KAGES NEWSLETTER

WWW.KAGES.ORG

한미 지리정보 및 환경과학 협회 소식지

발행인: 허미선   편집: 이지은. 전범석

From The President
회장 인사말

KAGES 회원 및 후원자 여러분 안녕하세요?

새로운 2023 계묘년이 밝았습니다. 올해도 무탈하시고 하시는 모든 일 잘 되시길 기원하겠습니다.

지난 가을 저희 KAGES 의 윤리위원회에서는 University of Central Arkansas 의 이승연 교수님을 모시고 직장내 먼지차별 (microaggression in everyday life)에 대한 윤리 워크샵을 성공적으로 열었습니다. 반효원 윤리위원회 회장님 및 위원회 멤버 여러분의 노고에 감사드립니다. KAGES 학생 소모임인 Future for Women Geographers (FWG) 에서도 이화여자 대학교의 이영민 교수님을 모시고 말씀을 듣는 등 지속적인 활동을 하고 있습니다. 또한 올해도 심선희 교수님과 대한지리학회의 후원으로 두 학생회원님께 Sim Travel Award 를, 그리고 한 학생회원님께 Student Paper Award 를 수여할 수 있게 되었습니다. 이 자리를 빌어 세심한 리뷰를 해 주신 권영상, 최영래, 이진형, 박유민, 그리고 정진규 박사님들께 감사드립니다.이 모든 활동들을 계획, 운영하신 모든 분들 및 적극적으로 참여하고 함께 네트웍을 만들어 가고 있는 모든 멤버분들께 감사한 마음 전합니다.

이번 뉴스레터에는 Oregon Institute of Technology 의 이수진 교수님과 University of Illionois Urbana-Champaign 의 박진우 박사님께서 연구글을 주셨습니다. 또한 지난 해에 이어 올해도 KAGES 윤리위원회에서 글을 연재해 주고 계십니다. 지난호 차호섭 교수님의 기고에 이어 이번호에는 안기철 교수님이 글을 보내 주셨습니다. 이외에도 크고 작은 회원분들의 소식 나눔 및 어워드 수장자의 정보 등등 가득합니다. 귀한 글들, 소중한 소식들 감사드립니다.

올해 2023 년 KAGES 총회는 콜로라도 덴버에서 열릴 AAG Conference 현장에서 in-person 으로 진행될 예정입니다.

온라인으로 참석하실 회원님들을 위해 버츄얼 옵션도 제공될 예정이오니 많은 참석 바랍니다. 저희 KAGES 2023 년 총회는 3 월 25 일 저녁 6 시 (마운틴 타임)로 계획하고 있으며, 총회 후 저녁 식사를 계획하고 있으니 참석하셔서 함께 네트워크를 할 수 있기를 바랍니다.

KAGES 총회 이외에도 AAG 의 세션으로 두차례의 Young Korean Geographers Forum 및 멘토링 세션을 계획하고 있습니다. 구체적인 일정 및 세션 구성 등의 안내는 차후 이메일 및 KAGES 홈페이지를 통해 알려 드리겠습니다. 아주 오랜만에 반가운 얼굴을 만나서 나눔의 시간을 가질 생각을 하니 아주 설레입니다. 곧 덴버에서 뵙겠습니다.

인사말을 마치며, 이지은 편집장님과 전범석 부편집장님의 노고에 감사드립니다.

2023 년 1 월 허미선 드림.

Dear KAGES members and sponsors,

Warm greetings to you! Happy New Year! Wishing you and your family health, happiness, and success in 2023.

I am excited to bring you to another edition of the KAGES Newsletter. I know you will enjoy reading more about KAGES members thriving in action. The KAGES Ethics Council successfully held an Ethics Workshop with Dr. Seungyeon Lee (University Central Arkansas) about an eye-opening topic, microaggression in the everyday life. A KAGES student-affiliated group, the Future for Women Geographers (FWG), also had a round table discussion with Dr. Youngmin Lee (Department of Social Studies Education at Ewha University), focusing on gender and feminist geography in South Korean academia. This year, KAGES has selected recipients of two Sim Travel Awards (sponsored by Dr. Sunhui Sim) and a Student Project Award (sponsored by the Korean Geographical Society). The awards will be presented during the 2023 KAGES general meeting. I want to thank all award/scholarship reviewers, board members, the leadership of the

student affiliate group and the Ethics Council, and all event participants for your interest and time.

This KAGES newsletter features a special contribution by Dr. Gi-Choul Ahn from the Ethics Council, research introductions by Drs. SuJin Lee (Oregon Institute of Technology) and Jinwoo Park (University of Illionois Urbana-Champaign), KAGES Awards & Scholarship announcement, and numerous news by members.

We are pleased to announce that KAGES is planning an in-person general meeting at the AAG Annual Conference in Denver, CO, on March 25, 2023, at 6 PM, MDT (March 26, 2023, 9 AM, KST). We will also offer a virtual option for those who cannot make the in-person meeting. Please join us to share a sense of community and build a network. KAGES will also host two Young Korean Geographers Forums and a mentoring session during the AAG conference. More information will be announced later via email or the KAGES website (https://kages.org/).

I hope you enjoy learning about the exciting news in this 2023 Winter KAGES Newsletter.

Sincerely,
Misun Hur, January 2023

KAGES Forum
An impact of municipal policies on the distribution of green cover

이수진
(SuJin Lee)
Assistant Professor of Geomatics
The Geomatics program
Oregon Institute of Technology

Nature's services provided by green cover are important to environmental conditions in cities and their ability to adapt to climate change. Researchers using geospatial technologies have dramatically increased the spatial and temporal resolution of knowledge about the distribution of tree and shrub cover in cities. Much of the current research on tree cover in cities has concentrated on individual preferences and associations between socioeconomic characteristics and environmental conditions. To complement existing research and provide planners with the practical tools they need to maintain the benefits of urban nature, this study focuses on the public policy factors that influence tree and other green covers at the lot and neighborhood scales, concentrating on single-family neighborhoods. Green cover is classified using an object-oriented method with high spatial-resolution aerial imagery and GIS techniques. Landscape and property information were extracted from Los Angeles County Assessor Office files at a parcel scale for 20 cities in Los Angeles County. The extracted variables included lot size, floor-area ratio, residential landscape standards, tree protection ordinances, and street tree programs. They were used along with average temperature and rainfall information in multiple regression models to explain the distribution and character of green cover across different neighborhoods.

