

T GEOGRAPHY

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Department of Geography
NEWSLETTER

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## **Mapping Advocacy**



The UT Center for Sport. Peace and Society (CSPS) is committed to creating a more stable, equitable, and inclusive world through sport-based social innovation. With a longstanding commitment to empowering groups of people who are often overlooked, CSPS works diligently to advance the rights of persons with disabilities, locally and across the world.

One of the greatest challenges participants of CSPS programs had previously cited is the need for a greater

understanding of the international, regional, and national laws and policies designed to protect people with disabilities. Alumni express a pressing need to know what laws exist in their respective countries, as well as within their geographical regions, for the purposes of connecting prudent information directly to their efforts to create more inclusive grassroots and elite sports initiatives. It is out of this need that the idea for creating a one-of-a-kind interactive global map was born.

**Veronica Allen** ('20) began interning with CSPS in June 2019 under the direction of Carolyn Spellings, chief of evaluation, research, and accountability. She spent the summer researching laws and policies around the world that addressed gender equity, specifically in sport, as part of a project funded by the Stuart Scott Award from ESPN. After collecting a large data set on countries all over the world, there was a need to come up with an appropriate platform upon which to display the information. Allen suggested

putting it all into an interactive global Esri Story Map and reached out to Liem Tran, professor of geography, for advice on how this would be possible. Tran suggested she take the GEOG420: GIS in the Community course and make this her penultimate project. With project partner Jordan Romero, Allen spent the semester putting the map together in collaboration with the CSPS and Tran. It was a success!

Allen continued to intern for CSPS during the 2020 spring semester. Due to the positive feedback on how the first map turned out. CSPS asked if she could produce another one, this time on laws and policies that protected persons with disabilities. This project was in celebration of the 30th anniversary of the Americans with Disabilities Act (ADA). Allen went through a similar process of data collection and discussions around what the map could look like. This time, CSPS wanted to highlight the legal framework, stats on persons with disabilities, Paralympic information, and alumni from their Sport for Community mentor program. Allen determined a Dashboard map would be the best fit for this project. Allen, another intern, and Spellings spent the semester and summer putting it together and making proper edits to ensure that it would become a valuable resource for their alumni and others in the sport community to view stats on protections for persons with disabilities with a sport context. The global map was just one small part of their newly launched website, sportandpeace.com, to advocate for persons with disabilities and celebrate the anniversary of the ADA.

"The thing that stuck out to me most in these two projects is how dynamic GIS knowledge and capabilities can be. I was able to fuse two of my passions, GIS and sports, to create a meaningful resource for the Center. I was also fortunate to have Dr. Spellings as an advisor throughout the process," said Allen, who now applies the things she learned during the process to her new job with the Tennessee Department of Transportation. "At UT, Dr. Tran and Michael Camponovo consistently provided advice and guidance. I am so thankful for my experience as an undergraduate student in the geography department."

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**DEREK ALDERMAN**Professor and Interim Head

### On Being a (More) Responsive Department

I never expected to address you again as geography department head, but I am happy and honored to do so. I agreed to serve as interim head for the coming academic year while our program appoints a permanent replacement for Professor Ron Kalafsky, who provided excellent leadership

over the past three years. I am grateful to report that Ron is still at UT, but now serving as an associate vice provost in the Division of Student Success and director of the UT Honors Program. It is a perfect position for Ron given his life-long commitment to undergraduate student mentorship and program development.

Partly driving the decision to serve as interim head was my admiration for the department's culture of service-leadership, especially the work ethic and commitment of our staff, faculty, and students. I knew that I would have a strong team helping me. One of the hallmarks of our department is its responsiveness, its growing willingness to take on changes, challenges, and even crises. This quality has been prominently on display over the past several months as we navigate an unprecedented time in higher education—from the transitions and anxieties caused by the coronavirus to growing calls for our country and university to come to terms with systemic racism.

