



THE UNIVERSITY OF ARIZONA

College of Architecture, Planning
& Landscape Architecture

STORIES OF RESILIENCE AND ADAPTATION

2020 STATE OF THE COLLEGE AND ANNUAL REPORT

CAPLA.ARIZONA.EDU



Photo by Clarissa Becerril.

DEAN'S WELCOME

THE STORIES WE CREATE HERE ILLUSTRATE
HOW, EVEN IN THESE CHALLENGING TIMES,
THE CREATIVE SPIRIT BURNS BRIGHTLY AT
THE COLLEGE OF ARCHITECTURE, PLANNING
AND LANDSCAPE ARCHITECTURE.



At no other time in my memory have our disciplines, professions, institutions and society at large been called on to provide such a creative response to so many systemic challenges. We know them well, confronting us on many sides—from health concerns and financial worries to social unrest and the impacts of climate change. Seems like an awful lot for one community to take on, but my hope in this chaos has been fueled by the daily stories of our creative response.

Our *State of the College and Annual Report* sums up the collective achievements of the College of Architecture, Planning and Landscape Architecture but I encourage you to read the subtext here—one of resilience, hard work and above all creativity. There are many stories to tell, but allow me to share three that illustrate the daily achievements of our whole CAPLA community.

There is a townhouse being built by a group of architecture students on the edge of university property, led by Professor of Architecture **Mary Hardin**. The students have soldiered through the worst heat of a Tucson fall term and worked fast to complete this design-build by the end of the semester. When I visited the site, I saw the students hard at work, proud of their achievements and learning so much about energy and water-conscious residential design. Here one finds the creative contributions of these CAPLA students to community making.

At another event, marking the virtual gathering of the dean's advisory group—the CAPLA Futures Council—a riveting presentation was made by **Kendra Hyson**, a 2015 graduate of our Master of Landscape Architecture program. This remarkable woman spoke with

compelling passion about co-founding The Urban Studio, demonstrating the power of the public realm to move us toward social equity. Using design as the message and the medium, The Urban Studio is engaging communities of color in co-creation, exposing young people to the possibilities and the power of this work. It showed to me the creative contributions our graduates can make to social justice.

Finally, I give you the Fall 2020 RESTRUCT Symposium, where several of our scholars and their collaborators presented research generated as a response to the current pandemic. The contributions are varied, from navigating our urban landscape based on the risk assessment of exposure to the contagion, to how we may safely re-enter hotels. In these presentations, I saw the creative contributions to new knowledge in the built environment.

In all of this work and so much more, hope is presented to us in the intellectual power of our colleagues. This report showcases some of that work and also reveals the dedication to community, the resilience to rapidly changing work and study environments and the courage in seeking to bring about societal change through design and planning. These stories illustrate how the creative spirit burns brightly at the College of Architecture, Planning and Landscape Architecture.

It is my honor to lead a design and planning college where I have the daily pleasure of witnessing the creativity of our community members—students, staff, faculty, alumni, donors and administrators alike. Thank you for being a part of our community.



Photo by Clarissa Becerril.

Nancy Pollock-Ellwand
Dean and Professor of Landscape Architecture
College of Architecture, Planning and
Landscape Architecture

Photographs without masks were taken prior to the onset of the COVID-19 pandemic and University of Arizona campus closure in March 2020 unless otherwise noted.

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OUR RANKINGS

#9 PUBLIC (#23 OVERALL) MOST ADMIRED SCHOOL,
ARCHITECTURE UNDERGRADUATE PROGRAM

DESIGNINTELLIGENCE, 2019-2020

#8 PUBLIC (#12 OVERALL) MOST HIRED-FROM
ARCHITECTURE SCHOOL (B ARCH, M ARCH
AND MS ARCH; GROUP 3: 50-69 GRADUATES)

DESIGNINTELLIGENCE, 2019-2020

#13 PUBLIC (#14
OVERALL) MOST HIRED-
FROM LANDSCAPE
ARCHITECTURE SCHOOL
(MLA; GROUP 3: LESS
THAN 20 GRADUATES)

DESIGNINTELLIGENCE, 2019-2020

#8 TOP URBAN
PLANNING
PROGRAM
WITHOUT A PHD

PLANETIZEN, 2020

#10 TOP SMALL
URBAN PLANNING
PROGRAM

PLANETIZEN, 2020

#11 MOST SELECTIVE
URBAN PLANNING
PROGRAM

PLANETIZEN, 2020

CAPLA BY THE NUMBERS

8

Programs:
Bachelor of Architecture
Bachelor of Landscape Architecture
Bachelor of Science in Sustainable Built Environments
Master of Architecture
Master of Science in Architecture
Master of Landscape Architecture
Master of Real Estate Development
Master of Science in Urban Planning

4

Undergraduate Minors
Architectural History and Theory
Landscape Architecture
Real Estate Development*
Sustainable Built Environments
* Real Estate Development is effective Spring 2021

4

Graduate Certificate Programs
Heritage Conservation
Real Estate Development Analysis
Real Estate Development Finance
Real Estate Development Practice

4

Association Board-Accredited Programs
Bachelor of Architecture
Master of Architecture
Master of Landscape Architecture
Master of Science in Urban Planning

5

STEM-Designated Programs
Bachelor of Architecture
Bachelor of Science in Sustainable Built Environments
Master of Architecture
Master of Science in Architecture
Master of Landscape Architecture

771

Total CAPLA Students
as of Fall 2020 census date

626

Undergraduate Students
436 B Arch | 16 BLA | 174 BS SBE

145

Graduate Students
20 M Arch | 12 MS Arch | 35 MLA
60 MRED | 18 MS Urban Planning

48.6%

Students of Color
including international students

44.9%

Female Students

138

Gifts from CAPLA Donors
totaling \$1.77 million, which
includes documented planned
gifts and bequests

\$5.13M

CAPLA Total Endowment

42

States Represented in CAPLA Student Body

144

Degrees Granted in Fall 2019, Winter 2020 and Spring 2020
55 B Arch | 26 BS SBE | 10 M Arch | 15 MS Arch | 11 MLA |
15 MRED | 12 MS Urban Planning

29

Countries Represented in CAPLA Student Body

4,204

CAPLA Alumni

19%

B Arch Increase in Enrollment
Fall 2016-2020 (366 to 436)

60

CAPLA Faculty Members
41 School of Architecture | 19 School of Landscape
Architecture and Planning as of Fall 2020

67%

BS SBE Increase in Enrollment
Fall 2016-2020 (104 to 174)

29

CAPLA Staff
as of Fall 2020

1100%

MRED Increase in Enrollment
Fall 2016-2020 (5 to 60)

42

CAPLA Graduate Assistants
16 School of Architecture | 23 School of Landscape
Architecture and Planning | 3 Administration

16

First-Year Students in New BLA
Bachelor of Landscape Architecture began Fall 2020

9

Books Published by Faculty and Staff
4 School of Architecture | 4 School of Landscape
Architecture and Planning | 1 Administration

31

Studio Courses
19 School of Architecture
12 School of Landscape Architecture and Planning

34

Companies and Organizations
Participating in CAPLA 2020 Annual Job Interview Fair

CAPLA SHARED GOVERNANCE

In 2020 and the preceding few years, CAPLA has witnessed a reinvigoration of shared governance at the college level. The elected CAPLA Curriculum Committee has been relaunched and two new standing, elected committees have been created: the Constitution and Bylaws Committee, which vets proposed additions or changes to our core policy handbook, and the Council of Faculty Members (CFM), which represents faculty concerns college-wide to the dean.

Additionally, the Staff Advisory Council (SAC) was founded in order to function in parallel with the CFM. Both the CFM and SAC meet with the dean regularly and representatives of both join alternate meetings of the operations team, comprised of associate deans and directors who report to and advise the dean. All of these developments are geared toward enhancing transparency, accountability and communication across all the roles faculty and staff play.

Finally, the Equity, Diversity and Inclusion Committee was spun out of strategic planning efforts focused on inclusive excellence. It incorporates students in addition to faculty and staff.

CAPLA OPERATIONS TEAM AND ADVISORY REPRESENTATIVES

Nancy Pollock-Ellwand
Dean and Professor of Landscape Architecture

Barbara Bryson
Associate Dean for Research and Director, The Drachman Institute

Laura Hollengreen
Associate Dean for Academic Affairs and Associate Professor of Architecture

Simon White
Assistant Dean of Finance and Administration

Lauri Macmillan Johnson
Director, School of Landscape Architecture and Planning and Professor of Landscape Architecture

Robert Miller
Director, School of Architecture and Professor of Architecture

Kay Brown
Director of Alumni Relations and Community Engagement

Simmons Buntin
Director of Marketing and Communications

Angie K. Smith
Director of Development

Arlie Adkins
Associate Professor of Urban Planning and Representative, Council of Faculty Members

Lucas Guthrie
Director of Information Technology and Facilities and Representative, Staff Advisory Council

Staff Advisory Council

Lucas Guthrie, Chair
Laura Jensen
Paulus Musters
Carmen Robles
Emilio Romero, Vice Chair
Angie K. Smith
Sierra Wilmott

CAPLA STANDING COMMITTEES AND UA COMMITTEE REPRESENTATION, 2020-2021

General Faculty
Arthur C. Nelson, Chair (2019-20)
Arlie Adkins, Chair (2020-21)
Beth Weinstein, Vice Chair (2020-22)

Council of Faculty Members
Arlie Adkins, Chair (2020-21)
Dan Hoffman (2019-21)
Ladd Keith (2020-22)
Michael Kothke (2020-22)
Arthur C. Nelson, Chair (2019-20)
Beth Weinstein, Vice Chair (2020-22)
Lisa Schrenk (2019-21)
Bo Yang (2020-22)

Curriculum Committee
Dan Hoffman (2020-23)
Kristi Currans (2020-23)
Clare Robinson (2019-21)
Bo Yang (2019-22)

Constitution and Bylaws Committee
Kristi Currans (2018-21)
Christopher Domin (2019-22)
Laura Hollengreen, Chair (2018-21)
Shujuan Li (2020-23)
Margaret Livingston (2018-21)
Lisa Schrenk (2018-21)
Bo Yang (2018-21)

Equity, Diversity and Inclusion Committee
Laura Hollengreen, Chair
View capla.arizona.edu/edi-committee for full membership

University Committees
Committee of Eleven
Laura Hollengreen (2019-21)
Faculty Senate
Christopher Domin (2020-22)
Undergraduate Council
Shujuan Li (2020-21)
Graduate Council
Jonathan Bean (2018-22)

CAPLA FUTURES COUNCIL

Advisory in capacity to CAPLA Dean **Nancy Pollock-Ellwand**, the CAPLA Futures Council is comprised of a group of luminaries from the academy, practice, industry and government. The Council gathers biannually to discuss current issues of the college and university, considering trends in education, the professions and the broader community that we must anticipate and respond to with creativity and innovation. The CAPLA Futures Council also engages with faculty and students to enhance mutual understanding and the exchange of ideas around the CAPLA vision of building a changing world.

August Benzien
Footwear Design Director, Nike

Carrie Byles
Partner, SOM

Mahesh Daas
President and Distinguished Professor, Boston Architectural College

Randy Deutsch
Associate Director for Graduate Studies and Clinical Associate Professor of Architecture, University of Illinois Champaign-Urbana, and Senior Fellow, Design Futures Council

Billie Faircloth
Partner, KieranTimberlake

Larry Head
Professor of Systems and Industrial Engineering and Director, Transportation Research Institute, The University of Arizona

Diane Jacobs
Principal, Holly Street Studio

Richard R. Johnson
CAPLA Futures Council Chair
Director of Energy and Sustainability and Professor of Practice in Environmental Studies, Rice University

Brian Olasov
Executive Director, Financial Service Consulting, Carlton Fields

Joaquin Ruiz
Vice President for Innovation and Dean and Thomas R. Brown Chair, College of Science, and Director, Biosphere 2, The University of Arizona

Angela Watson
Principal, Design Leader and Chair of the Board, Shepley Bulfinch

INNOVATING THROUGH THE PANDEMIC A SUDDEN SHIFT

When the coronavirus pandemic hit in spring 2020, the University of Arizona and CAPLA took swift action to ensure our students, faculty and staff were safe. We moved all classes including design studios online in March, before students returned from spring break. CAPLA faculty with experience in our online Sustainable Built Environments and Real Estate Development programs helped lead the way for those who hadn't previously taught online. CAPLA faculty also responded quickly to pandemic-related research initiatives offered by the Drachman Institute, the university and other organizations. We returned in the fall with classes online and research underway, and over the course of the fall semester followed a staged re-entry per UArizona guidelines.

Once the threat of the pandemic was perceived in the spring, Dean **Nancy Pollock-Ellwand** and her operations team convened the College Incident Response Team, which quickly updated emergency response materials, including the *CAPLA Emergency Handbook*.

LEADING THE WAY THROUGH STUDENT COMMUNICATIONS

CAPLA was among the first colleges at UArizona to survey students and set up regular communications channels even before classes moved online, a step the Provost hailed. We created a landing page for relevant information pertaining to the CAPLA community and especially students, including FAQs, an archive of student communications and other CAPLA and UArizona resources.

THE CAPLA RE-ENTRY TEAM

At the request of the Provost, CAPLA chartered a comprehensive Re-Entry Team, led by Associate Dean for Research **Barbara Bryson**. Working over the summer (plus many early mornings and late nights), the team and its multiple subgroups published a comprehensive *Re-Entry Operating Plan*, which team members continue to implement. The plan and supporting materials, such as a video on student re-entry procedures to the CAPLA Building, may be found at capla.arizona.edu/re-entry.

ADOPTING TO PANDEMIC- CAUSED BUDGET CUTS

The sudden shift to online teaching and loss of revenue to UArizona central services resulted in immediate budget cuts across the university, including furloughs for those earning above \$44,500 per year. Though the furlough did not go into effect until August, the dean, anticipating budget cuts, initiated a comprehensive, open dialogue across CAPLA beginning in May and resulting in the creation of CAPLA budgeting principles for decision-making. The dialogue around budget and re-entry continued through the fall in a series of biweekly dean's open forums, as well as attendance by the dean at school, staff and faculty meetings.

The impact on CAPLA operations from university budget cuts was considerable, resulting in the postponement of planned renovations to the CAPLA West Building and the loss of a centrally funded advisor position, as well as a freeze on filling faculty and staff positions that were in process or anticipated prior to the pandemic.

Despite the challenges, the CAPLA community has come together in support of students and each other. Though the time frame for a post-pandemic future is unclear, the college's focus on exemplary teaching, research and community service remains as strong as ever.

CAPLA RE-ENTRY OPERATING PLAN SUBGROUPS

**Materials Lab/Model Shop/HED and
Research Spaces**

**Classroom, Computer Lab and Studio Capacities
and Teaching and Scheduling Strategies**

**Building Circulation, Toilets, Cleaning
Strategies for All Areas, Building
Technology, Safety and Security**

Events and Visitors

**Work from Home Strategies and Policies/
Office Separation and Policies**

**Signage, Communications and
Culture of Compliance**

Student Needs, Equity and Wellness

*CAPLA Re-Entry Resources & FAQs at
capla.arizona.edu/re-entry*

Paulus Musters demonstrates the aerosol box he created in response to early pandemic needs. Photo by Drew Cook.



CAPLA MATERIALS LAB MANAGER LEADS DESIGN THINKING (AND BUILDING) EFFORTS TO PROTECT HEALTHCARE PROVIDERS FROM COVID-19

In spring 2020, Materials Labs Manager **Paulus Musters** used CAPLA facilities and tools such as laser cutters and 3D printers to create face shields, aerosol boxes and face mask frames to protect healthcare and emergency response workers in a time of national protective equipment shortages.

Read the full story at capla.arizona.edu/design-thinking-covid-19.

SCHOOL OF ARCHITECTURE UPDATE

THE SCHOOL OF ARCHITECTURE PIVOTED IN 2020 TO FOCUS ON MOVING COURSES ONLINE, OPTIMIZING THE BACHELOR OF ARCHITECTURE, WORKING WITH A REDUCED BUDGET AND MANAGING STAFF CHANGES.



Photo by Liam Frederick.

As COVID-19 blew in, the School of Architecture had to radically adjust its focus, turning on a dime as the campus closed down in spring 2020. Instead of zeroing in on such goals as improving student retention and planning for a major renovation of the CAPLA West Building, we necessarily turned our focus to:

Going Online: All 440 architecture students and their faculty members converted the spring semester’s 73 course and studio sections from in-person to “remote” learning—in a week. While most faculty had never taught a course online, everyone rolled up their sleeves and made it work. Not only was it a remarkable experiment in radical modality change, but it has forced our whole community to get both competent and comfortable with collaboration through a computer. Yes: we have Zoom fatigue. Yes: there is a loss in relationship and hands-on methods. Yes: I have gained weight. But also: aspects of our instruction, as well as in student work, have improved.

Improving the Foundation: The first half of the first year is now multi-disciplinary. In order to add students from the new Bachelor of Landscape Architecture to a joint studio, **Dan Hoffman** and his team re-wrote the Foundation curriculum—not just to integrate concepts of landscape architecture, but re-think the whole approach and deliver the experience online to students working remotely. It’s a brilliant pedagogy: everything can be done in 8.5” X 11” from materials available at home.

Optimizing the B Arch: As we implement the final third phase (P3) of the optimized Bachelor of Architecture, we have scrambled. The P3 is made up of groups of faculty that advance a curriculum of courses, studios and a capstone approach that will offer a deep and unique pedagogy centered on research. Four P3 groups will soon launch: Critical Practices, the (Meta)Physics of Light, Material Matters and Urban Agency.

Working with a Reduced Budget: We started last year expecting a 2% cut and ended up planning for a cut of 20% due to university losses during the pandemic. That is a major challenge in a unit where 90% of the budget is committed to salaries. Fortunately, in recent years we have grown our programs and done well at recruiting and retaining students—so the final budget impact will, we expect, not be nearly as severe as anticipated.

Staff Changes: The last two years have been ones of change in our essential and exceptional staff. The inestimable **Sheila Blackburn** retired after 34 years of service and **Patti van Leer** left us after 10 years. We are fortunate to have brought in two promising people to continue the legacy: **Sierra Wilmott** and **Greg Ruffing**. We are in good hands again.

Robert Miller
Director, School of Architecture
Professor of Architecture

SCHOOL OF ARCHITECTURE FACULTY

FACULTY BREAKDOWN		FACULTY BY GENDER			FACULTY BY AGE			FACULTY BY RACE/ETHNICITY		
CAREER TRACK	21	FEMALE	21	51.2%	25-34	4	9.8%	ASIAN	1	2.4%
NON-TENURE ELIGIBLE	9	MALE	20	48.8%	35-44	14	34.1%	BLACK OR AFRICAN AMERICAN	1	2.4%
TENURE ELIGIBLE	3				45-54	13	31.7%	HISPANIC OR LATINX	4	9.8%
TENURED	8				55-59	4	9.8%	INTERNATIONAL	3	7.3%
TOTAL	41				60-64	4	9.8%	NOT REPORTED	4	9.8%
					65+	2	4.9%	TWO OR MORE RACES	1	2.4%
								WHITE	27	65.9%

INSPIRED ENERGIES: CELEBRATING NADER CHALFOUN, PROFESSOR EMERITUS OF ARCHITECTURE AND ENVIRONMENTAL SCIENCES

PROFESSOR CHALFOUN RETIRES AFTER 36 YEARS AS A BELOVED, INNOVATIVE UNIVERSITY OF ARIZONA PROFESSOR



Nader Chalfoun with architecture students in CAPLA Materials Lab, 2019.
Photo by Clarissa Becerril.

Thinking back on the 36 years that **Nader Chalfoun** taught at the University of Arizona before retiring at the end of the Spring 2020 semester as professor of architecture and environmental sciences, he's most gratified by the progress made by students he's worked with over the years.

"I'm so proud of the success they've found," he says. "The students who have gone through this program now teach and lead energy and architecture programs throughout the world."

Considering Chalfoun pioneered many of these advanced programs—including the House Energy Doctor Program he founded in 1984 and, later, the nation's first LEED program for homes—you might think the technology itself would be his greatest satisfaction.

"Technology is essential," he agrees, noting how architecture bridges design and building technology, "but I associate architecture first with research and science. And once architecture students learn how to conduct research, they acquire an interdisciplinary foundation for design that sets them apart."

Indeed, he recalls how representatives from major architectural and real estate development firms would contact him to inquire about his architecture master's students, wanting to be first in line to hire them.

"I was keen to graduate the highest-caliber students to meet the demand for experts who could incorporate energy conservation, renewable energy and sustainability into building design and construction," he says.

Developing in-demand skills is important, but for Chalfoun's students, their success wasn't just because of what they learned in a course. "Professor Chalfoun has been a father figure to many of us," says **Rachelle Hornby** '18 MS Arch. "He has sparked curiosities in us in order to help us blossom in our educational experiences. He has embraced us, loved us, nourished our souls and pushed us to be our absolute best."



I'm proud of the success our students have found—now teaching and leading energy and architecture programs throughout the world.

Like many of the graduate students he has taught, Chalfoun came to Tucson from another country to study architecture. Originally from Egypt, he received his undergraduate degree in architectural engineering from the University of Cairo and a diploma studying solar energy from St. Étienne University in France. But he knew that the leading research on solar energy was taking place in the American Southwest, so he enrolled in the UArizona Master of Architecture program in 1983.

"I fell in love with Tucson from day one," he says—and he hasn't moved anywhere else since, though he and his family return to Egypt most summers, where he also manages an architecture and environmental design consultancy.

Egypt is also where Chalfoun cultured a different kind of energy: music. "I have many things I'm passionate about," he says, "but the one thing I love besides teaching is music." He began playing guitar and singing as a boy and played in several local rock and roll bands—Ram Jam, Les Petits Chats, The Tops, The Pharaohs. "I played with my band the last night before I came to the U.S.," he recalls.

Though he took a year off from music in grad school, it wasn't long before he was back at it in Tucson, even eventually forming a band with a former CAPLA dean and other faculty members: The Energy Band.

"Nader Chalfoun is a man of many talents," says **Robert Miller**, director of the School of Architecture. "He has had a long and illustrious career at the University of Arizona and was a pioneer in what came to be known as sustainable design, developing innovative applied research like cool towers, working to advance energy standards in building codes and providing public outreach by testing residential and commercial structures for air infiltration and energy performance. He recruited hundreds of students to the university from around the world, students who became like family. Professor Chalfoun will be deeply missed."

"I am overjoyed for Professor Chalfoun's retirement," says Hornby, "but I am saddened that future students will not have the pleasure of having him in their lives."

We wish Nader Chalfoun all the best in his retirement. Even though his energies now turn elsewhere, Chalfoun will always be a part of the college and the many students he taught. After all, "CAPLA is in me," he says. "And I am in CAPLA."

SCHOOL OF LANDSCAPE ARCHITECTURE AND PLANNING UPDATE

IN THIS HISTORIC YEAR, OUR COLLECTIVE CULTURE OF OPTIMISM WAS CHALLENGED BUT FLOURISHED AS FACULTY AND STAFF HELPED STUDENTS REALIZE THEIR DREAMS.



Photo by Ivory Orchid Photography.

Our 2019-2020 school year began with creative energy as faculty and staff welcomed new cohorts of students into our programs. Our enthusiasm to serve the needs of the students, community, the state and society at large did not waiver when the pandemic hit, and we quickly honed our craft and pivoted into the virtual working and learning world. We demonstrated resiliency as we accommodated budget cuts, furloughs and work-life balance.

The tragic death of George Floyd caused us to reflect more deeply about social inequity, the Black Lives Matter movement and our responsibility to implement change.

In this historic year, our collective culture of optimism was challenged but flourished as faculty and staff helped students realize their dreams. Faculty research grew as demonstrated by numerous publications, including four books, five book chapters, 45 peer-reviewed journal articles and 48 external professional presentations. The school currently has 37 active sponsored projects totaling more than \$1.1 million over multiple years. Sponsors include the National Science Foundation, National Park Service, National Oceanic and Atmospheric Administration and Mexico’s Consejo Nacional de Ciencia y Tecnologia, among others.

MS Urban Planning students won the Best Graduate Student Planning Project Award from the Arizona APA and Master of Landscape Architecture students won two national Honor and Merit ASLA awards and two Student Collaborative Design Awards from Arizona ASLA. MLA students also received national recognition by placing second in the EPA’s Campus RainWorks Challenge.

This fall, we launched a new Bachelor of Landscape Architecture program admitting 16 students. The MLA program became STEM-designated. The MS Urban Planning curriculum was revised to offer greater flexibility and specialized study. The new PhD in Geography with an emphasis in Urban Planning admitted its first students. The online Master of Real Estate Development degree experienced unprecedented growth.

Our new microcampus in Lima, Peru admitted 24 Bachelor of Science in Sustainable Built Environments students. Planning for additional microcampuses is underway in Santiago, Chile, and Hubei University of Technology in China with a dual-degree option.

Our curricular partnerships with the Eller College of Management, College of Agriculture and Life Sciences, College of Science and College of Social and Behavioral Sciences continue with the refinement of existing dual degrees and proposals for new dual degrees, accelerated master’s programs and concentrations areas. In 2021 we will move our Heritage Conservation Certificate fully online and we will launch a new undergraduate minor in real estate development.

Let’s celebrate our collective accomplishments!



Lauri Macmillan Johnson
Director School of Landscape Architecture and Planning

SCHOOL OF LANDSCAPE ARCHITECTURE AND PLANNING FACULTY

FACULTY BREAKDOWN		FACULTY BY GENDER			FACULTY BY AGE			FACULTY BY RACE/ETHNICITY		
CAREER TRACK	2	FEMALE	8	42.1%	25-34	3	15.8%	ASIAN	3	15.8%
NON-TENURE ELIGIBLE	7	MALE	11	57.9%	35-44	9	47.4%	HISPANIC OR LATINX	1	5.3%
TENURE ELIGIBLE	4				45-54	1	5.2%	NOT REPORTED	2	10.5%
TENURED	6				60-64	4	21.1%	WHITE	13	68.4%
TOTAL	19				65+	2	10.5%			

CAPLA-LED STUDENT TEAM TAKES SECOND PLACE IN EPA’S EIGHTH ANNUAL CAMPUS RAINWORKS CHALLENGE

FOR THE THIRD YEAR IN A ROW, A UARIZONA STUDENT TEAM LED BY CAPLA PROFESSOR OF LANDSCAPE ARCHITECTURE BO YANG WAS SELECTED AS A WINNER IN THE NATIONAL COMPETITION.

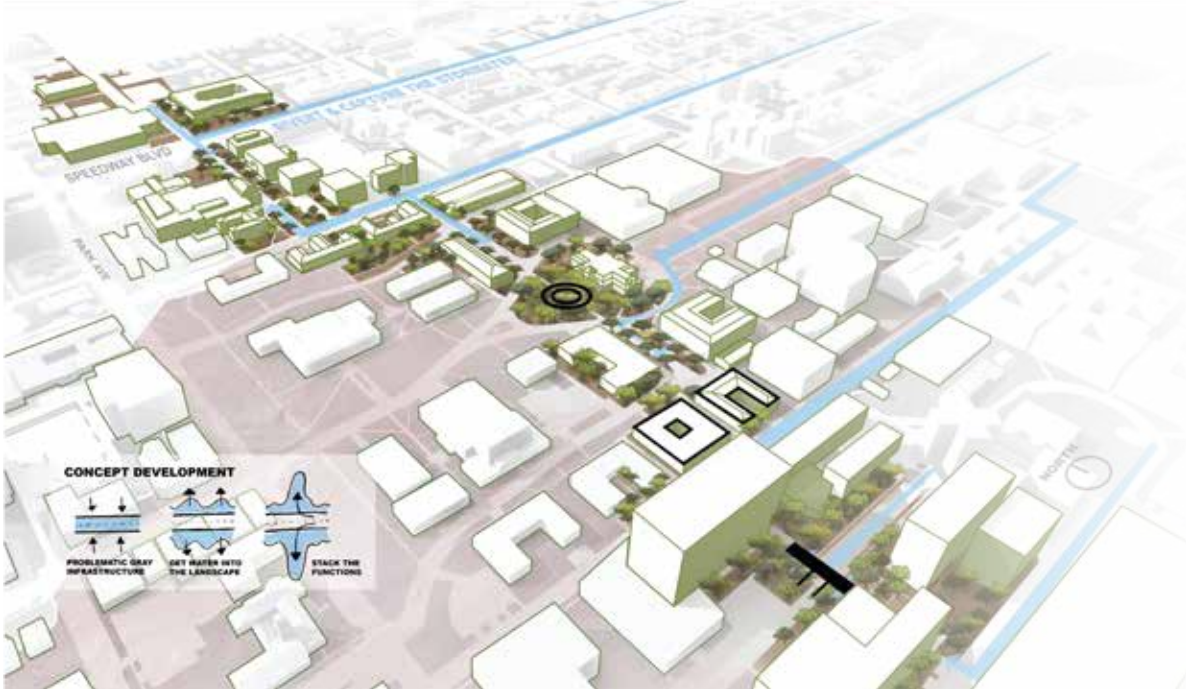
The U.S. Environmental Protection Agency has recognized the University of Arizona as second-place winner in the Master Plan category of its Eighth Annual Campus RainWorks Challenge, a national competition that engages college students in the design of on-campus green infrastructure solutions to help address stormwater pollution.

UArizona’s “Against the Grain” project integrates multiple green infrastructure practices into a master plan design that revitalizes key transportation and pedestrian corridors on the UArizona main campus in Tucson. The project seeks to enhance flood protection through inclusion of bioretention facilities with native plants and trees, and treat stormwater runoff as a resource by incorporating cisterns for irrigation.

The student team is comprised of four CAPLA Master of Landscape Architecture students—**Jinqiao Deng, Isaac Palomo, Mario Nuño-Whelan** and **Tess Wagner**—as well as UArizona students from biology, computer science, biosystems engineering and environmental and water resource economics.



“Against the Grain” EPA Campus RainWorks Challenge entry by MLA students Jinqiao Deng, Isaac Palomo, Mario Nuño-Whelan and Tess Wagner and UArizona students Hannah Talkington, Joyce Chen Wang, Jesus Mulgado, Jesus De Los Reyes and Peter Price.



The faculty advising team is led by Professor of Landscape Architecture **Bo Yang**, and also includes faculty and staff from Campus Planning, Environmental Science, Plant Sciences and Natural Resources and the Environment.

EPA’s Campus RainWorks Challenge asks students and faculty members at colleges and universities across the country to apply green infrastructure design principles, foster interdisciplinary collaboration and increase the use of green infrastructure on the nation’s college campuses. Since 2012 more than 700 teams have participated.

In 2020 EPA invited student teams to compete in two design categories. The Master Plan category examines how green infrastructure can be broadly integrated across campus while the Demonstration Project category focuses on how green infrastructure can address stormwater pollution at a specific site on campus. With the help of a faculty advisor, teams of students focus their expertise, creativity and energy on the challenges of stormwater management and showcase the environmental, economic and social benefits of green infrastructure.

“Stormwater runoff is a significant source of water pollution in America, and managing runoff remains a complex environmental challenge for local communities across the Southwest,” says EPA Pacific Southwest Regional Administrator **John Busterud**. “This year’s winners have skillfully transformed classroom knowledge into innovative and replicable solutions for stormwater management in Arizona.”

The UArizona team received a \$2,500 student prize and \$2,500 faculty prize.

THE DRACHMAN INSTITUTE UPDATE

THE DRACHMAN INSTITUTE IS DEDICATED TO BUILDING AND ADVANCING COMMUNITY-CONNECTED RESEARCH AND TEACHING DEDICATED TO THE THEME OF BUILDING A CHANGING WORLD.



Barbara Bryson
Associate Dean for Research
Director, The Drachman Institute

CAPLA photo.

The Drachman Institute has a rich legacy at the University of Arizona. Since 1986, the institute has collaborated with Arizona communities—serving as the university’s featured research and practice organization for the built environment and generating dozens of project reports and plans that are archived on the Drachman Institute website at capla.arizona.edu/drachman.

After several years of dormancy, in fall 2019 Dean **Nancy Pollock-Ellwand** appointed Associate Dean for Research **Barbara Bryson** director of the Drachman Institute for a three-year term. Bryson was charged with recommissioning the institute, developing sustainable business and operating plans and successfully fostering an external review of the institute by UArizona’s Provost Office and Office of Research Innovation and Impact, which will occur in the 2021-2022 academic year.

Based on reflections by the CAPLA community on the draft proposal presented in April 2020 and discussions with members of the Drachman Task Force over the summer, the dean proceeded with the formation of the Interim Faculty Executive Committee to assist the director moving forward. The committee members were appointed by the dean in September, including two members of the original Drachman Task Force. The committee also includes three additional CAPLA faculty members and two faculty from outside the college.

In relaunching the Drachman Institute, the dean is forming an Interim Faculty Executive Committee and Interim Community Advisory Committee.

The committee’s interim members will review the mission, proposed activities and business plan generated by Bryson and recommend modifications to the current proposal as appropriate. The committee will also review teaching and research projects to determine if they align with the mission of the institute.

The members of the Interim Faculty Executive Committee are:

- **Arlie Adkins**
Associate Professor of Urban Planning
- **Aletheia Ida**
Associate Professor of Architecture
- **Margaret Livingston**
Professor of Landscape Architecture
(Committee Chair)
- **Oscar Lopez**
Lecturer in Architecture
- **Helen Erickson**
Adjunct Lecturer in Heritage Conservation
- **Maribel Alvarez**
Associate Dean of Community Engagement, College of Social and Behavioral Sciences
- **Kathleen Insel**
Chair, Behavioral Health Science, School of Nursing, University of Arizona Health Sciences

Interim Community Advisory Committee members, including an interim chair, will be selected by the dean. CAPLA’s director of development will sit on this committee as a permanent member. Committee members will be responsible for assisting the Drachman Institute with networking in the community, fundraising and focusing on the mission of the institute.

As the work of relaunching the Drachman Institute proceeds, project support on behalf of the institute is ongoing, with six projects current as of fall 2020 and several other projects in the works. Critical to the success of small projects, Drachman Institute leadership will also create a checklist and contract template to assist in working with smaller foundations and nonprofit partners to allow faculty to engage in smaller grants through the institute.

Projects of the Drachman Institute

With the onset of the pandemic, the Drachman Institute was able to award support seed grants for community-related COVID-19-focused research:

Outreach in a Pandemic

This project augments work funded by the Southwestern Foundation for Education and Historical Preservation for cultural asset mapping of Tucson neighborhoods threatened by gentrification. Principle investigator: **Kristina Currans**, Assistant Professor of Urban Planning.

RESTRUCT Parks for Sustainable Built Environment: Urban Designer’s Response to a Pandemic

This study examines the relationship between people’s perceptions of park uses during the COVID-19 pandemic, and how built environment and socioeconomic characteristics affect these perceptions in cities in Arizona. Principle investigator: **Shujuan Li**, Associate Professor of Landscape Architecture and Urban Planning.

Also supporting the COVID-19 response, the Drachman Institute has connected the Community Foundation of Southern Arizona to CAPLA researchers to develop re-entry strategies for local businesses. These projects include:

Technical Assistance for the Reopening of Childcare During the Ongoing Pandemic

This project will provide communication materials in the form of website and social media videos to guide childcare business owners in the re-opening of their businesses. Principle investigator: **Nicole Iroz-Elardo**, Assistant Research Professor of Planning.

Chauncey Ranch Camp Plan for Pathways to Learning

This studio project imagines an exciting future for this Arizona Legacy property so it can be an educational learning platform for youth and families throughout Arizona. Principle investigator: **Teresa Rosano**, Assistant Professor of Practice in Architecture.

Drachman Innovative Housing Examination

Provide senior demographics, development regulations, zoning, development costs, lending options and recent developments related to senior housing for AARP to inform discussions to encouraging exploration and development in senior living options. Principle investigator: **Bill Mackey**, Lecturer in Architecture.

Several other projects are in the works, including a landscape architecture/solar project in the Globe area; a museum project for the Community Foundation of Southern Arizona, Bisbee Historic District and National Historic Trust; and several projects for the City of Tucson.

Learn more about Drachman Institute projects at capla.arizona.edu/drachman.



The Chauncey Ranch Arizona Legacy property, part of the Drachman Institute work with the Community Foundation of Southern Arizona on re-entry strategies for local businesses. Graphics courtesy Teresa Rosano.



CAPLA STRATEGIC PLAN

BUILDING A CHANGING WORLD

Launched in January 2019, the CAPLA Strategic Plan is comprised of values, aspirations, objectives and initiatives designed to guide the college's direction under Dean **Nancy Pollock-Ellwand**.

In February 2020, prior to the sudden shift of operations necessitated by the pandemic, administrators, faculty and staff convened to identify our top Strategic Plan priorities for the coming year. Though we have pivoted in response to the pandemic and reduced budgets, the short-term priorities identified at the February college-wide breakfast session remain central to our success, and include focusing on expanding advancement revenue, recruiting and supporting graduate students, onboarding and development of faculty and staff, supporting research and supporting faculty. In 2021, as we manage re-entry, we'll continue to implement our Strategic Plan, revising the plan where necessary to meet the realities of COVID and the post-COVID world.