As a result, the level of green cover in these neighborhoods was negatively correlated with the average floor area ratio (i.e., the bigger the house area, the lower the green cover), number of house units (i.e., the larger number of units, the lower the green cover), elevation (i.e., higher elevations correlated with less the green cover), and population density (i.e., the higher the density, the lower the green cover). The number of protected tree species, land values, minimum lot size, and the average percentage of households occupied by owners were positively correlated with the level of green cover in SFNs.

The main goal has been to explore the role of city policies in determining green cover in single-family neighborhoods. Several of the significant variables in the model have shown up in earlier work. For instance, Landry and Pu (2009) found that residential tree cover in the City of Tampa, Florida, was correlated with the proportion of parcels regulated by tree protection ordinances, median building age, median building cover, median market value, the proportion of White and Hispanic, the median age of persons, housing unit density, and proportion vacant housing units. Troy et al. (2007) examined predictors of vegetative cover on private lands in Baltimore, Maryland, using population density, lot coverage, and building density in low-income areas. The results significantly indicate how social stratification is related to vegetation cover. Finally, Heynen (2006) investigated the relationship between changes in median household income and changes in urban forest canopy cover in Indianapolis, Indiana.

The results extend the earlier work because this study concentrated specifically on identifying city policies that are correlated with green cover extent. Two of the variables identified by Landry and Pu (2009) and Troy et al. (2007) were retained in our final model: lot coverage and the proportion of parcels regulated by tree protection ordinances.

By concentrating on attributes of SFNs that can be regulated and, in some instances, changed by city decision-makers, we have identified a useful path for planners and regulators seeking to maintain and increase ecosystem services in residential neighborhoods. Although the models include some attributes over which managers have no control — elevation, land value, owner occupancy — others can be regulated at the planning stage of development or even changed in existing SFNs. At the planning stage, planners might consider the adverse effects of small minimum lot sizes on resulting green cover and weigh it against the benefits of affordable housing from smaller lots. Ordinances actually protecting tree species turn out to be important in maintaining green cover, consistent with previous studies (Landry and Pu 2009; Troy et al. 2007).

The floor area ratio, which can be regulated through zoning action, is also an important predictor of green cover and may be the best tool that municipalities have against the mansionization of existing SFNs. The ecosystem services provided by green cover on generously sized parcels are quickly lost when new homes are constructed to fill the entire area within lot line setbacks. The loss of these services affects society as a whole, which should provide a public interest rationale to ensure that zoning codes cap the floor area ratio allowed in SFNs. Keeping floor area ratios restrained also counterbalances the effects of larger minimum lot sizes by keeping homes more modest.

Future research should quantify the magnitude of ecosystem services provided by SFNs, given their large proportion of city area shown here. It should also trace out the magnitude and rate of the loss of those services to mansionization — e.g., water management, buffering against climate change, and urban biodiversity (Tratalos et al. 2007). Such losses could be described for the past and potential losses modeled for the future under various policy scenarios. But even as these research routes are pursued, the current study indicates policy options for cities desiring to maintain trees and green cover in their residential neighborhoods.

References

Heynen, N., (2006). Green Urban Political Ecologies: Toward a Better Understanding of Inner-City Environmental Change. *Environment and Planning A*, 38(3), pp. 499–516.

Landry, S., & Pu, R., (2009). The Impact of Land Development Regulation on Residential Tree Cover: An Empirical Evaluation Using High-Resolution IKONOS Imagery. *Landscape and Urban Planning*, 94(2), pp. 94–104.

Tratalos J., Fuller, R.A., Warren, P.H., Davies, R.G., & Gaston, K.J., (2007). Urban Form, Biodiversity Potential and Ecosystem Services. *Landscape and Urban Planning*, 83(4), pp. 308–317.

Troy, A.R., Grove, J.M., O'Neil-Dunne, J.P.M., Pickett, S.T.A., & Cadenasso, M.L., (2007). Predicting Opportunities for Greening and Patterns of Vegetation on Private Urban Lands. *Environmental Management*, 40(3), pp. 394–412.

Exploring Field

코로나-19 기간 중 집중 치료실(ICU) 병상에 대한 공간 접근성의 확률적 분포 조사: 텍사스 휴스턴 대도시권 사례 연구

An examination of the stochastic distribution of spatial accessibility to intensive care unit (ICU) beds during the COVID-19 pandemic: a case study of the Greater Houston area of Texas

박진우
(Jinwoo Park)
Postdoctoral Research Associate
Department of Geography and Geographic Information Science
University of Illinois Urbana-Champaign

1. 연구 개요

기존 공간적 접근성 연구에서 중점으로 다루는 충분한 (Sufficient) 접근성 이외에도 안정적인 (Reliable) 접근성을 제공하는 것은 사람들의 전반적인 건강을 증진하는 것에

중요한 역할을 합니다 (Chen et al., 2020; Lee & Miller, 2020). 다시 말해, 특정 지역에서 여러 병원을 접근이 가능하여도 (즉, 높은 공간적 접근성), 때때로 가용한 자원 (병상 등)이 고갈된다면, 병원이 서비스를 제공할 수 없으므로, 기존 공간적 접근성에서 중점을 맞추고 있는 높은 접근성의 장점이 상쇄됩니다. 특히, 코로나-19 초기 기간 동안 (2020 년 상반기) 텍사스 휴스턴 지역에서는 단기간 급격하게 코로나-19 확진자가 발생함에 따라 집중치료실 (ICU)병상 부족이 관찰되었으며, 적절한 치료가 이루어 지지 않아 높은 코로나-19 사망률이 기록되었습니다 (Walters et al., 2020). 이러한 관점에서 시작하여, 본 연구에서는 코로나-19 기간 중 관찰된 ICU 병상에 대한 공간 접근성의 확률적 분포를 조사하였습니다. 공간적 접근성 측정에 주로 활용되는 Two-step Floating Catchment Area (2SFCA) 방법(Luo & Qi, 2009)을 기반으로 입력변수로 활용되는 3 가지 변수— 공급 (예: 병상), 수요 (예: 주거 인구), 이동 (예: 이동거리 또는 시간) — 중, 코로나-19 관점에서 중요하게 고려되는 2 가지 변수 — ICU 병상의 가용성 (공급)과 병원까지의 이동시간 (이동) —의 시간적 변화에 따른 불확실성을 해결하는 것에 중점을 맞추었습니다. 코로나-19 확진자(수요) 또한 상당한 시간적 변화를 가지고 있지만, 확진자 데이터가 큰 지리적 단위 (카운티 단위)로 제공됨에 따라 부득이하게 본 연구에서 제외되었습니다.

