Director's Report

67th Meeting of the National Advisory Council on Minority Health and Health Disparities

September 6, 2024

Eliseo J. Pérez-Stable, M.D.

Director, National Institute on Minority Health and Health Disparities <u>eliseo.perez-stable@nih.gov</u>



Josh Gordon, M.D., Ph.D. Departs National Institute of Mental Health

- Departed on June 14, 2024, after serving as director since 2016
- Returning to Columbia University as Chair of the Department of Psychiatry and Director of New York State Psychiatric Institute
- Led significant research contributions:
 - Served as ComPASS co-chair
 - FDA approval of new medications based on NIMH supported research
 - Establishing the Accelerating Medicines
 Partnership Schizophrenia
 - Rapid evolution of telemedicine for mental health care





National Institute of Mental Health Update Shelli Avenevoli, Ph.D.

- Appointed as Acting Director, NIMH
- NIMH Deputy Director since 2017
- Joined NIH in 2001 as NIMH Intramural Research Program staff scientist and served as Chief of the Developmental Trajectories Mental Disorders Branch



NIH Office of the Director Office of Strategic Coordination

Carolyn M. Hutter, Ph.D.

- Appointed as Director of NIH Common Fund
- Former Director of Division of Genome Sciences at NHGRI
- Over 20 years of experience in genetics, epidemiology and managing large research collaborations
- Prior to NIH, established
 Genetics and Epidemiology of
 Colorectal Cancer Consortium



NIH Simplified Review Framework

For due dates on or after January 25, 2025:

- Simplified Review Framework for Most Research Project Grants
- Revisions to the NIH Individual Fellowship Application and Review Process
- Updates to NIH Institutional Training Grant Applications
- Updates to Reference Letter Guidance
- Updated Application Forms (FORMS-I)

For due dates on or after May 25, 2025:

 Common Forms for Biographical Sketch and Current and Pending (Other) Support





Overview of Simplified Review of Most Research Project Grant Applications

- To enable reviewers to better focus on scientific and technical merit, reduce reviewer burden, and mitigate the effect of reputational bias on review.
- Reorganizes the five review criteria into three factors:
 - Factor 1: Importance of the Research (Scored 1-9)
 - Factor 2: Rigor and Feasibility (Scored 1-9)
 - Factor 3: Expertise and Resources (considered in overall impact, no individual score)

Applies to peer review of most research project applications submitted for due dates on or after January 25, 2025.



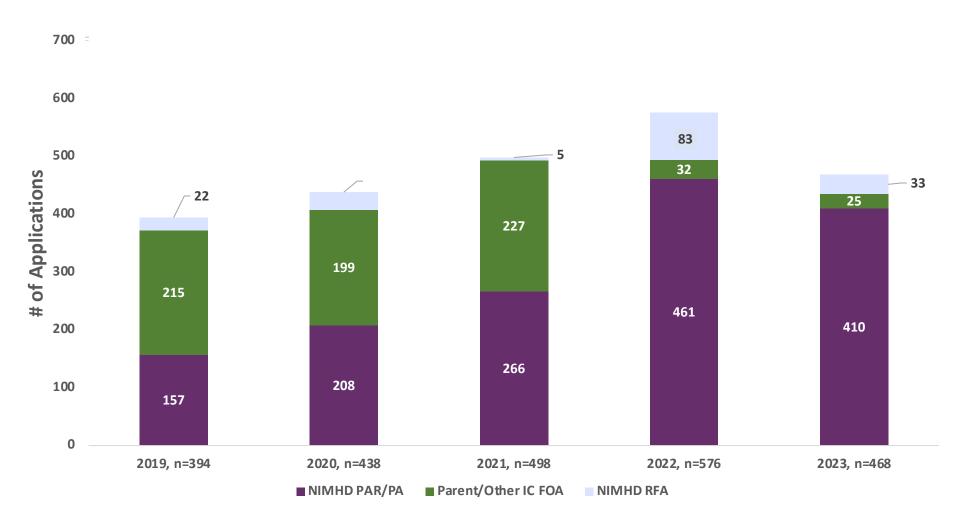


Response to NIMHD Program Announcements

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FY 2019 – FY 2023	Received	Awarded	Success
Immigrant Populations	136	17	12.5%
Health Services Research	186	33	17.7%
Social Epigenomics	94	16	17.0%
Sleep Disparities	48	6	12.5%
Liver Cancer and Chronic Liver Disease	24	3	12.5%
Surgical Disparities Research	101	13	12.9%
Leveraging Health IT to Address Health Disparities	89	12	13.5%