2020/2021 STRATEGIC PLAN PRIORITIES IDENTIFIED BY FACULTY AND STAFF

1. EXPANDING ADVANCEMENT REVENUE
2. RECRUITING AND SUPPORTING GRADUATE STUDENTS
3. ONBOARDING AND DEVELOPMENT OF FACULTY AND STAFF
4. SUPPORTING RESEARCH
5. SUPPORTING FACULTY

OUR VALUES

EMERGENT THINKING

At CAPLA, we create and own transformative ideas; foster future-oriented research, teaching and outreach; apply expertise, skills and knowledge to global challenges; anticipate new opportunities to expand college reach and impact; and stay among the vanguard.

CURIOSITY

At CAPLA, we encourage the spirit of inquiry and delight in learning; make strategic decisions with an appropriate balance of invention, risk and probable success; provide inspirational solutions with impact; explore the unknown; and apply lessons learned.

DESIGN PERSPECTIVE

At CAPLA, we hone our sensibilities in this place that is the Sonoran Desert; use design thinking methods which are empathetic and consider the wellbeing of all participants; leverage studio culture and making environments to enhance student-centered learning and applied research; address the global impacts of the built environment; and demonstrate the value of design and planning in reshaping the world.

COLLABORATION

At CAPLA, we seek different perspectives, backgrounds, skills and expertise; respect the value, skills and qualities of others; strive for transparency, engagement, sharing and divergent thinking; and teach and demonstrate collaborative problem-solving skills.

STEWARDSHIP

At CAPLA, we are accountable for our responsibilities and actions; exhibit professional ethics, competence and reliability; treat all members of our community with respect, dignity and empathy, empowering them to be excellent in their domains; and use resources fairly, ethically and humanely to achieve goals in the present and to safeguard the future.

AT CAPLA, WE
ARE BUILDING A
CHANGING WORLD.

OUR ASPIRATIONS

- MAKE CAPLA A LEADER IN BUILT ENVIRONMENT INNOVATION.
- DO TRANSFORMATIONAL RESEARCH.
- CREATE A TRANSFORMATIONAL LEARNING ENVIRONMENT.
- EMBRACE OUR LAND GRANT STATUS AS SERVICE TO THE COMMUNITY TO ENRICH TEACHING, RESEARCH AND SERVICE IN THE BUILT ENVIRONMENT.
- MAKE CAPLA A LEADER IN INCLUSIVE EXCELLENCE.

Learn more about our initiatives and successes in 2019-20 for each of CAPLA's Strategic Plan aspirations in the following sections.

MAKE CAPLA A LEADER IN BUILT ENVIRONMENT INNOVATION

Despite the considerable challenges of the pandemic, CAPLA continues to move forward in our efforts to make CAPLA a leader in built environment innovation. From award-winning faculty and student projects to innovative applications of design to our leadership in cross-university efforts such as RESTRUCT, our community is more resilient and successful than ever.

AWARDS AND PROMOTIONS

SCHOOL OF ARCHITECTURE FACULTY AWARDS

Sandra Bernal-Cordova, U.S. Green Building Council Women in Green Sheroes Award, September 2020

Dan Hoffman, 2020 Darryl B. Dobras Award for Excellence

Michael Kothke, 2020 School of Architecture Commendation for Teaching Award

Oscar Lopez, 2020 Roy P. Drachman Award for Excellence

Christopher Trumble, Association of Collegiate Schools of Architecture (ACSA) 2020 Collaborative Practice Award (for Sustainability Laboratory and Urban Garden: SLUG)

SCHOOL OF ARCHITECTURE NATIONAL STUDENT AWARDS

U.S. Department of Energy Solar 2020 Decathlon Design Challenge First Place, Mixed-Use Multifamily Division: Faculty advisor, **Jonathan Bean**, Bachelor of Architecture students: **Elizabeth Franzen**, **Rachel Schultz** and **Hao Wang**, 2020

U.S. Department of Energy 2020 Solar Decathlon Design Challenge Honorable Mention, Elementary School Division: Faculty advisor, **Jonathan Bean**, Bachelor of Architecture students: **Carina Eichorst** and **Wen Xie**, Master of Architecture student: **Alec Kelly-Jones**

U.S. Department of Energy 2020 Solar Decathlon Design Challenge Finalist, Suburban Single Family Division: Faculty advisor, **Jonathan Bean**, Bachelor of Architecture students: **Josh Muckenthaler**, **Sierra Yang**, **Chumei Rui** and **Nikolas Altamura**

U.S. Department of Energy 2020 Solar Decathlon Design Challenge Finalist, Urban Single Family Division: Faculty advisor, **Jonathan Bean**, Bachelor of Architecture students: **Courtney Klewer** and **Juli Bailey**, BS Sustainable Built Environments student: **Sasha Evans**, 2020

2019-2020 Architectural Research Colleges Consortium (ARCC) Kings Medal Award for Excellence in Design + Environmental Behavior Research: **Ghayda Alhabib**, MS Arch

2020 AIA Henry Adams Certificate of Merit and Medal: **Raymand Rash**, B Arch, and **Chase Woosley**, M Arch

2020 Alpha Rho Chi Medal: **Jessica Leigh Jankowski**, B Arch, and **Madeleine Clermont**, M Arch

SCHOOL OF LANDSCAPE ARCHITECTURE AND PLANNING FACULTY AWARDS

Ladd Keith, 2020 Darryl B. Dobras Award for Excellence

Ladd Keith, 2019 Urban Land Institute Rising Star Award

Bo Yang, 2019 University of Arizona President's Esteemed Faculty Award

Bo Yang, American Society of Landscape Architects (ASLA) 2020 Honor Award, Research (for "Particulate matter mitigation through urban green infrastructure: Research on optimization of block-scale green space")

SCHOOL OF LANDSCAPE ARCHITECTURE AND PLANNING NATIONAL STUDENT AWARDS

American Planning Association Arizona Chapter 2020 Best Graduate Student Planning Project Award for *Tucson Displacement Study*: Faculty advisor, **Arlie Adkins**, MS Urban Planning students: **Warren Bristol**, **Quinton Fitzpatrick**, **Ariel Fry**, **Julian Griffee**, **David Jellen**, **Samuel Jensen**, **Lena Porell**, **Andrew Quarles**, **Lindsey Romaniello** and **Yicheng Xu**

U.S. Environmental Protection Agency 8th Annual Campus RainWorks Challenge 2nd Place, Master Plan Category: Faculty advisor, **Bo Yang**, Master of Landscape Architecture students: **Jinqiao Deng**, **Isaac Palomo**, **Mario Nuño-Whelan** and **Tess Wagner**, 2020

2020 AzASLA Student Collaborative Design Award for Modern Krutch: Faculty advisor, **Bo Yang**, Master of Landscape Architecture students: **Penelope Cottrell-Crawford**, **Dionna Marie Hatch** and **Rebecca Johnstone**

2020 AzASLA Student Collaborative Design Award for Against the Grain: Faculty advisor, **Bo Yang**, Master of Landscape Architecture students: **Jinqiao (Joy) Deng**, **Mario Nuño-Whelan**, **Isaac Palomo** and **Tess Wagner**

National Institute of Transportation and Communities (NITC) 2019-2020 Student of the Year: **Samuel Jensen**, MS Urban Planning

2020 Transportation Research Board (TRB) Minority Student Fellow Award:

Julian Griffee, MS Urban Planning

2020 AzASLA Honor Award: **Tess Wagner**, MLA

2020 AzASLA Merit Award: **Penelope Cottrell-Crawford**, MLA

2020 AzASLA Student Collaborative Design Award: Master of Landscape Architecture students: **Penelope Cottrell-Crawford**, **Jinqiao Deng**, **Dionna Hatch**, **Rebeca Johnstone**, **Mario Nuño-Whelan**, **Isaac Palamo** and **Tess Wagner**

2020 LAF Olmsted Award: **Penelope Cottrell-Crawford**, MLA

2020 AICP Outstanding Student Award: **Lindsey Romaniello**, MS Urban Planning

2020 NITC Student Award: **Andrew Quarles**, MS Urban Planning

CAPLA FACULTY PROMOTIONS AND HONORS

Arlie Adkins promoted from Assistant Professor to Associate Professor

Aletheia Ida promoted from Assistant Professor to Associate Professor

Bo Yang promoted from Associate Professor to Professor

Nader Chalfoun, Arizona Champion, February 2020

Beth Weinstein awarded PhD from University of Tasmania in 2020

Bo Yang received American Institute of Certified Planners (AICP) Certification in 2020

STAFF AWARDS

Lucas Guthrie, 2020 Darryl B. Dobras Award for Excellence

Carmen Robles, 2020 Darryl B. Dobras Award for Excellence

For additional 2020 CAPLA student awards, visit caplashowcase.arizona.edu.

CAPLA Teams Excel at Solar Decathlon Design Challenge

The Loop SunBlock Mixed-Use Multifamily project. Image courtesy Elizabeth Franzen, Rachel Schultz and Hao Wang.

FOR THE THIRD YEAR IN A ROW, AT LEAST ONE CAPLA STUDENT TEAM WAS NAMED A FINALIST AT THE U.S. DEPARTMENT OF ENERGY'S SOLAR DECATHLON DESIGN CHALLENGE—AND IN 2020 A CAPLA TEAM WON ITS DIVISION.

In a world where quality doesn't always trump quantity, the University of Arizona's win in the U.S. Department of Energy's 2020 Solar Decathlon Design Challenge holds special significance. The winning team of fourth-year undergraduate architecture students was comprised of only three members—**Elizabeth Franzen, Rachel Schultz** and **Hao Wang**—compared to the teams they competed against, which often had multiple faculty advisors and up to two dozen students per team. The UArizona team took first place in the Mixed-Use Multifamily Division for their SunBlock concept called The Loop.

up to a major deadline at the end of March, taking the shift to remote learning in stride. Many competing teams in the Solar Decathlon Design Challenge work over two semesters or more to design and build highly efficient and innovative buildings powered by renewable energy. According to the DOE, the winners are “those teams that best blend architectural and engineering excellence with innovation, market potential, building efficiency and smart energy production.”

Teams that qualify as finalists attend the Solar Decathlon Design Challenge Weekend—in

Kelly-Jones of the Elementary School Division team that won an honorable mention agrees: “The Design Challenge has provided me with some of the most fulfilling experiences of my academic career. The team-based experience has taught me the means and methods of designing an energy-efficient, net-zero building economically. The development of these skill sets helps me to tackle my true passion—combating climate change through the built environment. I am grateful for this foundation.”

All four of CAPLA's teams built their projects around what they call the SunBlock solution—a distributed district heating and cooling system to generate and store carbon-neutral thermal energy and share it with the neighborhood, or micro-community. The SunBlock concept reduces stress on the electrical grid and offers residents an economical alternative for space conditioning by using water as a vehicle for storing and sharing abundant solar energy through a community energy system.

The students' projects are an important first step towards a more sustainable future for Tucson and other low-density cities. TEP, Tucson's electric utility, helped the students learn about the integration of renewable energy with the grid and provided \$5,000 in funding to support the student teams. Students in future studios will continue to move the project towards reality.

“*The Solar Decathlon Design Challenge is one of the most important activities in which I've participated. For our hard work to be recognized as outstanding among so many innovative ideas is not only affirming, but also a reminder that we are the ones who will be filling their shoes.*”
- **Rachel Schultz '21 B Arch**

“That says a lot about the dedication, ingenuity and collaboration of the students in the studio and beyond,” says the teams' faculty advisor, Assistant Professor of Architecture **Jonathan Bean**.

But quantity counts, too, at least when considering the number of CAPLA teams named finalists in this year's Challenge: four out of a total of 45 teams representing 31 universities across the world. Of those, the CAPLA team of **Carina Eichorst '21 B Arch**, **Alec Kelly-Jones '22 M Arch** and **Wen Xie '21 B Arch** also placed, receiving an honorable mention in the Elementary School Division.

CAPLA also fielded finalist teams of fourth-year students who made strong presentations in the Suburban Single Family (**Josh Muckenthaler, Sierra Yang, Chumei Rui** and **Nikolas Altamura**, all B Arch) and Urban Single Family (**Courtney Klewer B Arch**, **Juli Bailey B Arch** and **Sasha Evans BS Sustainable Built Environments**) Divisions. Students who gained specialized expertise on each cross-functional team helped other teams incorporate complex ideas quickly. The teams started in January 2020 and worked

2020, held virtually due to the COVID-19 pandemic—where they present their designs to a panel of industry expert jurors, compare their projects to those of other teams, learn from presentations by thought leaders and engage with a variety of organizations about energy-related careers. This year the networking was done virtually, with CAPLA's teams joining a celebratory Zoom call with the grand prize winners from Miami University in Ohio.

“The Solar Decathlon Design Challenge is one of the most important activities in which I've participated,” says Schultz of her experience on the winning Mixed-Use Multifamily Division team. “The judges are leaders in the sustainable built environment, people who have all done amazing things for the world. For our hard work to be recognized by them as outstanding among so many innovative ideas is not only affirming, but also a reminder that we are the ones who will be filling their shoes.”



UArizona's ENR2 Building.
Photo by Jacob Chinn.

INTEGRATED GREEN ROOF AND PHOTOVOLTAIC SYSTEMS: A SHADY FUTURE?

New research by Assistant Professor of Landscape Architecture **Kirk Dimond** and Professor of Landscape Architecture **Margaret Livingston** at CAPLA and **Greg Barron-Gafford** at the School of Geography, Development and Environment is throwing shade on the idea of green rooftops—literally. Using the Environment and Natural Resources (ENR2) Building on the UArizona campus as their test site, they’re evaluating whether combining urban systems such as green roofs and solar photovoltaics (PV) can have synergies that improve the sustainability performance of each.

While both systems have shown numerous ecological and social benefits individually, there has been little research on how they work together, especially in arid environments. Dimond, Livingston and Barron-Gafford aim to find out. They’re part of a team that co-designed a coupled green roof/PV system currently being installed on ENR2 as part of UArizona’s plan toward a 100% sustainable campus.

The researchers will monitor the PV system and green roof plots both shaded and unshaded by the PV panels. What do they expect? That performance on the coupled system will be enhanced: the PV canopy will shade the green roof plants while the cooling effect of the green roof will benefit the PV system as the plant material matures. And that’s a shady future worth building.

HOW COVID-19 CAN DRIVE INNOVATION IN HIGHER ED AND DESIGN SCHOOLS

“This innovation—a movement toward a more adaptive education—could be a tremendous long-term strategy for higher education and design schools.”

– **Barbara Bryson**

Associate Dean for Research **Barbara Bryson** published an April 2020 editorial in *DesignIntelligence* on how crises such as the COVID-19 pandemic can drive innovation in higher education, and particularly design schools.

While reflecting on the inertia of higher education, Bryson observes that, since the pandemic, those in higher ed and design education “are imagining all sorts of possibilities for teaching innovation, syllabus revision and program reinvention.” It’s a forced innovation, but one from which we’ll learn many lessons—including those related to connectivity, campus size and student support. “This innovation—a movement toward a more adaptive education—could be a tremendous long-term strategy for higher education and design schools.”

She continues: “Our students have different needs than they did 40 years ago. They come to us with different skills. The industries of design, planning and construction are morphing and expanding with different job descriptions being written every day. These jobs translate and interface between technology and human contributions. New jobs have emerged that support the industries, enable technology, stimulate collaboration, connect communities and enhance communication.”

Read Bryson’s full editorial at capla.arizona.edu/drive.

CAPLA FACULTY LEAD EFFORTS TO MOVE DESIGN AND STUDIO COURSES ONLINE

“There’s been such community spirit in CAPLA, and a real sense of teamwork and dedication to our students.”

– **Ladd Keith**

As soon as it was announced that all University of Arizona courses would go fully online for the remainder of the Spring 2020 semester, **Ladd Keith**, assistant professor of planning and sustainable built environments, knew many of his colleagues—some who had never taught an online course—would need support.

The UArizona Office of Instruction and Assessment and Office of Digital Learning had been leading the effort to move all Arizona courses online, but studio courses taught at CAPLA present some unique challenges. These courses involve both digital and physical design projects, iterative feedback from instructors and peers and critiques on final designs, so teaching them online can be much more involved than a lecture-based course.

Well-versed in the world of teaching online, Keith worked with CAPLA associate deans and school directors to organize a Zoom workshop to share best practices with his colleagues. More than 50 faculty participated in the workshop where **Kelly Cederberg**, lecturer in landscape architecture, demonstrated the Sustainable Built Environments’ online studio course that uses a tool called VoiceThread to facilitate the iterative design process between faculty and students. They were joined by **Emily Torrez**, instructional designer for the Office of Digital Learning, who provided faculty with additional resources and tips to ease their transition as much as possible.

“I was surprised we had that many participants join us considering everything that’s going on,” says Keith. “There’s been such community spirit in CAPLA, and a real sense of teamwork and dedication to our students.”

With the radical changes to teaching and learning this year, that community spirit has been essential.

CAPLA EVENTS AND EXHIBITIONS

ACADEMIC YEAR 2019-2020

EXHIBITIONS

Women in Architecture: The Legacy of the Bauhaus in the United States October 2019

Curated by Associate Professor of Architectural History **Lisa Schrenk**, and with support of many B Arch students, the exhibition in CAPLA's Sundt Gallery (and at AIA Arizona in Phoenix in February-March 2020) was held in conjunction with *Bauhaus: Art, Technology and Women—A New Unity?* At the University of Arizona Museum of Art.

South Africa Study Abroad: Student Projects November 18-25, 2019

An exhibition of student work from the Summer 2019 study abroad program in South Africa led by **Stefan Mostert** and **Laura Carr**, lecturers in architecture.

Judith Chafee: Framing the Desert January 2020

Created by Associate Professor of Architecture **Christopher Domin** and with Tucson architect **Kathryn McGuire** in support of their book *Powerhouse: The Life and Work of Judith Chafee*, the exhibition in CAPLA's Sundt Gallery focused on the work of Judith Chafee, environmental steward, social justice advocate and University of Arizona professor of architecture.

SCHOOL OF ARCHITECTURE LECTURE SERIES 2019-2020

Architecture as a Catalyst for Change October 10, 2019

William Leddy, Founding Principal, LEDDY MAYTUM STACY Architects

Re-Turning to "Architecture as Craft": The Women of The Architects Collaborative October 15, 2019

Wendy Cox, Associate Professor of Architecture, Norwich University

Front: Recent Work January 30, 2020

Marc Simmons, Founding Principal, Front, Inc.

Regenerative Design for Social-Ecological Evolution February 10, 2020

Shelly Pottorf, Principal, Architend

Raw, Programmed Matter and Nature February 19, 2020

Maria Paz Gutierrez, Associate Professor of Architecture, University of California, Berkeley

EcoDistricts: Putting Neighborhoods at the Center of the Sustainability Movement March 2, 2020

Rob Bennett, Founding CEO, EcoDistricts
Cosponsored by School of Landscape Architecture and Planning

INTERNATIONAL PERSPECTIVES: SCHOOL OF LANDSCAPE ARCHITECTURE AND PLANNING LECTURE SERIES 2019-2020

Finding Common Ground September 27, 2019

Gabriel Díaz Montemayor, Assistant Professor of Landscape Architecture, University of Arkansas

Planning Sister Wetlands Along the U.S.-Mexico Border October 23, 2019

Ana Cordova, Research Professor, Urban and Environmental Studies, El Colegio de la Frontera Norte

Slow Design, Placemaking and Urban Space across the Border February 28, 2020

Lawrence Herzog, Visiting Scholar, Bio Regional Center, University of California, San Diego and Professor Emeritus of City Planning, San Diego State University

OTHER CAPLA PUBLIC LECTURES AND COLLOQUIA

Changing Practices for Setting Speed Limits for Safer Multi-Modal Streets November 8, 2019

Peter Koonce, Manager, Signals and Street Lighting, City of Portland, Oregon

Principles of Urban and Regional Planning: A Colloquium November 8, 2019

Josep Acebillo, Principle, Architectural Systems Office and Former Chief Architect, City of Barcelona

A Brief Overview of U.S. Housing Policy January 21, 2020

Darrel Ramsey-Musolf, Associate Professor of Regional Planning, University of Massachusetts Amherst

Building a Changing World: Leading through Influence February 17, 2020

Dave Gilmore, President and CEO, DesignIntelligence

A Tale of Two Quarries: Recycling Post-Extractive Areas in Greater Montreal April 14, 2020

Marie-Noëlle Carré, Lecturer, Université de Montréal



Women in Architecture: The Legacy of the Bauhaus in the United States Exhibition, October 2019. Photo by Lisa Schrenk.

OTHER EVENTS

TENWEST Impact Festival October 11-20, 2019

Thought leaders from CAPLA participated in TENWEST's 4th Industrial Revolution Day, including **Arthur C. Nelson**, professor of urban planning and real estate development, and **Drew Sanderford**, associate professor of real estate development and planning, speaking on "4IR Disruption in the Real Estate Market;" **Ladd Keith**, assistant professor of planning and sustainable built environments, on "Podcast, Cli-Fi and Science Storytelling for Climate Action in the Built Environment;" and Dean **Nancy Pollock-Ellwand** closing the day with "Linking the Past to the Future: Will Yesterday be Important for the 4th Industrial Revolution?"

CAPLA Job Interview Fair February 6, 2020

34 architecture, landscape architecture, planning, engineering, construction management and other firms interviewed CAPLA undergraduate and graduate students—for the interviewing experience and for internship and career positions.

CAPLA Class of 2020 Convocation Showcase May 15, 2020

Though in-person convocations and commencement for Spring 2020 were canceled due to the pandemic, CAPLA celebrated the graduation of the Class of 2020 through an interactive website and showcase: caplashowcase.arizona.edu. Meet CAPLA's outstanding graduates in each undergraduate and graduate program, watch as student organizations bid students farewell, enjoy a gallery of photos submitted by graduating students and view video messages from class representatives, college administration, faculty and staff.

RETHINKING, REDEFINING AND *RESTRUCTING* OUR BUILT ENVIRONMENT

The University of Arizona is developing a robust, university-wide ecosystem supporting research, teaching and service for the built environment—defining a new fully integrated discipline leveraging knowledge and research from all Arizona colleges: RESTRUCT.

In 2020, RESTRUCT, led by CAPLA Associate Dean for Research **Barbara Bryson**, developed a strategic partnership with the Arizona Institutes for Resilience. The strategic initiative has resulted in \$160,000 for the initiative while increasing opportunities for multi-college collaborative research projects by CAPLA faculty and visibility for the work of our faculty. Advocacy to the senior leadership of the university earlier this summer resulted in a call for COVID-19-related seed grants addressing the built environment by UArizona Senior Vice President for Research and Innovation **Betsy Cantwell** and funding for additional RESTRUCT symposia.

In the past year, major project teams involving CAPLA faculty have grown from RESTRUCT workshops, a symposium, seed grants and other activities, including:

- *Net Zero Water* co-led by **Courtney Crosson**, assistant professor of architecture
- *International Hospitality Standards and Testing for COVID-19 Re-Entry* led by **Aletheia Ida**, associate professor of architecture
- *Ensuring a Healthy Travel Experience* led by **Charles Gerba**, professor of environmental science
- *DASH-SAFE*, a real-time risk management dashboard led by **Esther M. Sternberg**, director of the Institute on Place, Wellbeing and Performance

Five other CAPLA faculty members have led or been part of teams awarded RESTRUCT seed grants, representing a significant portion of the \$50,000 provided for these multi-college projects.

Additionally, the RESTRUCT Built Environment Research Symposium, held September 21-23, 2020, featured the work of five CAPLA faculty members. The next symposium is scheduled for April 13-14, 2021.

RESTRUCT TACKLES THE GRAND CHALLENGES

Defined by faculty from across the university, UArizona's Grand Challenges are central to RESTRUCT and likewise drive built environment research by CAPLA faculty:

- Redress inequality/injustice in re-envisioning the built environment
- Create resilient and efficient urban and rural systems
- Design for optimal health
- Enable innovation through better decision-making and data analysis

RESTRUCT MID- PANDEMIC ADAPTATION SYMPOSIUM

The Fall 2020 RESTRUCT Built Environment Research Symposium examined how research in the built environment has already evolved to address COVID-19 challenges, as well as economic and social responses to the pandemic, and how it must address new challenges moving forward. The three-day virtual symposium addressed:

- Built environment research and hacks to beat COVID
- Travel/hotel and transportation research in a SARS COVID world
- COVID-related urban and real estate transformations

The symposium continued to build trans-disciplinary built environment research by igniting ideas and developing partnerships.

DO TRANSFORMATIONAL RESEARCH

CAPLA Research Transforms the Built Environment

Despite a challenging year, CAPLA research activities continue to demonstrate the transformative impact, growth and breadth of scholarship that has become emblematic of our faculty. Though sponsored project expenditures were slightly lower in FY 2020, the average of approximately \$800,000 in modified total direct costs over the past three years is significantly higher than the previous two years. Proposals over the last two years have also increased by 45%.

CAPLA faculty influence is growing across the university and globally as our researchers participate even more often in transdisciplinary, collaborative projects and document their work in conferences and publications throughout the world. Select faculty publications and presentations since fall 2019 are now included on the CAPLA website, updated regularly. Nearly 50 articles and presentations can be found from 2020 alone, ranging in subject from infrastructure gaps to healing spaces, the environmental impact of materials to the participation and engagement of public health stakeholders in climate and health adaptation, and essential elements at play in environmental policy control to urban water security.



CAPLA faculty influence is growing across the university and globally as our researchers participate even more often in transdisciplinary, collaborative projects.

Though COVID-19 has impacted our researchers' ability to travel and conduct field studies, enthusiasm for new proposal opportunities related to the pandemic have ignited several projects. For example, the call from UArizona Senior Vice President for Research and Innovation **Betsy Cantwell** seeding COVID-19-related projects resulted in the creation of a team that includes CAPLA professors **Altaf Engineer, Bo Yang, Shujuan Li** and **Philip Stoker** working with Institute on Place, Wellbeing and Performance Director **Esther M. Sternberg** and faculty from the College of Engineering to create DASH-SAFE, a real-time risk management dashboard. The deliverable from this project is now going through the patent process.

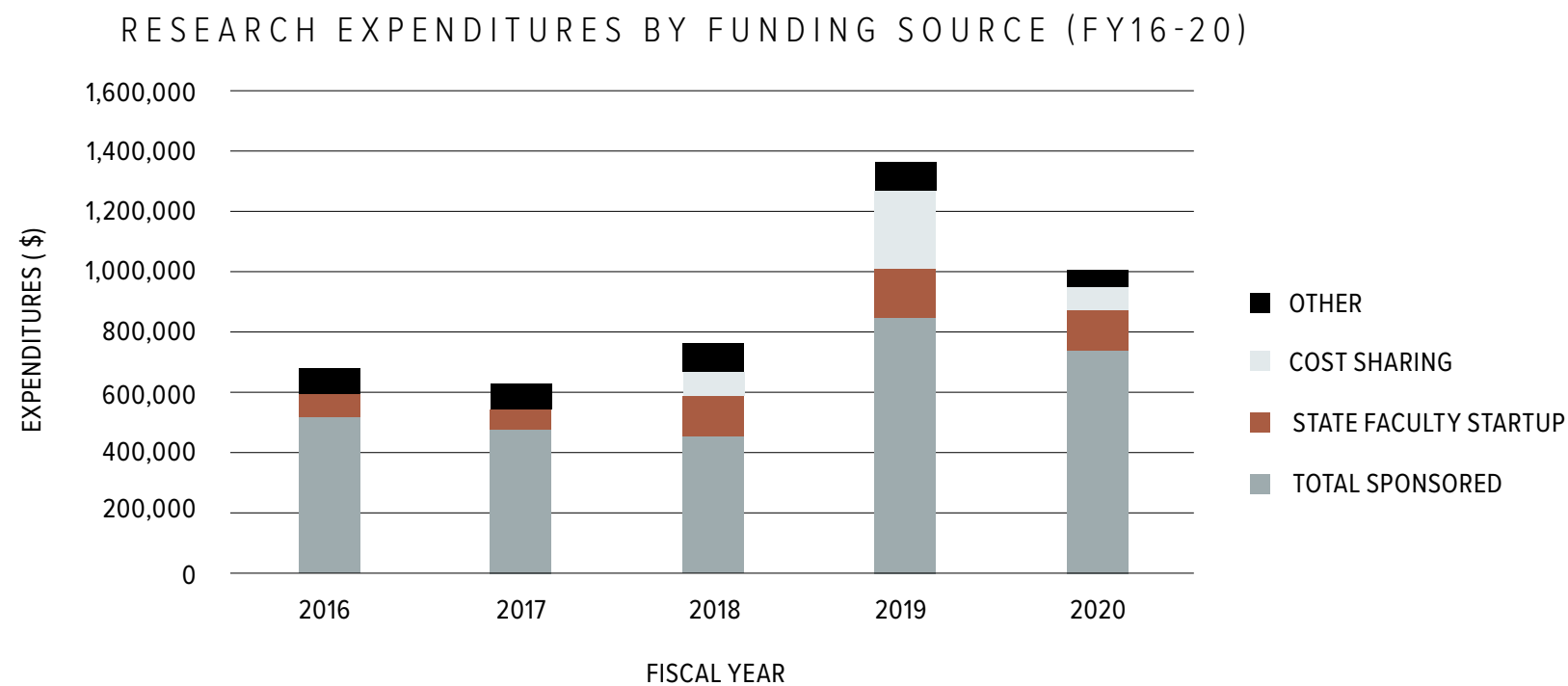
CAPLA grassroots seed grants have so far awarded over \$36,000 and two funded projects have been completed, including **Nicole Iroz-Elardo's** project on climate resilience for physical activity and **Adriana Zuniga-Teran's** project on developing an outreach model to address environmental justice through greening efforts.

The impact of CAPLA's research and expanded opportunities for impact are also influenced by the growing RESTRUCT university strategic initiative, RESTRUCT's partnership with Arizona Institutes for Resilience and the restart of the work of the Drachman Institute.

View faculty research stories, publications and presentations at capla.arizona.edu/research.

RESEARCH GRANTS AND AWARDS

CAPLA faculty are leaders in research on the built environment. During the 2020 fiscal year, faculty received more than \$1 million in funding to conduct research and support sponsored projects for a wide variety of initiatives.



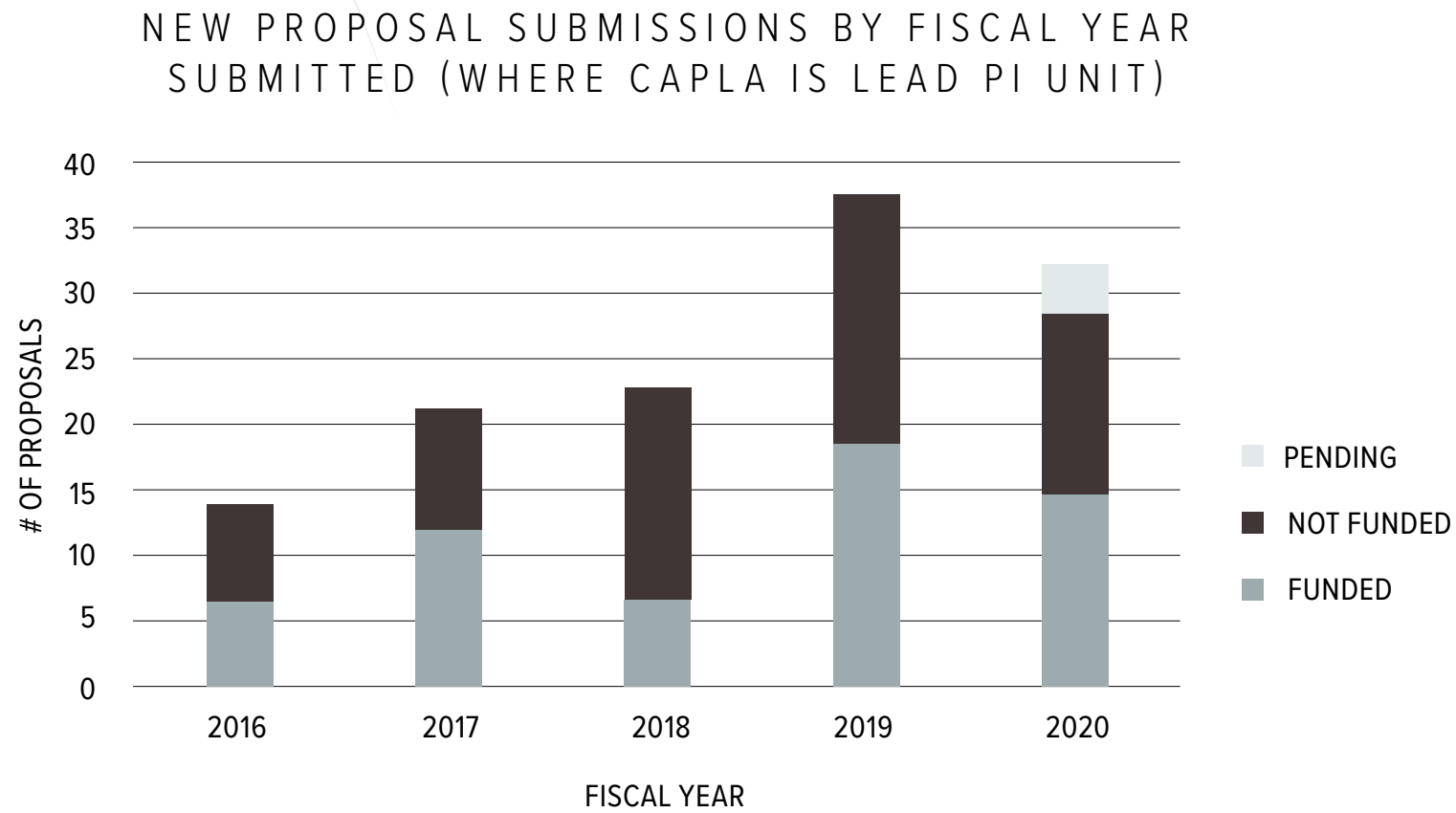
FUNDING SOURCE		FISCAL YEAR				
SPONSORED		2016	2017	2018	2019	2020
DIRECT COST \$		426,403	383,721	356,131	655,640	567,566
INDIRECT COST \$		95,677	97,889	102,532	193,636	175,831
TOTAL \$		522,080	481,610	458,663	849,276	743,397
STATE		2016	2017	2018	2019	2020
COST SHARING \$				80,725	270,874	71,841
FACULTY STARTUP \$		75,673	68,669	135,903	154,433	131,766
TOTAL \$		75,673	68,669	216,628	425,307	203,607
OTHER		2016	2017	2018	2019	2020
CAPLA GRASSROOTS INITIATIVES \$						25,228
RII FACULTY STARTUP \$		38,758	83,940	100,041	76,311	34,341
RII RESEARCH INITIATIVES \$						2,168
TECH RESEARCH INITIATIVES \$		40,049	3,749	9,450	15,328	
TOTAL \$		78,808	87,688	109,491	91,639	61,736
TOTAL \$		676,561	637,967	784,782	1,366,223	1,008,741

NOTE:
Cost-sharing activity is state-funded but relates to sponsored project accounts.

CAPLA GRASSROOTS RESEARCH SEED GRANTS

<i>FACULTY</i>	<i>PROJECT</i>	<i>TOTAL FUNDING</i>
KIRK DIMOND <i>Assistant Professor of Landscape Architecture</i>	PV Green Roof: Establishment Monitoring at ENR2	\$10,128
ALTAF ENGINEER <i>Assistant Professor of Architecture</i>	Impact of CO ₂ in the Built Environment on Sleep Quality and Cognitive Function in Sleep and Circadian Sciences Laboratories for Better Individual Health and Wellbeing Outcomes	\$7,000
NICOLE IROZ-ELARDO <i>Assistant Research Professor of Planning</i>	Climate Resilience for Physical Activity and Health	\$4,941
CLARE ROBINSON <i>Associate Professor of Architecture</i>	<i>The Negro Motorist Green Book</i> : Businesses and Neighborhoods in Arizona at the Intersection of History, Heritage Conservation and Planning	\$4,000
ADRIANA ZUNIGA-TERAN <i>Assistant Research Scientist</i>	Developing an Outreach Model to Address Environmental Justice through Greening Efforts	\$4,094
		<i>TOTAL \$30,163</i>

NOTE:
One additional project of \$6,000 was awarded
but will not be moving forward based on changing
personal priorities.



FISCAL YEAR SUBMITTED					
PROPOSAL STATUS	2016	2017	2018	2019	2020
FUNDED	6	12	7	19	15
NOT FUNDED	8	9	15	19	14
PENDING	0	0	0	0	3
TOTAL	14	21	22	38	32
FUNDED RATE (%)	43%	57%	32%	50%	52%

NOTE:
The above proposals do not include any proposal where CAPLA isn't the lead PI unit but is involved with the proposal.