2. 연구지역 및 분석방법

연구지역인 텍사스 주의 휴스턴 대도시권(Greater Houston)은 미국에서 5 번째로 큰 대도시 지역으로써, 700 만명 이상이 거주하고 있습니다. 또한, 9 개의 카운티 (Harris, Fort Bend, Brazoria, Galveston, Chambers, Liberty, Montgomery, Waller 및 Austin)로 구성되어 있습니다. 휴스턴시는 연구지역의 중앙에 위치한 Harris 카운티에 위치하고 있습니다. 시간적 불확실성을 파악하기 위한 분석은 다음 세 단계로 진행되었습니다 (그림 1).

첫째, 휴스턴 대도시권의 역사적 변화를 기반으로 공급 및 이동의 시간적 확률 분포를 계산했습니다. 둘째, Monte-Carlo 시뮬레이션을 사용하여 2SFCA 방법의 입력변수 (공급 및 이동성)를 무작위화 하여 ICU 병상 접근성을 999 회 측정했습니다. 셋째, 시뮬레이션에서 제공된 공간적 접근성의 확률적 분포를 기반으로 적절한 (충분 및 안정적인) 접근성을 가지는 지역과 부적절한 (불충분 및 불안정적인) 접근성을 가지는 지역을 구분하기 위하여 계층적 클러스터링을 수행하였습니다.

3. 연구결과

3.1. 시간적 불확실성에 따른 공간적 접근성의 확률적 분포

공간 접근성의 패턴은 다양한 수준의 안정도(즉, 위치가 어느 정도의 접근성을 가질 확률)에 따라 크게 영향을 받습니다 (그림 2). 우측 3 개의 지도 ((b) — (d))는 각각 50%, 5%, 및 95%의 확률로 관측되는 공간 접근성을 나타냅니다. 이때, 안정도 수준과 충분한 공간적 접근성의 값 사이에는 역의 상관관계가 관찰되었습니다. 예를 들어, 10 만명당 10 개의 ICU 병상을 가지는 지역을 충분한 접근성을 가지는 지역으로 가정하였을 때, 상위 5% 확률(그림 2(c))에서는 510 만명 (474 개의 육각형)이 충분한 접근성을 가지고 있는 것으로 나타났습니다. 하지만 각각 상위 50%(그림 3(b))와 95%(그림 2(d))확률인 경우, 440 만명 (368 개의 육각형) 및 360 만명(262 개의 육각형)만이 충분한 접근성을 가지는 것으로 도출되었습니다.

3.2. 확률적 분포를 활용한 계층적 클러스터링 결과

각 지역에서 나타난 확률적 분포를 통하여 지역을 분급하기 위하여 계층적 클러스터링을 활용하였으며, 그 결과는 그림 3 로 표현됩니다. 군집 개수는 가장 높은 두 개의 실루엣 계수에 따라 2 개 및 5 개로 정하였습니다(그림 3 (c)). 가장 높은 실루엣 계수를 보인 상위 2 개의 클러스터에 따라 H, L 이라는 알파벳을 할당 한 후, 추가적인 하위 5 개의
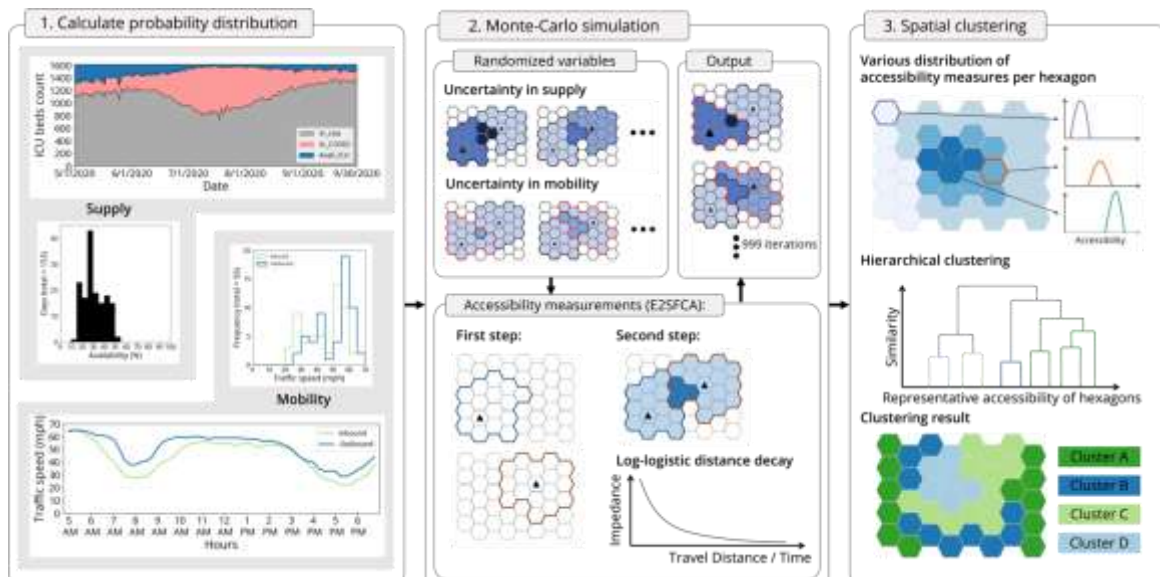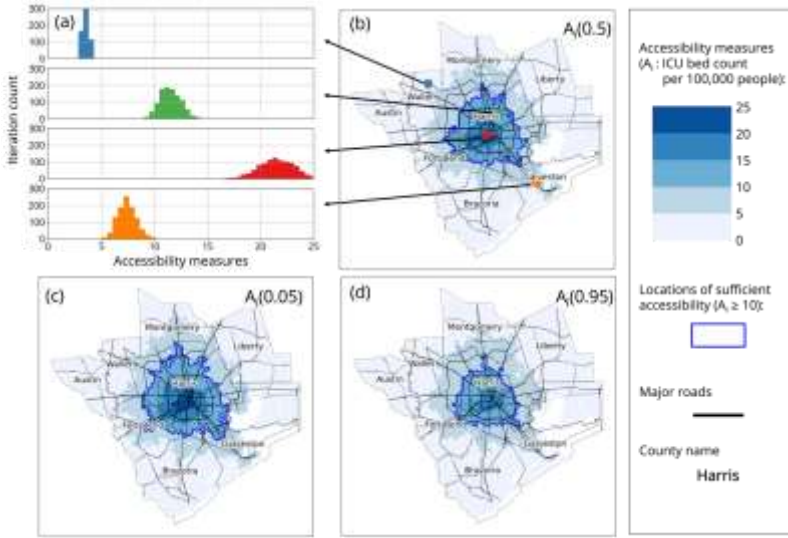

