business Administration) is a certified public accountant and partner at Deloitte. She works in the company's San Francisco office and focuses primarily on life sciences. She started with the firm more than 25 years ago in the audit practice.

Marie Karp

(MS '86, Counseling) is retiring from her position as a counselor at Los Medanos College after 22 years. First on her "bucket" list is to continue her love of adventure traveling with a trip to Antarctica, having completed a visit to the Arctic last summer.

Jeffrey Schutz

(BS '86, Biology) has joined Keller Williams Realty in Coeur d'Alene, Idaho. Previously, Schutz worked in sales for a top California import company.



Kulwant Singh

(BS '83, KPE) is the director of athletics at De Anza Community College and was inducted into the California Community Colleges Soccer Coaches Association Hall of Fame in 2011. De Anza has won the Coast Conference All-Sports Championship the past eight years in a row. Singh played on the CSUEB



men's soccer team in '81-82 and served as the Pioneers' assistant soccer coach for both the men's and women's teams from '83-89.

Bob Worrall

(BS '84, Business Administration; MBA '86) has been appointed senior vice president and chief information officer of Juniper Networks, the multi-national network security and performance company. Previously, Worrall held the same title at NVIDIA, a graphics processor and mobile chip units manufacturer, and also spent more than 20 years at Sun Microsystems.



Marty Valdez (BA '83, Mass Communication) received the College Sports Information Directors of America (CoSIDA) Lifetime Achievement Award in June. Valdez retired from Cal State East Bay in July 2014, ending his 33-year career on the Hayward campus as the Sports and Information Director (SID). During his time as a student, Valdez worked for *The Pioneer* and became CSUEB's first SID in 1981.

1990s

Will Adams

(BA '99, Mass Communication) won two Northern California Emmy Awards for an investigative piece on illegal food storage and also for his role as a member of the "Best Evening Newscast" in the San Francisco Bay Area. Adams has worked for NBC Bay Area's production team for 15 years.



Adams has worked for NBC Bay Area's production team for 15 years.

Jessie Amoroso

(BA '94, Theatre) is the American Conservatory Theater's (A.C.T.) costume director. Amoroso recently put



the finishing touches on costumes for *Love and Information*, the debut show at A.C.T.'s new second stage, The Strand. Amoroso recalls studying under his friend and mentor Regina Cate at CSUEB and still keeps in touch with friends and classmates through social media.

David Coleal

(MBA '97) was appointed president of Bombardier Business Aircraft in June. He has been with the company since 2008. Previously, Coleal was executive vice president and general manager of Spirit Aerosystems, Inc.,



where he oversaw Boeing for the Wichita, Kansas-based aircraft supplier.

Pamela Culpepper

(MPA '94) has been honored with the Distinguished Alumna award from the University of Arkansas at Little Rock, where she obtained her bachelor's degree in psychology. Culpepper is chief people officer of Golin, the global communications giant. Previously, she worked for PepsiCo, Inc.



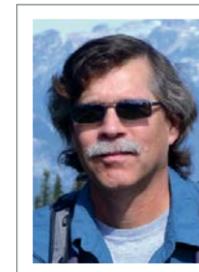
Robyne Johnson

(MS '98, Education) has been appointed assistant coach for the USA Track & Field team at the 2016 Olympic Games in Rio de Janeiro. Johnson is currently the director of cross-country

and track and field at Boston University, where the BU team has won back-to-back women's cross-country titles. Previously, Johnson was the head women's track and field coach at the 2008 Olympic Games in China. She is a former American record holder in the triple jump and participated in four U.S. Olympic trials.

James Peet

(MA '97, Geography) has invented the Simple Shower — a small portable device that aims to turn nearly any two-liter or collapsible bottle into a shower. Peet hopes his invention, which has been granted a utility patent, will help drought relief by preventing water waste and preserving the resource for those who depend on water deliveries.



2000s

Joseph Abraham

(MBA '06) is the co-founder and CEO of PrepToon, a software company that brings mathematics to life through engaging animations.



Murphy Davis

(BA '03, Sociology) is the assistant coach for men's basketball at Antelope Valley College. Previously, Davis worked at the Amateur Athletic Union in Oakland and at San Bernardino Valley College and Glendale Community College, leaving Southern California with a compiled record of 90-33. He has specialized in working with probationary and at-risk youth for more than 30 years.