SELECT FACULTY PUBLICATIONS

Journals

Applied Geography

Atmosphere

Building and Environment

Cities

Current Opinion in Environmental Sustainability

Environment and Urbanization

Environmental Design Research Association

Environmental Development

Environmental Science and Policy

Health and Place

Housing Policy Debate

Interactions

International Journal of Environmental Research and Public Health

Journal of the American Planning Association

Journal of Architectural Education

Journal of Comparative Urban Law and Policy

Journal of Engineering and Architecture

Journal of Environmental Planning and Management

Journal of Extreme Events

Journal of Transport and Health

Landscape and Urban Planning

Metropolitics

Performance Research > A Journal of the Performing Arts

Platform

Proceedings of ARCC-EAAE

Real Estate Economics

Research in Transportation Economics

Resources, Conservation and Recycling

Social Science and Medicine

Socio-Ecological Practice Research Sustainability

Sustainable Water Resources Management

topos

Transportation Research Record

TREND Report

Urban Water Journal

Vivienda y Comunidades Sustentables (Housing and Sustainable Communities)

Water Policy

Chapters in Books

Basic Quantitative Research Methods of Urban Planners

Building and Implementing a Lifestyle Medicine Program: From Concept to Clinical Practice

Critical Practices in Architecture: The Unexamined

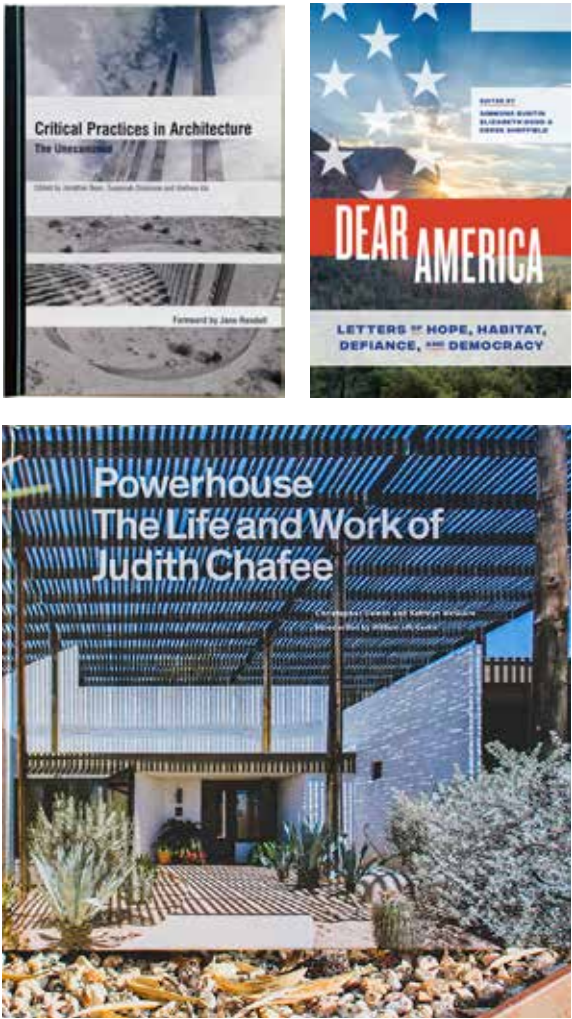
Environmental Ethics: What Really Matters, What Really Works

Examining the Environmental Impacts of Materials and Buildings

Integrating Health and Transportation in Canada

Interactions

Resilient Water Services and Systems: The Foundations of Well-Being



BOOKS BY FACULTY AND STAFF

Critical Practices in Architecture: The Unexamined
Edited by **Jonathan Bean**, **Susannah Dickinson** and **Aletheia Ida**, Cambridge Scholars Publishing, 2020

Dear America: Letters of Hope, Habitat, Defiance, and Democracy
Edited by **Simmons Buntin**, Elizabeth Dodd and Derek Sheffield, Trinity University Press, 2020

Ecological Wisdom: Theory and Practice
Edited by **Bo Yang** and Robert Fredrick Young, Springer, 2019

Evaluating Landscape Performance: A Guidebook for Metrics and Methods Selection
Jassica Canfield, **Bo Yang** and Heather Whitlow, Landscape Architecture Foundation, 2019

In Search of African American Space: Redressing Racism
Edited by Jeffrey Hogrefe and Scott Ruff with Carrie Eastman and **Ashley Simone**, Lars Müller Publishers, 2020

The Link between Transit Station Proximity and Real Estate Rents, Jobs, People and Housing with Transit and Land Use Planning Implications
Arthur C. Nelson and Robert Hibberd, National Institute of Transportation and Communities, 2019

Missing Middle Housing: Thinking Big and Building Small to Respond to Today's Housing Crisis
Daniel Parolek with **Arthur C. Nelson**, Island Press, 2020

Powerhouse: The Life and Work of Judith Chafee
Christopher Domin and Kathryn McGuire, Princeton Architectural Press, 2019

NOTE:
CAPLA faculty or staff in bold.



JUDITH CHAFEE: FRAMING THE DESERT

BOOK AND EXHIBITION BY CHRISTOPHER DOMIN AND KATHRYN MCGUIRE OFFER RICH INSIGHT INTO ONE OF THE DESERT SOUTHWEST’S ARCHITECTURAL ICONS.

Photos of Judith Chafee-designed residences by Bill Timmerman.

Judith Chafee defined her path in architecture as an unrepentant modernist, environmental steward, social justice advocate and demanding University of Arizona professor of architecture. As *Powerhouse: The Life and Work of Judith Chafee* portrays through rich essays, photographs and drawings, her architecture combined sensitivity to place with an uncanny ability to employ brutalist materials with sophistication, grace and indigenous influences.

“Architecture comes out of a community,” says **Christopher Domin**, associate professor of architecture. “It’s not just about a client or just about a building or just about an architect, but it takes an interconnected web of skills, talents and interests to make meaningful work. There is this sensibility that is shared between all of Chafee’s work.”



In support of their book and Chafee’s work, Domin and **Kathryn McGuire**, a former student and colleague of Chafee who lives in Tucson, created an exhibition in CAPLA’s Sundt Gallery on display in January and February 2020.

Though Chafee (1932-1998) spent much of her life in the Sonoran desert, Domin discovered her designs as an architecture student at the University of Florida. “I remember first seeing her work in a history seminar reading, ‘Recent World Architecture: The Search for Substance,’” says Domin. “I saw a house she designed in the Sonoran desert and it just hit me. I tucked that photograph away because the hair on the back of my neck stood up—there were things I found familiar and unfamiliar, shocking, fascinating.”

He moved to Tucson and the University of Arizona in 2000 in part because Chafee had been here. When he interviewed at UArizona, he asked, “Where is the Judith Chafee archive?” It was locked in an old school building on the south side of Tucson.

Today, Chafee’s archives are maintained in the University Libraries Special Collections, and play a critical role in design and research for faculty and practitioners alike. The archives were also critical for Domin and McGuire in crafting the exhibition, which spectators have praised as “light and airy but also content-filled, effortless for the space” despite being designed as a traveling exhibit.

“*Powerhouse is a much-needed deep dive into the life and work of the remarkable desert modernist, Judith Chafee. Her buildings, particularly her houses, are timeless meditations on the most essential elements of great architecture: a sophisticated use of light and materials, a sensitivity to climate and culture and an appreciation for the rituals of everyday life. Chafee’s architecture offers lessons for us all.*”
– Deborah Berke, Architect, FAIA

Institute on Place, Wellbeing and Performance

The University of Arizona Institute on Place, Wellbeing and Performance (IPWP) seeks to redefine human health to fully encompass the role of the built and green environment in health and wellbeing through research, education, practice and policy change. An interdisciplinary institute at UArizona, IPWP links expertise of the UA College of Medicine - Tucson, the Arizona Center for Integrative Medicine and CAPLA, actualizing the university’s commitment to a vision of human health.

Several CAPLA faculty are active in IPWP, including **Altat Engineer**, assistant professor of architecture, **Aletheia Ida**, associate professor of architecture, and **Omar Youssef**, lecturer in architecture. And the IPWP leadership team includes Dean **Nancy Pollock-Ellwand** and **Barbara Bryson**, associate dean for research.

In the past year, CAPLA faculty have conducted research on four projects with an AY 2019-2020 total funding of \$392,000:

PROJECT	TOTAL BUDGET	AY 2019-2020 BUDGET
Development of Automatic Adaptive Mitigation Systems to Reduce Personal Carbon Dioxide (CO ₂) Bubble and Improve Sleep and Cognitive Performance	\$366,507	\$150,000
A Survey for Assessment of Health, Building Design and Movement to Mitigate At-Risk Spaces in Post-COVID-19 Campus Re-Entry	\$7,000	\$7,000
DASH-SAFE: A Personal Real-Time Risk-Assessment, Risk-Management, Navigation and Automated Alarm Tool	\$35,000	\$35,000
Multimodal Objective Sensing to Assess Individuals with Context (MOSAIC)	\$1,904,486	\$200,000

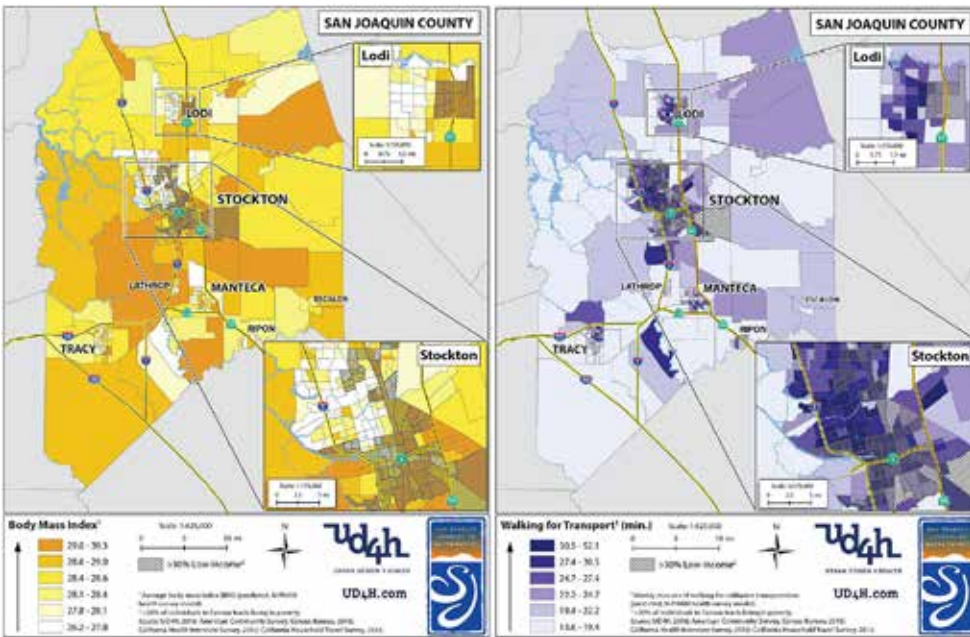
Learn more about the UArizona Institute on Place, Wellbeing and Peformance at ipwp.arizona.edu.

TRANSPORTATION, HEALTH EQUITY AND SOCIAL JUSTICE IN REGIONAL TRANSPORTATION PLANNING

REGIONAL TRANSPORTATION PLANS CAN BE A NOTABLE EXAMPLE OF HOW ANALYZING DIFFERENTIAL NEIGHBORHOOD IMPACTS BY RACE AND CLASS CAN STRENGTHEN PUBLIC DECISION-MAKING AND, ULTIMATELY, OUR COMMUNITIES.



Photo courtesy Nicole Iroz-Elardo.



Choropleth maps showing the Census block group level geographic distribution of predicted body mass index and weekly minutes of walking for transportation highlighting low-income areas across San Joaquin County. Graphic courtesy Nicole Iroz-Elardo.

What can fine-scale spatial modeling of health impacts from long-range transportation plans do to support racial and social justice? More than you may realize, according to **Nicole Iroz-Elardo**, assistant research professor of planning.

Regional transportation plans (RTPs) may seem wonky to some, but Iroz-Elardo sees them as critical for articulating and implementing a region’s transportation, housing and environmental goals—something she learned in her research on spatial analysis of health in the 2018 RTP of San Joaquin Council of Governments (SJCOC). Iroz-Elardo worked with other researchers to evaluate a novel application of the National Public Health Impact Model, funded by the U.S. Environmental Protection Agency and developed at Urban Design 4 Health. Their research, which was published in *Social Science and Medicine*, shows the promise of health equity modeling to support socially just transportation decisions.

Set in Stockton, California, the research team’s analysis provides estimates of physical activity from walking for leisure and transportation as well as changes to body mass index for both the current and horizon years of the SJCOC 2018 RTP. The National Public Health Impact Assessment Model was developed to model at the Census Block Group level—roughly the size of your immediate neighborhood. These public health metrics can then be analyzed for spatial equity, including analyzing how neighborhoods with high concentrations of low-income and/or racial minority households are performing compared to their less vulnerable neighbors.

The resulting predictions of modest increases in physical activity and decreases in body mass index are pretty typical in areas that become more dense, have more nearby destinations to walk to and have more public transportation. “It isn’t much, but a little bit here and there adds up to better population health,” says Iroz-Elardo.

For example, the fine spatial public health analyses showed that the projected change in increased minutes spent walking for transportation is three times larger in neighborhoods in which high concentrations of minorities or low-income households reside when compared to whiter and higher-income counterparts. “Still, this increase is not enough to bring minority and low-income neighborhoods up to parity in the horizon year—a finding that deserves discussion,” she says.

Urban planning continues to re-evaluate how to plan for equity. As the discipline incorporates more and more data in modeling, these quantitative approaches need to explicitly incorporate equity. SJCOC’s regional transportation plan is a notable example of how analyzing differential neighborhood impacts by race and class can strengthen public decision-making and, ultimately, our communities.

Is Tucson's Water Secure? CAPLA Researchers Compare the Old Pueblo with Cities in Mexico and Argentina to Find Out

CAPLA RESEARCHERS ADRIANA ZUNIGA-TERAN AND PHILIP STOKER PARTNERED WITH RESEARCHERS FROM UARIZONA, HERMOSILLO, MEXICO AND MENDOZA, ARGENTINA TO EXPLORE URBAN WATER SECURITY IN THE ARID AMERICAS.



Photo by Kieran MacAuliffe.

When it comes to urban water security, Tucson, Arizona has more in common with cities in Mexico and Argentina than one might expect. The conclusion for all three: there's more water insecurity than security.

According to research undertaken by CAPLA faculty published in *Environment & Urbanization*, there are several areas in which Tucson resembles Hermosillo, Sonora, Mexico and Mendoza, Argentina—beyond their similar sizes and arid settings.

For instance, say **Adriana Zuniga-Teran**, assistant research scientist, and **Philip Stoker**, assistant professor of landscape architecture and planning, Tucson has a growing urban population and subsequent competition between urban, industrial and agricultural water use, “although the resources surrounding the city have not been sufficient to cover demand.” Ditto for Hermosillo and Mendoza.

In all three cases, inter-basin water is transferred, and for Tucson and Hermosillo, that water is transferred from a great distance—in Tucson's case, from the Colorado River via the Central Arizona Project, increasing long-term risk given declining flows of the Colorado River due to climate change.

Zuniga-Teran, Stoker and their fellow researchers from UArizona's Udall Center, El Colegio de Sonora and Universidad Nacional de Cuyo, Mendoza, undertook their analysis less because of the obvious similarities in the cities than because of a key distinction, however. “The three cities show different governance approaches to water resources, a comparison of which allows us to extract lessons that can be transferred to other cities,” they report.

In its analysis of Tucson, Hermosillo and Mendoza, the researchers used an urban water security framework that considered five domains: sociodemographic, technological, ecological, economic and governance. Even considering the different governance approaches, the analysis reveals plenty of similarities.

Among the lessons learned from the team's research are that groundwater will continue to play a critical role in urban water security for arid cities, but must be managed sustainably and must include “a recharge scheme to avoid depletion,” they say. Also, “hard-path” approaches to water management—such as inter-basin water transfers, recharge

facilities and dams—are “a necessary but insufficient condition to assure water supply.” These engineered responses must be augmented by “soft path” approaches that

reduce demand and increase efficiency. Additionally, riparian areas, which “provide multiple critical ecosystem services,” must be preserved.

How best to ensure these measures can succeed here as well as in arid cities around the world? According to Zuniga-Teran, Stoker and the other researchers, “the clearest option in terms of governance is to emphasize the maintenance of socio-ecological systems” because the threats to securing municipal water supplies are vast and complex.

Even Tucson, with its progressive water recharge program and long-term planning approach, is at risk, especially as the region's population grows, demand for water increases and droughts and other changes in climate become more common. “The analysis of urban water security in these three cases makes it clear that it is easier to speak in terms of water insecurity than water security,” the researchers conclude.



The three cities show different governance approaches to water resources, a comparison of which allows us to extract lessons that can be transferred to other cities.

As Rural Western Towns Grow, So Do Their Planning Challenges

BOOMING TOURISM AND A STEADY INCREASE IN NEW RESIDENTS PRESENT UNPRECEDENTED URBAN PLANNING CHALLENGES FOR THE WEST'S GATEWAY COMMUNITIES.

Planners, residents and public officials in “gateway communities”—towns located next to national parks and other popular public lands, such as Sedona, Arizona, Jackson Hole, Wyoming and Moab, Utah—have for years seen anecdotal evidence of the planning challenges that accompany population and tourism growth. In Sedona, for example, of the roughly 7,000 jobs in the city, about 5,000 of them —74% —are held by people who live outside the city limits.

A new study published in the *Journal of the American Planning Association* by lead author **Philip Stoker**, assistant professor of landscape architecture and planning, seeks to quantify those challenges. “Personally, I’ve just noticed it from going to all these places,” says Stoker, an expert on urban water use and natural resource management whose research focuses on the Western U.S.

Stoker and his collaborators conducted in-depth interviews with 33 public officials and surveyed more than 300 others from about 1,500 gateway communities across the West. Officials were asked specific questions about their communities’ planning challenges and opportunities.



Sedona, Arizona, a gateway community.
Photo by Lesley Donaldson.

“Many people from large metropolitan areas have turned to gateway communities for retirement, vacation homes and—increasingly—remote work. With their larger incomes, they can pay more for properties, causing prices for surrounding properties to go up.”

Among the study’s most significant findings: Issues related to housing affordability were top-of-mind, “pervasive and urgent” for nearly all survey respondents and interviewees. Nearly 83% of respondents reported that housing affordability was either “moderately problematic,” “very problematic” or “extremely problematic.” Nearly all interviewees called housing affordability a key issue for their communities.

Home buyers from larger cities were a major factor in the rising cost of housing in gateway communities, Stoker says. Many people from large metropolitan areas have turned to gateway communities for retirement, vacation homes and—increasingly—remote work. With their larger incomes, they can pay more for properties, causing prices for surrounding properties to go up.

“If you’ve been living there and growing up in this community and you don’t have a job that’s paying the salary of someone who’s in, for example, downtown Seattle, you’re going to be excluded from this community and your ability to invest in land and property if you haven’t already,” says Stoker.

Respondents also said they were concerned about the effects of growth on their communities’ character or “small-town-ness,” a quality that nearly 94% of survey respondents said was important.

Stoker co-authored the study with researchers from the University of Utah as well as **Lindsey Romaniello**, who graduated from CAPLA’s MS Urban Planning program in May 2020. Romaniello found out about the study during a class Stoker was teaching and immediately wanted to be involved.

“It was right up my alley and what I wanted to study,” says Romaniello, a native of Ridgway, Colorado, near the famous ski-resort town of Telluride—another gateway community identified in the study.

Researchers hope they can use the feedback they’ve collected to call attention to the need for proactive planning in gateway communities. “If we can identify the problems, our next step is looking at what strategies can help these communities maintain and adapt to growth as it happens, and then control growth, too, so that it’s not just happening to them,” concludes Stoker.



Photo by Kent Weakley.

Study Predicts Millions of Unsellable Homes Could Upend Market

THE PREDICTION BY URBAN PLANNING PROFESSOR ARTHUR C. NELSON UNDERMINES THE CLASSIC “BIG PROMISE” IN HOMEOWNERSHIP: THAT A HOME, AFTER IT’S PAID OFF, CAN BE SOLD FOR A RETIREMENT NEST EGG.

Millions of American homes could become unsellable—or could be sold at significant losses for their senior-citizen owners—between now and 2040, according to new research.

A study by **Arthur C. Nelson**, professor of urban planning and real estate development, predicts that many baby boomers and members of Generation X will struggle to sell their homes as they become empty nesters and singles. The problem is that millions of millennials and members of Generation Z may not be able to afford those homes, or they may not want them, opting for smaller homes in walkable communities instead of distant suburbs.

The study predicts that the change in home-buying behaviors by younger generations may result in a glut of homes that could grow as high as 15 million by 2040, with homeowners selling for far below what they paid—if they can sell them at all. Most seniors will be able to sell their homes, the study says, but it may become especially difficult in smaller, distant and slow- or non-growing markets.

Nelson calls his prediction “The Great Senior Short Sale” in a paper published in August 2020 in the *Journal of Comparative Urban Land and Policy*.

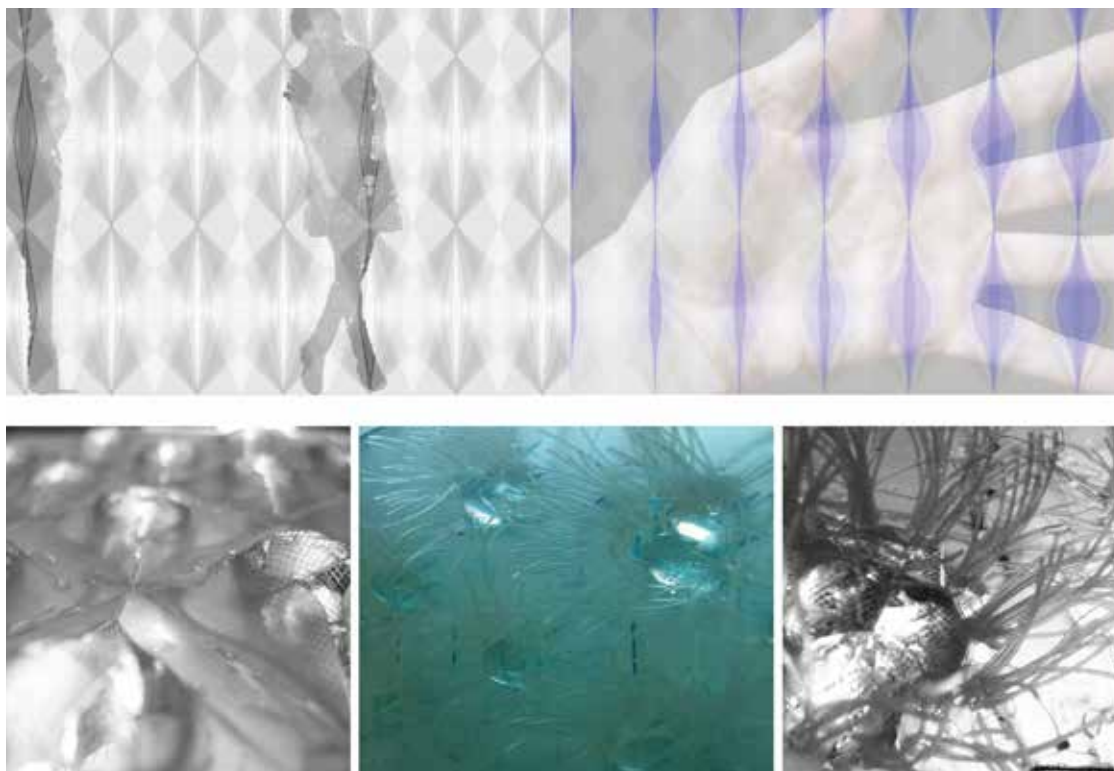
An expert in urban studies, public policy and land development, Nelson has spent a large part of his career studying the changing demand for suburban homes, since long before the housing market crash of the Great Recession.

Nelson said he expects the phenomenon to reveal itself not all at once, but gradually over the next couple decades, at about 500,000 to 1 million homes every year. It’s not likely to have much impact in growing metropolitan areas such as Phoenix or Dallas where “growth will solve all kinds of problems,” he says, but it will matter in thousands of suburban and rural areas—including some parts of Arizona.

EXPLORING ALTERNATIVE MATERIALS FOR WATER INTERACTIONS AND PASSIVE COOLING SYSTEMS IN BUILDINGS



Photo by Molly Condit.



Graphics courtesy Aletheia Ida.

In the spring and summer of 2020 **Aletheia Ida**, associate professor of architecture, was awarded funding grants for her research on experimental materials and water interactions for building materials, as well as the energy-water nexus in data centers.

installed on the CAPLA East building in 2021, with ongoing data collection and testing for a one-year period. The project integrates emerging materials for passive radiative and evaporative cooling with adaptive control and will also address building-scale energy analysis.

“I have been working with experimental materials and water interactions for building technologies over the past ten years,” she says. “It is amazing to have the exploratory research acknowledged by both public and private entities. The financial support is a milestone to enable the implementation of full-scale prototype construction and testing.”

“It is amazing to have the exploratory research acknowledged by both public and private entities. The financial support is a milestone to enable the implementation of full-scale prototype construction and testing.”

Ida received a 2020 research funding award with Tucson Water to address building-integrated sensing for premise plumbing. The work will integrate emerging materials for premise plumbing, in situ real-time sensing techniques and effects of geometries and flow rates on water quality. The experimental research results will inform the development of a decision support tool for right-sizing premise plumbing, configurations and material selections.

Microsoft Datacenter Engineering is also funding Ida’s research on the full-scale prototype development of an adaptive multifunctional windcatcher for building-integrated cooling and water collection processes. The WATeRVASE (Wind-catching Adaptive Technology for a Roof-integrated Ventilation Aperture System and Evaporative-cooling) prototype will be

In August, Ida and fellow researcher **Kerri Hickenbottom**, UArizona assistant professor of chemical and environmental engineering, received an award from Salt River Project to explore the energy-water nexus in data centers. Data center installations have been increasing, particularly in the Phoenix metropolitan area. “However,” says Ida, “data centers in this region primarily utilize adiabatic cooling systems that require a lot of water to operate. We are investigating alternative cooling processes for SRP’s data center portfolio, ultimately providing a decision support tool that can be accessed by their client base.” Ida’s design research will include integrated water recuperation and treatment processes as well as building design and system layouts to accommodate more passive cooling through computational fluid dynamics modeling techniques.



Photo by Christopher Scott.

EXTREME HEAT AND THE COVID-19 PANDEMIC

In the summer of 2020, the Global Heat Health Information Network launched a comprehensive online resource with the assistance of CAPLA Assistant Professor of Planning and Sustainable Built Environments **Ladd Keith**. Both COVID-19 and extreme heat impact marginalized communities around the world the most and can be challenging to address at the same time.

Read the full story at capla.arizona.edu/extreme-heat.



Photo by Cindy Rupp Valdez.

HEALTHY OUTCOMES IN BUILT ENVIRONMENTS

The way you lay out your physical environment can reduce stress and create calm, say Institute on Place, Wellbeing and Performance researchers. For example, “the healing power of full-spectrum or natural light is well known,” says **Altaf Engineer**, assistant professor of architecture and IPWP member. “Natural light has many measurable health benefits including but not limited to better sleep, increased productivity and significant improvements in physiological and psychological health.”

Read the full story at capla.arizona.edu/healthy-outcomes.

FACULTY IN THE NEWS



“Anello Restaurant / s p a c e BUREAU”
Oscar Lopez, Lecturer in Architecture

ARCHITECT

“Pioneering Architect Judith Chafee and Her Unique Desert Modernism are the Subject of a New Book”
Christopher Domin, Associate Professor of Architecture



“The High Cost of Bad Sidewalks”
Arlie Adkins, Associate Professor of Urban Planning

Design**Intelligence**

“Crises Drive Innovation”
Barbara White Bryson, Associate Dean for Research

The Guardian

“Framing the horizon: dwellings that blend with the desert”
Tesera Rosano, Assistant Professor of Practice in Architecture



“Extreme heat is here, and it’s deadly”
Ladd Keith, Assistant Professor of Planning and Sustainable Built Environments

LANDSCAPE ARCHITECTURE MAGAZINE

“Teaching and Learning Online, by Force”
Lauri Macmillan Johnson, Professor of Landscape Architecture and Director, School of Landscape Architecture and Planning

The New York Times

“A Home You Can Ski Right Into”
Claudia Kappl-Joy, Lecturer in Architecture



“Revisiting the danger to pedestrians in Tucson”
Arlie Adkins, Associate Professor of Urban



“Student predicts millions of unsellable homes could upend market”
Arthur C. Nelson, Professor of Urban Planning and Real Estate Development

ScienceDaily

“The potential of green infrastructure in mitigating flood impacts: Focused on the mobility of low income and minority communities”
Courtney Crosson, Assistant Professor of Architecture

URBANLAND

“ULI to Advise Dallas on Addressing Land Use and Development Challenges Related to Climate Resilience”
Ladd Keith, Assistant Professor of Planning and Sustainable Built Environments



“2020’s Best Beach Towns to Live in”
Adriana Zuniga, Assistant Research Scientist

Wallpaper*

“Hard rock”
Michael Kothke, Associate Professor of Practice in Architecture

CREATE A TRANSFORMATIONAL LEARNING ENVIRONMENT



Photo by Molly Condit.

At CAPLA, the learning environment is dynamic and inventive. We are expanding our enrollment by recruiting new and diverse students, including students from groups that are underrepresented at UArizona and nationally as well as talented international students. Once students enroll, we are tireless in our efforts to support them, fostering their maturation into creative, confident and insightful practitioners and scholars. Our hardworking advising and recruitment team works in conjunction with a larger group of staff and administrators called the FRAME Squad to focus on student experience from application to graduation and beyond.

We also seek to attract and cultivate ambitious, talented and energetic faculty members and to be nimble in building upon CAPLA faculty expertise to partner with other faculty and programs at UArizona. Interdisciplinary and international partnerships, local and national leadership—all are part of what we at CAPLA offer to the larger community. Indeed, CAPLA faculty and students continue to garner exciting university, regional and national awards, strong evidence of the concrete impact of our teaching and learning environment.

Finally, curricular innovation is ever-present at CAPLA! We offer students an increasing number of choices in how they customize their education. This stems from a continuous faculty effort to rethink, strengthen and improve our existing programs and a joint administrative and faculty effort to conceive, plan and implement new curricula in relation to opportunities and needs. Our latest initiatives to serve our community, described on the next page, are multiple and vigorous. As you read these details, please consider how you can contribute to our goals. We look to the future with fresh eyes!

Laura H. Hollengreen

Laura Hollengreen
Associate Dean for Academic Affairs
Associate Professor of Architecture



CAPLA students and faculty during the Arizona ASLA Southern Section Nursery Tour, April 2018. CAPLA photo.

BACHELOR OF ARCHITECTURE

For four years the School of Architecture has worked to optimize the B Arch, in order to offer students more curricular choices, a research experience that will inform their Capstone design studio and the opportunity to build a rich, coherent body of knowledge through clustered electives. We have reduced required courses and added more elective choices, especially in later stages of the degree—creating a trajectory in which each student declares a subject concentration that can lead to a personal career vision while reducing total credit units from 174 to 165. In Spring 2021, the final Research + Application phase (P3) of the B Arch will be implemented, enabling students to engage in research through design by enrolling in a cluster of thematically related courses that culminate in a Capstone project. The four clusters are Critical Practices, (Meta)Physics of Light, Material Matters and Urban Agency: Infrastructures of Equity and Ecology.

BACHELOR OF SCIENCE IN SUSTAINABLE BUILT ENVIRONMENTS

The BS SBE program strengthened undergraduate research opportunities by adding a research methods course that sequences into a final capstone community engagement project. The course is co-convened with MS Architecture students.

MASTER OF ARCHITECTURE

For the past three years the STEM-designated M Arch program has been making curricular and cultural changes to improve student experience and performance. Semester course loads and flexibility have been optimized through a reduction in required courses and changing previously required courses into stream-specific electives. The Building Technology stream has been reconceived as the Integrated Technology (INTech) stream. The INTech curriculum is designed to deliver architectural technologies more efficiently and with a synthetic pedagogy that acknowledges and emulates the integration of the different technologies as they are considered in contemporary professional practice. The History/Theory stream has increased flexibility through a reduction in required courses and the introduction of an elective. ARC 533 on modern and contemporary architecture has added a one-credit seminar module that accommodates graduate student desire for more opportunities to discuss and debate course content. The Design Studio sequence has been reconceived to better reflect current and aspired stream content and M Arch program narrative. The new studio themes are ARC 510A Architect’s Hand and Mind, ARC 510B Principles + Precedence, ARC 510C Forces, ARC 510D Urban Fabric, ARC 510E Performance, ARC 510F Application and ARC 909 Synthesis.

MASTER OF SCIENCE IN ARCHITECTURE

The MS Arch—a STEM-designated applied research degree—opened the year with a revised curriculum: all students take a common core in the summer, then specialize in a focus area for the subsequent year: Design and Energy Conservation, Emerging Building Technologies, Health and the Built Environment, Heritage Conservation, Sustainable Market Transformation or Urban Design.

MASTER OF LANDSCAPE ARCHITECTURE

The Master of Landscape Architecture has been approved as a STEM-designated degree beginning fall 2020. Among other things, this allows international students on F-1 visas who complete the MLA to extend their stay in the U.S. up to an additional 24 months—a significant boon to student recruitment. The MLA program’s spring 2019 accreditation by the Landscape Architecture Accreditation Board was so successful—including no recommendations for improvement—that the Board invited the program to participate in a test virtual site visit conducted this fall. It will be used to inform future online program accreditation reviews at other universities around the country.

MASTER OF REAL ESTATE DEVELOPMENT

The Master of Real Estate Development has seen significant growth over the last several years, particularly in the online program—from five to 60 students since 2016.

MASTER OF SCIENCE IN URBAN PLANNING

More than 75% of the MS Urban Planning program core and concentration courses are shared by other programs in the school, and a few are shared with other degrees across campus, including Natural Resources, Geography, Engineering and the Eller MBA. The MS Urban Planning curriculum has been modified to offer greater flexibility by allowing students to select both primary and secondary areas of concentration from among four areas: Environmental Planning, Urban Transportation Planning, Real Estate and Urban Development, and Heritage Conservation. Students may also now delve into an area of interest by conducting independent research toward the completion of a master’s report during the final year of the program. The dual-degree MS Urban Planning programs with the Eller MBA and Master of Real Estate Development, respectively, have been updated and approved to reflect changes to the MS Urban Planning curriculum. A new dual-degree with the MS in Water, Society and Policy is awaiting university approval.

ACCELERATED MASTER’S PROGRAMS (AMP)

The BS in Sustainable Plant Sciences (SPS) Urban Horticulture subplan was approved and launched in fall 2020. This subplan includes a number of CAPLA courses. We are now working on an AMP option from the BS SPS into the Master of Landscape Architecture program.

CAPLA supports several other distinct AMP options:

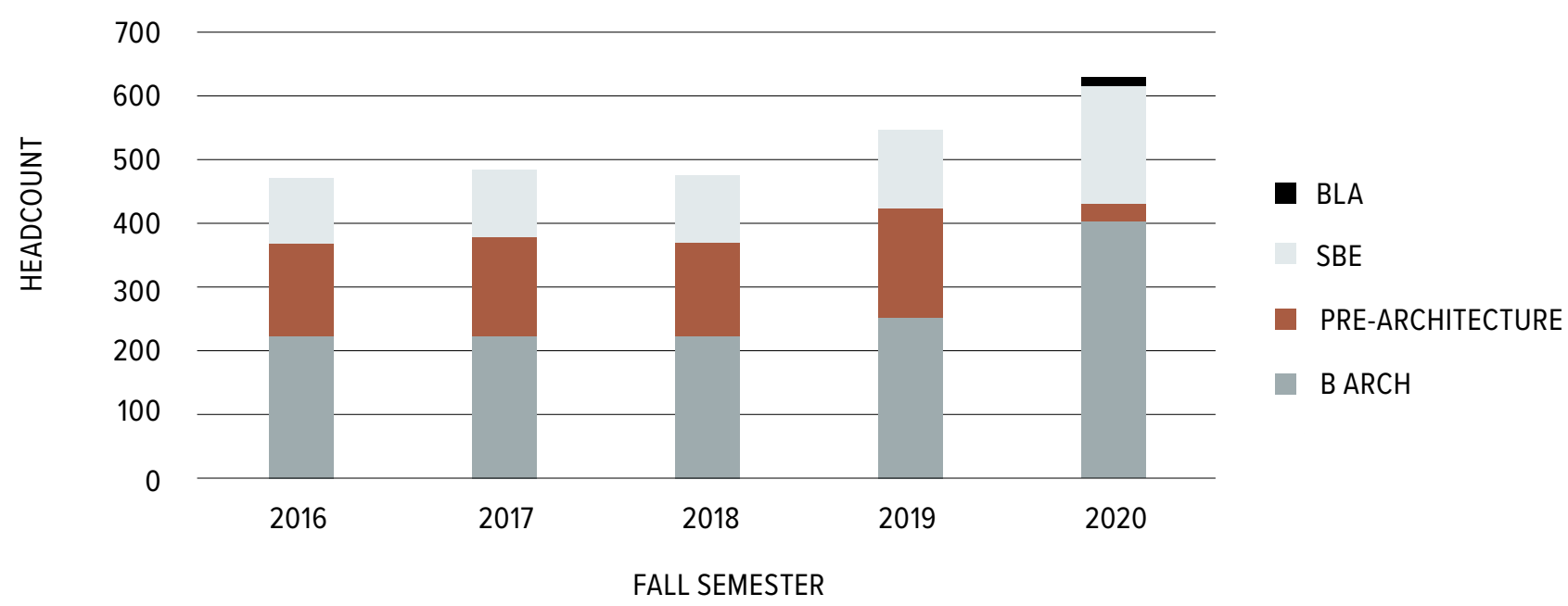
- Bachelor of Architecture/Master of Landscape Architecture
- Bachelor of Architecture/MS Urban Planning
- Bachelor of Landscape Architecture/Master of Landscape Architecture
- BS Sustainable Built Environments/Master of Architecture
- BS Sustainable Built Environments/MS Architecture
- BS Sustainable Built Environments/Master of Landscape Architecture
- BS Sustainable Built Environments/Master of Real Estate Development
- BS Sustainable Built Environments/MS in Urban Planning

WESTERN REGIONAL GRADUATE PROGRAM PRICING

In the spring of 2020, the provost approved Western Regional Graduate Program (WRGP) pricing for four CAPLA master’s programs: the Master of Architecture, MS Architecture, Master of Landscape Architecture and MS Urban Planning. The program, which is applied as a tuition award and was implemented to enhance CAPLA graduate recruiting efforts, allows qualified students from the 16 member states and territories of the Western Interstate Commission for Higher Education to attend these graduate programs at Arizona resident tuition pricing, resulting in a student savings of \$20,000 per year over non-resident tuition.