In response to the COVID-19 pandemic, our geography and sustainability instructors and teaching assistants are working overtime to teach fall courses online or work in specially designed classrooms—all while our department has seen an almost 20% increase in enrollment compared to the fall 2019 semester. Many of them have put professional and personal needs and plans on hold to do this inspiring work. No less important is the rapid mobilization of our staff members, especially Nathan McKinney, Pam Sharpe, Molly Green, and Connie Mroz, in helping us prepare logistically for the challenges of operating a major academic department in the middle of a public health emergency.

Our community is not only adapting to the COVID crisis, but also showing an amazing level of civic and scientific creativity. For example, Michael Camponovo, our GIS outreach coordinator, has spent the past several months hosting "Zoom Side" chats (with no disrespect meant to FDR's fireside chats) that create a new online space where students, alumni, faculty/staff, and other stakeholders can assemble, interact, and learn from each other. This innovation along with Michael's ongoing virtual career coaching series are truly special initiatives that will have a long life after the pandemic.

Noteworthy is the public-facing research leadership of our faculty, alumni and students. Professor Liem Tran, in serving

as COVID-19 outbreak response expert for UT, has spent months using spatial modelling to estimate coronavirus reproduction rates and hotspots in Tennessee, particularly in light of hospital resources and vulnerable populations. Also this past year, Liem provided geospatial analysis to the UT System's Summit for Opioid Addiction and Response, powerfully demonstrating the power of a geographic perspective to inform university leaders and public officials.

Beginning as a class project in Geography 509, Professor Nicholas Nagle and Jesse Piburn have developed COVID-19 NOWcast, a widely adopted model that estimates daily rates of COVID incidence for each of the 95 counties in Tennessee. Jesse is an alumnus of our program (BA '10, MS '13), an ORNL research scientist, and currently finishing his PhD in data science and engineering at UT. Department researchers are also formulating more qualitative responses to COVID, as demonstrated in the ongoing thesis work of MS student Yael Uziel. Yael is using humanistic, participatory mapping to unpack the emotional labor of UT students as they navigate COVID-threatened spaces.

Also gripping the country and our university community is the much older, but no less lethal pandemic of white supremacy and state-sanctioned violence against Black communities—tragically brought to the light once again with the recent murders of Ahmaud Arbery, George Floyd, Breona Taylor, and others. Led by Assistant Professor Solange Muñoz and a team of faculty and students, our department is answering the university's call for a full-throated diversity action plan, a plan that would make inclusion and antiracism more central, accountable parts of our unit's student-centered culture and climate.

A number of us in the geography department are working right now to advance public conversations about racism and other forms of oppression, whether that means writing op-eds, participating in virtual teach-ins, authoring and signing letters of solidarity, or partnering with non-profits and activist initiatives. The arrival of two new faculty colleagues to Knoxville, LaToya Eaves and Nikki Luke—both of whom bring innovative work in social justice and records of disciplinary and community engagement—promise to significantly expand our capacity to study and challenge the inequalities that harm our university and wider communities.

In closing, while none of us fully knows what the future holds, the geography department continues to cultivate—now more so than ever—an ethics of care for each other, our students and alumni, and public groups. But, there is still much work to be done, and we invite you to be part of our drive for greater responsiveness—whether that means contributing to our virtual career coaching program, developing alumni initiatives to address racism and center Black Lives, or lending your skills and voices to public education about the pandemic. Thanks for your time. I wish you good health and safety for the coming year.



#### **Paying it Forward**

At least once a week, **Hannah Gunderman** ('18) finds herself strategizing about ways she can engage with the UT Department of Geography. She is a proud alumna and makes it a priority to stay involved.

"It would be an understatement to say that I care about the geography department," Gunderman said. "There was something really special about my experience that makes me want to continue being involved in any way that I can and pay it forward to students currently in the program."