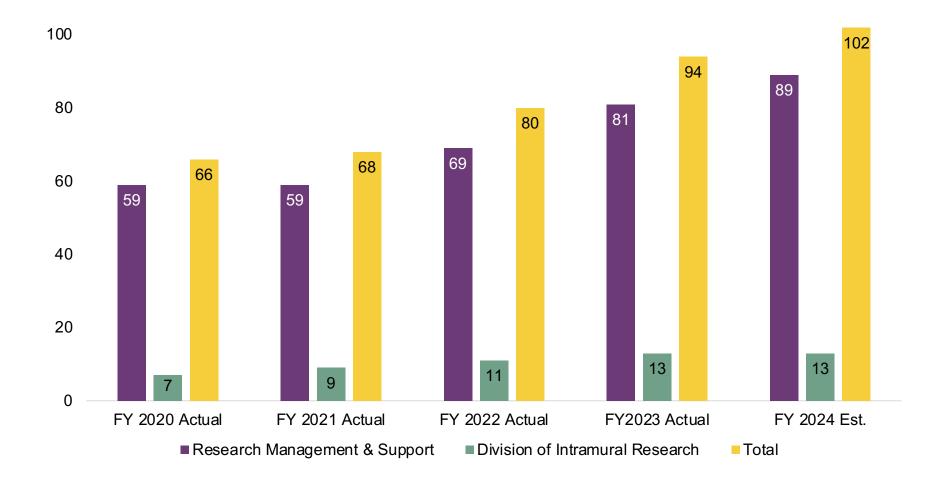
Sources of NIMHD R01/U01 Applications





NIMHD Staff Changes FY 2020-2024

120





NIMHD Director Leadership Engagements

June 2024

- Morehouse School of Medicine
- Association of Minority Health Professions Schools
- National Hispanic Medical Association Foundation
- Doris Duke Foundation and National Academy of Medicine



July 2024

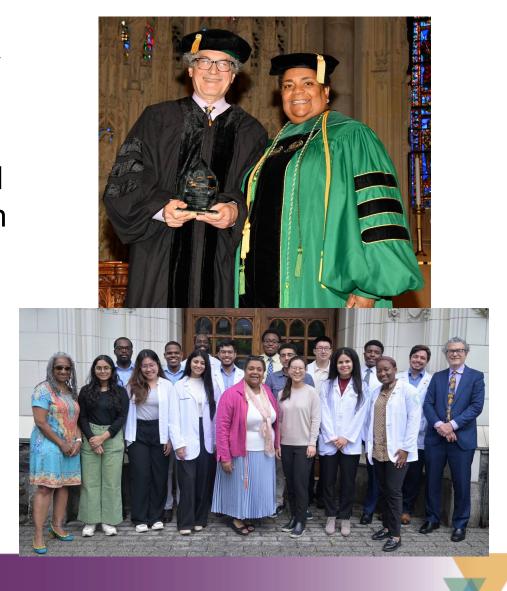
University of Houston College of Medicine



CUNY Medicine: H. Jack Geiger Icon Award

- CUNY Medicine
 Commencement Address for the 2024 Graduating Class
- NIMHD Director Eliseo J. Pérez-Stable, M.D., received H. Jack Geiger Icon Award in recognition of his longstanding commitment to advancing health equity research, cross-cultural health care communication, and diversity in biomedical science

Read More



NIMHD Deputy Director Leadership Engagements

June 2024

- Wake Forest Institute for Regenerative Medicine
- Interagency Committee on Disability Research
- University at Buffalo Health Sciences

July 2024

 American Association of Physician Assistants and Physician Assistants Education Association





NIMHD Staff Update Financial Management Branch Chief

Jimmy Do

- Former Acting Executive Officer for NIDCR
- Served as Chief of financial management branch for NIDCR and Deputy Budget Officer for NHLBI
- Founder of the NIH Federated Asian Network, and served as President for the NIH Asian Pacific Islanders American Organization



Staff Departure: Tilda Farhat, Ph.D.