Lawrence de Guzman

(MBA '03) has joined Vicon Industries, Inc., designer and producer of video



security systems and high-performance IP cameras, as vice president of the Asia-Pacific region, based in Singapore. Previously, de Guzman held roles at Milestone Systems and Axis Communications, both network surveillance companies.

Joe Gura

(BA '02, Mass Communication) is currently senior security communications strategist at Hewlett-Packard. Previously, Gura was the senior communications manager of digital assets at Microsoft for nearly seven years, and he has held a variety of production and management roles in television.

Marian Handa

(BA '01, Human Development) is retiring after a long and successful career as a city clerk. Handa will be leaving San Leandro's City Hall after 10 years, which included 10 mayor and city council elections and the implementation of the ranked choice voting system. Previously, Handa spent 15 years as a clerk in Fremont, California.

Sinan Jaber

(BS '05, Computer Science) is the country manager at Bayt.com, a leading recruitment and employment site in the Middle East. Jaber is based in Amman, Jordan, and has also worked in Eastern Province, Saudi Arabia.

Four Alumna Make San Francisco Business Times' Most Influential Women in Bay Area Business List

Wenli Wang (MBA '95), **Leona Tang** (BS '91, Business Administration), **Amy Schioldager** (BS '89, Business Administration) and **Pamela Kershaw** (MPA '95) were included in the *San Francisco Business Times'* prestigious annual list of "The Most Influential Women in Bay Area Business," which honors women leaders in a range of fields, including law, technology, finance, and education. Wang is a partner at Moss Adams LLP in San Francisco, an integrated certified public accountant and business consultancy. Tang is executive vice president at Charles Schwab & Co., heading internal audit. Schioldager is senior

managing director and global head of beta strategies at BlackRock, where she is responsible for an investment team handling \$2.25 trillion. Kershaw is director of commercial real estate for the Port of Oakland.





Lucy Ogbu-Nwobodo (BS '07, Biological Sciences) is a student at the UC Davis School of Medicine

and is one of 30 recipients of the prestigious Paul & Daisy Soros Fellowships for New Americans. The fellowship is for graduate students who are immigrants or children of immigrants, chosen for "their potential to make significant contributions to U.S. society, culture or their academic

field." Ogbu-Nwobodo is also president and founder of the UC Neurosurgery Student Interest Group and co-director of the Imani Clinic, a student-run clinic that serves the medically disenfranchised in the greater Sacramento area.

Debbie Skiles (Credential '02) has been appointed principal at Ortega Elementary School. Previously, Skiles was the vice principal at Sunset Ridge Elementary School. Skiles has been married for 31 years and is a mother of three.

Nick Vasallo (BA '07, Music) is the new Music Industries Studies Director at Diablo Valley College.



Vasallo previously taught at Cal State East Bay, UC Santa Cruz, Los Medanos College, Gavilan College, and Cal Poly Pomona. A self-described "metal-head," Vasallo is also a founding member of the group Antagony and has been playing with the metal band Oblivion since 2008. He is the artistic director for Composers, Inc. and composes music for various new music groups and performers. He lives in Danville, California, with his wife, Denise, and his daughter, Madison.

Dawn Yoshinaga (MS '00, Counseling) is the pre-K principal for the Palo Alto Unified School District, overseeing a broad spectrum of early child development programs. Previously, Yoshinaga was the school district psychologist for the Saratoga Union School District.

2010s

Toni Carroll (MBA '12) is the technical services and quality control area manager for Vulcan Materials' Northern California



plants. Previously, Carroll was a technical services supervisor and has been with the company since 2013. She has also

recently taken a position as an industry co-chair for the Caltrans Rock Products Committee and is active in the California Asphalt Pavement Association (CalAPA).

Jason Deppong (MS '15, Educational Leadership) has returned to California from Norway after six years at the Skagerak



International School, four of which he served as principal. Deppong is now principal at Old Mill Elementary School in Mill Valley. Deppong is a Bay Area native and taught in the Los Gatos School District prior to his position abroad.

Erin McDonough (BA '14, Communications) recently completed a five-month internship with the Department of Public Engagement and Intergovernmental Affairs within the Executive Office of President Barack Obama.



Jonathan Riley (BA '12, Psychology) has settled in Big Bear, California, after moving around the country working as a journalist and investigative reporter for several years. Riley completed his master's degree in journalism at Boston University, and previously worked at CNN in Washington, D.C., where he contributed to a broad scope of stories, including developments in the Middle East regarding the Islamic terrorist network ISIS.