Working with Professor Derek Alderman as her dissertation advisor, Gunderman earned her PhD in geography and decided to pursue a career in academic librarianship. She started down this path as a postdoc in the UT School of Information Sciences (SIS) in September 2018 and a year later, began working in her current role as a research data management consultant at Carnegie Mellon University. During her postdoc at UT, however, Gunderman could not get geography—or the Burchfiel geography building—off her mind.

"The postdoc in SIS changed my mental map of UT's campus, which had previously been so rooted in the Burchfiel geography building that I found myself making excuses to pop over to Burchfiel whenever I could," Gunderman said. "Needed a walk at lunch? I'd head over to Burchfiel! Needed some water? The water fountains in that building are the best! It was clear that, although my professional sphere at UT had shifted, my heart still remained with UT geography."

Gunderman's commitment to giving back to the department began during her internship at the Oak Ridge National Laboratory (ORNL) as a doctoral student in the former geographic information science and technology group. For several years, she served as a bridge between ORNL and the department. Gunderman connected students with information about opportunities at the lab and mentored several students on career development and professional growth, both as a doctoral student and in her role as a postdoc in SIS.

"I quickly learned how much I loved giving back to the department that provided so much for me as a student," Gunderman said. "While my postdoc duties over in SIS kept me busy, I always made time for coffee chats at Golden Roast, my favorite Knoxville coffee shop, with UT geography students."

Shortly before Carnegie Mellon and UT went fully online due to the coronavirus pandemic, Gunderman visited Knoxville for two information sciences conferences and saw an opportunity to conduct a data management workshop for UT geography students while she was in town. During the workshop, students drew from Pokémon to learn more about documentation and workflows, chatted through file naming schemes, and engaged in conversations on tools for storing and sharing geospatial information.

"It was an incredible experience to watch these students go through these activities and also see myself through a completely different lens being back in Burchfiel," Gunderman said. "Conducting the workshop in the very same room where I used to write my dissertation, have committee meetings, and meet with students, I saw how I could continue to enrich the department as a faculty member at another institution."

Gunderman recently participated in a five-week career coaching program, led by GIS Outreach Coordinator, Michael Camponovo, where she learned techniques for growing her career and gained the opportunity to network, mentor, and connect with other UT geography alumni.

With the ongoing pandemic, Gunderman is not sure when she will be able to visit with UT geography students in person again, but she plans to continue her outreach in a virtual environment through guest lectures, data management workshops, and a Zoom-Side Chat with Michael Camponovo.

"I am always available to talk with any students or alumni who are interested in exploring the academic librarianship career route, for which geography is an excellent foundation," Gunderman said. "I consider my outreach and engagement with UT geography to be one of the most important service activities of my career, and I hope to continue this for many more years to come."



While many student organizations focus on one selective topic, such as a particular interest group or cause, GeogGrads, more formally known as the Graduate Association of Research Geographers at UT, addresses the needs of its graduate students in the moment while building a foundation for future geographers to come. Membership for GeogGrads is open to all graduate students interested in geography, including those outside the geography department; all that is required is an interest in geography as a discipline. An executive board of officers works on the behalf of student members, but any member can put forward requests for events or topics for discussion.

In typical years, GeogGrads hosts events such as bowling, hiking, and social opportunities, as well as service opportunities for those wanting to work in the community. Things this year are a little different, but GeogGrads has shifted to providing those social connections in an online space instead. Friday nights serve as an informal social space in which members of the geography community can collaborate, socialize, and even practice their presentation skills in preparation for conferences.

A promotional event GeogGrads hosts every other year is a graduate and undergraduate symposium titled GeoSym. Students and faculty alike are invited to speak on the topic of their research in poster, paper, and lighting-style sessions. Additionally, an invited speaker will deliver a keynote address on the topic of the symposium. Due to concerns regarding COVID-19, GeoSym did not take place this year, but there are ongoing discussions within GeogGrads for hosting a virtual conference in the spring.