그림 1. 연구방법

그림 2. ICU 병상 접근성의 확률 분포: (a) 각 지역의 접근성 확률 분포, 상위 (b) 50%, (c) 5%, (d) 95%에서 관측되는 ICU 병상 공간적 접근성
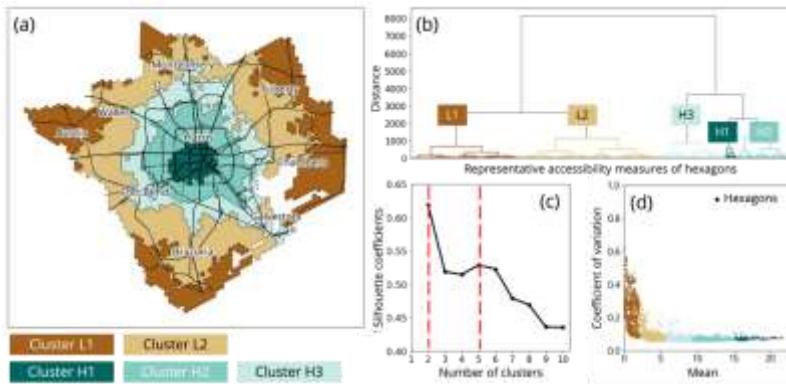

그림 3. 계층적 클러스터링 결과: (a) 공간적 분포, (b) 덴드로그램, (c) 실루엣 계수, (d) 각 클러스터의 접근성 특성 (충분성 및 안정성)

클러스터에 대하여 숫자를 부여하여, Cluster H1, H2, H3, L1, L2 로 명명하였습니다. 각 클러스터는 접근성의 충분성 ((A_i) ¯: 접근성의 평균) 및 안정성 ((CV) ¯: 변동계수의 평균)에 대하여 다음의 지역적인 위치(그림 3(a))와 특성(그림 3(d))을 가집니다. H1 클러스터는 휴스턴 다운타운지역으로써 매우 높은 접근성 ($15.1 < (A_i)$ ¯) 과 높은 안정성 ((CV) ¯ ≈ 0.07)을 나타냅니다. L1 클러스터는 연구지역의 가장자리에서 도출이 되었으며, 매우 충분하고 ((A_i) ¯ ≤ 2.2) 불안정한 접근성((CV) ¯ ≈ 0.26)을 보여주었습니다.

3.3. 접근성의 불확실성에 따른 코로나-19 치사율 및 접근의 불균형

각 카운티의 코로나-19 치사율과 평균적 접근성의 관계는 샘플 수 (n=9)가 부족함에 따라 통계적으로는 유의하지 않지만, 높은 치사율을 보이는 카운티 (Austin, Liberty)가 매우 낮고 불안정한 접근성을 가짐에 따라 두 변수가

잠재적으로 관련이 있음을 시사하였습니다 (그림 4 (a)). 2020 년 9 월 30 일 기준, 연구지역 전체의 코로나-19 치사율은 18 ‰ (1 천명 환자 당 18 명 사망)인 것에 비하여, Liberty 카운티는 23 ‰, Austin 카운티는 19 ‰의 치사율을 보였습니다. 또한, 접근성의 공간적 불균형은 안정성의 정도가 높아짐에 따라 악화되기 때문에, 코로나-19 의 치사율에 대한 불평등에 영향을 미칠 수도 있습니다 (그림 4(b)). 지니계수가 상위 5% 확률의 접근성 값에서는 0.43 이었지만, 상위 95%확률에서는 0.47 로 악화된 것을 아래 그림에서 알 수 있습니다.
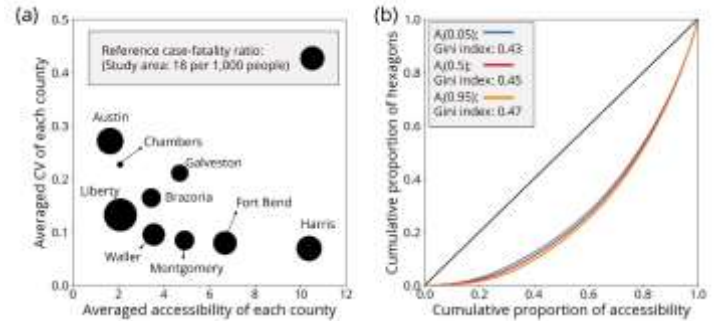