Laura Lam's (BA '09, English) work with Pan Macmillan is expanding. Previously, the publishing giant picked up the first two books in Lam's near-future thriller series False Hearts and is now helping to bring her first trilogy, the Micah Grey series, to a close with the release of the third book, *Masquerade*. Physical reissues of the first two books, *Pantomime* and *Shadowplay*, will precede the final installment starting in summer 2016.

Four Alumni Appointed to Livermore School District Leadership

Vicki Scudder (MS '98, Educational Leadership), **Alberto Soloranzo** (Credential '03; MS '05, Educational Leadership), **Helen Gladden** (BA '06, English, Credential; MS '13, Educational Leadership), and **Kendra Helsley** (Credential '06; MS '13, Educational Leadership) have all accepted administrative positions within the Livermore Valley Joint Unified School District. Scudder, who was previously the principal at Leo Croce Elementary School, will now be principal at Livermore High School. Soloranzo, who held various positions and finished as principal at Cesar Chavez Middle School, will start the 2015-16 school year as principal at Marilyn Avenue Elementary School. Gladden, the new principal at East Avenue Middle School, worked for the federal government for 20 years before transitioning to teaching, eventually serving as vice principal at Livermore High School. Helsley, who is taking Scudder's prior position as principal of Leo Croce Elementary School, was principal at Dent Elementary School in Newark, which hit the coveted 800 Academic Performance Index score under her leadership.



IN MEMORIAM

FACULTY

Ned Chapin, professor emeritus of the Department of Accounting and Finance, passed away on December 27, 2014. Chapin began his



career with Cal State East Bay in 1987 and retired in 1992. Chapin was a leader in the field of computer science and

published more than 250 papers and conference proceedings. He wrote eight books, including *An Introduction to Automatic Computers*, the second general-use book on computers ever commercially published. Chapin was also the founding editor of the *Journal of Software Maintenance and Evolution*.

James L. Comer, former professor of physical education and director of intramural and intercollegiate



athletics, died in Costa Mesa, California, on January 14. He was 91. Comer had an energetic 40-year career that included time at then-Cal State Hayward,

CSU Bakersfield, and CSU Long Beach. In 1970 he was the CSUEB Professor of the Year and has been inducted into the Hall(s) of Fame at CSUEB, Central Missouri State University, and CSU Long Beach. Comer is remembered for helping get the first football program up and running at CSUEB, and he was instrumental in having the stadium and track built.

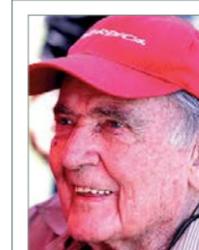
Peter A. Fowler, professor emeritus of the Department of Mathematics and Computer Science, died on May 17 in Berkeley, California. Fowler was 79. He held a bachelor's degree in economics and a PhD in mathematical analysis, both from Rutgers. He began his career with then-Cal State Hayward in 1968 and retired in 1999. Despite battling polio as a child, Fowler had a tenacious spirit and became a prolific yachtsman, racing his beloved "Cal 20, Upper Bound" to the national championships numerous times.

Vernon Kam, professor emeritus of the Department of Accounting and Finance, passed away on April 9. Kam began his career at the university in 1969 and retired in 2000. Before his time at Cal State East Bay, Kam taught at the University of Chicago and obtained his MBA and PhD from UC Berkeley. He is the author of the book *Accounting Theory*.

Barbara Lee Iten, former head coach of the women's basketball team at Cal State East Bay, passed away on April 19 at the age of 66. Iten was a fierce competitor prior to her coaching years, having been a three-sport athlete at UC Davis. She was only the second woman inducted into UC Davis's Athletic Hall of Fame. After college, Iten embarked on a successful collegiate coaching career that included 16 years divided among UC Berkeley, then-Cal State Hayward, Dartmouth, and Iowa State. She finished her professional years with a 20-year tenure as a multisport coach for Dixon High School in Dixon, California.

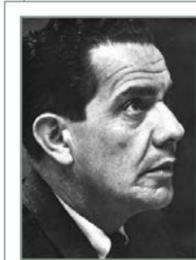


Bob McGuire, longtime Cal State East Bay track coach, died at the age of 87 on March 31. McGuire previously coached at Pleasant Hill High from 1956-78 before coming to then-Cal State Hayward, where he stayed until 1992. Under his guidance, the women's track and field team won the NCAA Division II Championship in 1981. McGuire was the Northern California Athletic Conference Coach of the Year six times and



was inducted into the Pioneer Athletics Hall of Fame in 1996.