Perhaps the most important student-recruiting event GeogGrads does as an organization is Geography Awareness Week, in collaboration with the Tennessee Geographic Alliance in mid-November. Traditionally, members set up activities on the Burchfiel plaza and promote the field of geography and study abroad opportunities during class change. In addition, GeogGrads organizes an open house and invites students from all disciplines to learn about the field of geography and hear presentations from many of the department's professors and staff.

A new development this year, led chiefly by GeogGrads Treasurer Yael Uziel, is the creation of a resource guide for graduate students in need. Information regarding food banks, temporary assistance, and care for one's physical and mental health in this COVID-19 climate are all provided in one spot, and the document is ever-growing with new contributions from various sources. An average of 30% of students in Southern Appalachian colleges, both undergraduate and graduate, experience food insecurity, and rates of mental health in graduate students have been worsening for decades. The guide allows anyone in GeogGrads to access resources safely and anonymously without fear of stigma.

GeogGrads is a space for geography-interested graduate students to learn, work together, and have fun. The organization continuously grows and develops to help make the field of geography exciting and open for all. During COVID-19, GeogGrads has pivoted to be a safe online space. Members are working to aid new graduate students transitioning into the department during this time. GeogGrads all create a community, address needs, and promote the ever-important field of geography.

## **Applying a Unique Perspective**

LaToya E. Eaves is an assistant professor of geography, joining the faculty in August 2020. Prior to arriving at UT, Eaves worked at Middle Tennessee State University, where she served as assistant professor and founding faculty member in the Department of Global Studies & Human Geography. Eaves earned her PhD from Florida International University in the Department of Global and Sociocultural Studies, with a major field in geography.

Eaves's service to the discipline of geography is far reaching. She was recently elected a national councilor and serves as treasurer of the American Association of Geographers (AAG). Additionally, she serves on the Harassment-Free AAG Task Force, which has been responsible for some groundbreaking policies and protections in our field. Further, Eaves is the lead co-founder of the Black Geographies Specialty Group (BGSG) of the AAG. She served as the inaugural chair from 2017-2020 and co-chaired the 2018 Black Geographies conference theme at the 2018 AAG New Orleans meeting. In recognition of her service to the discipline, Eaves received two of the AAG's most coveted awards: the 2019 Ronald F. Abler Distinguished Service Honors and the 2019 AAG Enhancing Diversity Award.

In her research, Eaves develops and applies a uniquely geographic perspective to the study of race, gender, and sexuality—all with an un-flinching commitment to social and spatial justice and establishing collaborative relationships between researchers and communities. Eaves's work has appeared in the Journal of Geography in Higher Education, Dialogues in Human Geography, Geoforum, Gender, Place & Culture, and Southeastern Geographer. Eaves was recently awarded a research grant from the National Science Foundation (NSF), for which she serves as PI, to study the role of African American history museums as part of a critical race perspective on civic engagement and heritage tourism in the United States.



The grant is a collaboration across five universities, including East Tennessee State University, Eastern Michigan University, Georgia Southern University, and Texas Tech University. The funds will be used for a multi-sited project, analyzing the role of race, heritage, memory, tourism, and community

and civic engagement through African American history museums at four geographic sites across the United States. The project will provide a lens into understanding the extent to which museums serve the public through documenting, preserving, and interpreting Black culture and history and difficult events alongside and in partnership with their communities. Additionally, the project will seek to understand the role of African American history museums within their communities, cities, and the larger museum landscape, and how museum professionals address controversial current events as part of their missions to support communities at the local, regional, and national scales. The research is part of Tourism RESET, an initiative that seeks greater social responsibility in the representation of African American heritage in tourism.





## **Evaluating Energy Infrastructure**

Nikki Luke joins us this year as an assistant professor. Luke is an urban geographer with a concentration in energy and labor politics. Her research investigates urban energy policy and governance and the effects of changes in energy infrastructure on workers and communities in the American South. She has published in the Annals of the American Association of Geographers, Antipode, Social and Cultural Geography, and Southeastern Geographer.