- At NIMHD since 2014, and Director of the Office of Science Policy, Planning, Evaluation, and Reporting since 2020
- Operationalized the <u>Economic Burden</u> of Health <u>Disparities project</u> contract
- Expansion of HDPulse
- Contributed to minority health and health disparities categories and PhenX Social Determinants of Health Collection
- New Position: Senior Executive and Principal Advisor for the Office of Translational Research, Office of National Drug Policy, Executive Office of the President, White House





Legislative Updates: Briefings to Congressional Staff

 June 25, 2024: Eliseo Pérez-Stable, M.D., Monica Webb Hooper, Ph.D., and Luca Calzoni, M.D., briefed staff from the office of Senator Martin Heinrich (D-NM) on the Science Collaborative for Health disparities and Artificial intelligence bias REduction (ScHARe) platform

 July 17, 2024: Drs. Pérez-Stable and Webb Hooper briefed staff from the House Labor Health and Human Services Appropriations subcommittee on the Research Centers in Minority Institutions Program



Influence of Interpersonal Biases on Health: June 17-18, 2024

- NIMHD sponsored scientific workshop to enhance understanding of mechanisms linking bias exposure to health disparities outcomes and strategies for future research
- Research gaps/opportunities:
 - Need for measures of societal-level bias linked to individuals
 - Consider intersectionality in quantitative research



- Prioritization of cross-disciplinary collaborations
- Patient perspectives on bias exposure in health care
- Developing multilevel interventions

View <u>Day 1</u> and <u>Day 2</u>



NIH UNITE Structural Racism Workshop July 18-19, 2024

- Nearly 3,000 virtual participants
- Experts in social/natural sciences, law/criminal justice, education, public policy, social work, biomedical, behavioral, and public health



Interdisciplinary Approaches to Understanding and Addressing Structural Racism and Health

July 18-19, 2024

- Reviewed historical data and perspectives
- Showcased research on advancements in understanding drivers of structural racism
- Shared best practices and lessons learned from interventions
- Identified recommendations and collaborative solutions

View Day 1 and Day 2 Videocast





2024 Health Disparities Research Institute August 5-9, 2024

Applications: 202

 Participants: 51 early-stage career scientists representing 22 states and the District of Columbia

 NIMHD Early Career Investigator Awardee announced for exceptional MHHD research contributions

 Rodriguez's work focuses on fully integrating the needs of patients with limited English proficiency into health IT implementation for progress toward

health equity





<u>Learn More</u>





2024 Design by Biomedical Undergraduate Team Challenge

Annual contest to design creative new solutions to emerging health care problems

Led by the National Institute of Biomedical Imaging and Bioengineering, VentureWell, and participation of several NIH institutes

NIMHD Prize: Healthcare Technologies for Low-Resource

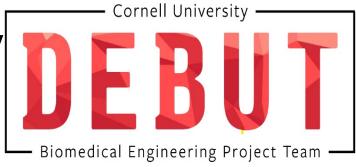
Settings: \$15,000

Winner: NanoLIST, Cornell University

- Rapid lead detection saliva test kit
- Blood test alternative for children
- Lower cost, easier to implement
- Potential to improve lead exposure monitoring and address disparities

 Learn More



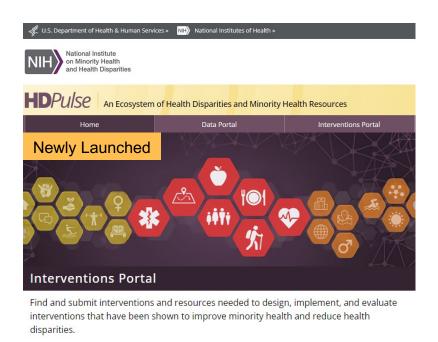


HDPulse Interventions Portal Launched

HDPulse provides access to data and resources that can be leveraged to improve minority health and reduce health disparities.