CAPLA STUDENTS BY PROGRAM

CAPLA UNDERGRADUATE STUDENTS BY PROGRAM (2016-2020)



ACADEMIC PLAN	FALL SEMESTER				
	2016	2017	2018	2019	2020
PRE-ARCHITECTURE	138	167	154	164	39
ARCHITECTURE (B ARCH)	228	213	213	256	397
LANDSCAPE ARCHITECTURE (BLA)					16
SUSTAINABLE BUILT ENVIRONMENTS (SBE)	104	107	114	130	174
TOTAL	470	487	481	550	626
YEAR OVER YEAR CHANGE (HEADCOUNT)		17	-6	69	76
YEAR OVER YEAR CHANGE (%)		3.6%	-1.2%	14.3%	13.8%

NOTES:
1.Data based on fall census data for each year (21st calendar day of fall semester).

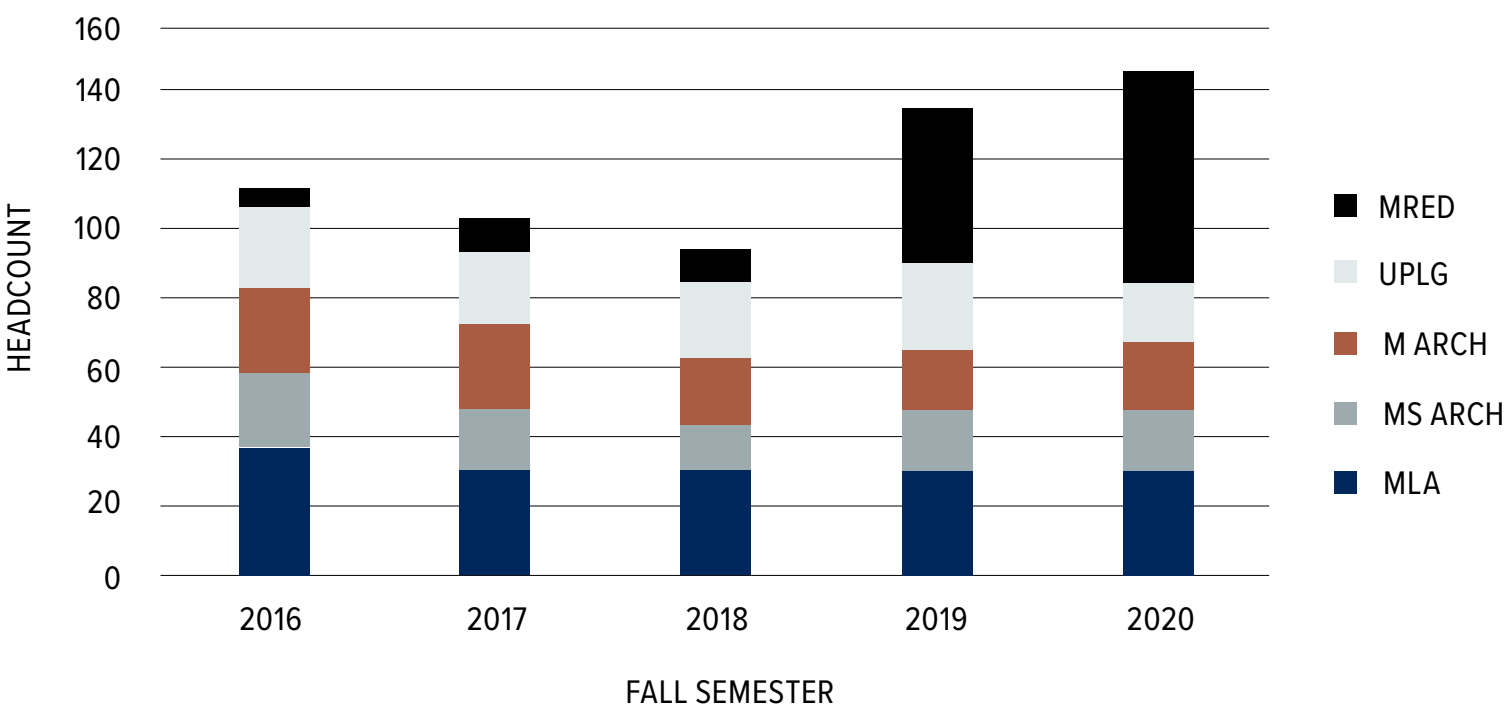
2.In fall 2020 Pre-Architecture and B Arch were reorganized, resulting in the phaseout of the Pre-Architecture designation.

3. The growth in SBE enrollment is mainly due to the online campus program (from 16 in fall 2016 to 62 students in fall 2020) and the new UPC Lima microcampus program, which began in spring 2020.

CAPLA undergraduate students represent 42 states and U.S. territories and 24 countries.

For data on undergraduate students by campus, view Appendix A: CAPLA Student Enrollment.

CAPLA GRADUATE STUDENTS BY PROGRAM (2016-2020)



ACADEMIC PLAN	FALL SEMESTER				
	2016	2017	2018	2019	2020
ARCHITECTURE (M ARCH)	24	24	17	17	20
ARCHITECTURE (MS ARCH)	23	18	13	16	12
LANDSCAPE ARCHITECTURE (MLA)	36	31	31	32	35
PLANNING (MS URBAN PLANNING)	25	20	25	27	18
REAL ESTATE DEVELOPMENT (MRED)	5	9	23	43	60
TOTAL	113	102	109	135	145
YEAR OVER YEAR CHANGE (HEADCOUNT)		-11	7	26	10
YEAR OVER YEAR CHANGE (%)		-9.7%	6.9%	23.9%	7.4%

NOTE:
1. Data based on fall census data for each year (21st calendar day of fall semester).

2. The growth in MRED enrollment is mainly due to the online campus program (from 10 students in fall 2018 to 51 students in fall 2020).

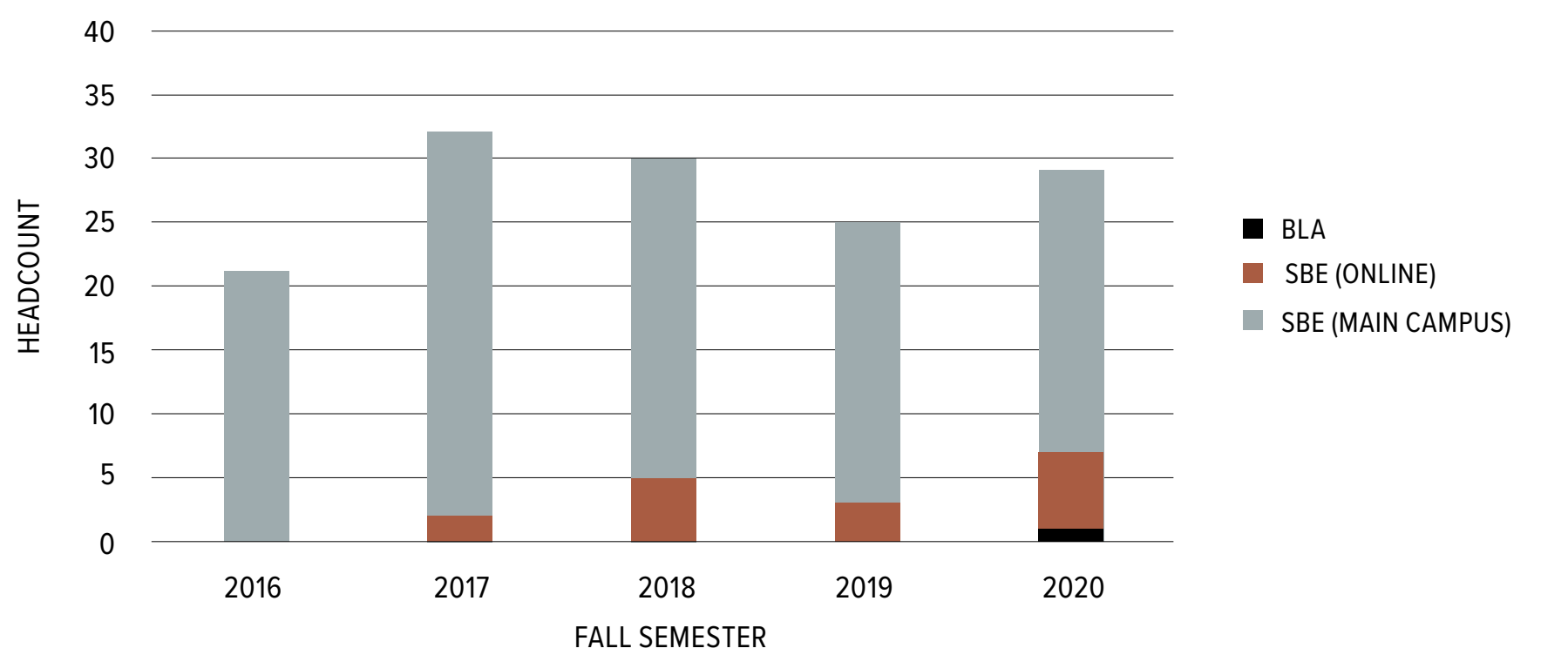
CAPLA graduate students represent 23 states and U.S. territories and 14 countries.

For data on graduate students by campus as well as enrollment in graduate certificates, view Appendix A: CAPLA Student Enrollment.



Dean Nancy Pollock-Ellwand addresses incoming first-year students in the Sundt Gallery for UA Clicks in 2019, the campus-wide orientation held before fall semester begins. Though UA Clicks took place digitally in August 2020, we look forward to returning to the CAPLA Building for UA Clicks and other events when possible. Photo by Clarissa Becerril.

CAPLA MINOR ENROLLMENT (2016-2020)



MINOR	FALL SEMESTER				
	2016	2017	2018	2019	2020
LANDSCAPE ARCHITECTURE (BLA)					1
SUSTAINABLE BUILT ENVIRONMENTS (SBE ONLINE)		2	5	3	7
SUSTAINABLE BUILT ENVIRONMENTS (SBE MAIN CAMPUS)	21	32	30	25	29
TOTAL	21	34	35	28	37

NOTE:
1.Data based on fall census data for each year (21st calendar day of fall semester).

2.Though CAPLA offers three minors through fall 2020—Architectural History and Theory, Landscape Architecture and Sustainable Built Environments (SBE)—only Landscape Architecture and SBE have declared minor enrollment in 2016-2020. Landscape Architecture began as a minor in fall 2020. Real Estate Development will begin as a minor in 2021.

CAPLA STUDENT FINANCIAL SUPPORT IS INCREASING

The college financially supports students in four ways: undergraduate and graduate students both may receive scholarships and program fee/differential tuition set-asides, while graduate students may additionally receive partial tuition waivers and graduate assistantship tuition remission.

In FY 2020, CAPLA provided \$924,538 in student financial support, a notable increase from the previous two years:

AID TYPE	FISCAL YEAR		
	2018	2019	2020
SCHOLARSHIPS \$	138,318	172,488	136,095
PROGRAM FEE/DIFFERENTIAL TUITION SET ASIDES \$	116,483	117,534	120,026
PARTIAL TUITION WAIVERS (GRAD ONLY) \$	201,344	235,876	411,860
GASHIP TUITION REMISSION (GRAD ONLY) \$	233,000	226,012	256,558
TOTAL \$	689,145	751,910	924,538

- NOTES:
1. The scholarship amounts above are primarily funded from CAPLA University of Arizona Foundation accounts.
 2. GAship tuition remission is a benefit offered to a CAPLA graduate student when being hired on as a graduate assistant (GA) to support the college. The amounts shown above cover 50% or 100% of the resident tuition each semester (depending on the GA FTE rate).
 3. An additional tuition benefit with a GAship (not shown above) is that it also changes a student's residency status from non-resident to resident and reduces the semester tuition rate (see table below).

GRADUATE TUITION RATES AND SAVINGS FOR GA-SHIP

The following tuition rates are based on a graduate student being enrolled full-time each semester (9+ units):

SEMESTER TUITION RATE TYPE	FISCAL YEAR		
	2018	2019	2020
NON-RESIDENT	15,718	16,033	16,033
RESIDENT	5,743	5,858	5,969
TUITION RATE SAVINGS (\$)	9,975	10,175	10,064
TUITION RATE SAVINGS (%)	63.5%	63.5%	62.8%



CAPLA ARCHITECTURE STUDENTS DESIGN AND BUILD SOUTH STADIUM ROWHOUSES

A NEW ROWHOUSE, DESIGNED AND
BUILT BY ARCHITECTURE STUDENTS,
PROVED TO BE THE “PERFECT FIT”
FOR A STUDENT EMS TEAM.

In 2013, Drachman Design-Build Coalition, a nonprofit led by Professor of Architecture **Mary Hardin**, began meeting with the University of Arizona’s Planning, Design and Construction Department and the Rincon Heights Neighborhood Association to promote the design and construction of a strip of affordable residences along the south side of the new UArizona parking garage structure on 6th Street. The Rincon Heights Neighborhood Association was unanimous in its support for this proposal, seeking a visual and functional buffer between their historic neighborhood and the parking garage.

In the fall semester of 2015, Bachelor of Architecture students designed and presented master plans and prototype dwelling designs to the university and neighborhood association, and with their input, narrowed their 14 individual proposals down to four. Four years went by while the university built the parking garage and eventually approved the housing project and its funding.

Designed by Class of 2019 B Arch and M Arch students, constructed by Class of 2020 B Arch and M Arch students under the guidance of Professor of Architecture Mary Hardin and completed the summer of 2020, the South Stadium Rowhouse 1 is the first of five CAPLA Design/Build rowhouses.

The first of five of the two-story units, called South Stadium Rowhouses, was completed in the spring of 2020. The rowhouse is now home to University of Arizona Emergency Medical Services (UAEMS), a volunteer team of student emergency medical technicians, which since 2014 had been operating out of two small rooms in the basement of a dorm.

“It truly works out so much better for us because we do need a place that people can feel comfortable in 24/7,” says **Tim Gustafson**, chief and executive director of UAEMS.

B Arch and Master of Architecture students in the Class of 2019 designed Rowhouse 1 and 2 and produced the construction drawing sets to obtain building permits. B Arch and M Arch students in the Class of 2020 constructed Rowhouse 1 over the course of two semesters. B Arch students in the class of 2021 put the finishing touches on Rowhouse 1 in the spring of 2020, and began the construction of Rowhouse 2, which is still under construction.

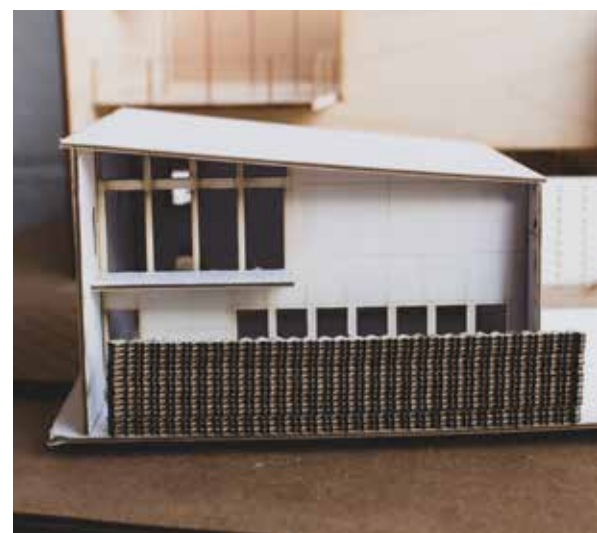
Rowhouse 1 was conceived of as a large cubic volume of masonry and glass, with a smaller plywood-clad volume placed inside of it. The larger volume holds the public spaces of the dwelling (living room, dining area, kitchen and loft space) while the plywood volume contains the private spaces (two bedrooms and two bathrooms).

“Students worked hard to design and detail the plywood cladding to give this volume a cabinet-like appearance—like a piece of furniture dropped into the larger building,” says Hardin, who teaches the design-build courses responsible for this project.

For more information about the South Stadium Rowhouses or CAPLA Design/Build, visit capla.arizona.edu/design-build.



Professor Mary Hardin with students.
CAPLA photo.



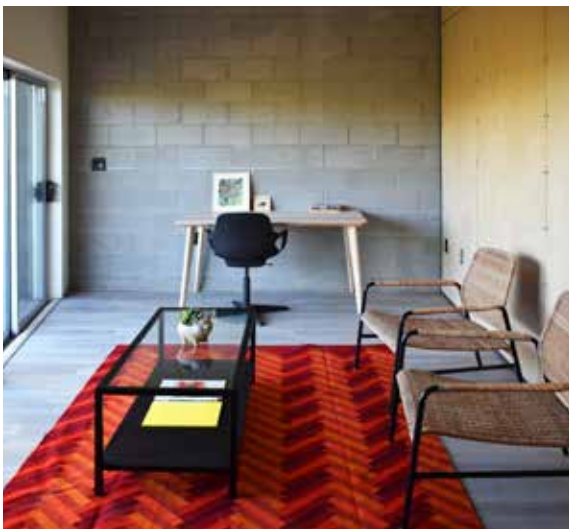
Study model for Rowhouse 1 built by
students. CAPLA photo.



Photo by Chris Richards.



Students at work on Rowhouse 1. Photo by Rachael Varin.



Study lounge in Rowhouse 1. Photo by Rachael Varin.



Living area and stairs in Rowhouse 1. Photo by Rachel Varin.



University of Arizona and CAPLA representatives and Universidad Peruana de Ciencia Aplicadas (UPC) administrators, faculty and students at the UPC Lima microcampus dedication on June 6, 2019. Photo courtesy Arizona Global.

CAPLA PARTNERS WITH UPC LIMA TO LAUNCH GLOBAL MICROCAMPUS PROGRAM IN SUSTAINABLE BUILT ENVIRONMENTS

CLASSES CONVENED IN MARCH 2020 FOR CAPLA'S FIRST MICROCAMPUS PROGRAM, A UNIQUE MARRYING OF UARIZONA'S BS IN SUSTAINABLE BUILT ENVIRONMENTS WITH UPC'S BACHELOR OF ARCHITECTURE.

When CAPLA considered which of its rigorous undergraduate programs would be a good fit for the global microcampus at top-ranked La Universidad Peruana de Ciencia Aplicadas (UPC) in Lima, Peru, the choice was obvious.

The Bachelor of Science in Sustainable Built Environments (SBE) is offered both online globally and in-person at UArizona's campus in Tucson. The program's innovative curriculum allows CAPLA to bridge the degree with UPC's Bachelor of Architecture so that students in Peru start with the architecture program, add SBE courses beginning in their third year and graduate with both degrees. Qualified students may then move into CAPLA's Master of Science in Architecture program for a graduate degree.

Each of the two initial SBE courses—Introduction to Sustainability and Careers in Sustainability—require student prep work prior to class, including readings, videos, podcasts and student responses. During class, Ebermann Vera leads activities related to the class topic. For example, in the introductory sustainability course, students have a lesson on international sustainability constructs and local applications created by Iroz-Elardo. Students learn not only about the United Nations Sustainable Development Goals, but also about local initiatives and how those initiatives are informed both by the UN's measures and local, regional and national policy.

“Our educational philosophy is to combine the expertise of our faculty in design and planning for more sustainable and resilient built environments with expertise that our Peruvian faculty colleagues bring, particularly in the local environmental, economic and social context.”
– Ladd Keith

“While it was challenging to combine the programs—in part because of how fast the field of sustainability is moving—we’re excited about what we’ve created,” says **Nicole Iroz-Elardo**, assistant research professor of planning and CAPLA's first instructor of the UPC microcampus implementation.

The first two courses launched at UPC on March 26, 2020. While they were originally to be delivered as hybrid courses, with both online and in-person components, with the worldwide coronavirus outbreak they were taught solely online. Another challenge, but given SBE's history of success online, the students didn't miss a beat.

University of Arizona microcampuses operate at 10 universities around the world in such locations as Jakarta, Indonesia, Amman, Jordan and Phnom Penh, Cambodia. UPC Lima is UArizona's first microcampus in South America.

“Microcampuses provide students worldwide with affordable access to a top-quality education while promoting joint research with international partners,” says **Brent White**, vice provost for global affairs and dean of global campuses.

UArizona and local professors offer the courses collaboratively in a co-teaching environment. For the UPC Lima SBE courses, Iroz-Elardo has worked closely with **Erika Ebermann Vera**, an architect and UArizona global lecturer in UPC's School of Architecture.

“It's pretty edgy pedagogically,” says Iroz-Elardo. “We believe this approach can work in both the U.S. and in international locations where we can be sensitive to local cultural norms and business realities.”

The approach also benefits the SBE program back in Arizona and online. “Creating lessons for students in Peru—and ultimately other global locations—allows us to build a greater global context for the program altogether,” she says.

“We are excited to continue the SBE program's success beyond our Arizona campus and online programs,” says **Ladd Keith**, assistant professor of planning and sustainable built environments and chair of the SBE program. “Our educational philosophy is to combine the expertise of our faculty in design and planning for more sustainable and resilient built environments with expertise that our Peruvian faculty colleagues bring, particularly in the local environmental, economic and social context. We look forward to supporting the global community of sustainability students, practitioners and researchers that the microcampus will connect.”





Photo by Kendra Potter.

FIRST-YEAR MASTER OF LANDSCAPE ARCHITECTURE STUDENTS FIND INSPIRATION AND DELIGHT EXPLORING SOUTHERN CALIFORNIA

Assistant Professor of Landscape Architecture **Kirk Dimond** leads MLA students on an annual, week-long excursion of significant urban landscapes, spaces and design firms in Los Angeles and San Diego. “It’s a wonderful opportunity for the new cohort of students to get a better sense of the exciting field they are embarking on—and on the scale of impact they can make in their own careers,” he says.

Read the full story at capla.arizona.edu/mla-socal.



Photo by Simmons Buntin.

CAPLA HOSTS ONE-OF-A-KIND, INTERACTIVE JOB INTERVIEW FAIR

Featuring design, planning, construction and engineering firms from across the country, the Job Interview Fair is CAPLA’s showcase professional development event for undergraduate and graduate students. The 2020 fair, held on February 6, was our biggest yet. “The Job Interview Fair at CAPLA is an incredible experience for students to connect with potential employers and to have the opportunity to receive an internship or job offer,” says **Anisa Hermosillo** ’22 B Arch.

Read the full story at capla.arizona.edu/job-interview-fair.

CAPLA TEACHING INNOVATION GRANTS

FACULTY	YEAR	PROJECT	TOTAL FUNDING
Jonathan Bean	2019	Improving Learning Outcomes in the 2020 Solar Decathlon Design Challenge Studio	\$5,000
Susannah Dickinson and Aletheia Ida	2019	Climate Change and Design	\$8,000
Andrew Sanderford	2019	Industry-Academy Collaboration in the Introduction to Real Estate Finance Course	\$5,000
Laura Carr and Bo Yang	2020	Interdisciplinary Collaboration in Master Planning and Design for Tortuga Ranch, Pascua Yaqui Site	\$4,000



Photo by Simmons Buntin.

ARCHITECTURE MENTORING PROGRAM SOARS THANKS TO STUDENT LEADERSHIP

ARCHITECTURE STUDENTS REINVENT MENTORSHIP MATCHING PROCESS, INCREASE FIRST-YEAR PARTICIPATION THREEFOLD.

“College is so different from high school,” says **Brooke Sands** ’22 B Arch, “and architecture school is different from any other college.” That’s why, as president of the University of Arizona’s American Institute of Architecture Students chapter, the third-year architecture student worked closely with fellow students on the AIAS board to reconfigure their mentorship program.

The program, which began more than 50 years ago in the college, is designed to help first-year undergraduate architecture students succeed in the rigorous curriculum by pairing them with student mentors in their second through fifth years.

“The first questions are about what tools to use, the best brands of pencils, what art stores in Tucson to visit,” says Sands. “Then the mentoring moves to design: How can I make my design better? Is there another process I should be using?” The student mentors provide the kind of insight that only someone who has been through the studio experience can offer. Yet before Sands and her team developed a new way to pair students, participation waned. In the fall of 2018, only 13 first-year students participated. Students were matched blindly and the relationships didn’t always last. “In years past there were fewer mentees than mentors, which is not what you want,” she says. For fall 2019, the AIAS asked a different question: “How can we get students to know

each other but not have to choose on the spot?” The answer: bring interested students together at the beginning of the fall semester to have a conversation prompted by a set of 10 other questions, including: Where are you from? What’s your favorite food? What are three things that describe your work process?

Sands also attributes program growth to stronger awareness, through posters and announcements in Foundation lectures. And when a mentee says that their mentor has prepared them enough to where they don’t need a mentor anymore, “we encourage those students to sign up to get a mentee so they can pass on the love,” says Sands.

“*The results of the new process are impressive: 35 first-year participants in the fall of 2019, and the number of second- and third-year students doubled from 2018. In total, 70 students participate in the AIAS mentorship program now compared to 39 the previous year.*”

At the end of the meet-and-greet, students write the name of their first and second choice on a piece of paper and the AIAS board pairs the mentors and mentees following the gathering. “Though the matches aren’t always seamless, it is a success,” says Sands, who praises mentorship coordinator **Ally Kwan** ’23 B Arch for creating the process. The results are impressive: 35 first-year participants in the fall of 2019, and the number of second- and third-year students doubled from 2018. In total, 70 students participate in the AIAS mentorship program now compared to 39 the previous year.



NEW BACHELOR OF LANDSCAPE ARCHITECTURE LAUNCHED TO MEET GROWING DEMAND FOR LANDSCAPE ARCHITECTS

WITH CAPLA'S RENOWNED
FACULTY AND FACILITIES, THE
BLA PROVIDES A ROBUST,
STUDIO-BASED CURRICULUM
FOR UNIVERSITY OF ARIZONA
UNDERGRADUATE STUDENTS TO
BECOME HIGHLY SUCCESSFUL
LANDSCAPE ARCHITECTS.



Students and faculty in CAPLA's Underwood Family Sonoran Landscape Laboratory and Garden, 2017. Photo by Bill Timmerman.

In spring 2020, the University of Arizona announced a new undergraduate degree in landscape architecture. The Bachelor of Landscape Architecture (BLA) is a four-year undergraduate professional degree that builds on the success of CAPLA's acclaimed, longstanding programs in design and planning of the built environment. The first class of 16 students (10 first-generation) began this fall.

"Landscape architecture is a profession of increasing importance in the face of climate change and swelling urban populations," says **Lauri Macmillan Johnson**, director of the School of Landscape Architecture and Planning and a professor of landscape architecture. "Landscape architects work closely with architects and urban planners to create high-performing and healthful outdoor environments that include a wide range of project types. Landscape architects create design solutions across many scales that improve quality of life, protect natural resources, preserve cultural heritage, manage stormwater and mitigate extremes of climate. These professionals are trained to synthesize art with ecology to create public places that utilize sustainable design strategies that solve problems and delight users."

Demand for trained landscape architects is high and growing at the local and national levels. A 2019 study of the market found significant projected demand for careers in landscape architecture. Despite this growing demand, local and national practitioners have noticed a shortage of qualified graduates entering the profession.

The BLA will educate future landscape architects by preparing them to successfully enter the job market and become licensed professionals. The robust curriculum and studio-based program endows students with a comprehensive understanding of professional practice, design approaches and creative problem-solving. Students will graduate with the knowledge, skills and values they will need to become sustainability-minded practitioners.



The BLA curriculum will prepare students with the advanced technologies and design and planning skills needed to meet the challenges and opportunities that will arise during the Fourth Industrial Revolution.

CAPLA's internationally recognized, award-winning faculty will teach students the core competencies required to become licensed professionals. Students will learn design history, theory and criticism; design processes and methods; professional communication including written, verbal, multimedia and hand graphics; advanced technologies and tools; landscape ecology; sociocultural design factors; site engineering, construction and design implementation; and professional practice policies, procedures and ethics.

The BLA will utilize the diverse professional, entrepreneurial and technological resources available in our community. For example, interdisciplinary studios co-convened with Bachelor of Architecture students will engage with practitioners and industry leaders to work collaboratively on real-world projects that shape our local built environment.

"The BLA curriculum will prepare students with the advanced technologies and design and planning skills needed to meet the challenges and opportunities that will arise during the Fourth Industrial Revolution," says **Nancy Pollock-Ellwand**, CAPLA dean and professor of landscape architecture. "This program will equip them with the skills and the mindset to lead and tackle the grand challenges in the built environment."

STUDENT PROFILE

ROOTED IN THE SPIRIT OF PLACE

JENNY NGUYEN
'20 B ARCH

“Ending the program in a pandemic is definitely something I never anticipated,” says **Jenny Nguyen** '20 B Arch, who graduated with her Bachelor of Architecture in May 2020. “And while we’re all super bummed about finishing college this way, I’ve learned a lot of lessons.”

Among those is communicating clearly within the limits of a screen and microphone, a requirement once the university’s courses—including traditionally hands-on design studios—moved online during the COVID-19 pandemic. “Instead of seeing a project in its entirety—like in a physical pin-up—we now have to think about how projects can be communicated chronologically and linearly in a concise manner.”

Overcoming challenges is nothing new to Nguyen, who learned early on the value of hard work.

Her father immigrated to the U.S. in the mid-1970s from Vietnam, when war left the country ravaged. “He traveled thousands of miles by sea on a dangerous, overcrowded wooden boat to an unknown foreign country,” she says. Though he didn’t know the language or culture when he arrived, he “believed that through hard work and education, you can achieve anything regardless of your background or upbringing.”

That same spirit drove Nguyen, who graduated in the top 1% of her class in high school. “I have carried that work ethic with me through the architecture program here at CAPLA,” she says. “I view the extensive amount of work completed over the past five years as me fighting for the American dream my father pursued.”

Yet honoring her heritage runs much deeper than hard work. “My Vietnamese culture has always been an important part of my life,” she says, noting how her heritage has influenced her views in architecture. “Because I was raised by a minority family from a country that doesn’t have the type of development we have in the U.S., I understand the basic needs of people who may not have running water or plumbing or shelters capable of keeping them safe.”

Architecture must serve the underserved, she says. “Great architecture doesn’t need to be expensive or high design. It’s more about experience and craft. If it can serve a community of people who need it the most, that’s the best solution.”



Photo by Clarissa Becerril.

While Nguyen’s heritage influences her passion for the spirit of place, it’s the CAPLA curriculum that’s been her biggest surprise. “I love the array of tangible skills I’ve gained over the past five years,” she says. “I am able to build a house since I did a design/build studio in my fourth year. And I use tools in the shop—activities that are typically associated with men. I feel accomplished knowing that I can be an example to young girls everywhere.”

But gaining those skills—especially early in the program—may not at first seem connected to architecture. “When you start architecture it’s not readily apparent that what you’re doing in foundation studio is related.” You have to trust the process, she advises to new students. “The process teaches you how to think architecturally, how to work architecturally.”

It’s a process that has greatly benefited Nguyen, who was awarded an esteemed Safeway Scholarship her final year in the program. Her dedication to the process has taught her difficult lessons, too.

“Balancing personal life with the course workload was my biggest challenge at CAPLA,” she says. “There were times I put school ahead of my health and even my family. It’s easy to do.”

“Look after your health and family before everything else because you don’t know how much time you have. In my first year, my father was diagnosed with liver cancer. In my second year, he passed away. Less than a year later, my mother was diagnosed with lung cancer.” Nguyen and her sisters became caregivers in addition to full-time students. “That’s when I reevaluated my situation and prioritized my health and family over work.”

Health and heritage, family and work ethic, architectural process and academic excellence—the traits that define Nguyen have prepared her for a rewarding future, one rooted in the spirit of place.

“GREAT ARCHITECTURE
DOESN'T NEED TO BE
EXPENSIVE OR HIGH
DESIGN. IT'S MORE
ABOUT EXPERIENCE
AND CRAFT. IF IT CAN
SERVE A COMMUNITY
OF PEOPLE WHO NEED
IT THE MOST, THAT'S
THE BEST SOLUTION.”

JENNY NGUYEN '20 B ARCH

“BECAUSE THE SBE PROGRAM FOCUSES ON A WIDE VARIETY OF TOPICS AND ISSUES, YOU CAN REALLY MAKE IT INTO ANYTHING YOU WANT IT TO BE. IT’S A GREAT PLACE TO START IF YOU KNOW THAT YOU WANT TO MAKE A POSITIVE CHANGE IN OUR WORLD.”

SUZANNE RIES ’21 BS SBE

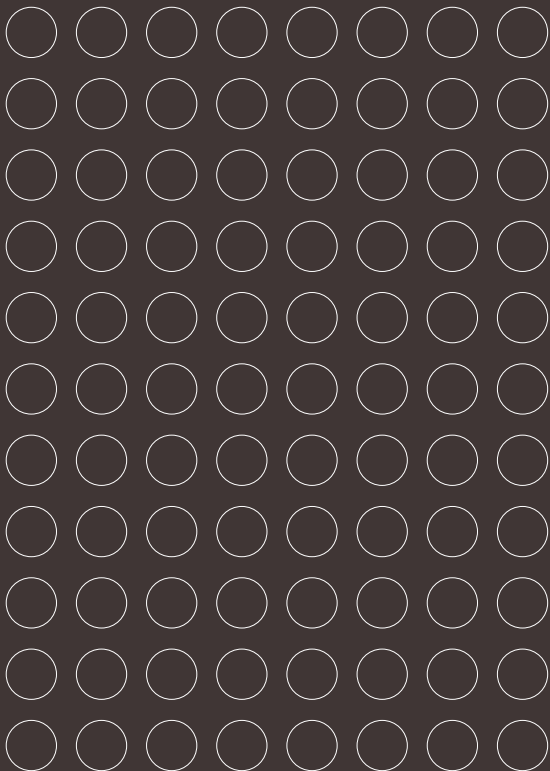




Photo by Justine McCormack.

STUDENT PROFILE

MEETING THE SUSTAINABILITY CHALLENGE—ON EARTH AND BEYOND

SUZANNE RIES
'21 BS SBE

Suzanne Ries, who is from Pittsburgh, Pennsylvania, entered CAPLA's BS in Sustainable Built Environments program after coming to the University of Arizona first as a Bachelor of Architecture student. Following a car accident that required an intense recovery process, she switched majors, igniting a passion for sustainable buildings and much more.

"I love the SBE program's comprehensive approach to sustainability," she says. "Sustainability is a multifaceted subject and the program does an amazing job exposing students to different topics. I feel prepared to analyze and solve the problems in our environment because I have a background in a variety of topics—including policy, ethics, health and wellness—and I understand how and why they are contributing factors to our current issues."

She particularly appreciates CAPLA's smaller size. "Over the past three years I have been able to create amazing relationships with my professors and peers," she says, allowing her to create a dialogue with many of her professors in and out of the classroom. "I love that my professors want to get to know their students and allow me to focus on my interests in class so I can get as much as possible out of my courses."

Even during the pandemic, Ries found a way to challenge herself "in core areas while still taking time to explore new topics and skillsets that I find interesting." She spent the summer working with the commercial spaceflight company Virgin Galactic as their sustainability intern.

"While I never anticipated working in the space industry, I had an amazing time applying my sustainability knowledge to multiple projects," she says. "My SBE emphasis in sustainable buildings allowed me to feel confident completing a large project focused on LEED certifications of the buildings they occupy, including Spaceport America. The Virgin Group takes great pride in their sustainability initiatives, and I was honored to be a part of a corporation that cares so deeply about the pillars of sustainability and continues to change the world for good."

STUDENT PROFILE

WHAT IT MEANS TO BE A RESPONSIBLE STEWARD OF THE EARTH

ALEC KELLY-JONES
'19 BS SBE | '22 M ARCH

Alec Kelly-Jones '19 BS SBE, '22 M Arch was born in Sydney, Australia, though he relocated a number of times as a child with his family, providing the opportunity to experience several different countries—including Indonesia, the United Kingdom and the U.S.

Kelly-Jones came to the University of Arizona to play rugby but “quickly discovered my passion for green building and sustainable design here in the Sonoran Desert, where extreme weather conditions and mitigating passive design are a way of life,” he says.

As a student in CAPLA’s BS Sustainable Built Environments program, he learned “how to achieve sustainability through social, environmental and economic means” in addition to forming a “wonderful and supportive network of colleagues and mentors in the CAPLA community,” says Kelly-Jones.

“After graduation, I knew I wanted to continue furthering my education and apply the knowledge and skills I had gained in my undergraduate studies to enact greater societal change,” he says. So he returned to CAPLA to pursue the Master of Architecture.

One of Kelly-Jones’s goals in the M Arch is to apply his background “on the means and methods of green building and sustainable design to the wider practices of architecture.”

As an M Arch student, Kelly-Jones also serves as president of UArizona’s U.S. Green Building Council student organization, a club he joined as an undergraduate.

As both undergraduate and graduate at CAPLA, Kelly-Jones has a unique perspective: “For me, the CAPLA experience has been characterized by diversity and cooperation. There are so many talented people both within the faculty and student body, each with differing knowledge and skills, who are willing to help. Being able to tap into those skill sets has pushed my interests and abilities to evolve dramatically during my time in CAPLA.”