Rudolph B. Saltzer, professor emeritus of the Department of Music, passed away on April 13. He taught at then-Cal State Hayward from 1965-79. Saltzer fell in love



with the San Francisco Bay Area during his time on Treasure Island in the U.S. Navy during WWII. After obtaining his bachelor's degree

from UCLA, Saltzer began performing as a professional violinist and teaching choral music. He eventually formed his own ensemble, which performed in theater, music, and TV. Saltzer finished his career with a PhD from the USC School of Music and conducted and lectured at more than a dozen colleges and universities.

ALUMNI

Audree Norton (MS '76), groundbreaking deaf actress — credited as first to be cast on a network television program for her work on the 1968 CBS crime drama *Mannix* — died at her home on April 22 in Fremont, California. Norton was 88. Among numerous accomplishments, Norton was a founding member of the National Theater of the Deaf, which was

the first company to present productions in American Sign Language. Norton was also an equal-opportunity activist for deaf actors and led protests against the Screen Actors Guild, ultimately clearing the way for many deaf actors to gain fair employment in television and movies.

Patricia J. Skeehan (MA '87, English) passed away on April 10 after a recurring battle with ovarian

cancer over the past eight years. Skeehan's husband, Richard, shares that his wife greatly appreciated the opportunities that earning her master's degree at CSUEB afforded her. Skeehan continued her education in literature with trips to the United Kingdom, where she studied English history and language. She spent her final years traveling and making jewelry and quilts.



Michael Lange (MPA '03), Oakland actor, director, playwright, and filmmaker, passed away on May 20 at the age of 65. Lange was well known for his portrayal of

Malcolm X on the stage and his role in the award-winning play *The Meeting*, inspired by the idea of a fictitious meeting between Malcolm X and Martin Luther King, Jr. Lange also served in the Office of Parks and Recreation for 37 years and lectured at San Jose State. His likeness was included in the Alice Street Mural in Oakland, California, paying homage to Lange's contributions to black arts in the city.

SUBMIT CLASS NOTES

Share news about your career, accomplishments, and life with fellow alumni. Include your address, phone number, degree earned, major, and graduation year.

Mail: Cal State East Bay Magazine
Attention: Alumni Relations
25800 Carlos Bee Blvd., SA 4800
Hayward, CA 94542

Or email: penny.peak@csueastbay.edu



Perfect Harmony: Director Leo Nestor (BA '74, Music), his musicians, and choir practiced endlessly for three weeks, including an eight-hour dress rehearsal to prepare for the honor of celebrating Pope Francis' visit to Washington, D.C. COURTESY OF THE CATHOLIC UNIVERSITY OF AMERICA

CSUEB Alumnus Sets Pope Francis' U.S. Visit to Music

For the last 31 years, Leo Nestor (BA '74, Music) has been intimately tied to The Catholic University of America in Washington, D.C., first as a visiting artist and teacher, and since 2001 as a professor, director of choral studies, and director of CUA's Institute of Sacred Music.

On September 23, Nestor led CUA's 33-member Chamber Choir and the CUA Symphony Orchestra in honoring Pope Francis' visit to the United States with a celebratory outdoor Mass of Canonization for Junípero Serra, the 18th-century Franciscan friar who founded 21 Spanish missions in California. More than 25,000 people congregated at the University Commons adjoining the Basilica of the National Shrine of the Immaculate Conception, North America's largest Catholic Church.

"Wednesday was a remarkable day for all," Nestor reported. "For the students, the day will live forever in their memories because they know that they played an important and substantive role in an historic celebration, and that they did so to the best of their abilities."

Professor Buddy James, chair of the Department of Music and founding director of the School of Arts and

Media at CSUEB, also weighed in on Nestor's selection of music, which included the Introit, Antiphon, and an original work, "I am the Living Bread," during the Communion portion of the Mass. "Dr. Nestor's music, particularly his choral music, has long been very popular in the United States," James said.

"The music that emerged from the California missions in the 18th century combined indigenous American music with the sacred music of the Catholic Church, and Dr. Nestor's own ties to the state of California — going back to his undergraduate days in the music department at the university — made him an ideal choice to lead the celebratory Mass of Canonization for Junípero Serra."