그림 4. ICU 병상 접근성의 특성: (a) 코로나-19 치사율과의 관계, (b) 안정성 별 지니계수

4. 결론

본 연구는 ICU 병상에 대한 공간 접근성의 확률적 분포를 조사하고 접근성이 COVID-19 의 치사율에 미치는 영향을 알아보았습니다. 구체적으로, 휴스턴 대도시권역의 ICU 병상 가용성과 의료 자원으로의 이동 시간에 대한 불확실성을 해결하는 것을 목표로 진행되었으며, Monte-Carlo 시뮬레이션을 활용하여, 무작위로 부여된 입력 변수를 2SFCA 방법에 입력한 후, 도출된 값의 공간적 접근성 값의 확률분포를 조사하였습니다. 또한, 확률 분포를 계층적 클러스터링을 통해 적절한 (충분 및 안정적) 접근성을 가지는 지역과 부적절한 (불충분 및 불안정)접근성을 가지는 지역을 구분하였습니다. 연구 결과는 접근성의 충분성 및 안정성이 비례한다는 것을 도출하였으며, 이는 시간적 불확실성과 관계 없이 접근성의 공간적 격차가 지속될 수 있음을 나타냅니다. 본 연구 결과는 연구지역 외부의 높은 코로나-19 치사율이 부적절한 접근성에 근거할 수 있음을 시사하였습니다.

* This article is a summary of the following article published in *Geographical Analysis*, which is translated in Korean for this newsletter.

Park, J. & Goldberg, D. W. (2022). An examination of the stochastic distribution of spatial accessibility to intensive care unit beds during the COVID-19 pandemic: a case study of the Greater

Houston area of Texas. *Geographical Analysis*. https://doi.org/10.1111/gean.12340

References

Chen, B. Y., Cheng, X. P., Kwan, M. P., & Schwanen, T. (2020). Evaluating spatial accessibility to healthcare services under travel time uncertainty: A reliability-based floating catchment area approach. *Journal of Transport Geography*, 87, 102794. https://doi.org/10.1016/j.jtrangeo.2020.102794

Lee, J., & Miller, H. J. (2020). Robust accessibility: Measuring accessibility based on travelers' heterogeneous strategies for managing travel time uncertainty. *Journal of Transport Geography*, 86, 102747. https://doi.org/10.1016/j.jtrangeo.2020.102747

Luo, W., & Qi, Y. (2009). An enhanced two-step floating catchment area (E2SFCA) method for measuring spatial accessibility to primary care physicians. *Health and Place*, 15(4), 1100–1107. https://doi.org/10.1016/j.healthplace.2009.06.002

Walters, E., Najmabadi, S., & Platoff, E. (2020, July 14). Texas hospitals are running out of drugs, beds, ventilators and even staff | The Texas Tribune. *The Texas Tribune*. https://www.texastribune.org/2020/07/14/texas-hospitals-coronavirus/

KAGES Ethics Council
Workplace Harassment/Preparedness

안기철
(Gi-Chol Ahn)
Senior GIS analyst
Snohomish County, WA

When you graduate from school, the next stop is getting hired. Depending on your field of study, it can be a nerve-breaking experience until you find a job, or you get to choose a place to work from a few choices. Some of you may find it in academia and others in a private company or in a government sector. Being hired is a big milestone in your life as you can now devote your energy for what you have dreamed of, and you can put effort in self-development or aim to contribute to the society. On the other hand, being hired doesn't mean

that you are a perfect person. It just means that the job was opened at the right timing for you. Also, it means that you are entering into the real world which may bring you to a wider range of circumstances with people you have not been exposed to in your life. Unfortunately, some people can experience workplace harassment in one form or another during their professional career. This article is to give a quick guideline about what to expect when you experience harassment at the workplace.

Fun Place

Workplace is a fun place! You are hired because of your skills and the company's needs. The hiring committee is excited that you accepted the offer, and they want you to be happy and successful at the workplace.

Workplace Harassment

Workplace, however, can be stressful and even fearful when you experience workplace harassment. All your dreams and passion to have a successful career could be in danger when you are involved in workplace harassment. Mental and psychological damages are so big that they might be expressed as fear and hopelessness or aggression and protest. U.S. Equal Employment Opportunity Commission (EEOC) (https://www.eeoc.gov/harassment) defines workplace harassment as "*unwelcome or offensive conduct in the workplace that is based on race, color, religion, sex (including sexual orientation, gender identity, or pregnancy), national origin, older age (beginning at age 40), disability, or genetic information (including family medical history).*" According to EEOC, possible unwelcome harassment can include, but not limited to, offensive jokes, slurs, epithets, name calling, offensive objects or pictures, unwelcome touching or contact, physical threats or assaults, ridicule, mockery or put-downs, constant or unwelcome questions about an individual's identity, and interference with work performance. Harassment is unlawful and employees are protected from harassment under Title VII of the Civil Rights Act of 1964, the Age Discrimination in Employment Act of 1967, (ADEA), and the Americans

with Disabilities Act of 1990, (ADA), which means *harassment is illegal.*

When you are hired, you might have received a document/information describing the equal employment opportunity from your company. Your company is liable for harassment by a supervisor or non-supervisory employees that results in a negative employment action, which includes termination, failure to promote or hire, and loss of wages. Keep in mind that to be unlawful, the conduct must create a work environment that would be intimidating, hostile, or offensive *to reasonable people*, which does not include minor insults, annoyances, and isolated incidents.

Who are Harassers?

The harasser could be the victim's supervisor, a supervisor in another area, an agent of the employer, a co-worker or a non-employee. The victim does not have to be the person harassed, but it could be anyone affected by the offensive conduct.

Filling a Charge of Discrimination

Workplace harassment has been hugely under-reported. Professor Lilia Cortina at University of Michigan says "The most reasonable response to harassment in many organizations is not to report it, not to file a complaint, not even to speak to management about the problem (https://www.eeoc.gov/es/node/19426)." Common responses to harassment are (1) endure the behavior, (2) avoid the harasser, (3) downplay the gravity of the situation, (4) seek support from family and friends, and (5) leave the job, if one can.