This support network has been especially useful when overcoming the many challenges of being a student of architecture and learning the conventions associated with this profession, he notes. “It has been important for me to come to terms with the fact that frustration is a part of the learning process, and with the guidance of CAPLA mentors, each of these experiences has led to growth.”

Even with his in-depth knowledge of sustainability acquired in the Sustainable Built Environments undergraduate program, pursuing the M Arch at CAPLA “has truly been an eye-opening experience” for Kelly-Jones: “Not only have I grown exponentially in terms of my knowledge, skills and understanding of architecture and its social impacts, but also in my understanding of what it means to be a responsible steward of the Earth.”



Photo courtesy of Alec Kelly-Jones.

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ALEC KELLY-JONES '19 BS SBE, '21 M ARCH

“CAPLA IS BOTH
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SARA GHAEMI '20 MS ARCH



STUDENT PROFILE

A BROAD SPECTRUM OF ENERGY



Photo by Simmons Buntin.

SARA GHAEMI
'20 MS ARCH

Sara Ghaemi entered CAPLA's Master of Science in Architecture program after earning a bachelor's degree in architectural engineering from Iran University of Science and Technology. She came to UArizona "seeking a master's degree in sustainability and energy efficiency, as I believe the current circumstances of the environment and living beings are woven in our decisions today," she says.

Her award-winning research as an MS Arch student spans a broad spectrum of energy-related concepts, including net-zero building carbon and energy use, integrative systems, energy modeling, heat transfer, biosystems, data center energy efficiency, micro-housing and biodegradable materials—"and this list continues as I am fortunate enough to get involved with many research areas at CAPLA and the university," she says.

"Faculty members have been such a great resource at CAPLA," says Ghaemi, when asked about what she most enjoys about the program. "They have nurtured me and invigorated me. I was fortunate to work with Professor of Architecture **Nader Chalfoun** before he retired, to work with Associate Professor of Architecture **Aletheia Ida** as my thesis supervisor and to serve as Architecture Lecturer **Laura Carr**'s teaching assistant."

Despite the nurturing environment, being an international student has been challenging. "But I adapted to my new life in Tucson quickly," she says. "It has been a hard yet enjoyable path for me. CAPLA is both a school and a home to me, 11,000 kilometers away from my home and family. Here, I have found a loving environment that I look forward to being a part of every day."

STUDENT PROFILE

TRANSFORMING URBAN ACCESS TO NATURAL AREAS

MARIO NUÑO-WHELAN
'20 MLA

Mario Nuño-Whelan spent three years teaching in Peru as a Peace Corps volunteer before joining CAPLA’s Master of Landscape Architecture program.

“For two years, I lived in a remote mountain town of 600 people in the high Andes of southern Peru,” he says. There, he worked in the schools and lived with a family that raised dairy cows and alpacas. “Daily, I got to see a connection with and reverence for land that was second-nature.”

He spent his last year in Lima, assisting with Peace Corps volunteer coordination and training and working in an after-school program in the inner city. “Here I saw the equally remarkable, chaotic beauty of extreme urban density,” he says.

“I came home with an appreciation for how rich cities can be and how little space one actually needs—and also a glimpse of what it looks like to live in an idyllic mountain town, tuned to and in balance with natural systems. This mix sparked a desire to balance the two in our own urban environments.”

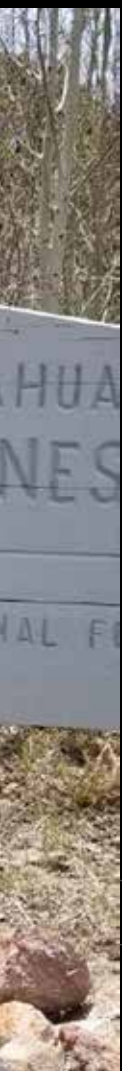
Nuño-Whelan saw the MLA as a way to make a career out of that balance. While in the program—and as part of his prestigious UArizona Coverdell Fellowship for returned Peace Corps volunteers—he served as Green Infrastructure Design Scholar for Tucson Clean & Beautiful. He helped coordinate the nonprofit’s neighborhood-scale stormwater harvesting program and created design work for (and with) neighborhood groups.

“I also got to help plant trees,” he says. “Getting dirty on the weekends is a nice balance to the studio environment of the MLA.”

And how does Nuño-Whelan’s work—as a student now and as a professional in the future—help to build a changing world? “As part of my MLA master’s report, I’m helping with the design of a constructed wetland park in Juárez, Chihuahua, Mexico, that uses treated effluent to create wildlife habitat that once existed in the floodplain of the meandering Rio Bravo and Rio Grande prior to channelization,” he says. “I plan to build from this experience and find work where I can help leverage traditional conservation tactics and funding to transform urban access to wildlife habitat and connected natural areas.”



Photo courtesy Mario Nuño -Whelan.



“I PLAN TO HELP
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MARIO NUÑO-WHELAN '20 MLA

HOW CAN WE
EXPERIENCE OUR
ENVIRONMENTS
BEYOND
CONSUMERISM?
WHAT IS THE
SPACE IN BETWEEN
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B THAT PEOPLE
CAN EXPERIENCE?
COMMUNITY ART,
STORYTELLING
AND HERITAGE
CONSERVATION ALL
PLAY A PART.”



ARIEL FRY '20 MS URBAN PLANNING

STUDENT PROFILE

MAKING PUBLIC SPACES MATTER

ARIEL FRY '20 MS URBAN PLANNING



Photo by Simmons Buntin.

Ariel Fry '20 MS Urban Planning recalls walking in downtown Tucson one day seven years ago, thinking about how unfriendly the landscape was. Not the Sonoran Desert landscape—being from the small town of Ajo, Arizona, she was familiar with the rugged and beautiful desert.

Instead, her concern was with the infrastructure—the cracked sidewalks, the missing benches. “Where were the drinking fountains, the shade?” she asked. Her walk from point A to point B lacked what she now refers to as walkability.

Though Tucson and Fry both have come a long way in that time, her passion for using public spaces to enrich people’s lives remains. It’s one reason she enrolled in the Master of Science in Urban Planning: with an undergraduate degree in anthropology, she wanted to learn more about how we can create places where people will come together for the sheer joy of those spaces and not, as we see so much today she says, “spaces designed for consumerism.”

Still, when she entered the program in 2018, urban planning as a field felt a bit overwhelming. “I couldn’t quite see how I fit into ‘planning’—how I wanted to contribute to the field in my particular work.”

Other than her keen observations of the city and her academic background in human societies and culture, she didn’t have design or neighborhood planning skills. After college, she had worked with Arizona Serve, a host for Americorps in Tucson, plus an information design company. Interesting, but not exactly career-track for urban planning.

Fortunately, “the MS Urban Planning curriculum provides a really good mix of the academic and the applied,” she says, allowing Fry to hone in on the areas she’s discovered she enjoys most in the program: community development, planning methods, site analysis and heritage conservation.

Walking—seeing places at the human scale—has particularly informed Fry’s purpose since she spent nine months in Paris before returning for the last two years of her undergraduate degree. “That had a big impact in terms of how I understand public space can be used—the density, the public art, everything! ‘You spend a year in Paris and you spend the rest of your life thinking about it,’ as they say...”

But a return trip to Paris last winter “allowed me to let go of the nostalgia; it’s a real place and I don’t have to romanticize it, after all,” she says, though it’s clear that public space as experience remains central for Fry. “How can we experience our environments beyond consumerism? What is the space in between points A and B that people can experience? Community art, storytelling and heritage conservation all play a part.”

STUDENT PROFILE

A PASSION FOR REAL ESTATE FINANCE



Photo by Junlu Ouyang.

XIAOQIN (HEATHER) SHI '20 MRED

Heather Shi, who is from Shanxi, China, entered CAPLA’s on-campus Master of Real Estate Development program in the fall of 2019 after earning her undergraduate degree in computer science and technology overseas.

Though she was seeking a program where she could increase her financial skills and overall knowledge of the real estate development industry, her main focus early in the program was property research. “The most exciting component of development for me is how to add value to existing properties,” she says. “And to achieve that, I need to learn more about sustainable development and green building. I love to analyze the financial aspects of these properties.”

Her evolving interest grows out of her experience working in China, where her enthusiasm for real estate development began. “Even as I studied computer science as an undergraduate, I researched urban science. For now, I plan to work in urban informatics or urban science. I believe the future of the real estate development profession will combine computer skills with real estate knowledge—and that’s a natural fit for me.”

When thinking of what she most enjoys about the MRED, Shi says “it’s the freedom of what you can learn, and the atmosphere. Faculty are friendly and easy to work with. There are also engaging class discussions, and different perspectives are welcome.”

For Shi, a particular challenge as an international graduate student was overcoming the language barrier. Fortunately CAPLA faculty didn’t just help her with real estate concepts, they also “provided resources to help with my language skills. I really appreciate that my professor went out of his way to help me,” she says.

Now that her English proficiency has increased, she is even more passionate about finance. Thinking of her real estate finance course, she says: “In a fun and supportive environment, I learned how to build a financial table to analyze a building and how to represent its value. Numbers aren’t just cold statistics for me.”

Considering her dynamic background, the fusing of computer science, real estate development, urban informatics and finance is likely to take Shi far.

“I BELIEVE THE FUTURE
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XIAOQIN (HEATHER) SHI ’20 MRED



CAPLA Dean Nancy Pollock-Ellwand with student ambassadors.



Members of the American Institute of Architecture Students (AIAS).



CAPLA members of student organizations serve as counselors in Camp Architecture in 2018.
Photos by Clarissa Becerril.

STUDENT ORGANIZATIONS

- AIAS: American Institute of Architecture Students
- ASLA: American Society of Landscape Architects
- CAPLA ISC: International Students Club
- GPS: Graduate Planning Society
- Puente: CAPLA Hispanic Student Organization
- Tau Sigma Delta Honor Society in Architecture and Allied Arts
- USGBC: U.S. Green Building Council Student Chapter
- WIAS: Women in Architecture Society

HEADSPACE

HeadSPACE is a CAPLA group that organizes time and space where students can collectively explore ways to de-stress and have fun. The HeadSPACE social and wellness events are a big part of the CAPLA social culture.

Learn more at capla.arizona.edu/headspace.

CAPLA STUDENT AMBASSADORS

ACADEMIC YEAR
2019-2020

CAPLA student ambassadors serve as informal liaisons to prospective students and assist the college and schools with student-oriented events and activities. They play an essential role in a robust and rewarding CAPLA student experience.

- Bianca Bryant** '20 B Arch
- Mary Buchner** '20 B Arch
- Tran Ngoc Bui** '22 B Arch
- Diego González** '21 B Arch
- Julian Griffee** '20 MS Urban Planning
- Longhao Guo** '20 BS SBE
- Anisa Hermosillo** '22 B Arch
- Sarah Lentsch** '20 B Arch
- Loren Liebermann** '22 B Arch
- Amie Maxwell** '20 B Arch
- Lucy Nielsen** '20 B Arch
- Kaya Orona** '23 B Arch
- Isaac Palomo** '20 MLA
- Bradley Pinski** '21 B Arch
- Brent Potter** '20 B Arch
- Lydia Roberts** '22 B Arch
- Lindsay Roland** '22 B Arch
- Myriam Sandoval** '21 BS SBE
- Ivette Sanchez** '22 B Arch
- Juliana Seymour** '20 B Arch
- Rafael Taiar** '22 B Arch
- Luis Valencia** '22 B Arch
- Kailun “Vincent” Yang** '22 B Arch

EMBRACE OUR LAND GRANT STATUS

AS SERVICE TO THE COMMUNITY TO ENRICH TEACHING, RESEARCH AND SERVICE IN THE BUILT ENVIRONMENT

Service by CAPLA faculty, staff and students not only strengthens our relationship to the community, it also enhances teaching and research and so the student experience. In 2019 and 2020, despite the challenges of in-person interaction due to the pandemic, CAPLA's engagement and partnerships were broad, diverse and impactful.

From award-winning, student-led projects assessing displacement risk, cultural assets and green infrastructure to faculty leadership in national and international organizations and the top academic journals, we continue to embrace the University of Arizona's land grant status as service to the community. Together, we will build a changing world.

SERVING THE COMMUNITY

CAPLA faculty have a rich history of serving in leadership roles in support of the community—whether that's our local community of Tucson and Southern Arizona, academic journals, industry associations or national and international organizations.

In 2019-2020 academic year, the following faculty have served in leadership roles:

Arlie Adkins, Associate Professor of Urban Planning

Health and Transportation Subcommittee Member, Transportation Research Board

Jonathan Bean, Assistant Professor of Architecture, Sustainable Built Environments and Marketing

Scholarship Coordinator and Board Member, Society of Building Science Educators (SBSE); Task Force Member, Architectural Research Centers Consortium (ARCC) 2021 National Conference; Member, ASHRAE Passive Building Standard Committee (227P)

Gina Chorover, Lecturer in Planning and Landscape Architecture

Membership Coordinator and Board of Directors, Alliance for Historic Landscape Preservation

Courtney Crosson, Assistant Professor of Architecture

Liaison, Building Technology Educators Society (BTES); Liaison, Board of Directors, Association of Collegiate Schools of Architecture (ACSA); Member, Leadership Committee, ACSA; Member, Planning Committee, ASCA; Jury Member, Collaborative Practice Award; Member, Executive Committee, Water, Society and Policy (WSP), The University of Arizona; Member, Steering Committee; Sociohydrology in Arid Systems Institute (SASI), The University of Arizona; Member, Renewable Energy Advisory Committee, The University of Arizona

Kristina Currans, Assistant Professor of Urban Planning

Editorial Board Member, *Journal of Urban Planning and Development*; Member and High-Volume Review Coordinator, ADD30 Transportation and Land Development (now AMS50 Economic and Land Development); Member, Standing Committee, Transportation Research Board, National Academies; Track Chair and Dissertation Award Review Panel, World Society for Transport and Land Use Research (WSLTUR) Symposium on Transport and Land Use

Susannah Dickinson, Associate Professor of Architecture

Member, City of Tucson Design Review Board; Task Force Member, Architectural Research Centers Consortium (ARCC) 2021 National Conference

Kirk Dimond, Assistant Professor of Landscape Architecture

Region 2 Director, Council of Educators in Landscape Architecture (CELA)

Altaf Engineer, Assistant Professor of Architecture

Peer Reviewer, *International Journal of Experimental, Clinical, Behavioral and Technological Gerontology*; Guest Editor, *International Journal of Environmental Research and Public Health* (Special Issue on Healing Spaces)

Helen Erickson, Adjunct Lecturer in Heritage Conservation

Citizen Advisor, Tucson-Pima County Historical Commission; American Society of Landscape Architects (ASLA) National Liaison, Historic American Landscapes Survey

Aletheia Ida, Associate Professor of Architecture

Member, American Institute of Architects (AIA) Design and Health Research Consortium; Board Member, Building Technology Educators Society (BTES); Coordinator, Building Technology Committee, Arizona Tech Council; Member, Scientific Review Committee, 2020 Conference on Durability of Building Materials and Components; Faculty Advisory Board Member, WEST Center; Member, Renewable Energy Advisory Committee, The University of Arizona; Guest Editor, *International Journal of Environmental Research and Public Health* (Special Issue on Healing Spaces)

Ladd Keith, Assistant Professor of Planning and Sustainable Built Environments

Academic Liaison, American Planning Association (APA) Arizona Chapter; Lead, Urban Dialogue and Masterclass and Member, Planning Team, Virtual Heat Health Forum 2020, Global Heat Health Information Network (GHHIN); Chair, Urban Land Institute (ULI) Resilience Advisory Service Panel for Dallas, Texas; Coordinator, Aspen Global Change Institute (AGCI) Urban Heat Resilience Workshop

Gary Pivo, Professor of Real Estate Development and Urban Planning

Co-Founder and Advisor, Property Working Group, United Nations Environment Programme Finance Initiative

Nancy Pollock-Ellwand, Dean and Professor of Landscape Architecture

Fellow, Canadian Society of Landscape Architects; Co-Chair, Evaluation Panel on New World Heritage Nominations, International Council on Monuments and Sites (ICOMOS)

Clare Robinson, Associate Professor of Architecture

Board Member, Architectural Research Centers Consortium (ARCC); Peer Reviewer, ARCC-European Association for Architectural Education; Committee Member, The Berkeley Prize; Associate Editor, *VLC Architectura*

Lisa Schrenk, Associate Professor of Architectural History

Member, Collections Committee, University of Arizona Museum of Art; Faculty Fellow, The University of Arizona

Beth Weinstein, Associate Professor of Architecture

Editorial Board Member, *Journal of Theater and Performance Design*

Bo Yang, Professor of Landscape Architecture and Urban Planning

Member, International Advisory Committee and Academic Advisory Board, Center for Urban Design in Cold Region, Jilin Jianzhu University; Assistant Editor, *Landscape Research*; Founding Editorial Board Member, *Socio-Ecological Practice Research*

Adriana Zuniga-Teran, Assistant Research Scientist

Hispanic Serving Institution Fellow, The University of Arizona



CAPLA students meet with employers at the 2020 CAPLA Job Interview Fair. Photo by Clarissa Becerril.

ENGAGING OUR COMMUNITY

Our community partners in teaching, research and service represent a broad mix of companies and organizations in Tucson, in Arizona and beyond, including:

PROFESSIONAL ORGANIZATIONS

- American Institute of Architects Arizona
- American Institute of Architects Southern Arizona
- American Planning Association Arizona
- American Society of Landscape Architects Arizona
- Arizona Builders Alliance
- CCIM Institute
- Commercial Real Estate Women Network
- Cornerstone Building Foundation
- Friends of Planning
- National Association of Women in Construction
- National Organization of Minority Architects

EDUCATIONAL INSTITUTIONS

- Arizona State University
- Colorado State University
- Consejo Nacional de Ciencia y Tecnologia (Mexico)
- Portland State University
- The University of Arizona (Various Centers, Institutes and Colleges)

FIRMS

- Allied Works
- Ayers Saint Gross
- BrightView Companies
- Butler Design Group
- BWS Architects
- Carlile Coatsworth Architects, Inc.
- CCBG Architects, Inc.
- Corgan
- DLR Group
- GH2 Architects, LLC
- GLHN Architects
- Hoefer Wysocki
- Holly Street Studio
- M3 Engineering & Technology
- Marlene Imirzian and Associates Architects
- MC Companies
- Nelsen Partners
- Orcutt I Winslow
- Rich rd I Kennedy I Architects
- RSP Architects
- SDG Architecture, LLC
- Shepley Bulfinch
- SmithGroup
- SPS+ Architects
- Swaim Associates, Ltd.
- Ware Malcomb
- Wheat Design Group, Inc.
- Zebra Projects

ALLIED INDUSTRIES

- AGM Container Controls
- Ascension Wheelchair Lifts
- Gilbane Building Company
- Kitchell
- Lloyd Construction
- Pella Windows and Doors
- Stantec
- Tripalink

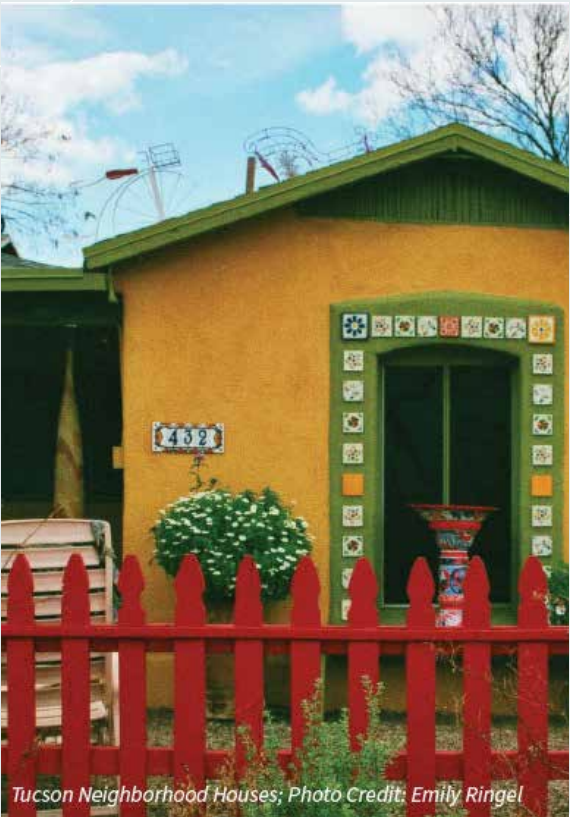
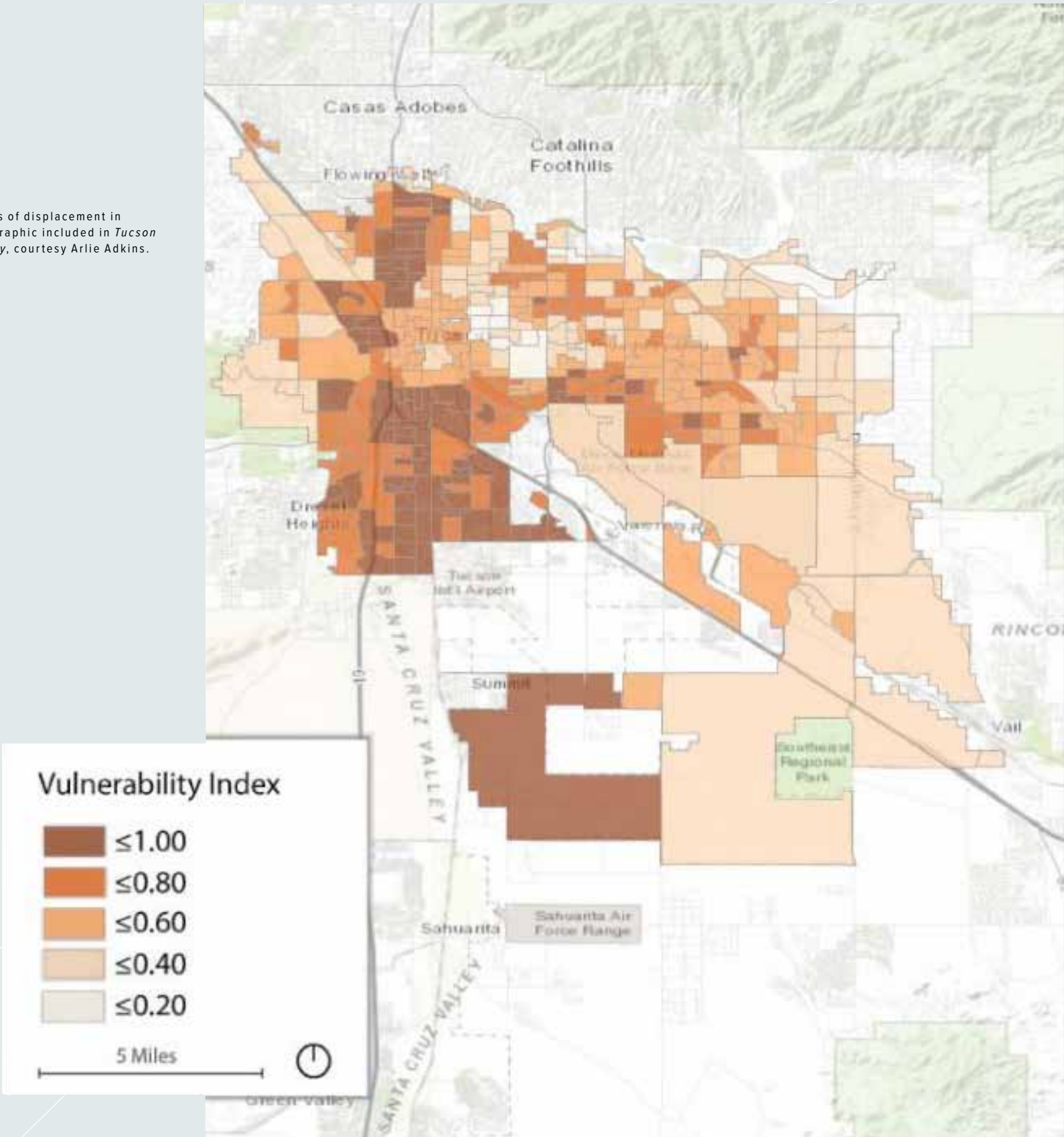
COMMUNITY PARTNERS

- Community Foundation of Southern Arizona
- Habitat for Humanity
- Southwestern Foundation
- TENWEST
- Tucson Botanical Garden
- University of Arizona Foundation

GOVERNMENT/ PUBLIC AGENCIES

- California Department of Transportation
- City of Tucson
- National Institute for Transportation and Communities
- National Oceanic and Atmospheric Administration
- National Park Service
- Navy Officer Programs Tucson
- Pima County
- Pima County Regional Flood Control District
- Salt River Project
- Southwest Gas
- Tucson Electric Power

Mapping indicators of displacement in Tucson, Arizona. Graphic included in *Tucson Displacement Study*, courtesy Arlie Adkins.



Tucson Neighborhood Houses; Photo Credit: Emily Ringel



Images of Tucson, Arizona from the Tucson Displacement Study, courtesy Arlie Adkins.

AWARD-WINNING URBAN PLANNING GRADUATE STUDENT PROJECT HELPS CITY OF TUCSON ADDRESS DISPLACEMENT RISK



MS Urban Planning students visit Portland, Oregon, in March 2020 to explore issues of displacement. Photo courtesy Arlie Adkins.

Students from CAPLA’s MS Urban Planning program have been recognized by the American Planning Association Arizona chapter for their work with the City of Tucson on planning and policy responses to displacement and gentrification. The project and final report, *Tucson Displacement Study: A Planning Study of Tucson in Neighborhoods and Displacement*, were recognized as the best graduate student planning project of 2020.

Students **Warren Bristol, Quinton Fitzpatrick, Ariel Fry, Julian Griffie, David Jellen, Samuel Jensen, Lena Porell, Andrew Quarles, Lindsey Romaniello** and **Yicheng Xu** in Planning Projects, a course taught by Associate Professor of Urban Planning **Arlie Adkins**, conducted a national review of best practices for preventing and addressing the negative impacts of displacement to identify those most suitable to the Tucson context.

The students then used geographic information systems (GIS) and other data-driven analytical tools to identify and map areas of Tucson most susceptible to displacement pressures. These maps allowed the students to focus on the neighborhood level so that their planning and policy recommendations could apply both citywide and to those communities most at risk. Recommendations from the students touched on affordable housing, community engagement and transportation investment.

The Tucson Displacement Study, created by MS Urban Planning students, provides recommendations on affordable housing, community engagement and transportation investment.

As part of the project, students traveled to Portland, Oregon—a city facing extreme displacement pressures—to learn from local officials and experts about preventing and reducing negative impacts of displacement. Students also worked closely with Tucson’s Planning and Development Services office.

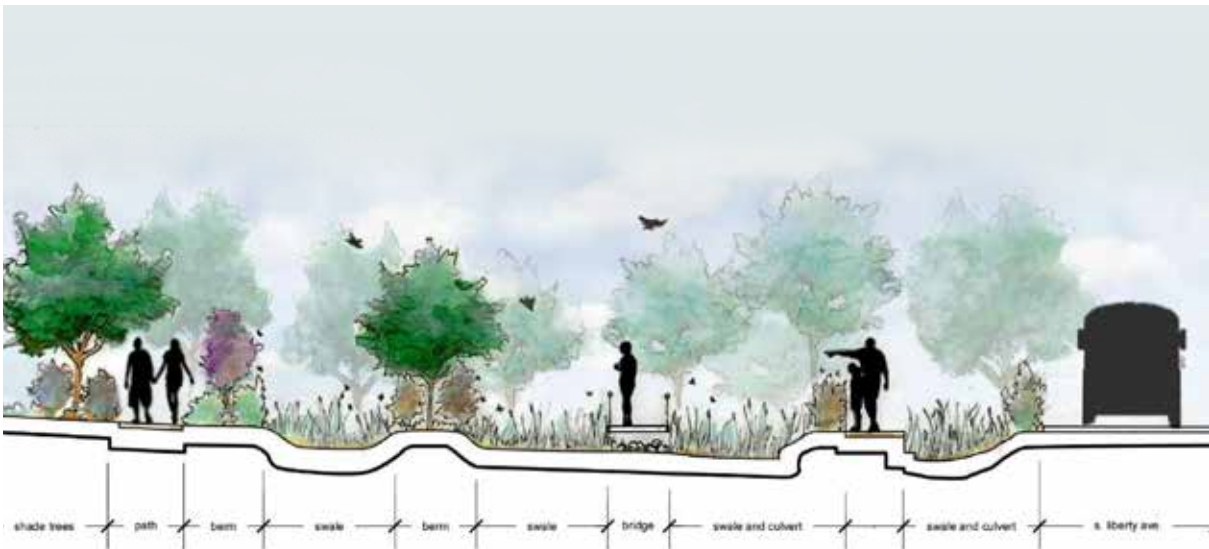
“The final report shows the extensive research and thought that went into the project,” says **Ann Chanecka**, deputy director for Housing and Community Development. “The recommendations will be considered by Tucson’s Commission on Equitable Housing and Development [and are] transferable as the Commission develops a plan for action to help address displacement of Tucson residents and local businesses.”

ENGAGING TRADITIONALLY UNDERSERVED COMMUNITIES THROUGH THE TUCSON VERDE PARA TODOS GREEN INFRASTRUCTURE PROJECT

UARIZONA AND CAPLA RESEARCHERS, FACULTY AND MLA STUDENTS TEAM UP TO IMPLEMENT COMMUNITY-SUPPORTED GREEN INFRASTRUCTURE AT STAR ACADEMIC HIGH SCHOOL.



Photo courtesy Adriana Zuniga,



Section of Star Academic High School green infrastructure improvements courtesy Bo Yang.

What role can university-community practice have in addressing injustice in green infrastructure through socio-ecological practice? That’s the question that Geography, Development and Environment Professor **Andrea Gerlak** and CAPLA Assistant Research Scientist **Adriana Zuniga** explored in a paper they published in the summer of 2020 in *Socio-Ecological Practice Research*.

In the paper, the researchers describe lessons learned during a three-year-long outreach project at Star Academic High School, located in the south side of Tucson—in an area mostly deprived of vegetation and also vulnerable to heat and flooding.

The project, Tucson Verde Para Todos, aims to engage traditionally underserved, low-income communities for an equitable and greener Tucson. It promotes a strategy to address inequities in green infrastructure funding, siting and implementation through collaborative, participatory community engagement via pilot projects.

“CAPLA MLA student engagement with Star Academic High School students was successful because of the youth mentoring model, a success story that provides valuable lessons for future university-community partnerships.”

Gerlak and Zuniga partnered with local organizations including Watershed Management Group, Sonoran Institute and Tierra y Libertad Organization to engage the Star Academic High School community in the planning, design and implementation of green infrastructure at the school.

They also partnered with Professor of Landscape Architecture and Urban Planning **Bo Yang**, who used the school as the site for a landscape design studio. CAPLA Master of Landscape Architecture students designed the school landscape using participatory methods that incorporated the needs and wants of the school community.

Through several internship and volunteering opportunities, the researchers also involved 30 UArizona students—providing hands-on learning opportunities for college students while testing a youth-to-youth mentorship program aimed at high school students. Their engagement with Star Academic High School students was successful because of the youth mentoring model, a success story that provides valuable lessons for future university-community partnerships.

The Tucson Verde Para Todos project was funded by the Agnese Nelms Haury Program in Environment and Social Justice, the University of Arizona Green Fund and a seed grant from CAPLA.



One of Tucson's many distinct murals near downtown. Photo by Simmons Buntin.

URBAN PLANNING GRAD STUDENTS WORK WITH NEIGHBORS TO CREATE CULTURAL ASSET APP FOR TUCSON

Each year, CAPLA Heritage Conservation Lecturer Helen Erickson brings together graduate students in her preservation planning course with neighborhood residents on a project designed to benefit the community. In 2020 they created the Tucson Community Treasures app.

“We know what’s special about Tucson when we encounter it,” says **Helen Erickson** ’12 MLA, adjunct lecturer in heritage conservation, “but it’s much more difficult to protect what we value most about the community in the face of growth and change.”

Preserving the historic, multicultural richness of the Old Pueblo, as Tucson is nostalgically called, is not easy: “Identifying culturally important spaces and places really isn’t something that can be done by outside experts. It is best done by those who experience the city as part of daily life.”

That’s why, each year, she brings together graduate students in her preservation planning course with neighborhood residents on a project “designed to benefit the community by providing planning for the maintenance of important local historic resources.”

In 2020 the class took advantage of geographical information system (GIS) technology to document aspects of Tucson’s heritage that might be passed over by other types of surveys.

With the help of a GIS professional, students and neighborhood residents collaborated in the development and employment of a mobile app that will allow smartphone or tablet users to map the location of important places in their own neighborhoods. By doing so, says Erickson, “cherished but intangible aspects of Tucson’s heritage will be made visible to policy makers and planners—a first step towards their protection.”

A grant from the Southwestern Foundation for Education and Historical Preservation made it possible to bring outside lecturers with expertise in this area to share their knowledge with students and neighborhood volunteers. The grant also provided funding for three graduate students to synthesize and analyze the collected data during the summer of 2020, making it accessible to neighborhoods, city planners and Tucson ward offices.

The Tucson Community Treasures app is now in the hands of community volunteers, who are in the process of documenting special places in their own neighborhoods.

ARCHITECTURE UNDERGRADUATES TEAM WITH CITY OF TUCSON TO DESIGN PROPOSITION-FUNDED ‘BICYCLE BOULEVARDS’

In a course taught by Assistant Professor of Architecture **Courtney Crosson**, Bachelor of Architecture students worked with the Tucson Department of Transportation and Mobility and neighborhood associations to create six innovative designs that focus on “complete streets” and green stormwater infrastructure for roadways in two midtown Tucson neighborhoods.

Read the full story at capla.arizona.edu/bicycle-boulevards.

MAKE CAPLA A LEADER IN INCLUSIVE EXCELLENCE

MORE THAN A COMMITMENT—TAKING ACTION AND DOING BETTER

CAPLA wishes not just to voice our commitment to equity, diversity and inclusion (EDI) but also to demonstrate it by making progress on concrete measures over time. We have been charged by our faculty, staff, students and alumni to do better. That means moving college demographics closer to those of the state, developing more resources to support students in financial need, and reinforcing, publicizing and implementing policies for the fair and equitable treatment of each individual regardless of race, class, gender, sexual orientation or age. In short, it means seeking talented and engaged faculty, staff and students wherever they may be found and giving each of them a clear path to success.

CAPLA is proud to count many students of color among our graduates and to have steadily increased the percentage of women, people of color and international students in our student body. We are enriched by these members of our community because of their knowledge of other societies and places, and of different traditions and cultural practices. In addition, they bolster us in our aspiration to recognize and nurture each individual as a valuable contributor to a healthy built environment.

EQUITY, DIVERSITY AND INCLUSION SUMMARIES

After consultation with CAPLA faculty, staff, students and alumni, we are undertaking the following measures to improve the accessibility, climate and resources of our CAPLA community:

Operational Measures

Following on the ad hoc Committee on Diversity and Inclusive Excellence that worked to help formulate the Strategic Plan aspiration on inclusive excellence, CAPLA has elevated EDI matters to the level of a standing CAPLA committee. The EDI Committee, with diverse faculty, student and staff members, is a clearinghouse for questions, needs and ideas with respect to improving CAPLA practices and culture.

Reporting and Goal-Setting Measures

In order to set goals in a deliberate and meaningful way, goals for which we can be accountable, we must first establish baselines of circumstances at present and in the recent past. To this end, we are gathering demographic information about students, faculty and staff, including place of origin, race/ethnicity, gender and first-generation student status. This data will lead to new recruitment, admissions, student support and faculty hiring plans for 2021 and beyond.

Student and Faculty Support Measures

Socioeconomic disparities in our country make it much harder for some students to complete college than others. Recognizing this, we are raising money and developing a portfolio of resources to provide as much ongoing and emergency financial support as possible to promising students with need, supporting them with respect to tuition and fees, technology needs and materials and supplies. We also seek a level playing field for faculty, so that all those whom we have hired, and thus invested in, in fact have the resources to do the research and teaching for which they were hired. These efforts include a partnership with the College of Engineering in provision of grant support, prioritization of research needs on the part of tenure-track faculty and ongoing strategic investment in studio, lab and computer equipment to support instruction. Finally, the pandemic has concentrated our attention on matters of health and wellbeing and we are implementing proactive strategies to identify those in distress and intervene in a timely way.

Training Measures

Not all new CAPLA faculty or new CAPLA students (or even guests) know how a university and its units operate. That's to be expected, but it is our obligation to inform, train and coach them about policies, procedures, best practices and—most important—our expectations of their conduct while they work or study here. New directives with regard to mandatory harassment prevention and implicit bias training have been issued for faculty and staff and similar training will be instituted for students in the Spring 2021 semester. New guidelines for CAPLA guests are being drafted.

Conflict Resolution Measures

Even with training, conflicts sometimes occur. When they do, there should be clear guidelines for how to resolve them and evident points of contact with those administrators and staff who can help students and faculty. New conflict resolution guidelines are being drafted and will be communicated clearly.

Communications and Mentoring Measures

In a “loud” world, it is sometimes difficult to remain fully informed. However, the college takes seriously our opportunity to showcase the diversity of our students, faculty and staff and to highlight the variety of paths they have taken to CAPLA and that they take from CAPLA. Because there should be a plethora of paths to success, we want current and future students to find others like them in our mix—on our website, in our communications and in our classes. The effort to tell the story of our community and our place in Arizona, the U.S. and the world is meant to build connections that enhance a sense of belonging and help mentor students and faculty to do productive work.