Following the Pope's visit to Washington, D.C., Nestor was quickly notified that two of his original works would be played at an additional mass in Philadelphia on the next leg of the Pope's tour. This is the fourth time Nestor has been commissioned for papal visits to America. He said he is grateful for all of the opportunities afforded him through music, including two visits to Rome to perform for past popes. — **K.T.H.**

PARTING SHOT

"I never expected to see my face on a bus," says Adrian Topete, goalkeeper for the Pioneer men's soccer team. The senior is featured on one of four new looks on CSUEB's student shuttle buses, which drive throughout the Bay Area. "My family loves it and it's something I can carry with me after I graduate," Topete says. Topete is a Spanish major and first-generation student, who plans to teach — but only after he gives the Major League Soccer draft a try. GARVIN TSO

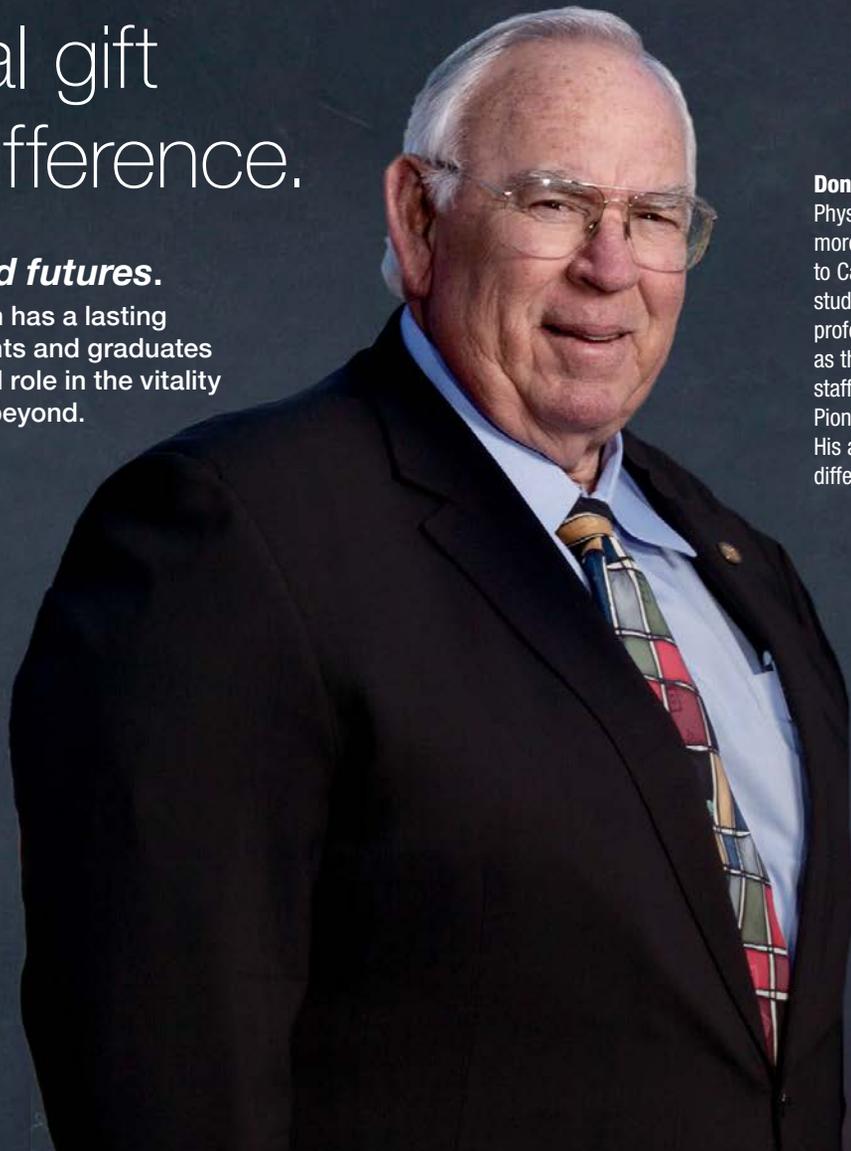


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Don Sawyer (BS '68, Physical Education) spent more than 40 years dedicated to Cal State East Bay as a student, athlete, coach, and professor. He retired in 2012 as the university's chief of staff and member of the Pioneer Athletics Hall of Fame. His annual gift is making a difference.