If you experience workplace harassment, here are a few steps you should consider taking actions:

(1) The first step is to start by telling the harasser that his or her conduct is unwelcome in a private manner. Best scenario is if the coworker stops harassment at work by this action.
(2) If the harasser doesn't stop, the employee will have to file an internal harassment complaint with human resources. If a company receives a report of harassment in the workplace, it should immediately investigate what happened. Employers should have strong policies and procedures in place for how harassment of any form should be handled. When they find that harassment has occurred, they should discipline the responsible parties. They should not fail to take steps to stop harassment or retaliate against an employee for reporting. Employers should also make sure that their employees are fully

trained about the company's harassment policy and the procedures involved in reporting it. Employees should know the types of behavior that are prohibited and the discipline they might face if they engage in harassment.

(3) Many states and local jurisdictions have their own anti-discrimination laws, and agencies responsible for enforcing those laws (Fair Employment Practices Agencies, or FEPAs). If an employer fails to take appropriate steps after receiving a complaint of discriminatory harassment or sexual harassment, the employee might then file a complaint either with FEPAs (web address for local agency can vary by state) or with the Equal Employment Opportunity Commission at https://publicportal.eeoc.gov/Portal/Login.aspx against your employer. Filing a formal charge of employment discrimination is a serious action and the filing should be done within 45 days of the harassment occurrence to preserve their legal rights. For more information about filing through FEPAs or EEOC, refer https://www.eeoc.gov/filing-charge-discrimination.

(4) Optionally, employees in a collective bargaining unit may seek assistance through appropriate provisions of their collective bargaining agreement as well.

According to the EEOC survey (https://www.eeoc.gov/sites/default/files/migrated_files/eeoc/task_force/harassment/rebooting_harassment_prevention.pdf), approximately 70% of employees never complain harassments and 85% of employees never file a formal legal charge, mainly due to fear of retaliation. Also, data shows that harassment charges and complaints differ between private sector and public sector, with the private sector being lower than the public sector in race, disability, and age-related charges.

Prevent Harassment

Can workplace harassment be prevented from happening? It may not be possible to completely remove workplace harassment. However, it requires company-wide training from top to bottom to prevent or at least minimize workplace harassment. Also, NIH's prevent toolkit (see from the resources section below for the web link) may provide valuable guidelines to employees to increase awareness and future plan for reaction if that is deemed necessary in the future.

Concluding Remarks

Everybody deserves to live a happy and healthy life. And it is important for us to cultivate a positive workplace environment to maintain the quality of life.

Understanding the culture you are affiliated with and people around your workplace is the first step to plant a meaningful workplace. When one faces a challenging situation at the workplace though, it can be invaluable to have knowledge about workplace harassment and receive support from the community and/or people around you. It is the author's wish for this document to offer such a valuable tool.

The following resources may be useful to have a better understanding about workplace harassment:

- 8 types of workplace harassment (and how to stop them) (Link)
- DOI 2017 survey infographics (Link)
- DOI Workplace harassment policy (Link)
- https://www.doi.gov/employees/anti-harassment/harassing-conduct
- NIH workplace harassment prevention toolkit (Link)
- Preventing and Resolving Harassment in the Workplace – A Guide for Managers (Link)
- Rebooting Workplace Harassment Prevention (Link)
- Stop bullying (Link)
- Stop workplace bullying pamphlet (Link)
- U.S. Equal Employment Opportunity Commission (Link)
- Workplace Harassment: How to Recognize and Report It (Link)

KAGES Ethics Council Workshop Report
Report of the 1st KAGES Ethics Workshop

반효원
(Hyowon Ban)
Professor
Department of Geography
California State University, Long Beach

As announced in the Fall 2022 KAGES Newsletter, the first KAGES Ethics Workshop was held via Zoom on December 7th at 8 PM (EST) in Korean. The workshop was hosted by the KAGES Ethics Council and was sponsored by KAGES. The workshop was mainly about learning about Microaggressions in everyday life and was open to all KAGES members. Detailed objectives of the workshop included: 1) to learn and practice ethical issues in daily life, including racism, sexism, homophobia, xenophobia, and equity, diversity, & inclusion (ED&I); 2) to share experiences with other participants; and 3) to ensure ethical behaviour and safeguards in the workplace. The workshop was led by the guest speaker, Dr. Seungyeon Lee, Associate Professor of Psychology, Department of Psychology & Counseling, University of Central Arkansas. Dr. Lee is also the Chair of the Mentorship Award Committee at the Society for the Teaching of Psychology (APA Division 2) and the Director of the Faculty Support Advisory Committee at the Psi Chi, the International Honor Society in Psychology. There were seventeen attendees in total who registered for the workshop. They comprised a broad spectrum of gender, including five student members, four general members, and eight Ethics Council members.

The workshop started with a presentation by Dr. Lee about concepts and examples of microaggression in daily life, then led to three breakout-room discussions for all participants and Q/As. During the breakout-room sessions, the participants shared their experiences related to microaggression and had discussions. Each breakout room had a reporter, a timekeeper, and a notetaker among the participants. After each breakout room session, each room reported about their discussions and shared their questions with the entire audience. Dr. Lee answered the questions, and other audience participants provided comments and related questions. Initially, the workshop was planned for an hour; however, it took much longer than two hours due to a large number of questions from enthusiastic participants.

An anonymous evaluation by the participants was conducted after the workshop, and it turned out that the participants were much satisfied with the workshop (4.9/5). Specifically, they liked breakout room sessions, Q&A time, and sharing experiences with others. All the participants responded that the workshop would increase their awareness (or importance) of ethics. In addition, they suggested having a longer time and dealing with various topics for multiple future workshops. Many participants said they would attend another workshop like the first one in the future (4.9/5).

After the workshop, certificates of the workshop were provided to the participants who made a request.

The KAGES Ethics Council will host the next Ethics Workshop in 2023. Specific themes and intended audiences, dates, and times of the future workshop will be announced soon. If you have any questions or suggestions for future Ethics Workshops, don't hesitate to contact ethics@kages.org. Thank you very much.

KAGES Awards & Scholarships

KAGES Student Paper Award

The Student Paper Award aims to recognize high-quality student articles published in the fields of Geography, Geospatial Technologies, and Environmental Sciences. The 2023 KAGES Student Paper Awards are sponsored by the Korean Geographical Society (KGS), and the Korea-America Association for Geospatial and Environmental Sciences (KAGES).