Luke has also contributed to interdisciplinary policy research, including with the University of California, Berkeley Labor Center. This work examined how climate policy can support the creation of high-quality jobs and studied effective job training pathways to bring women and workers from historically marginalized groups into the clean energy sector. She has received support for her research from the National Science Foundation and the Fulbright Program. Luke completed her PhD at the University of Georgia in 2020. Originally from southwest Virginia, she is overjoyed to be back in Appalachia and joining the UT geography faculty.



**FACULTY** 



#### Informing the Debate

UT Knoxville has joined The Conversation—an independent source for news articles and informed analysis written by the academic community and edited by journalists for the public. Through our partnership, we seek to provide a better understanding of the important work of UT's faculty.

Faculty write articles that can inform public debate through responsible, ethical, and relevant evidence-based journalism. The Conversation provides a fact-based and editorially independent forum, free of commercial or political bias.

Nicholas Nagle, an associate professor of geography whose research centers on the design and analytics of population surveys, wrote "Census 2020 will protect your privacy more than ever - but at the price of accuracy," published April 6, 2020. Read the full article online at tiny.utk.edu/nagle.

Solange Muñoz, an assistant professor of geography who explores how the poor struggle to live and remain in the city despite government practices and policies and economic structures that exclude them from access to formal housing, wrote "The coronavirus pandemic is making the US housing crisis even worse," published April 17, 2020. Read the full article online at tiny.utk.edu/munoz.

Our partnership with The Conversation is a great opportunity to engage the public in research conducted by UT faculty. Tennesseans and others can access a diverse range of critical research, demystifying academic inquiry by keeping it in the public eye. UT's scholars can help provide insight into society's biggest problems. The Conversation's content is freely available to news outlets of all sizes in communities around the world—from Tennessee's smallest towns to the world's largest cities.

#### Movement in Black Geographies

In August, co-project investigators, **Derek Alderman** and **Joshua Kenna** were notified they had received a grant from the National Endowment for the Humanities to host a three-week summer teacher institute in 2021 titled "Geographic Mobility in the African American Freedom Struggle."

The proposed institute is a joint effort between Alderman, professor in the UT Department of Geography, and Kenna, associate professor in the UT Department of Theory and Practice in Teacher Education, with support from the Tennessee Geographic Alliance and Ethan Bottone ('20). The institute will provide 25 K-12 educators from across the US with an opportunity to participate in the NEH special initiative "A More Perfect Union" by exploring the history of the Civil Rights movement through geographic mobility—given that unfettered geographic mobility is a core democratic principle at the heart of the African American freedom struggle.

The goal of the planned institute is to contribute to the intellectual growth of participating educators and prepare them to create and disseminate important synergies between the teaching of history and the teaching of geography—two subjects increasingly joined together in the educational standards of many states.

"Our project promises to bring together new critical scholarship in Black geographies to practicing teachers, which will in turn help their students learn how geographic mobility has long been central to the fight for African American civil rights and self-determination," Alderman said. "While such a pedagogical approach is long overdue, it is urgently needed now as the nation reckons with the unjust way that the movements of Black communities continue to be policed and controlled."

The institute's foundational theme of geographic mobility, while informed by the traditional importance geographers place on spatial interaction, draws heavily from the more recent interdisciplinary "mobility turn." This newer approach to mobility recognizes that the dynamics of where, when, and how we move is a product of social relations, the exercise of power, and cultural identity. Many types of movement will be addressed by the institute in the context of Black experiences in the US. The institute seeks to create a space for critical inquiry and collegial interaction that can help participants bring together and apply these two relatively recent intellectual approaches—the "mobility turn" and "Black geographies."