EQUITY, DIVERSITY AND INCLUSION INITIATIVES: AN OVERVIEW

A number of equity, diversity and inclusion initiatives are underway at CAPLA, with a significant effort made in 2020 to refine and accomplish our goal of making CAPLA a leader in inclusive excellence.



CAPLA international students in studio prior to campus closure. CAPLA photo.

OUR ACCOMPLISHMENTS

In 2020, we completed the following EDI initiatives:

- Gathered and made available demographic data for all programs and cohorts—in order to benchmark and set goals for recruitment and retention of diverse students, faculty, staff and administrators.
- Joined the National Organization of Minority Architects and initiated creation of a CAPLA-wide student chapter.
- Conducted mandatory implicit bias training for all faculty and staff as well as supervisory training on preventing harassment in the workplace for all administrators.
- Created a new CAPLA EDI web section and dashboard including featured EDI narratives, a list of initiatives and indication of their implementation status, presentation of demographics, description of EDI committee membership, a list of associated student organizations and other resources: capla.arizona.edu/edi.

OUR ONGOING EFFORTS

In 2020, we made progress on the following EDI initiatives, which are still underway:

- Setting recruitment goals for local, state and regional recruitment of specific underrepresented populations in high schools and community colleges.
- Creating and maintaining a roster of students who are eligible for need-based graduate funding packages.
- Fundraising at different scales and in different ways—in order to help meet tuition, fee, technology and/or material costs for students in need.
- Requiring EDI training for all newly hired and ongoing faculty and staff supervisors in order to prevent harassment and discrimination, including micro-aggressions.
- Drafting guidelines for CAPLA guests and visitors in order to inform them about our culture and our expectations for professional and equitable interaction with members of the CAPLA community.
- Drafting a conflict resolution primer for students.
- Providing bystander intervention training for student ambassadors, student building monitors and leaders of student organizations.
- Developing an antiracism bibliography, making it and the listed texts available to the CAPLA community and using them to inform discussions to create a shared understanding of racism and other kinds of discrimination.
- Creating regular forums for students, faculty, staff, administrators and alumni to discuss EDI issues in a safe space.
- Drafting a CAPLA EDI vision and EDI Committee mission.
- Working through the Drachman Institute to engage with diverse and underserved local communities.
- Developing website profiles, other coverage and opportunities to celebrate diverse contributions that showcase the diverse members of the CAPLA community.

In 2021, we'll continue these efforts and undertake a number of other initiatives.

JOIN US ONLINE IN TRACKING OUR PROGRESS

For more details, to track our progress on these initiatives and view initiatives we have not yet started, and to provide feedback, view the CAPLA EDI website at capla.arizona.edu/edi.

Make CAPLA a Leader in Inclusive Excellence

The demographic data here is presented in comparison to University of Arizona and State of Arizona demographics to provide further context. Though the data presents a snapshot of racial/ethnic and gender makeup of the college, it tells only a part of the story of who CAPLA is—and who we can become.

For additional CAPLA student demographics and information—including separate data for undergraduate and graduate students—view Appendix B: CAPLA Student Demographics.

FACULTY BY RACE/ETHNICITY (FALL 2020)

RACE/ETHNICITY	CAPLA	UARIZONA	ARIZONA RESIDENTS
AMERICAN INDIAN OR ALASKA NATIVE	0%	1.9%	5.3%
ASIAN	6.7%	12.2%	3.7%
BLACK OR AFRICAN AMERICAN	1.7%	2.5%	5.2%
HISPANIC OR LATINX	8.3%	9.7%	31.7%
INTERNATIONAL	5.0%		
NATIVE HAWAIIAN OR PACIFIC ISLANDER	0%	0.2%	0.3%
NOT REPORTED	10.0%		
TWO OR MORE RACES	1.7%		2.9%
WHITE	66.7%	74.6%	54.1%

Arizona resident data is from July 2019 and includes all ages.

FACULTY BY GENDER (FALL 2020)

GENDER	CAPLA	UARIZONA	ARIZONA RESIDENTS
FEMALE	48.3%	44.4%	50.3%
MALE	51.7%	55.6%	49.7%

STAFF BY RACE/ETHNICITY (FALL 2020)

RACE/ETHNICITY	CAPLA	UARIZONA	UARIZONA OTHER APPOINTED	ARIZONA RESIDENTS
AMERICAN INDIAN OR ALASKA NATIVE	0%	3.7%	3.8%	5.3%
ASIAN	0%	4.9%	8.0%	3.7%
BLACK OR AFRICAN AMERICAN	0%	3.3%	3.7%	5.2%
HISPANIC OR LATINX	24.2%	41.1%	26.9%	31.7%
NATIVE HAWAIIAN OR PACIFIC ISLANDER	0.0%	0.6%	0.6%	0.3%
NOT REPORTED	3.0%			
WHITE	72.7%	57.7%	73.8%	54.1%

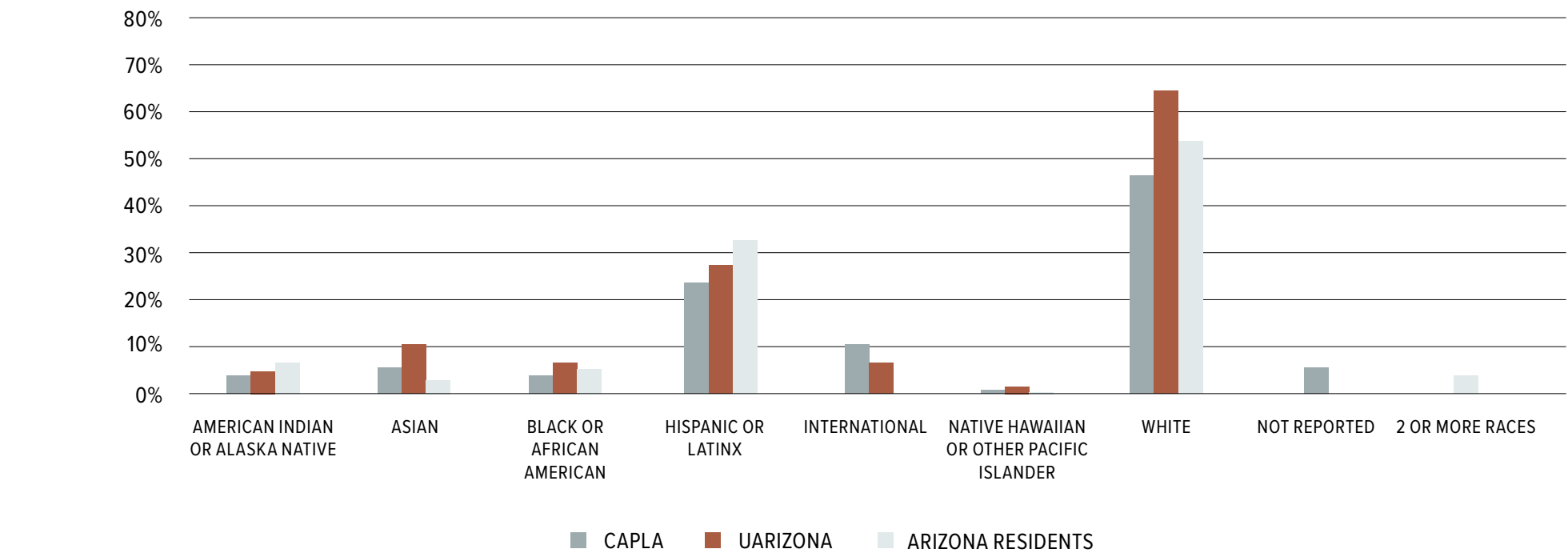
Percentages exceed 100% due to selection of multiple races/ethnicities. UArizona data does not include administrators.

STAFF BY GENDER (FALL 2020)

GENDER	CAPLA	UARIZONA	UARIZONA OTHER APPOINTED	ARIZONA RESIDENTS
FEMALE	51.5%	51.2%	60.8%	50.3%
MALE	48.5%	48.8%	39.2%	49.7%

UArizona data does not include administrators.

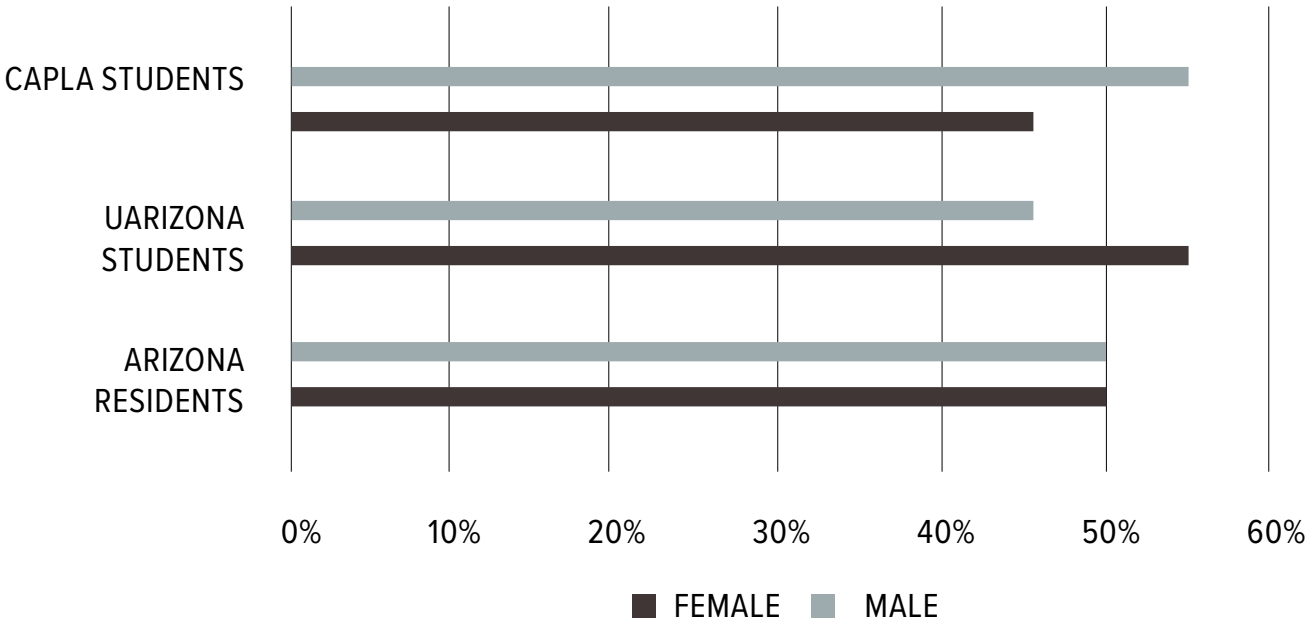
ALL CAPLA STUDENTS BY RACE/ETHNICITY (FALL 2020)



RACE/ETHNICITY	CAPLA	UARIZONA	ARIZONA RESIDENTS
AMERICAN INDIAN OR ALASKA NATIVE	3.1%	3.3%	5.3%
ASIAN	6.4%	9.9%	3.7%
BLACK OR AFRICAN AMERICAN	4.5%	6.1%	5.2%
HISPANIC OR LATINX	24.1%	26.2%	31.7%
INTERNATIONAL	9.9%	6.5%	
NATIVE HAWAIIAN OR PACIFIC ISLANDER	0.6%	0.8%	0.3%
NOT REPORTED	5.7%		
WHITE	45.7%	63.7%	54.1%

UArizona student race/ethnicity categories are based on 'Inclusive Race/Ethnicity'; therefore, percentages exceed 100%.

ALL CAPLA STUDENTS BY GENDER (FALL 2020)



GENDER	CAPLA	UARIZONA	ARIZONA RESIDENTS
FEMALE	44.9%	55.0%	50.3%
MALE	55.1%	45.0%	49.7%

ALUMNI: OUR LEGACY

ALUMNI ARE OUR GREATEST VOICE AND WE
RELY ON THEM TO SERVE AS ADVOCATES
FOR THE COLLEGE AND THE UNIVERSITY.



Photo by Clarissa Becerril.

CAPLA students are the heartbeat of our small but dynamic college, and when they become CAPLA alumni, they are our legacy.

Alumni share an unfailing connection forged by a common experience that for many included long hours in studio, the exchange of creative ideas and learning from each other, supportive and engaging faculty and lasting friendships.

We are so pleased that even during this year of unexpected challenges, many alumni chose to participate in a variety of ways: sharing their wisdom and guidance with CAPLA students graduating amid the pandemic, providing financial support for scholarships and other student needs, engaging in reviews and juries, participating in the CAPLA Job Interview Fair, supporting recruiting, sharing their work in lectures and presentations and joining the new CAPLA alumni directory and alumni projects showcase.

CAPLA's continued success, growth and value is dependent upon our alumni's willingness to provide their time, energy, expertise and resources. Alumni who volunteer contribute immeasurably to enhancing the student experience. Alumni are our greatest voice and we rely on them to serve as advocates for the college and the university.

We are thankful for our alumni as they creatively and thoughtfully demonstrate the art of building a changing world.

Stay connected at capla.arizona.edu/alumni.



Kay Olsen Brown
Director of Alumni Relations and Community Engagement

SHARE YOUR ALUMNI STORY AND FAVORITE PROJECT

Alumni, we invite you to share where you are, what you're up to and what you're working on!

Join us on the CAPLA website for our interactive and ever-expanding Alumni Directory and Alumni Projects showcase:

CAPLA ALUMNI DIRECTORY ***capla.arizona.edu/alumni/directory***

Connect with CAPLA alumni—a dynamic group of architects, designers, developers, planners and more who are building a changing world. And while viewing the directory, be sure to provide your information, too.

CAPLA ALUMNI PROJECTS ***capla.arizona.edu/alumni/projects***

Architecture, landscape architecture, planning, real estate development and sustainable built environments alumni create a wide variety of outstanding projects and other work after graduation from CAPLA. View featured projects and submit your favorite project.

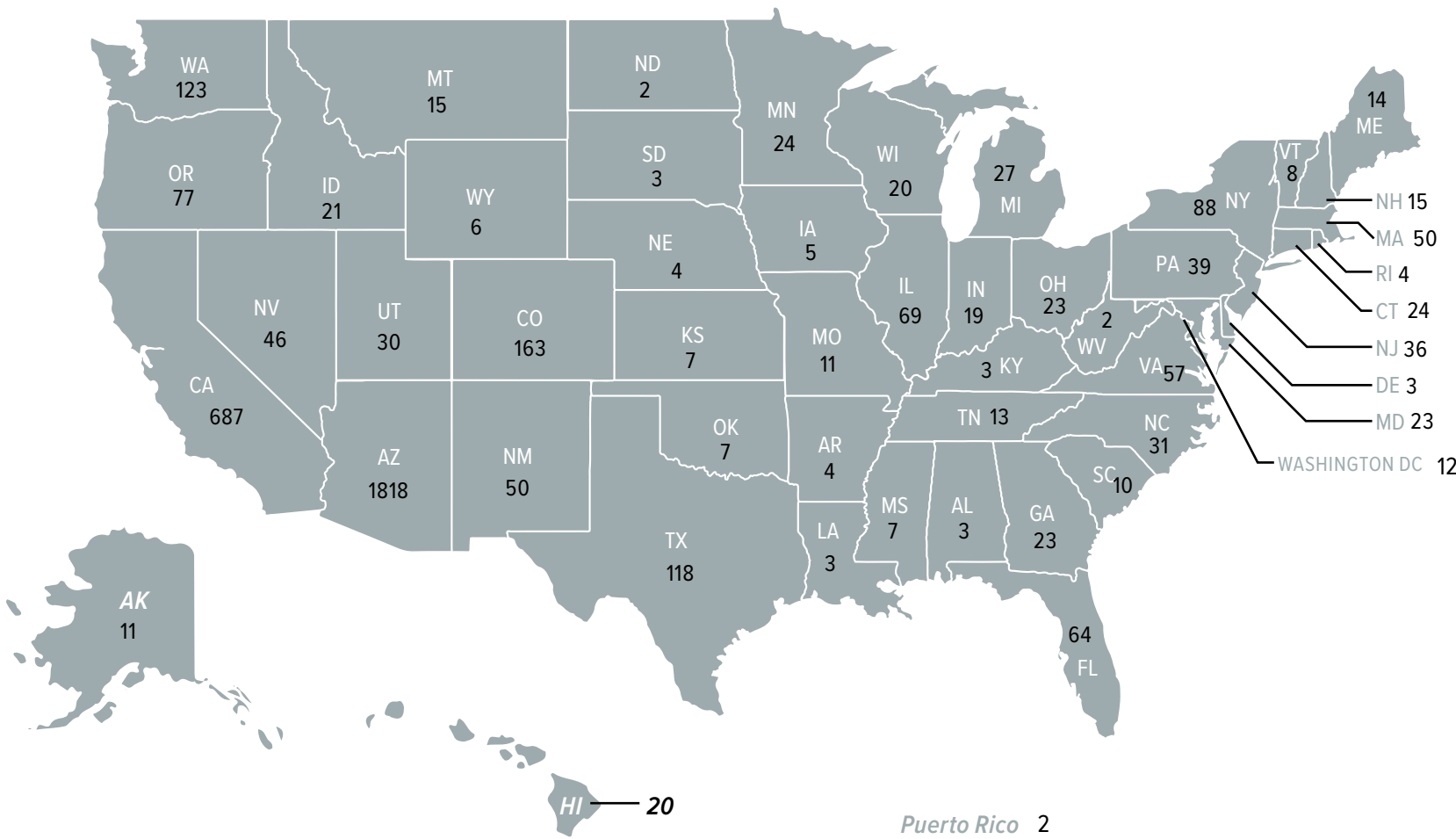
ALUMNI BY STATE AND COUNTRY

We have alumni in all 50 states, Washington, D.C. and Puerto Rico, plus 52 countries outside the U.S.

4,204
TOTAL CAPLA
ALUMNI

254
INTERNATIONAL

4
APO MILITARY



COUNTRIES

Afghanistan	1	India	21	Peru	1
Argentina	2	Indonesia	4	Portugal	3
Australia	2	Iran	7	Qatar	4
Bahrain	2	Israel	5	Russia	1
Bolivia	2	Italy	2	Saudi Arabia	9
Botswana	2	Japan	6	Singapore	6
Brazil	1	Jordan	6	South Africa	2
Canada	12	Kazakhstan	1	Spain	3
Cape Verde	1	South Korea	7	Switzerland	1
China	17	Kuwait	10	Taiwan	5
Columbia	2	Lebanon	2	Thailand	6
Dominican Republic	1	Malaysia	19	Trinidad & Tobago	1
Ecuador	2	Mexico	30	Turkey	1
Egypt	4	Namibia	1	United Arab Emirates	3
France	2	New Zealand	3	United Kingdom	6
Germany	3	Norway	1	Venezuela	6
Greece	2	Oman	3	Yemen	1
Hong Kong	7	Paraguay	1		

ALUMNI PROFILES



Photos courtesy Vincent Tsoi.

BETWEEN ART AND SCIENCE: VINCENT TSOI '88 B ARCH

VINCENT TSOI, WHO CAME TO CAPLA FROM HONG KONG, SUPPORTS CAPLA BY CONTRIBUTING TO SCHOLARSHIPS THAT CAN HELP EXPOSE STUDENTS TO DIFFERENT CULTURES AND ENVIRONMENTS.

Growing up among the dense skyline of Hong Kong, **Vincent Tsoi** '88 B Arch knew from a young age that he wanted to be an architect. But it wasn't until after he graduated from the University of Arizona with a Bachelor of Architecture that he understood what being an architect was about.

"I think of the practice of architecture as problem solving," he says. "It is a very rewarding process, immensely gratifying once the project is complete."

Moreover, as a CAPLA architecture professor told Tsoi when he was in school, "You will learn 15% of what you need to know about architecture in school and the remaining 85% at work."

Tsoi agrees. At CAPLA he learned the principles, philosophy and attitudes "that ultimately shaped my career," but the other 85% was "primarily technical knowledge that comes from hands-on experience."

After graduating, Tsoi didn't return home, choosing instead to stay in the U.S., even though his family still lives in Hong Kong. He moved to San Diego to work for Ware Malcomb, a firm started by fellow CAPLA alumni, and ultimately transferred to Los Angeles, where he lives today. In 1994 he started his own firm, Space Light Structure Design, which focuses on multifamily residential projects on the Los Angeles area.



Still, as an international student who studied far from home, Tsoi recognizes the value of a multicultural learning experience. "Students need to be exposed to various cultures and see first-hand how architecture and landscape architecture are driven not only by culture and environment, but also how what we design in turn impacts our cultures and environments."

That's why Tsoi has donated to CAPLA to support scholarships.

"My experience as an international student was wonderful. I felt completely embraced by CAPLA and the Tucson community. To this day I feel a connection to those coming to the U.S. to study. If I can make that experience easier, and the opportunity to study at CAPLA more accessible, I feel good."

Tsoi thinks back fondly on his time at CAPLA, particularly recalling Architecture Professor **Doug Macneil**, who though "tough with high expectations, was always able to speak to us on a personal level, sharing many stories about his career and life, which were great motivators." Macneil also encouraged students "to be loose, free and more emotional—and to trust yourself."

And Tsoi recalls Architecture Professor **Kirby Lockard**, who taught students how to express ideas in a graphical manner. "The combination of technique and instruction from Macneil and Lockard was instrumental for me," he says.

"Architecture is a service, whether for public or private entities," Tsoi concludes. "The profession lies somewhere between art and science." Thanks to his support of scholarships for CAPLA students, the spectrum of architecture between art and science is something students are more likely to discover themselves, as well.

ENSURING EQUITY, BUILDING COMMUNITY: KENDRA HYSON '15 MLA

KENDRA HYSON HAS FOLLOWED A PATH TO LEADERSHIP NOT JUST IN LANDSCAPE ARCHITECTURE BUT ALSO IN THE MOVEMENT FOR SOCIAL EQUITY IN BUILT ENVIRONMENT DESIGN.

Kendra Hyson '15 MLA didn't know when she started the Master of Landscape Architecture at the University of Arizona, in a state she had never visited, just how it would transform her—enabling a path to leadership not only in landscape architecture but also in the movement for social equity in built environment design, as both a founder of The Urban Studio and in her current role as a landscape architect and planner for the Maryland-National Capital Park and Planning Commission (MNCPPC).

Still, landscape architecture wasn't on the horizon for Hyson when she graduated in 2011 from Spelman College in Atlanta—though the seed may have been planted when she participated in an artist residency in Portobelo, Panama the summer before her senior year.

“As I considered contemplative spaces, where people could gather in the rainforest, it was clear to me that the people, culture and scenery of Panama were the inspiration behind my art,” she says. “That grew into an interest in environmental installation art and sustainable eco-tourism.” It was that interest, plus a recommendation from a colleague when Hyson was working in Washington, D.C., that led her to consider landscape architecture master's programs.

Given her immersive experience in Panama, Hyson came to CAPLA intending to study sustainable tourism. “But after starting the program,” she says, “I became interested in community-based design, and particularly designing *with* instead of only *for* people.”

Community is at the heart of what she found most rewarding in the MLA, as well: “The MLA program had a familial feel. I was highly supported and encouraged by my professors and had a deep sense of comradery with my classmates.” Plus the program “greatly prepared me for professional life outside of the university.”

After earning her MLA, Hyson worked for a landscape architecture firm, an excellent experience but one where she realized private practice was not for her. So she joined the Neighborhood Design Center in Maryland. “And that's where I furthered my passion for community engagement—for taking landscape architecture beyond the realm of just the built and natural environments to also consider the social and political implications of our designs,” she says.

In 2017 Hyson joined the board of directors for the Landscape Architecture Foundation (LAF) as the Olmsted Scholar's representative. She credits that appointment in part to being named the 2015 University Olmsted Scholar at UArizona. Olmsted Scholars is an LAF program that supports landscape architecture students with exceptional leadership potential. The scholarship was “an

amazing steppingstone for me,” she says, and on the LAF board she was able to “learn a lot from renowned, seasoned landscape architecture professionals who have since become really great colleagues.”

Though Hyson's term on the board has ended, it was influential in her co-founding of The Urban Studio with her colleague **Maisie Hughes**, a 2018 LAF Leadership and Innovation Fellow. The Urban Studio is a nonprofit organization run by a cohort of landscape architects of color who aim to halt the historical system of development happening in communities of color without consideration of the people who live in those communities.

“Our mission is to advance design thinking for equitable and sustainable urbanism,” she says. “That is something we united around: addressing the problems that result in displacement and gentrification while also creating a model for mentorship and transformational leadership.”



Photo courtesy Kendra Hyson.

“There's a quote by **Frederick Douglass**, who says, ‘It's easier to build strong children than it is to fix broken men.’ I take that to heart,” she says. “So, my objective for The Urban Studio has been to engage communities of color with a particular focus on younger generations, and to inspire them to become landscape architects, planners and engineers—and get involved in the shaping of their communities and their world.”

And her work with the other leaders of The Urban Studio has made a real difference. Their first project—which occurred in the fall of 2019—brought together 10 African-American high school students from historically underrepresented areas, “which also happen to be some of the most polluted watersheds of the city.”



Photo courtesy American Society of Landscape Architects.

Over 10 weeks, Hyson and her colleagues worked with the students to design innovative stormwater solutions to challenging scenarios across the community, culminating in presentations by the students to city and other representatives at the National Building Museum.

“It was an eye-opening experience to work with these really brilliant young people,” says Hyson. “As landscape architects and designers, we have such great insight and such a unique skillset that allows us to look not only at built and natural forms, but also the social and political systems that really run our world.”

BUILDING FOR THE FUTURE

OUR STUDENT SUCCESS IS YOUR SUCCESS



At CAPLA, our faculty and staff have worked tirelessly to make student success our top priority. We are here, after all, to support and educate our future workers, influencers, researchers and leaders in the built environment.

Our *State of the College & Annual Report* illustrates many of these successes by students and the college—successes to be proud of. Your generous financial support has made them possible, and we extend our gratitude to all who established scholarships, supported existing scholarships, contributed to studio prizes, provided annual gifts and gave so generously to our crowdfunding campaign to support our Student Technology Initiative.

If you are inspired to do more, or to support CAPLA for the first time, you have many options. Have you thought about the impact you could make with your giving? Have you considered providing for CAPLA in your will or trust? It is always a pleasure for us to work with our alumni and donors to discuss how you can create meaningful impact. There is no amount too small—our collective giving and support makes our college stronger and our students even more successful.

Thank you for making this a wonderful year, in spite of our many obstacles. As trusted supporters and champions, you have helped us accomplish great things at the College of Architecture, Planning and Landscape Architecture.

Angie K. Smith

Angie K. Smith
Director of Development

FOR FISCAL YEAR 2020

JULY 1, 2019 – JUNE 30, 2020

DEVELOPMENT REVENUE

\$1,773,135

Actual, planned and realized gifts.

TOTAL GIFTS

138

STUDENT TECHNOLOGY INITIATIVE CROWDFUNDING

37 GIFTS

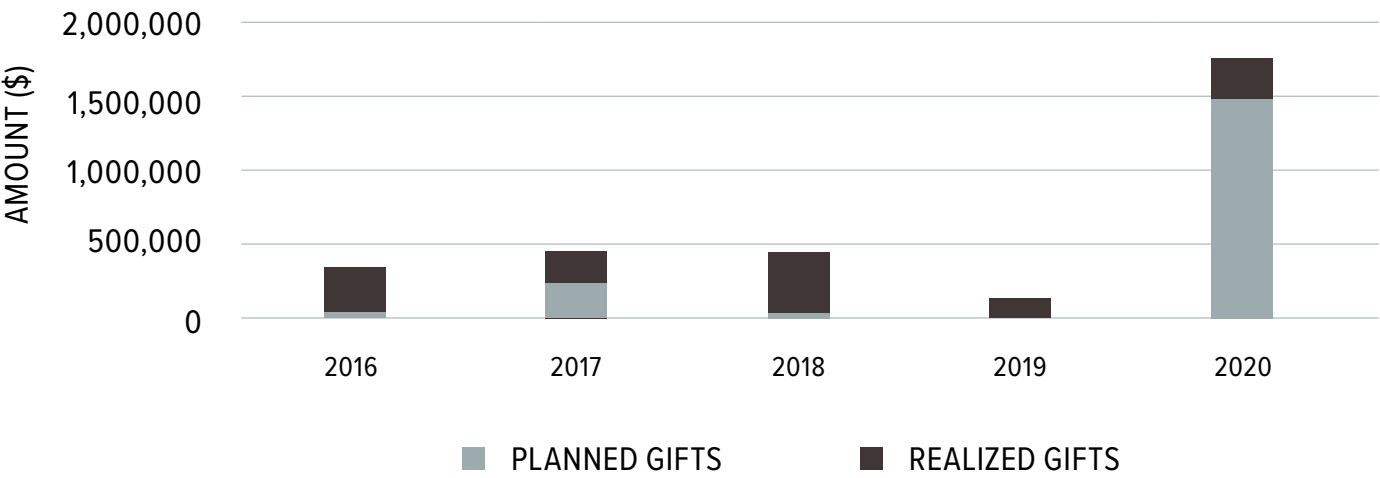
\$23,081 TOTAL RAISED

CAPLA ENDOWMENT

CAPLA	\$1,422,079
DRACHMAN INSTITUTE	\$1,555,220
SCHOOL OF ARCHITECTURE	\$1,717,821
LANDSCAPE ARCHITECTURE	\$407,878
URBAN PLANNING	\$23,657
TOTAL	\$5,126,655

NOTE:
Endowment for School of Landscape Architecture and Planning maintained separately for Landscape Architecture and Urban Planning programs.

CAPLA DEVELOPMENT REVENUE AND PLANNED GIFTS (2016-2020)



FISCAL YEAR	PLANNED GIFTS	REALIZED GIFTS	TOTAL ACTUAL GIFTS
2016	\$50,000	\$320,065	\$370,065
2017	\$271,000	\$204,946	\$475,946
2018	\$76,000	\$383,979	\$459,979
2019	\$0	\$153,547	\$153,547
2020	\$1,500,000	\$273,135	\$1,773,135

NOTES:
1. Planned gifts are gifts made by donors to the university through wills, beneficiary designations, trusts and life income agreements.

2. Realized gifts are gifts made by donors to the university that are cash and are deposited into university accounts.

AS TRUSTED SUPPORTERS AND CHAMPIONS, YOU HELP US ACCOMPLISH GREAT THINGS AT CAPLA.

CONTINUE OUR SUCCESS AT capla.arizona.edu/give



Photo by Clarissa Becerril.

CAPLA STUDENT TECHNOLOGY INITIATIVE: MEETING AN URGENT NEED FOR STUDENTS

CAPLA STUDENTS FACED A CRITICAL MOMENT—RETURNING FOR THE FALL 2020 SEMESTER WITHOUT ACCESS TO THE TECHNOLOGY THEY NEED TO SUCCEED.

To help them bridge the gap, CAPLA partnered with the University of Arizona Foundation to launch the CAPLA Student Tech and Materials crowdfunding initiative—the college’s first crowdfunding endeavor. And alumni, faculty, staff and friends responded heroically—eclipsing our original goal of \$10,000 and pledging a total of \$23,081 over the one-month span of the initiative. Thank you!

The COVID-19 pandemic forced many students to work remotely. For those without the required technology, who otherwise thrive in their study of the built environment, this was an impossible situation. By supporting this fund, community members enabled CAPLA to purchase and loan the necessary laptop computers and related technology for students to succeed in their required studio and other courses.

For additional information, or to discuss opportunities for supporting students and the college in other ways, please contact Angie K. Smith, director of development, at angiesmith@arizona.edu or 520-621-2608.

CAPLA OFFERED 114 SCHOLARSHIPS IN 2020 TOTALING \$138,469.

FEATURED SCHOLARSHIPS

Patricia Magadini Architecture Scholarship Endowment - \$25,000
To support and advance women in the field of architecture. *Created by Bruce Bernbaum '79 B Arch and Patricia Magadini '78 B Arch, founders and principals of Bernbaum/Magadini Architects, to honor Tricy Magadini.*

The City Immersion Scholarship - \$50,000
To allow undergraduates (two awards per year) and graduate students (one award per year) to immerse themselves in a U.S. city of their choice. *Created by Mitchell Freedman '80 B Arch.*

Jason Phillips & Stacey Kalina Phillips Scholarship - \$13,052
To support a fifth-year B Arch student who demonstrates great promise as a contributor to the building industry after graduation and exhibits integrity, honesty and respect to fellow students, faculty and staff. *Created by Jason Phillips '01 B Arch and Stacey Kalina Phillips '00 B Arch.*

Vincent Tsoi Scholarship - \$10,000
To support travel for international students who attend CAPLA. *Contributed by Wing H.V. (Vincent) Tsoi '88 B Arch toward the J. Douglas Macneil Architecture Scholarship and the William Kirby Lockard FAIA and Peggy Hamilton Lockard Scholarship Endowments.*

Cranky Old Lady Scholarship Award - \$10,000
To support post-traditional students such as first-generation students, single parents and those with a demonstrated interest in advancing women in the field of architecture. *Created by Ulla “Kekku” Lehtonen '83 B Arch*

ALL CAPLA SCHOLARSHIPS | TOTAL AMOUNT: \$ 138,469 | TOTAL NUMBER: 114

Archon Student Support Scholarship
\$ 1,000 | Total Number: 10

Albert Drachman Graduate Student Scholarship
\$ 12,000 | Total Number: 7

Al Burlini Scholarship
\$ 800 | Total Number: 1

Alumni International Students Scholarship
\$ 450 | Total Number: 1

Alvin Hurst Scholarship
\$ 3,850 | Total Number: 2

Benzien Family Travel Scholarship
\$ 4,000 | Total Number: 2

Beresford Beck Memorial Scholarship
\$ 1,500 | Total Number: 1

CAPLA General Scholarship Fund
\$ 2,400 | Total Number: 2

Carl Rald Memorial Design-Build Scholarship for GAs
\$ 4,469 | Total Number: 2

Chauncey F. Hudson Scholarship
\$ 1,800 | Total Number: 2

Chuck and Claire Albanese Travel Scholarship
\$ 1,200 | Total Number: 1

Civano Nursey Scholarship in Landscape Architecture
\$ 1,500 | Total Number: 1

Clark International Travel Scholarship
\$ 800 | Total Number: 1

Clifton Bloom Landscape Architecture Scholarship
\$ 1,600 | Total Number: 1

David Walther Memorial Scholarship
\$ 1,000 | Total Number: 1

Desert Garden Club Scholarship
\$ 3,200 | Total Number: 2

Eleazar Herreras Scholarship
\$ 1,600 | Total Number: 1

Erstad Architects Scholarship
\$ 1,000 | Total Number: 1

Ervin Zube Scholarship
\$ 1,600 | Total Number: 1

Franklin S. Flint Memorial Scholarship
\$ 600 | Total Number: 1

Gertrude Thompson Scholarship
\$ 450 | Total Number: 1

Ginsberg Green Fellowship
\$ 2,450 | Total Number: 7

Gordon Heck Memorial Scholarship
\$ 9,000 | Total Number: 8

Harold Reif Scholarship
\$ 1,500 | Total Number: 1

Harold S. Pedersen Scholarship
\$ 650 | Total Number: 1

Irma and Bernard Friedman Scholarship
\$ 1,100 | Total Number: 1

J. Douglas Macneil Scholarship
\$ 1,500 | Total Number: 1

John Sundt Scholarship
\$ 12,000 | Total Number: 8

Leadership in Landscape Architecture Scholarship
\$ 250 | Total Number: 1

Manuel Pombo CAPLA Scholarship
\$ 500 | Total Number: 1

Mary Miller Memorial Scholarship
\$ 450 | Total Number: 1

Michael Wade Endowment
\$ 1,400 | Total Number: 1

M.L. Tophoy Scholarship
\$ 2,000 | Total Number: 1

National Association of Women in Construction Scholarship
\$ 1,000 | Total Number: 1

Philip W. Dinsmore, FAIA Scholarship
\$ 1,200 | Total Number: 1

Richard A. Eribes Scholarship
\$ 4,000 | Total Number: 2

Robert & Deanna Hersherberger Foreign Travel Scholarship
\$ 2,000 | Total Number: 1

Robert Swaim Scholarship in Architecture
\$ 2,000 | Total Number: 1

Robie Pardee Scholarship
\$ 500 | Total Number: 1

Ronal R. Stoltz, FASLA, FCELA Scholarship
\$ 2,700 | Total Number: 2

Roy Drachman Scholarship
\$ 13,200 | Total Number: 12

Safeway Studio Students’ Scholarship
\$ 10,000 | Total Number: 1

Sakellar Scholarship
\$ 800 | Total Number: 1

Seaver Franks Scholarship
\$ 700 | Total Number: 1

Sid Little Memorial Scholarship
\$ 900 | Total Number: 1

Sklar Family Scholarship
\$ 2,500 | Total Number: 1

Sky Blu Underwood Scholarship
\$ 2,400 | Total Number: 2

Smithgroup Scholarship
\$ 2,000 | Total Number: 2

Sustainable Built Environments Scholarship
\$ 2,000 | Total Number: 2

Ted Marshall Memorial Scholarship
\$ 450 | Total Number: 1

Ware & Malcomb Architectural Scholarship
\$ 4,000 | Total Number: 2

Warren Gill & Elizabeth Hudspeth Scholarship in Landscape Architecture
\$ 800 | Total Number: 1

William and Joyce Havens Scholarship in Landscape Architecture
\$ 1,100 | Total Number: 1

William H. Cook, FAIA Travel Scholarship
\$ 1,500 | Total Number: 1

William Kirby Lockard, FAIA Scholarship
\$ 1,000 | Total Number: 1

William M. Hughes Architectural Scholarship
\$ 2,100 | Total Number: 1

CAPLA FINANCES

FY 20 AND FINANCIAL PLANNING ROADMAP

CAPLA’s financial position is strong, but the university and college face financial challenges due in large part to the COVID-19 pandemic. At the close of Fiscal Year 2020 (July 1, 2019 - June 30, 2020), our revenues and expenses created a surplus of **\$104,482**, adding to the college’s stable financial position over the last three fiscal years.