Interventions Portal provides access to interventions that have successfully improved minority health or reduced health disparities. Includes:

 Evidence-based interventions developed to address real-world needs



Learn About the Interventions Portal

 Interventions with proven short-term or long-term positive effects on health outcomes

- Study findings and publications
- Relevant materials and products used to design and implement the interventions



Science Advances

Review of the Role of Social Determinants of Health in Maternal-Infant Mortality Disparities

- Using a life course lens, study reviewed the maternal and infant mortality literature to determine multilevel social determinants of health (SDoH) factors that lead to disparities in mortality.
- Black mothers and infants had the worst mortality rates, likely due to SDoH experienced from structural racism across the life course. Upstream SDoH were important contributors to these disparities.
- Key SDoH at multiple levels affect maternal and infant health. Study improves our understanding of the complex factors influencing health outcomes in maternal and infant health and mortality.
- Rada Dagher, Ph.D., M.P.H., Scientific Program Director at NIMHD and Deborah Linares, Ph.D., M.P.A., Health Scientist Administrator at NIMHD, received Best Paper award from the international, peer-reviewed journal Children for this study.

Dagher, R. K., & Linares, D. E., Children, 2022.



Analysis of NIMHD-Funded Social Determinants of Health Research: 2019–2023

- Examined the NIMHD portfolio of 675 funded unique grants (mostly R01 or U01, N=333) in social determinants of health (SDOH) research from 2019 to 2023
- Used the NIH RCDC system to identify NIMHD-funded SDOH projects

Results: Portfolio Distribution by

Participants socio-demographics

- Racial and ethnic minority groups (89%)
- People with lower SES (33%)
- Underserved rural communities (16%)
- Sexual and gender minority groups (13%)

Type of study

- Etiology of health disparities (61%)
- Interventions (54%)
- Methods and Measurement (39%)

The Healthy People 2030 domains

- Social & community context (61%)
- Healthcare access & quality (41%)
- Economic stability (26%)
- Neighborhood & built environment (19%)
- Education access & quality (6%)

Most studied topics

 Mental Health, Infectious Diseases, Nutrition, Youth Violence, Cancer, Obesity

Ogletree, A., Farhat, T., Assenov, A., et al., Amer. Journal of Prev. Medicine, 2024



Special Issue on Social Epigenomics Research: *JAMA Network Open*



- NIMHD authored editorial and 11 articles published by NIMHD Social Epigenomics grantees
- Findings link social, behavioral, and structural factors
 throughout the life course to epigenomic and other
 biological changes that influence health outcomes among
 populations experiencing health disparities
- ✓ Articles show important progress in the field of social epigenomics through the NIMHD-led program

Gillman, A.S., Peréz-Stable, E.J., & Das, R., JAMA Network Open, 2024.





Sleep and Health Among Urban American Indian and Alaska Native Adolescents

- Sleep in adolescence may be protective against chronic disease burden among American Indian and Alaska Native (Al/AN) people
- 142 Al/AN adolescents (ages 12-16 years) from urban areas in California completed surveys for sleep, mental and behavioral health, and cardiometabolic outcomes @ baseline and 2-year follow up
- Mental & Behavioral Health: Shorter sleep duration at baseline predicted depression and anxiety, and increased likelihood of cannabis and alcohol use at follow up
- Cardiometabolic Health: Sleep disturbance at baseline associated with lower BMI and waist circumference; difference in sleep on weekends vs. weekdays (social jet lag) predicted SBP; shorter sleep duration predicted higher DBP and HbA_{1c} at follow up
- ✓ Sleep quality and duration associated with mental, behavioral, and cardiometabolic health outcomes in Al/AN adolescents.