"This is a huge deal for me to have the opportunity to contribute to this project as I approach the end of my career," said Butefish, TGA program coordinator. "My work with previous institutes has provided some of the most memorable and rewarding highlights of my time at UT. Getting to work with the best of the best scholars in geography and related fields is so inspiring. And, I made lifelong friends with some of the many wonderful teachers from across the US who participated in those earlier institutes. I'm excited at the prospect of forging new friendships amongst this year's cohort."

# Engaging K-12 Students in Scientific Research

In 2018, under the leadership of **Becky Trout Fryxel**, associate professor of medical and veterinary entomology, a unique team of partners from the UT Departments of Plant Pathology, Geography, and Theory and Practice in Teach Education, the Tennessee Geographic Alliance (TGA), and Brian Smith, a local middle school teacher, were successful in procuring a three-year grant from the US Department of Agriculture for the Medical Entomology & Geospatial Analyses: Bringing Innovation to Teacher Education & Surveillance Studies (MEGA:BITESS) project. It leverages medical entomology, geospatial techniques, and geographic pedagogies by providing professional development for grades 6-12 educators.

The project's relevance to the East Tennessee community is its focus on La Crosse encephalitis, the leading pediatric arbovirus transmitted by mosquitoes in the continental United States. Independently, the fields of entomology and geospatial sciences are understaffed. When combined, the result is decreased surveillance and increased response times for pathogen detection, which puts human and animal health and food security at risk. The project's long-term goal is to develop an informed Science, Technology, Engineering, Arts, and Math (STEAM) teaching community that integrates inquiry-driven learning with community-needed service projects.





Brian Smith ('05), a social studies and GIS teacher at Jefferson Middle School in Oak Ridge, is key to the success of the program. For almost a decade now, Smith has designed and facilitated geospatial technologies teacher professional development programs for the Tennessee Geographic Alliance. Many of these have been in partnership with the UT Department of Geography. His unique skillset combines an ever-expanding understanding of geospatial software, how it can effectively be used in the K-12 classroom, and an engaging teaching style that highlights equal parts pedagogy and patience.

The MEGA:BITESS project is unique because it directly engages students in authentic scientific research in the field. Students prepare and set ovitraps in locations around their school to collect data weekly using egg papers and datasheets, and then record that data in a Google form that can combine the ovitraps' geographic location and physical surroundings. Since this data is provided for analysis by the University of Tennessee Institute of Agriculture, students are excited about working with UT. It is also important to them since La Crosse encephalitis affects young people because they do not have the immune systems to fight off the disease, which is difficult to detect.

"In a very real way, students see this as a chance to make an impact in their community," Smith said.

Smith assists Michael Camponovo, GIS outreach coordinator, in educating participating teachers how use and create geographic data with ArcGIS Online and

GIS mapping applications like Survey123. He has also developed lessons for teachers to use to build their GIS skills they can share with their students.

"This is incredibly important since entomology and geospatial skills are not typically taught to preservice teachers; resulting in a critical need to increase the awareness of agricultural sciences and to develop students with the desire to pursue entomology and geospatial technologies as career pathways," said Smith. "Working with the TGA has given me the opportunity to grow by learning and sharing with numerous geographers and teachers across the state."



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#### **Allyship and Antiracism Work**

As a college and institution of higher learning, it is our mission to promote intellectual inquiry and effective civic engagement within the context of respect for diversity. Our ability to educate is one tool for making change in the world. We can demand change in our community, but first, we have to educate our community on why that change is necessary.

One way we do this is through the College Conversations: Allyship & Antiracism series, which features faculty members in the college whose research focuses on identifying racism, how to become an antiracist, and other topics related to allyship and antiracism.

Derek Alderman, professor and interim head of the UT geography department, presented Embattled Names, Racialized Memories, and Wounded Places, with colleague Gregg Ferguson, a community activist and educator, July 30.

Learn more at tiny.utk.edu/cas-conversations.



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