2023 KAGES Student Paper Awardees

- 장한별 Hanbyeol Jang (Temple University)

2023 KAGES scholarship awards were sponsored by the Korean Geographical Society (KGS, 대한지리학회). http://www.kgeography.or.kr/

Student Leadership Award

Students are recognized for their contributions to KAGES and our academic community during the academic year.

- 허소정 Sojung Huh (Texas State University)

Sim Travel Award

Dr. Sim, Sun Hui is currently a faculty member in the Geography Department at the University of North Alabama. Through her generous sponsorship, "Sim Student Travel Award" was established in 2010 to provide financial assistance to graduate students in the research field of geography, geospatial technologies and environmental Sciences. This scholarship is particularly designed to help meet the costs of travel to the Annual Meetings of the Association of American Geographers.

2023 Sim Travel Awardees

- 오세원 Sewon Ohr (University of Texas, Austin)
- 최문기 Moongi Choi (University of Utah)

Special thanks to 2023 KAGES scholarship awards review committee;

- Dr. Youngsang Kwon (권영상), University of Memphis
- Dr. Yoo Min Park (박유민), East Carolina University
- Dr. Jinhyung Lee (이진형), Western University
- Dr. Jin-Kyu Jung (정진규), University of Washington Bothell
- Dr. Young Rae Choi (최영래), Florida International University

KAGES 2023 Annual Meeting

올해 2023 년 KAGES 총회는 콜로라도 덴버 (Denver, Colorado)에서 열릴 AAG Annual Meeting 현장에서 in-person 으로 진행될 예정입니다. 온라인으로 참석하실 회원님들을 위해 줌 (Zoom)을 이용한 온라인 옵션도 제공될 예정이오니 많은 참석 바랍니다.

2023 년 KAGES 총회는 다음과 같은 내용으로 구성됩니다: 1) 지난 1 년 간 KAGES 활동 보고, 2) 학생회원들에게 장학금 수여, 3) KAGES 임원 선출선거 및 선거결과발표 등 입니다. KAGES 총회를 비롯하여, KAGES 에서 개최하는 Young Korean Geographers Forum I & II, 멘토링의 자세한 일정은 아래와 같습니다.

날짜: 2023 년 3 월 25 일 토요일 (한국 기준 3 월 26 일 일요일)

- **Young Korean Geographers Forum I**: 2:40-4:00 PM (MDT) (한국시간 3 월 26 일 5:40-7:00 AM), Mineral Hall D, Hyatt Regency, 3rd Floor
- **Young Korean Geographers Forum II**: 4:30-5:50 PM (MDT) (한국시간 3 월 26 일 7:30-8:50 AM), Mineral Hall D, Hyatt Regency, 3rd Floor/ **KAGES Mentoring Session**: 5:15-5:50 PM (MDT) (8:15-8:50 AM KST), 줌링크 추후공지
- **KAGES General Meeting (총회)**: 6:00-7:00 PM (MDT) (한국시간 3 월 26 일 9:00-10:00 AM), Mineral Hall D, Hyatt Regency, 3rd Floor. 줌링크 추후 공지

올 2023 년 KAGES 총회 후 저녁식사를 계획하고 있으니 참석해 주시어 뜻깊은 시간을 함께 해주시기를 바랍니다.

Join KAGES!

KAGES 의 회원으로 초대합니다! 아직 회원 가입을 하지 않으셨나요? 회원 가입/리뷰 신청서를 작성하셔서 support@kage.org 로 보내주십시오. 회비 납부 역시 Paypal 로 쉽게 하실 수 있습니다 (http://www.kages.org/season2/join-membership/).

IJGER
International Journal of
GEOSPATIAL AND ENVIRONMENTAL RESEARCH

Editor-in-Chief
Dr. Woonsup Choi (최운섭)
University of Wisconsin-Milwaukee

The International Journal of Geospatial and Environmental Research (IJGER) is an international journal sponsored by the Korea-America Association for Geospatial and Environmental Sciences (KAGES). As a non-profit organization, KAGES fosters scientific interactions between Korea and the USA for Korean or Korean-American students, scientists, and professionals in the geospatial-technical and environmental science fields. As part of its mission, KAGES launched IJGER to provide a forum for discussion between its members and researchers in the field. KAGES has the ultimate authority on the ownership and management of IJGER. IJGER welcomes contributions that fit our aims and scope from anywhere by anyone in the world.

Submit your manuscript to IJGER now! If you have any questions, feel free to contact the chief editor of IJGER, Dr. Woonsup Choi (choiw@uwm.edu).

IJGER Early Career Paper Award

This award supports research of the members of KAGES who are either graduate students or early career scholars. The award is sponsored by Dr. Hyejin Yoon in the Department of Geography at the University of Wisconsin-Milwaukee. Total amount of $900 will be awarded to three early scholars who publish their research in IJGER for three years from 2021.

KAGES Grant & Sponsorship

KAGES Student Affiliated Group Mini-Grant

The KAGES Student Affiliated Group Mini-Grant program is designed to encourage networking and personal growth among Korean KAGES student members who are affiliated with an academic institution in the U.S. and Canada. This grant program is sponsored by the Korea-America Association for Geospatial and Environmental Sciences (KAGES), a non-profit organization whose mission includes:

- Supporting student members to develop their career success through education and research;
- Supporting members to develop research, teaching, and services;
- Promoting interactions between South Korea and the U.S. in geospatial technology and environmental science fields.

KAGES welcomes any proposals/activities that address the overarching mission of the organization. Activities may include but are not limited to inviting an expert for a talk to their meeting, organizing a workshop, or meeting for their professional development. Each student group can apply multiple proposals/activities. KAGES will support up to $300 annually per group. The total number of awards will be determined later. A student group may reapply for funding for the following years. For further information, please visit http://www.kages.org/season2/kages-student-affiliated-group-mini-grant/.