The UArizona and CAPLA Strategic Plans have provided the roadmap for our financial planning, especially before the onset of the pandemic. Through March 2020, CAPLA had built \$5 million in unrestricted cash reserves, with a minimum of \$1.5 million of the \$5 million set aside for emergency reserves.

MAIN CAMPUS BUDGET DECREASES IN FY 21

The present financial forecast for Fiscal Year 2021 (July 1, 2020 - June 30, 2021) is driven by a university-wide decrease in main campus students and a reduction in main campus revenues of **\$571,247** for CAPLA. Losses could have been higher but are offset by enrollment growth in the Bachelor of Architecture and newly launched Bachelor of Landscape Architecture programs. We must also manage an additional decrease of **\$128,773** based on previous-year activity and an increase in the university’s institutional overhead assessment. CAPLA is therefore managing a total budget decrease of **\$700,019** in main campus activities.

FURLOUGHS AND ONLINE PROGRAM REVENUE IN FY 21

In FY 21, the budget decrease will be partly funded by the university’s furlough program, offsetting **\$416,155**, as well as the increase in revenue from CAPLA’s online Master of Real Estate Development and Bachelor of Science in Sustainable Built Environments programs, which is forecasted at **\$243,243**.

See Appendix C: CAPLA Financial Information for CAPLA online program revenue, 2016-2020.

CAPLA FY 21 NET BUDGET DECREASE

For FY 21, CAPLA anticipates a net budget decrease of **\$40,621**. See the CAPLA FY 21 Budget to the right for additional detail.

LONG-TERM FISCAL CHALLENGES

As we look beyond this fiscal year, UArizona and CAPLA continue to face multiple long-term fiscal challenges, including:

- COVID-19’s continuing negative impact on student recruitment and retention
- End of the university furlough program to help offset COVID-19-related revenue decreases
- Changes to the university’s budget model from responsibility centered management (RCM) to activity informed budgeting (AIB), with potential new redirection of budget to central UArizona functions
- Continuing decrease in the value of an undergraduate major and student credit hours (SCH)
- CAPLA building modifications for environmental quality and usage in a post-COVID-19 world
- End of available provost investment funds
- Reduced tolerance from students for debt, and a demand for alternative paths to graduation
- Anticipated steep drop-off in full-time first-year student enrollment beginning in 2025/2026



Photo by Simmons Buntin.

See Appendix C: CAPLA Financial Information for data on the continuing decrease in the value of undergraduate major and student credit hours.

Ensuring CAPLA’s financial sustainability will require innovation and diversification in our revenue sources through such initiatives as online and microcampus programs, focus on student recruitment and retention within our existing programs, and increased donations from an expanding donor base.

Simon White
Assistant Dean of Finance and Administration

CAPLA INCOME STATEMENT (SUMMARIZED, FY 2018-2020)

	FISCAL YEAR		
	2018	2019	2020
SOURCES (OPERATING)	10,186,116	10,169,892	10,290,364
USES (OPERATING)	9,676,493	9,705,171	9,635,883
NET CHANGE (OPERATING)	509,623	464,721	654,482
USES (NON-OPERATING)	100,000	450,000	550,000
TOTAL NET CHANGE	409,623	14,721	104,482

See Appendix C: CAPLA Financial Information, for the full CAPLA Income Statement, as well as CAPLA personnel expenditures and employee headcount and FTE.

CAPLA FY 21 BUDGET

ACTIVITY TYPE	FALL TERM BEGIN	FALL AFMY METRICS	DIFFERENCE
BUDGET CHANGE (BASED ON FY20 ACTIVITY)	(128,773)	(128,773)	0
BUDGET CHANGE (BASED ON FY21 FORECASTED ACTIVITY)	(729,861)	(571,247)*	158,615
TOTAL BUDGET CHANGE	(858,634)	(700,019)	158,615
FORECASTED FURLOUGH SAVINGS (SALARY + ERE)	822,300	416,155	(406,145)
TOTAL BUDGET CHANGE (AFTER FURLOUGH SAVINGS)	(36,334)	(283,864)	(247,531)
FORECASTED ONLINE/DISTANCE REVENUE CHANGE	(12,398)	243,243	255,641
NET BUDGET CHANGE	(48,732)	(40,621)	8,110

NOTES:
1. The furlough savings includes ERE benefit costs.
2. AFMY is All Funds Multi-Year.
3. Last updated December 2020.

*BUDGET CHANGE (BASED ON FY 21 FORECASTED ACTIVITY)

ACTIVITY TYPE	FALL TERM BEGIN	FALL AFMY METRICS	DIFFERENCE
SOURCES/REVENUE			
UNDERGRADUATE TUITION \$	3,184,930	4,163,331	348,401
GRADUATE TUITION \$	1,439,349	1,349,132	(90,217)
DIFFERENTIAL TUITION AND PROGRAM FEES \$	697,708	757,428	59,720
F&A RECOVERY \$	199,828	169,851	(29,977)
REALLOCATION FOR MORE EXPENSIVE PROGRAMS \$	255,420	269,510	14,091
REVISED SUBVENTION \$	6,604,998	6,604,998	0
TOTAL SOURCES/REVENUE \$	13,012,233	13,314,250	302,017
USES/EXPENSES			
PRIOR YEAR RCU OPERATIONAL BASE BUDGET \$	8,153,232	8,153,232	0
INSTITUTIONAL OVERHEAD ASSESSMENT \$	5,588,862	5,732,264	(143,402)
TOTAL USES/EXPENSES \$	13,742,094	13,885,497	(143,402)
SOURCES MINUS USES \$	(729,861)	(571,247)	158,615

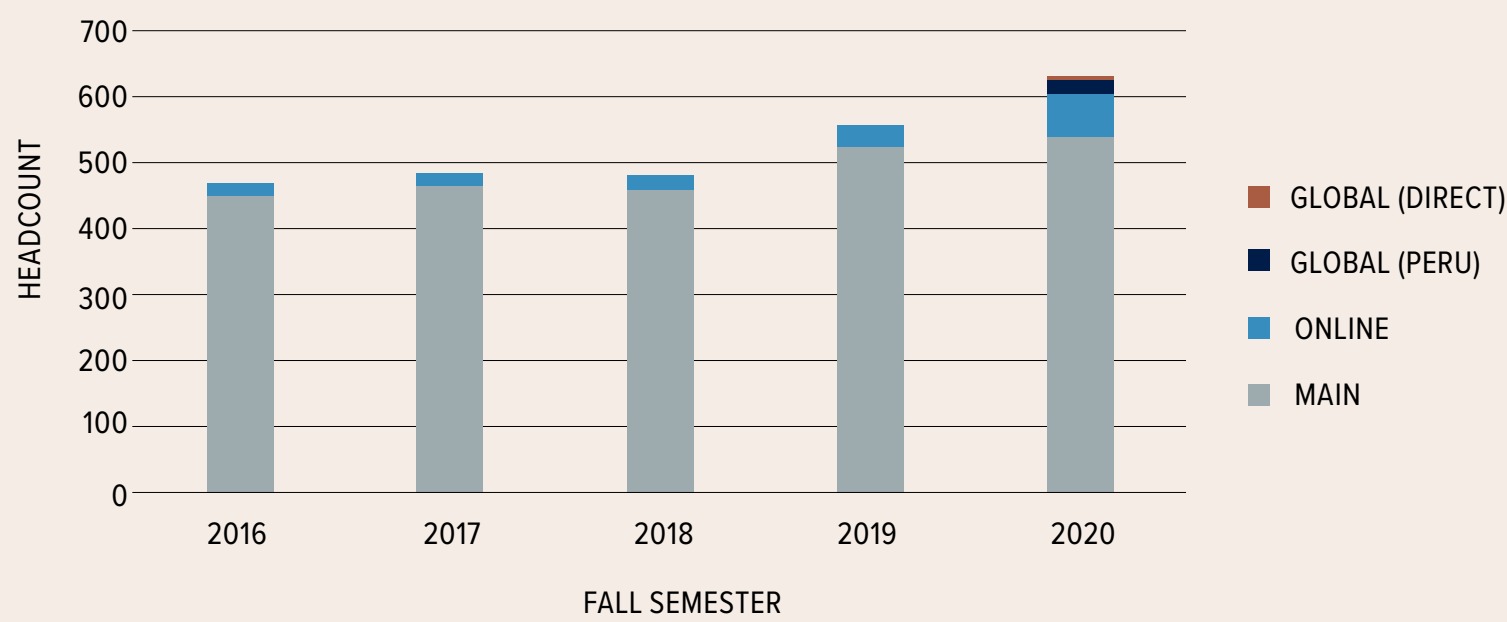
NOTE:
AFMY is All Funds Multi-Year.

APPENDIX A: CAPLA

STUDENT ENROLLMENT

CAPLA UNDERGRADUATE STUDENTS BY CAMPUS (2016-2020)

MAIN CAMPUS, ONLINE, GLOBAL DIRECT AND GLOBAL MICROCAMPUS (PERU)



CAMPUS	FALL SEMESTER				
	2016	2017	2018	2019	2020
MAIN	454	467	459	514	540
ONLINE	16	20	22	36	62
GLOBAL MICROCAMPUS (PERU)					21
GLOBAL (DIRECT)					3
TOTAL	470	487	481	550	626
YEAR OVER YEAR CHANGE (HEADCOUNT)		17	-6	69	76
YEAR OVER YEAR CHANGE (%)		3.6%	-1.2%	14.3%	13.8%

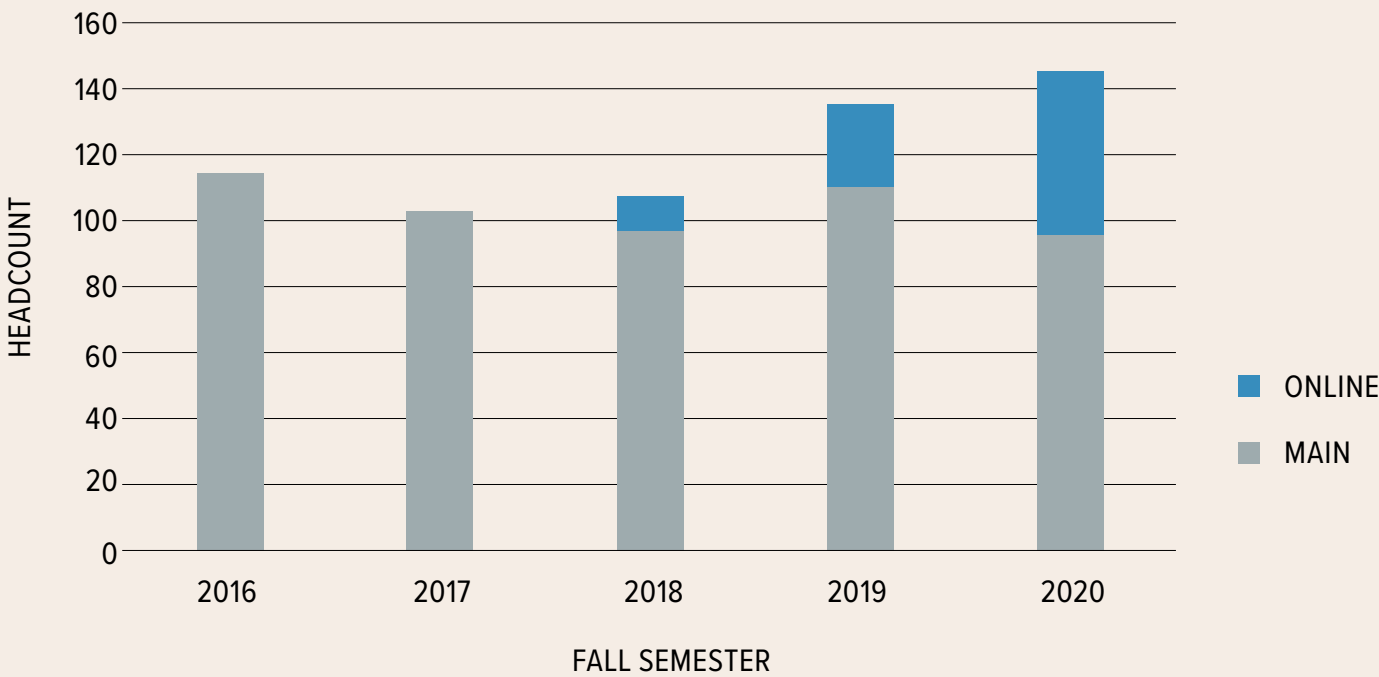
NOTES:

1.Data based on fall census data for each year (21st calendar day of fall semester).

2. The Global (Direct) campus is for Arizona students taking fully online coursework from outside the U.S., but not through Arizona Online.

3. The growth in SBE enrollment is mainly due to the Online campus program (from 16 students in fall 2016 to 62 students in fall 2020) and the new microcampus program at UPC Lima, which began in spring 2020.

CAPLA GRADUATE STUDENTS BY CAMPUS (2016-2020)
MAIN CAMPUS, ONLINE

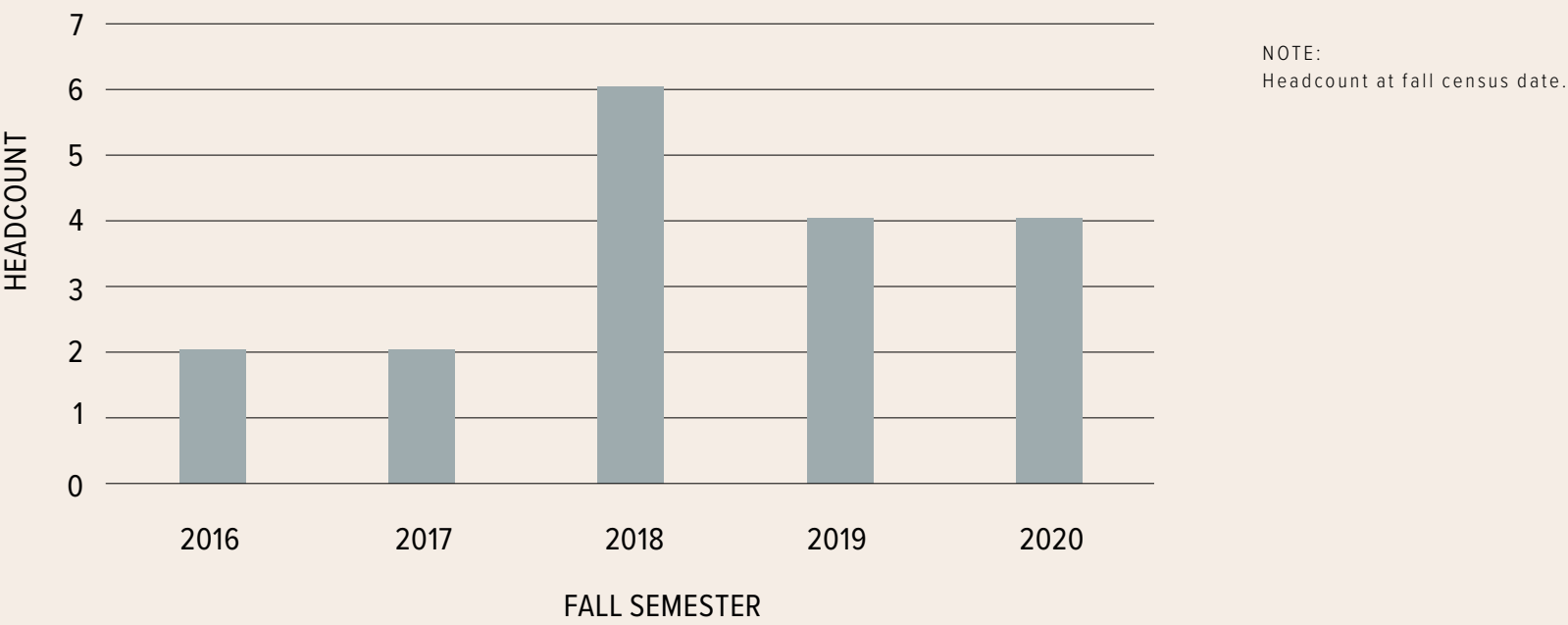


CAMPUS	FALL SEMESTER				
	2016	2017	2018	2019	2020
MAIN	113	102	99	108	94
ONLINE			10	27	51
TOTAL	113	102	109	135	145
YEAR OVER YEAR CHANGE (HEADCOUNT)		-11	7	26	10
YEAR OVER YEAR CHANGE (%)		-9.7%	6.9%	23.9%	7.4%

NOTES:
1. Data based on fall census data for each year (21st calendar day of fall semester).

2. The growth in MRED enrollment is mainly due to the Online campus program (from 10 students in fall 2018 to 51 students in fall 2020).⁻

GRADUATE CERTIFICATE TOTAL ENROLLMENT (2016-2020)



GRADUATE CERTIFICATE	FALL SEMESTER				
	2016	2017	2018	2019	2020
HERITAGE CONSERVATION	2	2	5	1	3
REAL ESTATE DEVELOPMENT ANALYSIS				1	1
REAL ESTATE DEVELOPMENT FINANCE			1	1	
REAL ESTATE DEVELOPMENT PRACTICE				1	
TOTAL	2	2	6	4	4

WHERE ARE CAPLA STUDENTS FROM?

UNDERGRADUATE STUDENT HOME STATE AND COUNTRY (FALL 2020)

CAPLA undergraduate students come from Arizona and 41 other states and U.S. territories, as well as the United States and 23 other countries.

GRADUATE STUDENT HOME STATE AND COUNTRY (FALL 2020)

CAPLA graduate students come from Arizona and 22 other states, as well as the United States and 13 other countries.

STATES

- Alaska
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Florida
- Hawaii
- Idaho
- Illinois
- Indiana
- Iowa
- Kansas
- Louisiana
- Maryland
- Massachusetts
- Michigan
- Minnesota
- Missouri
- Montana
- Nevada
- New Hampshire
- New Jersey
- New Mexico
- New York
- North Carolina
- North Dakota
- Ohio
- Oklahoma
- Oregon
- Pennsylvania
- Puerto Rico
- South Dakota
- Tennessee
- Texas
- Utah
- Vermont
- Virginia
- Washington
- Washington, D.C.
- West Virginia
- Wisconsin

COUNTRIES

- Bahrain
- Belgium
- Brazil
- Canada
- China
- Hong Kong
- Ireland
- Kazakhstan
- Korea
- Kuwait
- Malaysia
- Mexico
- New Zealand
- Nigeria
- Peru
- Philippines
- Rwanda
- Saudi Arabia
- Taiwan
- Thailand
- United Kingdom
- United States
- Venezuela
- Viet Nam

STATES

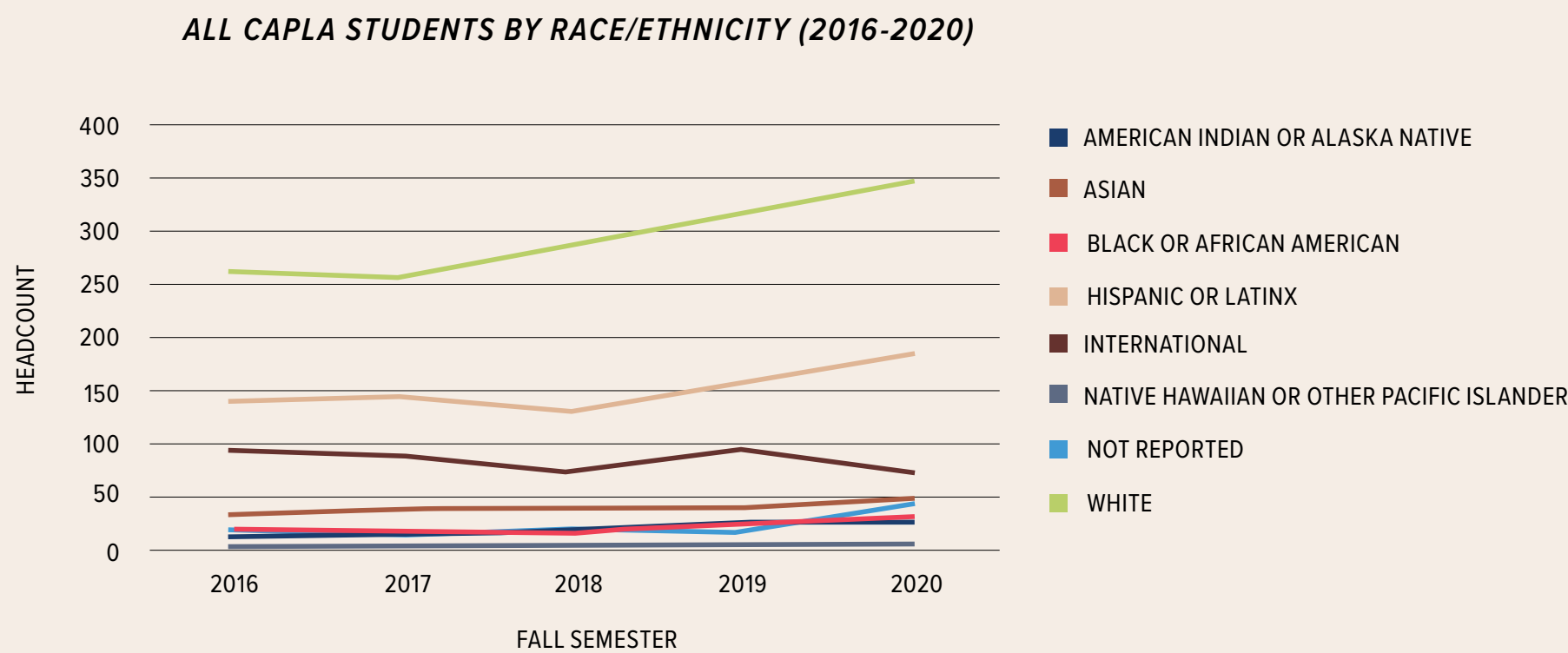
- Arizona
- California
- Colorado
- Florida
- Illinois
- Indiana
- Kentucky
- Louisiana
- Michigan
- Nevada
- New Hampshire
- New Jersey
- New Mexico
- New York
- Ohio
- Oregon
- Pennsylvania
- Tennessee
- Texas
- Utah
- Virginia
- Washington

COUNTRIES

- Australia
- Brazil
- Canada
- China
- India
- Iran
- Jordan
- Korea
- Mexico
- Poland
- Saudi Arabia
- Taiwan
- United Kingdom
- United States

APPENDIX B: CAPLA STUDENT DEMOGRAPHICS

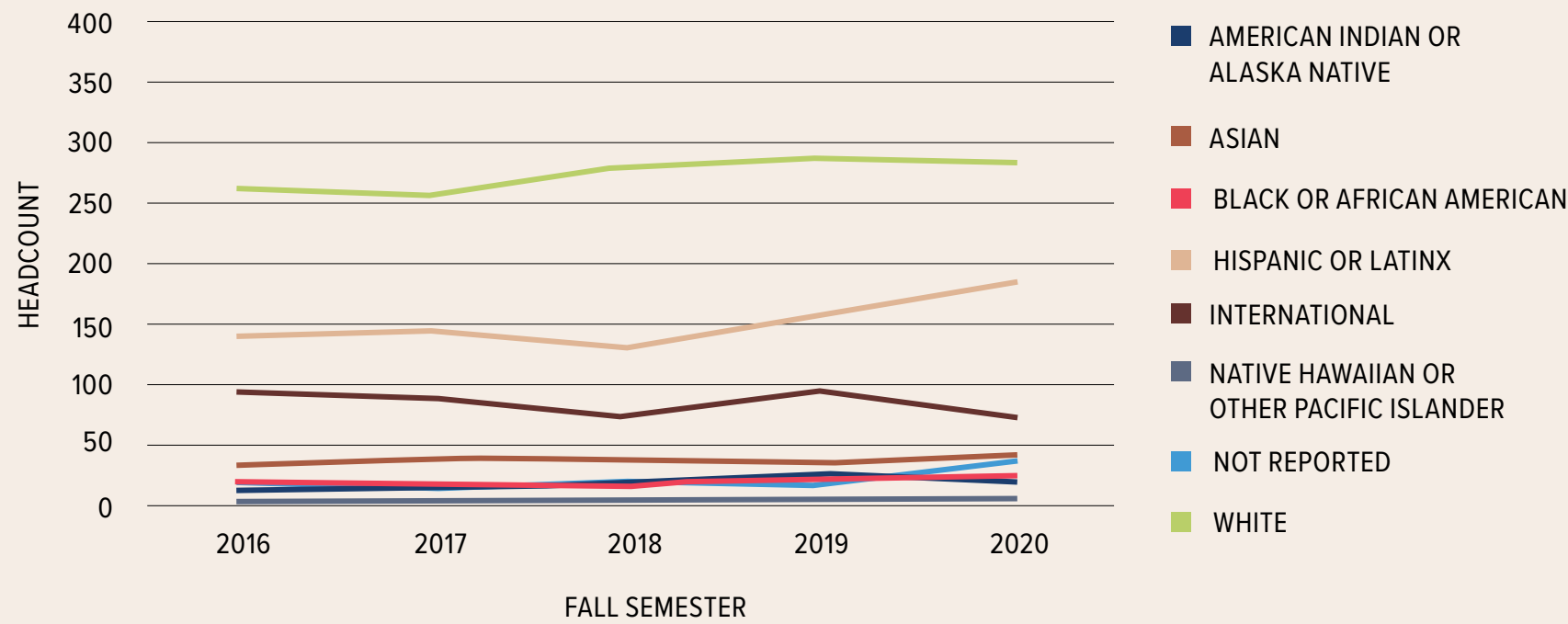
ALL CAPLA STUDENTS



RACE/ETHNICITY	FALL SEMESTER				
	2016	2017	2018	2019	2020
AMERICAN INDIAN OR ALASKA NATIVE	12	17	17	25	24
ASIAN	33	39	39	39	49
BLACK OR AFRICAN AMERICAN	18	17	15	27	35
HISPANIC OR LATINX	141	148	131	154	186
INTERNATIONAL	96	90	72	93	76
NATIVE HAWAIIAN OR PACIFIC ISLANDER	2	4	4	4	5
NOT REPORTED	18	14	17	16	44
WHITE	263	260	295	327	352
TOTAL	583	589	590	685	771

NOTES:
1. Data based on fall census date time period for each fiscal year (21st calendar day of fall semester).
2. Data include Main, Online, Global (Peru) and Global (Direct) campus students.

ALL MAIN CAMPUS STUDENTS BY RACE/ETHNICITY (2016-2020)



RACE/ETHNICITY	FALL SEMESTER				
	2016	2017	2018	2019	2020
AMERICAN INDIAN OR ALASKA NATIVE	11	17	17	23	21
ASIAN	32	38	36	34	40
BLACK OR AFRICAN AMERICAN	16	14	12	21	23
HISPANIC OR LATINX	136	143	124	148	174
INTERNATIONAL	96	90	72	93	76
NATIVE HAWAIIAN OR PACIFIC ISLANDER	2	4	4	3	3
NOT REPORTED	18	13	15	12	12
WHITE	256	250	278	288	285
TOTAL	567	569	558	622	634

NOTE:
Data based on fall census date time period for each fiscal year (21st calendar day of fall semester).

All CAPLA Students by Gender (2016-2020)

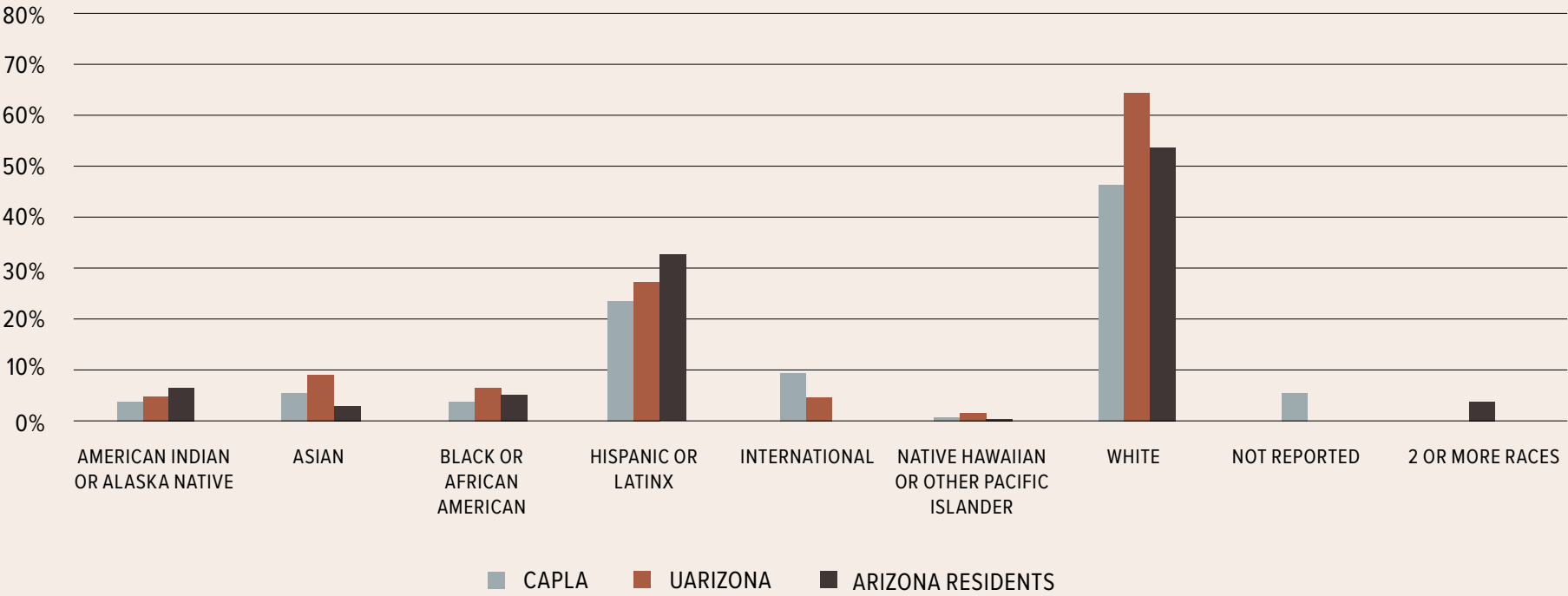
GENDER	FALL SEMESTER				
	2016	2017	2018	2019	2020
FEMALE	249	254	261	310	346
MALE	334	335	329	375	425
TOTAL	583	589	590	685	771

NOTES:
1. Data based on fall census date time period for each fiscal year (21st calendar day of fall semester).

2. Data include Main, Online, Global (Peru) and Global (Direct) campus students.

CAPLA UNDERGRADUATE STUDENTS

UNDERGRADUATE CAPLA STUDENTS BY RACE/ETHNICITY (FALL 2020)

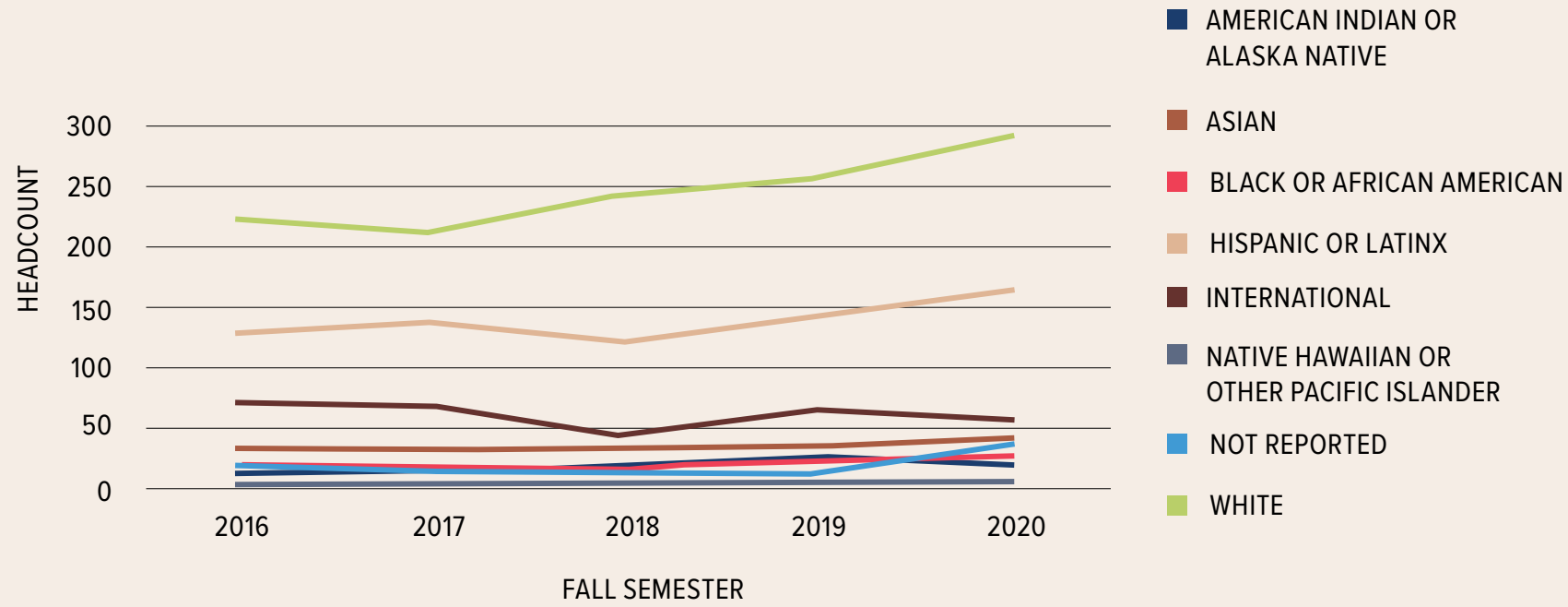


RACE/ETHNICITY	CAPLA	UARIZONA	ARIZONA RESIDENTS
AMERICAN INDIAN OR ALASKA NATIVE	3.7%	3.2%	5.3%
ASIAN	6.7%	9.4%	3.7%
BLACK OR AFRICAN AMERICAN	4.2%	6.5%	5.2%
HISPANIC OR LATINX	26.2%	28.3%	31.7%
INTERNATIONAL	8.6%	4.6%	
NATIVE HAWAIIAN OR PACIFIC ISLANDER	0.6%	0.9%	0.3%
NOT REPORTED	5.1%		
WHITE	44.9%	64.9%	54.1%

NOTES:
1. UArizona student race/ethnicity categories are based on 'Inclusive Race/Ethnicity'; therefore, percentages exceed 100%.

2. Arizona resident data is from July 2019 and includes all ages.

UNDERGRADUATE CAPLA STUDENTS
BY RACE/ETHNICITY (2016-2020)



NOTES:
1. Data based on fall census date time period for each fiscal year (21st calendar day of fall semester).
2. Data include Main, Online, Global (Peru) and Global (Direct) campus students.

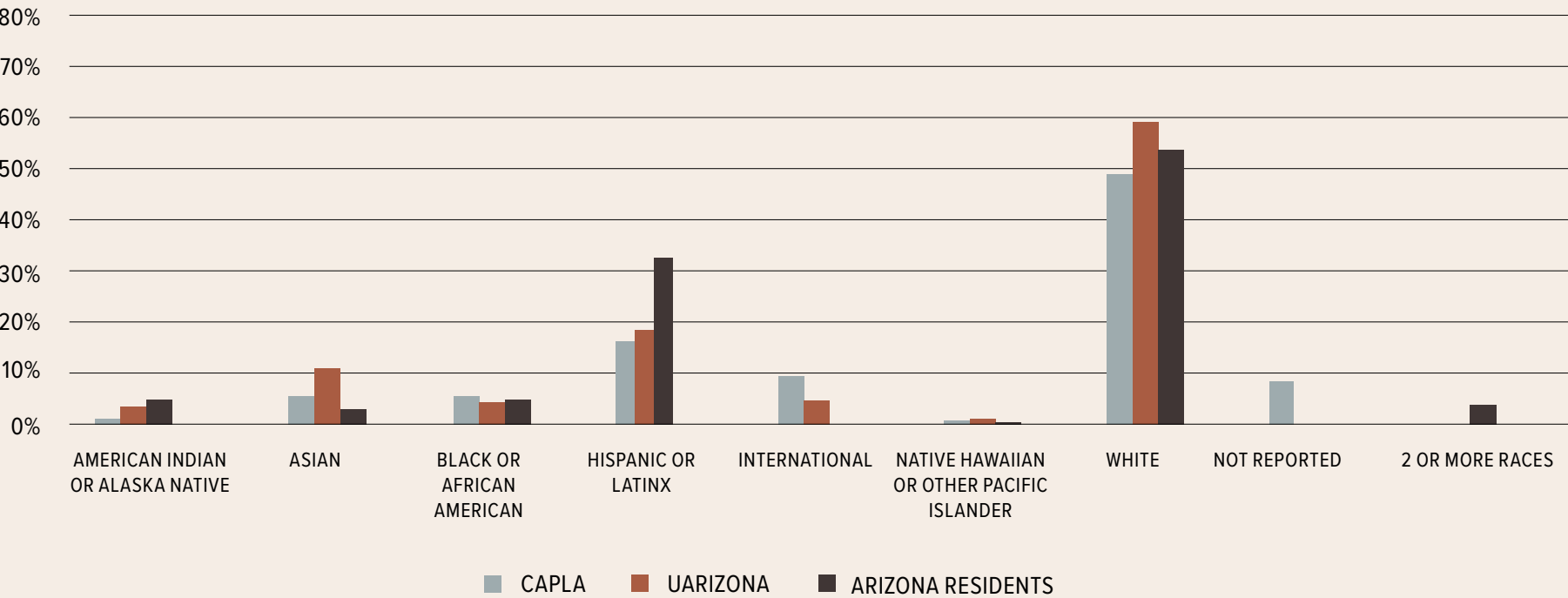
UNDERGRADUATE CAPLA STUDENTS
BY GENDER (FALL 2020)

GENDER	CAPLA	UARIZONA	ARIZONA RESIDENTS
FEMALE	45.5%	55.0%	50.3%
MALE	54.5%	45.0%	49.7%

NOTE:
Arizona resident data is from July 2019 and includes all ages.

CAPLA GRADUATE STUDENTS

GRADUATE CAPLA STUDENTS BY RACE/ETHNICITY (FALL 2020)

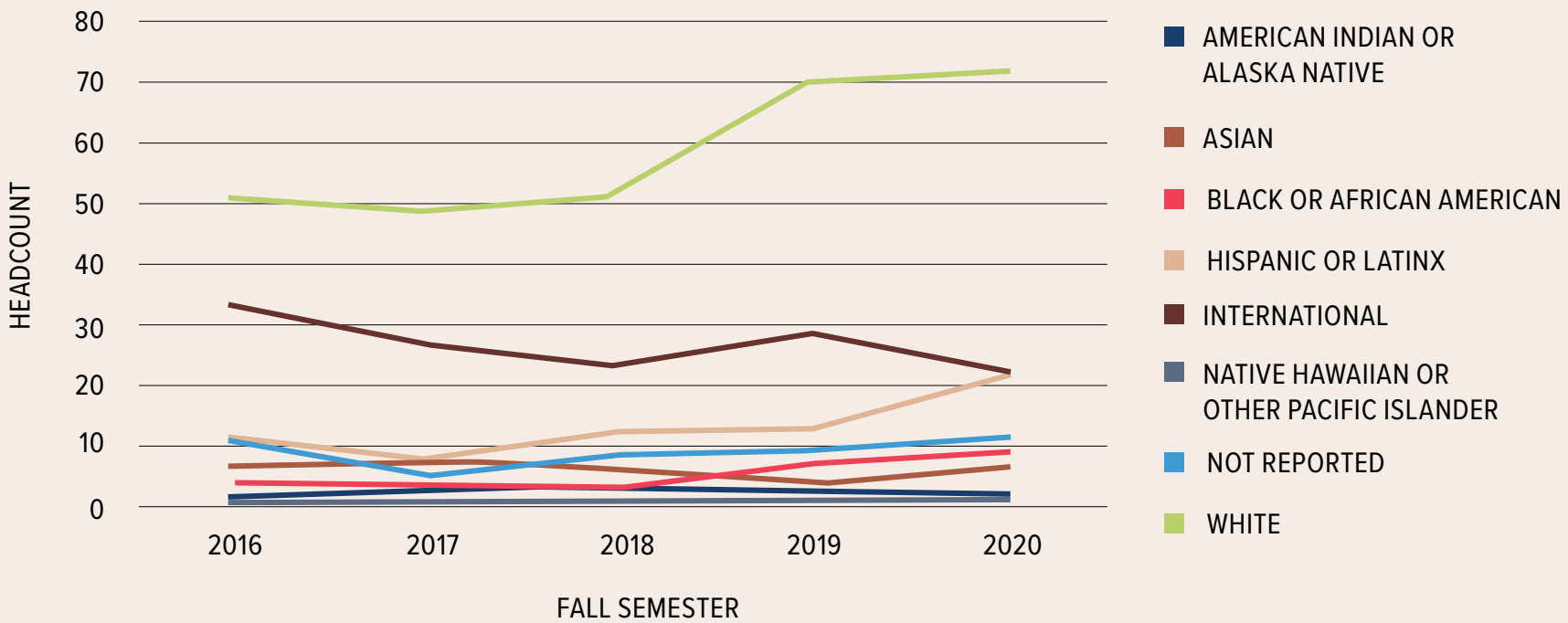


RACE/ETHNICITY	CAPLA	UARIZONA	ARIZONA RESIDENTS
AMERICAN INDIAN OR ALASKA NATIVE	0.7%	3.9%	5.3%
ASIAN	4.8%	11.8%	3.7%
BLACK OR AFRICAN AMERICAN	6.2%	5.0%	5.2%
HISPANIC OR LATINX	15.2%	18.9%	31.7%
INTERNATIONAL	15.2%	13.1%	
NATIVE HAWAIIAN OR PACIFIC ISLANDER	0.7%	0.7%	0.3%
NOT REPORTED	8.3%		
WHITE	49.0%	59.4%	54.1%

NOTES:
1. UArizona student race/ethnicity categories are based on 'Inclusive Race/Ethnicity'; therefore, percentages exceed 100%.

2. Arizona resident data is from July 2019 and includes all ages.

GRADUATE CAPLA STUDENTS BY RACE/
ETHNICITY (2016-2020)



RACE/ETHNICITY	FALL SEMESTER				
	2016	2017	2018	2019	2020
AMERICAN INDIAN OR ALASKA NATIVE	0	2	3	2	1
ASIAN	7	8	6	3	7
BLACK OR AFRICAN AMERICAN	3	3	3	6	9
HISPANIC OR LATINX	11	8	12	14	22
INTERNATIONAL	31	26	24	29	22
NATIVE HAWAIIAN OR PACIFIC ISLANDER	0	0	1	1	1
NOT REPORTED	10	6	9	10	12
WHITE	51	49	51	70	71
TOTAL	113	102	109	135	145

NOTES:
1. Data based on fall census date time period for each fiscal year (21st calendar day of fall semester).

2. Data include Main, Online, Global (Peru) and Global (Direct) campus students.

GRADUATE CAPLA STUDENTS
BY GENDER (FALL 2020)

GENDER	CAPLA	UARIZONA	ARIZONA RESIDENTS
FEMALE	42.1%	55.0%	50.3%
MALE	57.9%	45.0%	49.7%

NOTE:
Arizona resident data is from July 2019 and includes all ages.

APPENDIX C: CAPLA FINANCIAL INFORMATION

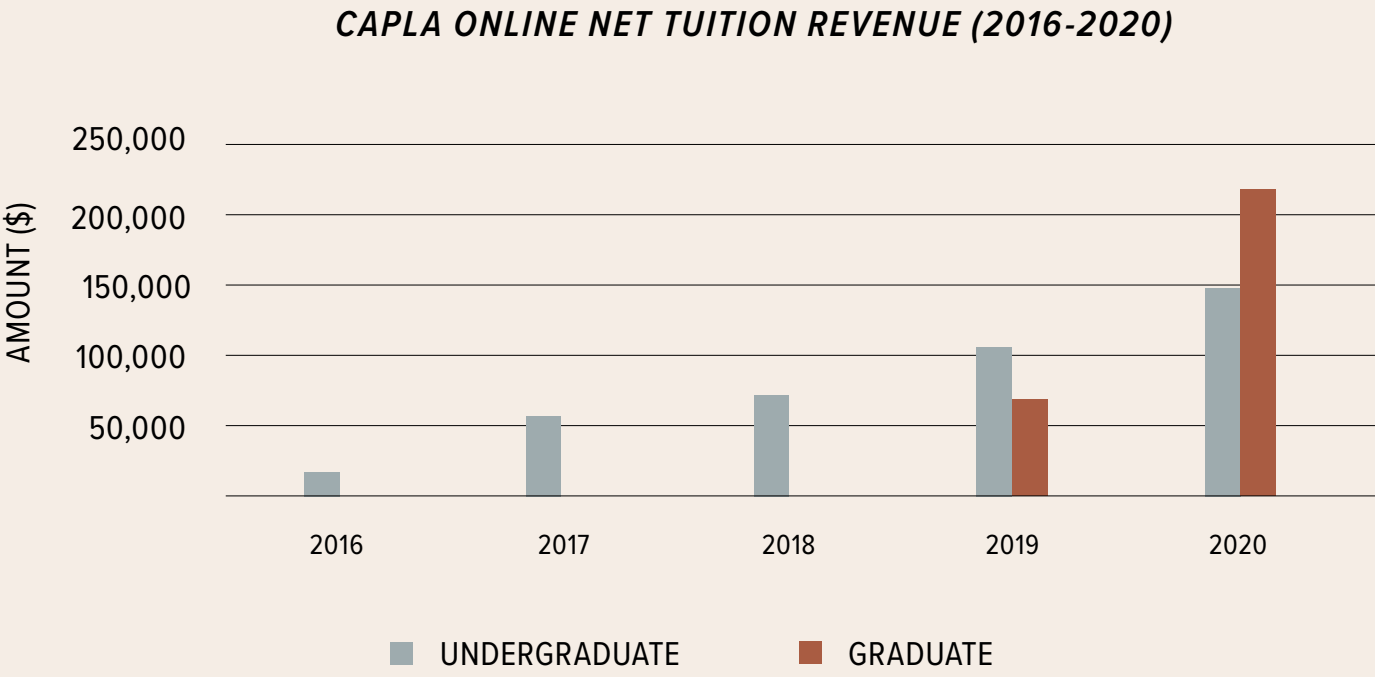
CAPLA REVENUE AND EXPENDITURES

CAPLA INCOME STATEMENT (FY 2018-2020)

FISCAL YEAR				
	2018	2019	2020	
SOURCES (OPERATING)				
STATE FUNDING \$	7,957,102	7,644,695	7,489,850	1.
PROGRAM FEES/DIFFERENTIAL TUITION \$	759,183	797,428	864,089	2.
F&A DISTRIBUTION \$	134,228	225,842	222,031	3.
OTHER LOCAL TUITION & FEES \$	297,133	308,197	522,242	4.
GIFTS/ENDOWMENTS (UA FOUNDATION) \$	313,225	322,622	525,535	5.
COMMITMENT FUNDING \$	328,667	676,539	608,548	6.
OTHER/MISCELLANEOUS \$	396,577	194,569	58,070	7.
TOTAL \$	10,186,116	10,169,892	10,290,364	
USES (OPERATING)				
PERSONNEL (WAGES) \$	5,929,615	6,078,992	6,223,224	
PERSONNEL (ERE) \$	1,969,138	1,988,280	2,081,089	
PERSONNEL TOTAL \$	7,898,754	8,067,272	8,304,313	
OPERATIONS \$	1,086,017	915,283	707,943	
TRAVEL \$	222,728	201,271	158,279	
STUDENT AID \$	254,801	290,022	256,120	
CAPITAL \$	40,814	9,979	1,798	
ADMINISTRATIVE SERVICE CHARGE \$	26,634	21,282	21,355	
TRANSFERS \$	146,745	200,062	186,074	8.
TOTAL \$	9,676,493	9,705,171	9,635,883	
NET CHANGE (OPERATING) \$	509,623	464,721	654,482	
USES (NON-OPERATING) \$	100,000	450,000	550,000	9.
TOTAL NET CHANGE \$	409,623	14,721	104,482	

NOTES:

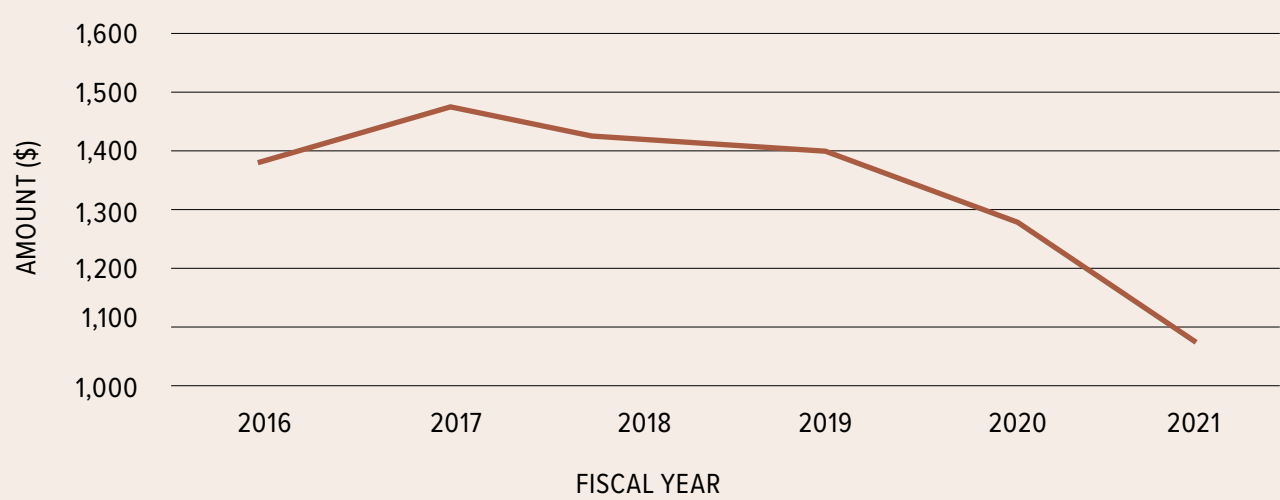
1. State Funding consists of student tuition and university support distributed to CAPLA from the university RCM business model.
2. Program Fees/Differential Tuition are not impacted by the growth rate for the rest of campus since 100% of the fees paid by CAPLA students for this source type comes right back to CAPLA.
3. 25% of the F&A Distribution funding source is allocated to CAPLA F&A accounts for distribution to the college, departments and PI. The remaining 75% of the F&A Distribution is allocated to CAPLA overhead costs for grant management.
4. The increase in funding for Other Local Tuition & Fees is primarily due to the growth in online programs.
5. UA Foundation allocations consist of expendable gift donations and endowment interest income realized in the UA financial system.
6. Most of the Commitment funding comes from the Provost Office for various reasons, including funding support for the microcampus program, CAPLA facility upgrades, research support and personnel support.
7. The Other/Miscellaneous funding section includes various sources such as AISS support for online programs and RII support for faculty research startup (no longer providing support effective FY21).
8. The Transfers expenses mainly consist of annual charges from central administration on CAPLA Program Fee/Differential Tuition accounts (Support Center Recovery overhead, Provost Investment Fund support) and our annual payment to ERAS in the College of Engineering for research support.
9. Non-Operating expenses for FY18 relate to the second- and third-floor remodel project. The activity for FY19 and FY20 relate to the CAPLA Building renovation project.



ACADEMIC CAREER	FISCAL YEAR				
	2016	2017	2018	2019	2020
UNDERGRADUATE	22,094	55,286	73,322	106,828	148,217
GRADUATE				69,292	232,307
TOTAL	22,094	55,286	73,322	176,121	380,523
YEAR OVER YEAR CHANGE (\$)		33,192	18,036	102,798	204,403
YEAR OVER YEAR CHANGE (%)		150%	33%	140%	116%

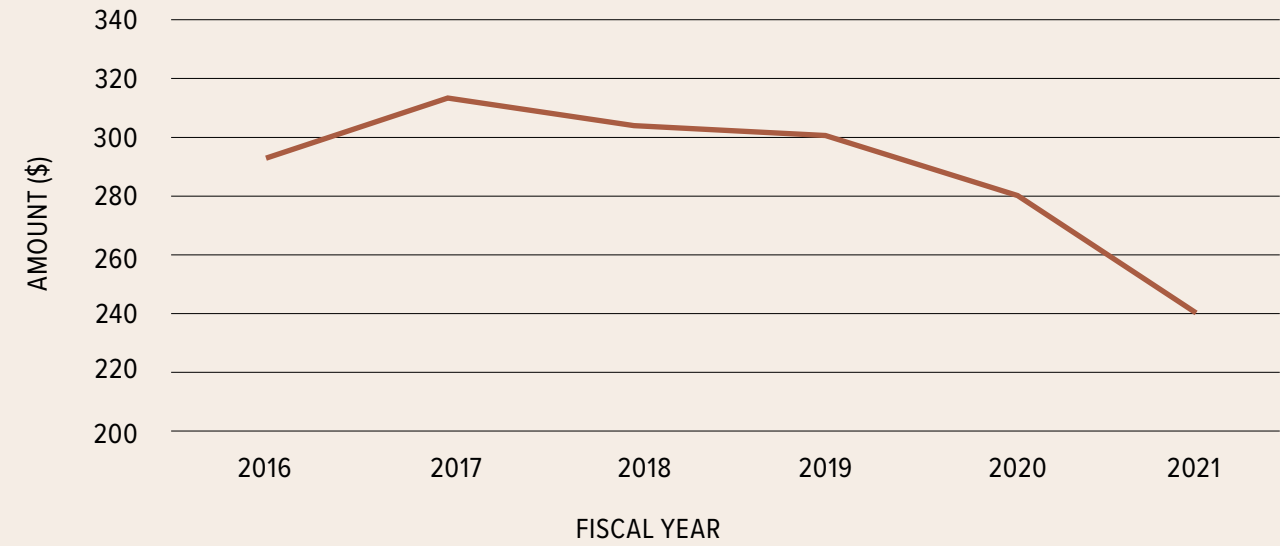
DECLINE OF MAIN CAMPUS NET TUITION REVENUE PER STUDENT

UNDERGRADUATE STUDENT \$/MAJOR
PER SEMESTER (2016-2021)



FISCAL YEAR	2016	2017	2018	2019	2020	2021
\$/MAJOR PER SEMESTER	1,396	1,478	1,422	1,398	1,287	1,082
YEAR OVER YEAR CHANGE (\$)		82	(56)	(24)	(111)	(205)
YEAR OVER YEAR CHANGE (%)		5.9%	-3.8%	-1.7%	-7.9%	-15.9%

UNDERGRADUATE STUDENT \$/STUDENT
CREDIT HOUR (SCH) (2016-2021)

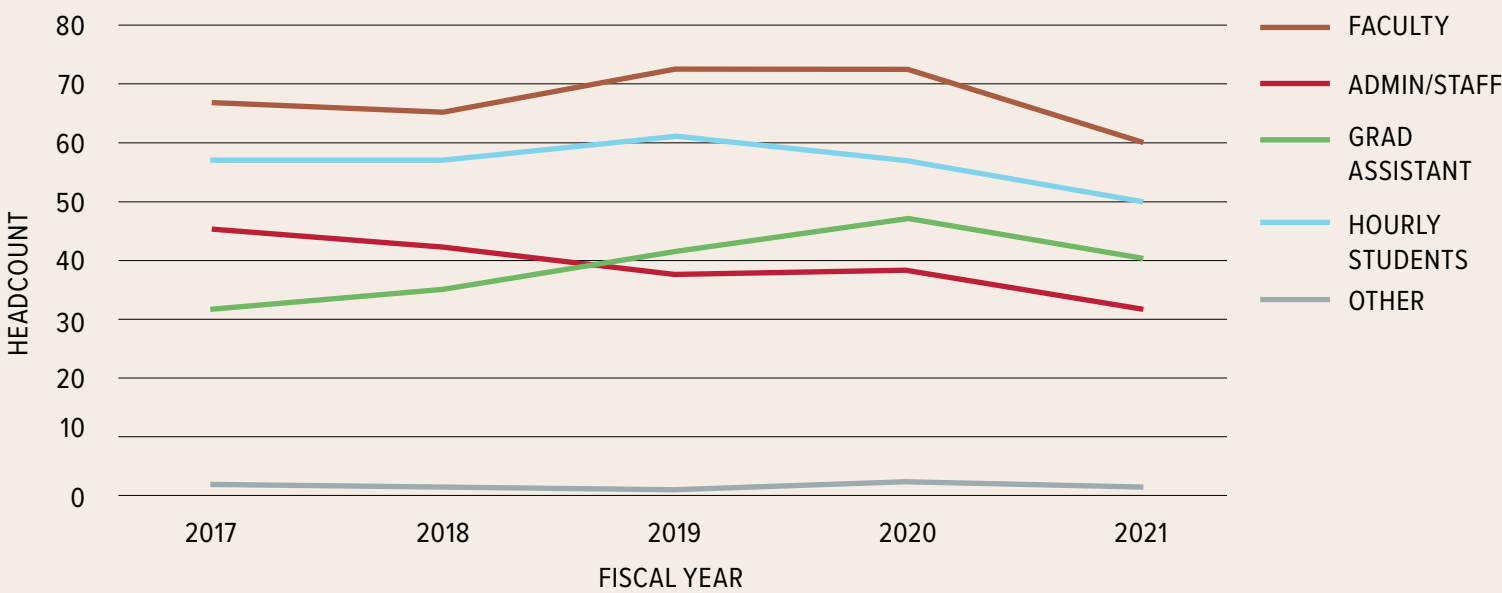


FISCAL YEAR	2016	2017	2018	2019	2020	2021
\$/SCH PER SEMESTER	293	313	303	300	280	240
YEAR OVER YEAR CHANGE (\$)		21	(11)	(3)	(20)	(40)
YEAR OVER YEAR CHANGE (%)		7.0%	-3.4%	-1.0%	-6.6%	-14.4%

NOTE:
The source data for the tables and graphs above comes from the University RCM Business model. The primary reason for declining net tuition revenue each year is due to increased institutional financial aid being paid out to main campus students.

CAPLA EMPLOYEE HEADCOUNT AND FTE

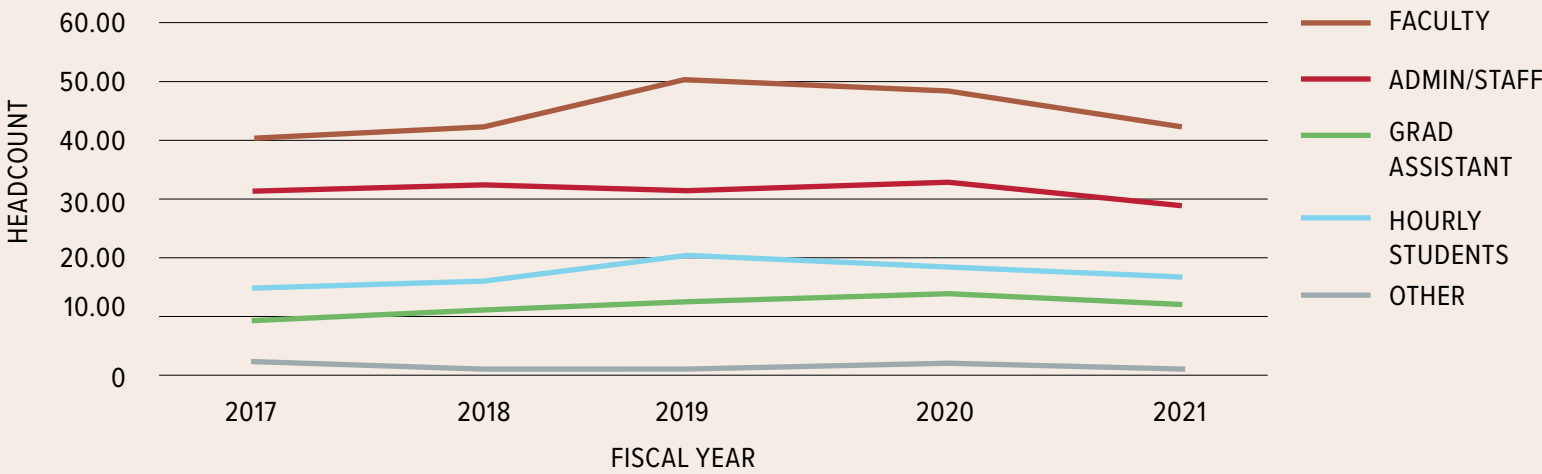
EMPLOYEE HEADCOUNT (OCTOBER 1ST SNAPSHOT, 2017-2021)



FISCAL YEAR	2017	2018	2019	2020	2021
FACULTY					
TENURED	17	22	24	23	21
CAREER-TRACK/NON-TENURED	50	44	50	51	39
TOTAL FACULTY	67	66	74	74	60
ADMINISTRATIVE/STAFF	42	40	37	38	33
GRADUATE ASSISTANTS	30	36	41	47	42
HOURLY STUDENTS	55	56	61	57	50
OTHER	3	2	1	2	1
TOTAL NON-FACULTY	130	134	140	144	126
EMPLOYEE HEADCOUNT TOTAL	197	200	214	218	186

2.

EMPLOYEE FTE COUNT (OCTOBER 1ST SNAPSHOT, 2017-2021)



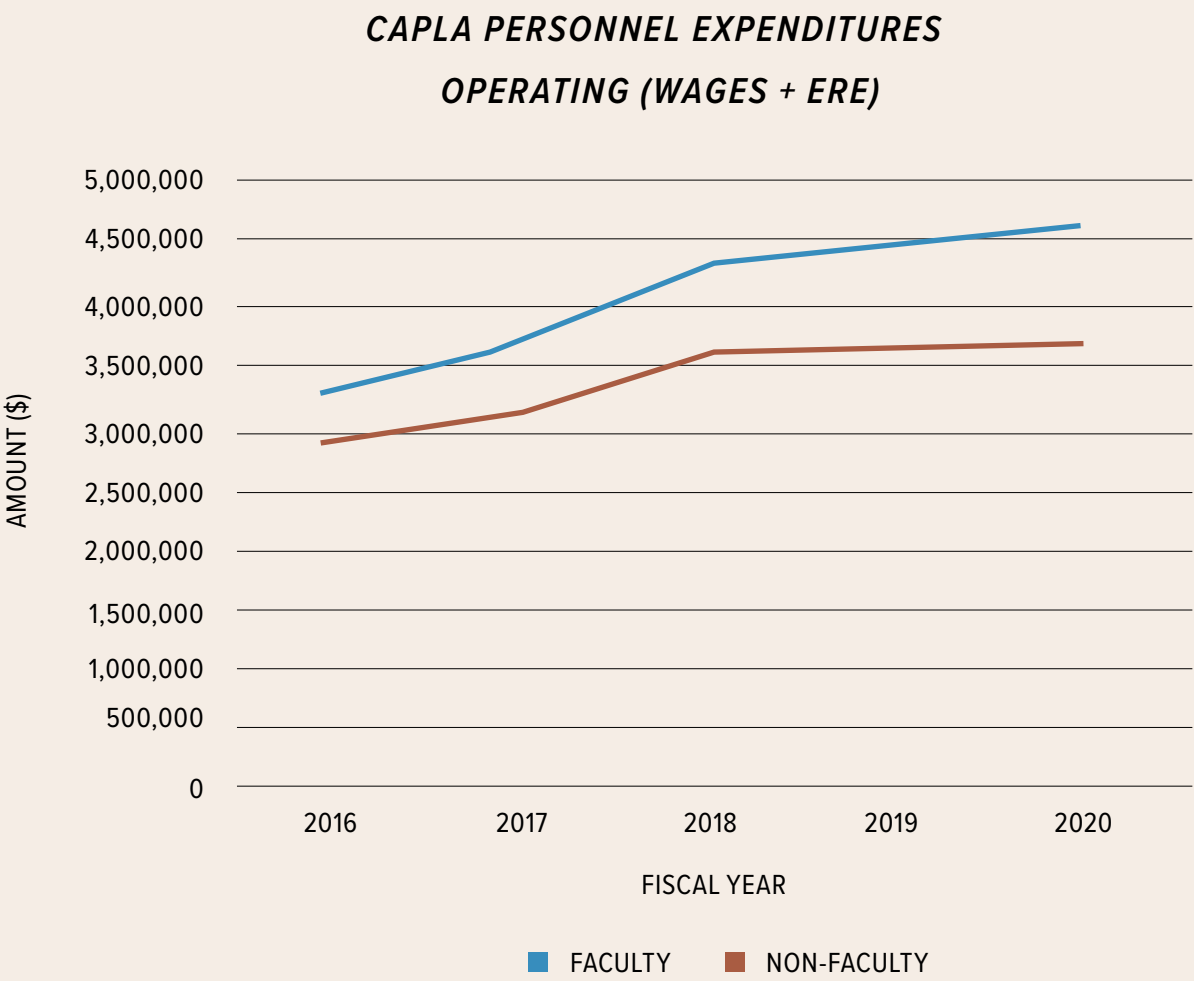
FISCAL YEAR	2017	2018	2019	2020	2021
FACULTY					
TENURED	16.50	21.50	23.50	22.50	21.00
CAREER-TRACK/NON-TENURED	23.67	22.20	26.56	26.07	22.38
TOTAL FACULTY	40.17	43.70	50.06	48.57	43.38
ADMINISTRATIVE/STAFF	32.18	33.15	32.87	33.73	29.54
GRADUATE ASSISTANTS	9.00	10.25	11.50	13.50	12.66
HOURLY STUDENTS	16.70	17.10	20.09	18.91	17.19
OTHER	3.00	1.50	0.95	2.00	1.00
TOTAL NON-FACULTY	60.88	62.00	65.41	68.14	60.39
EMPLOYEE HEADCOUNT TOTAL	101.05	105.70	115.47	116.71	103.77

3.

NOTES:

- 1. The Employee categories are derived from the ABOR Employee Classification.
- 2. The Other category line includes Postdoctoral Scholar and Academic Professional ABOR codes.
- 3. Hourly Student FTE count can fluctuate during a fiscal year since they have a wide range of FTE rates.

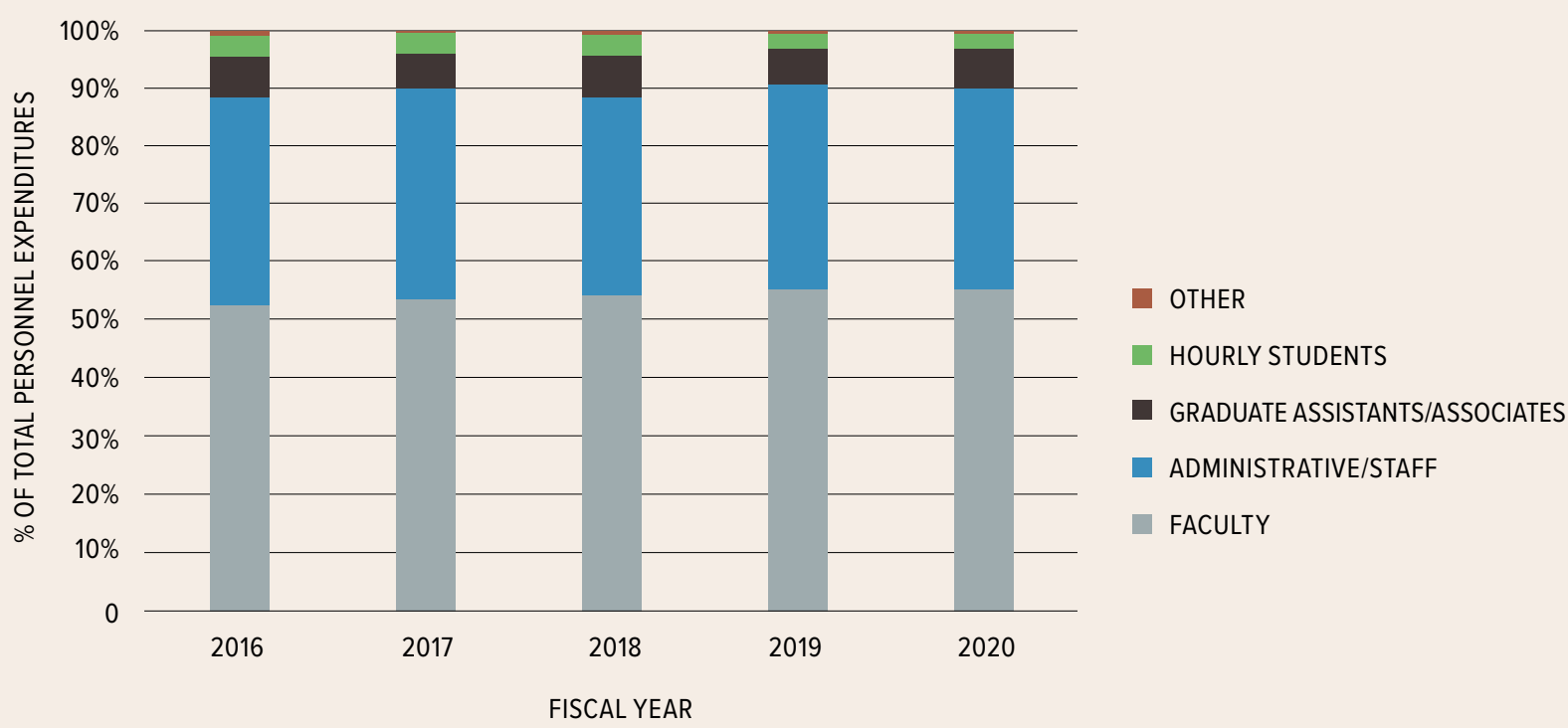
CAPLA PERSONNEL EXPENDITURES (2016-2020)



EMPLOYEE CATEGORY	FISCAL YEAR				
	2016	2017	2018	2019	2020
FACULTY (TENURED)	1,916,613	1,973,991	2,608,387	2,618,863	2,756,026
FACULTY (CAREER TRACK/NON-TENURED)	1,355,952	1,675,278	1,672,713	1,794,906	1,819,096
TOTAL FACULTY	3,272,566	3,649,269	4,281,100	4,413,769	4,575,122
ADMINISTRATIVE/STAFF	2,215,061	2,501,092	2,772,040	2,897,484	2,937,081
GRADUATE ASSISTANTS/ASSOCIATES	434,955	463,424	576,517	527,589	593,913
HOURLY STUDENTS	204,355	183,849	230,089	188,101	146,836
OTHER	69,981	22,933	39,007	40,330	51,361
TOTAL NON-FACULTY	2,924,352	3,171,298	3,617,654	3,653,504	3,729,191
TOTAL	6,196,917	6,820,566	7,898,754	8,067,272	8,304,313

NOTE:
The OTHER employee category consists of professional, academic professional and postdoctoral scholar labor activity.

CAPLA PERSONNEL EXPENDITURES:
OPERATING (WAGES + ERE)



EMPLOYEE CATEGORY	FISCAL YEAR				
	2016	2017	2018	2019	2020
FACULTY (TENURED)	30.9%	28.9%	33.0%	32.5%	33.2%
FACULTY (CAREER TRACK/NON-TENURED)	21.9%	24.6%	21.2%	22.2%	21.9%
TOTAL FACULTY	52.8%	53.5%	54.2%	54.7%	55.1%
ADMINISTRATIVE/STAFF	35.7%	36.7%	35.1%	35.9%	35.4%
GRADUATE ASSISTANTS/ASSOCIATES	7.0%	6.8%	7.3%	6.5%	7.2%
HOURLY STUDENTS	3.3%	2.7%	2.9%	2.3%	1.8%
OTHER	1.1%	0.3%	0.5%	0.5%	0.6%
TOTAL NON-FACULTY	47.2%	46.5%	45.8%	45.3%	44.9%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%

NOTE:
The OTHER employee category consists of Professional, Academic Professional and Postdoctoral Scholar labor activity.



Tarantulas in the CAPLA building? It's all for a purpose: demonstrating proper social distance as we prepared for re-entry in the fall. (A small pack of javelina, six Gila monsters and 12 tarantulas = safe social distance of six feet per person.) Thanks to CAPLA Facilities and IT Director **Lucas Guthrie** for crafting these critters.

“OUR *STATE OF THE COLLEGE AND ANNUAL REPORT* SUMS UP THE COLLECTIVE ACHIEVEMENTS OF CAPLA BUT I ENCOURAGE YOU TO READ THE SUBTEXT HERE—ONE OF RESILIENCE, HARD WORK AND ABOVE ALL CREATIVITY. THERE ARE MANY STORIES TO TELL.”

DEAN NANCY POLLOCK-ELLWAND

10 WAYS TO CONNECT WITH CAPLA

The College of Architecture, Planning and Landscape Architecture boasts an impressive network of alumni, industry partners and community leaders from across Arizona and around the world.

Your experience can have a major impact on our students, providing insight and inspiration as they prepare to take on life after college. Which is why now is the perfect time to find the right engagement opportunity with CAPLA.

1. PROVIDE CAREER ADVICE

Serve as an information resource and guide for a CAPLA student or alum.

2. BE A STUDENT OR ALUMNI GROUP HOST

Host a group of CAPLA undergraduate or graduate students or alumni at your place of business to help students learn more about careers and specific industries.

3. EMPLOY OUR STUDENTS

Open the door for a CAPLA student to obtain an internship or a full-time job at your firm.

4. SERVE AS AN EXTERNSHIP HOST

Allow a CAPLA student to shadow you so they gain an understanding of your field and the world of full-time work.

5. BE A GUEST SPEAKER

Share your experiences and insights in the classroom, at a student organization meeting or at a college-wide event.

6. MENTOR OUR STUDENTS

Help guide CAPLA students or alumni through choices as they develop interests and expertise and start taking steps towards life after graduation.

7. SERVE AS A PANELIST

Interact with groups of CAPLA students and other professionals by offering your insights and experiences as part of industry-specific panels.

8. PARTNER WITH CAPLA ON DESIGN/BUILD

Take advantage of our faculty expertise and student ambition for approved design/build projects.

9. PAY IT FORWARD

Your tax-deductible gift can make an impact on a student, assist with faculty research and help develop programs within the college. It can also help our rankings, since alumni giving percentage is often a factor.

10. TAP INTO CAPLA RESEARCH

Utilize CAPLA faculty research or design expertise for a business or community project.

Visit capla.arizona.edu/connect to get involved today.



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