The KAGES Sponsorship Program

The KAGES Sponsorship program aims to support professional activities and events led by KAGES members for their career development and leadership. This program is designed to continue the organization's mission of supporting members' research, teaching, and services and promoting interactions between South Korea and the United States in geospatial and environmental science fields. KAGES welcomes a project proposal that expands the overarching mission of the organization. This sponsorship program will support up to $500 for all approved projects. The funds will vary by project and are based on availability in the KAGES budget. KAGES members must be the key personnel in the proposed project. Potential projects could include but are not limited to a professional development workshop, a professional networking event, or an academic seminar.

Key conditions are as follows:

- The project should aim to reach out to a broader scholarly community.
- KAGES sponsorship must be acknowledged during project activities.
- The sponsorship is intended to help KAGES members who are organizers of professional activities and events, not mere participants in the activities and events.
- The project has another funding source to achieve its goals (preferred but not required).

For further information, please visit http://www.kages.org/season2/category/activities/kages-sponsorship-program/.

KAGES Members' Recent Publications

김규식 (Florida State University): Kim, K., & Kwon, K. (2022). Time-varying spatial accessibility of primary healthcare services based on spatiotemporal variations in demand, supply, and traffic conditions: A case study of seoul, south korea. *Journal of Transport & Health*, 27, 101531. https://doi.org/10.1016/j.jth.2022.101531

Although demand, supply, and traffic conditions are interdependent, scholars have considered them separately when measuring accessibility of healthcare services. Additionally, the spatiotemporal variations in these three factors are given relatively less attention in healthcare accessibility research, thereby misleading the policy decisions of healthcare planners. This study aims to examine the spatiotemporal variability of accessibility to primary healthcare services and identify areas with a spatial discrepancy between time-varying and static accessibility models in Seoul, South Korea. Using the generalized two-step floating catchment area method, we measure time-varying spatial accessibility with de facto population from hourly collected mobile-based data, available primary healthcare facilities, and actual traffic conditions in Seoul. Additionally, the bivariate Local Moran's I allowed for the identification of areas with discrepancies between the two accessibility models. The results show that a geographical pattern of time-varying accessibility significantly differs with that of static accessibility. Time-varying accessibility is lower in commercial and business areas and higher in residential areas, compared with static accessibility, which is higher in central Seoul. The result of the bivariate Local Moran's I analysis highlights that ignoring time variations of the three factors will result in overestimation in commercial areas and underestimation in residential areas. Based on the discrepancy between the two models, we identified the overestimated and underestimated areas. We suggest areas to which healthcare policy needs to pay more attention by identifying areas with spatial discrepancies between time-varying accessibility and static accessibility. Considering the time variations will provide a more realistic impression of spatial accessibility to primary healthcare.

Members' News

Scholarly Accomplishments

- 장한별 (Temple University): <u>Grant</u>: NEAC Korean Studies grant, Association for Asian Studies, AAS)(November 2022), 범우출판문화재단 박사과정 장학금 (October 2022), KSEA-KUSCO Scholarships for Graduate Students in the US, Korean-American Scientists and Engineers Association (KSEA) (August 2022); <u>Publication</u>: Jang, H. & Thomas, KA (2022) The geopolitics of whaling and Japanese colonialism in Korea, *Territory, Politics, Governance*, DOI: 10.1080/21622671.2022.2138524

About KAGES

Mission

As a non-profit organization, the mission of KAGES is to foster the following for Korean or Korean-American students, scientists and professionals in the geospatial-technical and environmental science fields:

- Support for students developing their career successfully through education and research
- Support for members developing research, teaching and services
- Promoting interactions between South-Korea and USA in geospatial technology and environmental science fields

Bylaws

- The KAGES Bylaws was revised and approved by the KAGES Board Members on Friday, April 9,

2021 and the revised version is accessible in PDF format from the following link: KAGES Bylaws. (http://www.kages.org/season2/wp-content/uploads/2015/04/KAGES-Bylaws-Final_5th_revision_2021.pdf)

Organization

- KAGES was founded on 11/17/2008 with eight founding board members:

Dr. Gi-Choul Ahn   Dr. Yeong-Hyun Kim
Dr. Heejun Chang   Dr. Sun Yurp Park
Dr. Jinmu Choi   Dr. Jeong Chang Seong
Dr. Jongnam Choi   Dr. Changjoo Kim

Officers (July 2022 – June 2023)

President: Dr. Misun Hur
Vice President: Dr. Hoseop Cha
Secretary: Dr. Sanglim Yoo
Treasurer: Dr. Hosuk Lee

2022-2023 Board members

Dr. Hoseop Cha (Park University): Vice President; Public Relation Committee

Dr. Bumseok Chun (Texas Southern University): Newsletter; Technical Support

Dr. Kelly Huh (Cal Poly Pomona): Past President (2019-2020); Research Committee

Dr. Misun Hur (East Carolina University): President; Communication Committee, Public Relation Committee

Dr. Injeong Jo (Texas State University): Past President (2021-2022); Legal, International Relation, and Public Relation Committee

Dr. Jeon-Young Kang (Kongju National University): International Relation Committee

Dr. Hosuk Lee (University of North Georgia): Treasurer; Communication Committee (Membership)

Dr. Jieun Lee (University of Northern Colorado): Newsletter; Communication Committee

Dr. Sanglim Yoo (Ball State University): Secretary; Scholarship & Award Committee

Dr. Hyejin Yoon (University of Wisconsin-Milwaukee): Past President (2020-2021); Legal Committee, Career Development Committee

Dr. Taehee Hwang (Indiana University): Scholarship & Award Committee

Sojung Huh (Texas State University): Student Board Member; Communication Committee; Technical Support Committee

Newsletter Editorial Team

Editor: Dr. Jieun Lee (University of Northern Colorado)
Associate Editor: Dr. Bumseok Chun (Texas Southern University)

Membership Benefits

- Members can actively involve in opportunities by KAGES to network with your professional peers for the fields of geospatial and environmental science.
- Members are eligible for a variety of KAGES awards and can apply grants by KAGES.
- Members have a voting right for KAGES elections.
- Each KAGES member is also to become a member for KSEA-Georgia Chapter during KAGES membership.
- For renewal of membership, or join the KAGES, please visit the KAGES website at http://www.kages.org or email at support@kages.org
Twitter: @KagesOfficial