Grant No. R01MD012190

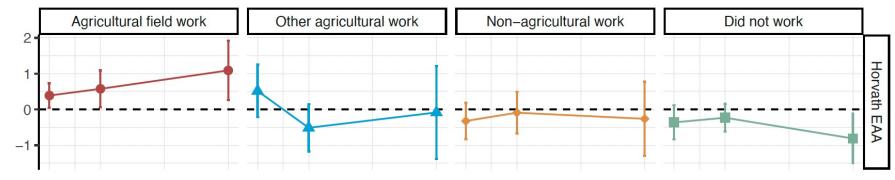
Troxel, W. M., et al., <u>JAMA Netw Open</u>, 2024





Agricultural Field Work and Children's Epigenetic Age Acceleration

- Mothers' environmental exposures during pregnancy may affect children's health and health disparities via epigenetic changes
- Blood samples and maternal occupation analyzed from 290 predominantly Mexican mother-child pairs from a longitudinal pre-birth cohort from California's Salinas Valley



- Children whose mothers engaged in agricultural field work during pregnancy had greater epigenetic age acceleration than those whose mothers did not work during pregnancy.
- ✓ Identifying social factors that accelerate early-life biological aging in vulnerable communities can inform disease prevention efforts.

Grant No. R01MD016595

Daredia, S., et al., <u>JAMA Netw Open</u>, 2024



Mediators of Ethnic and Racial Identity and Adolescent Health

- Adolescents (N=279; 69% female; 41% Latino; 31% Asian; 24% Black) surveyed about ethnic and racial identity exploration (quest to understand) and commitment (internalization of beliefs)
- Daily diaries on ethnic/racial discrimination and stress response (rumination and problem-solving coping); survey on sleep quality and somatic health (i.e., headaches, nausea) in past 2 weeks
- Discrimination and both stress responses mediated (exacerbated) negative association between ERI exploration and adolescents' sleep and somatic health.
- Ethnic and racial identity commitment mediated (buffered) positive association between discrimination and problem-solving coping.
- ✓ Discrimination and stress may explain link between ERI exploration and adolescent sleep/somatic health.
- ✓ Coping with discrimination requires additional resources; building commitment and connection to ethnic/racial community may help.



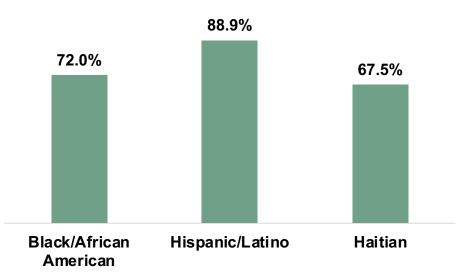
Xie, M., et al., Journal of Adolescent Health. 2024.



COVID-19 Vaccination In Racial and Ethnic Minority Persons With HIV in Miami-Dade

- Survey of 299 Latino and Black adults in HIV/AIDS Program in 2022
- Fully vaccinated participants were more likely to be 50+yrs, cisgender male, Latino, some college education, household income <100% poverty
- Fully vaccinated participants were significantly less likely to be Black, less likely to endorse COVID-19 vaccine misconceptions, reported more vaccination encouragement, and perceived >50% of their social network was vaccinated

COVID-19 Vaccination Uptake (Primary Series)



✓ Delivering accurate and positive messages about vaccines and engaging social networks help to promote COVID-19 vaccination among people with HIV

Ramirez-Ortiz, D., et al., <u>J Acquir Immune Defic Syndr</u>. 2024.







U.S. Trends in American Indian/Alaskan Native Stroke Prevalence and Risk Factors

- Trends in American Indian/Alaskan Native (AI/AN) self-reported stroke prevalence and associated modifiable risk factors
- Data from the 2011-2021 Behavioral Risk Factor Surveillance System surveys of U.S. adults (Age ≥18 yrs.)
- Stroke prevalence increased from 2.9% in 2011 to 3.3% in 2021
- Stroke prevalence was highest in Al/AN adults at 5.4% and 5.6% in 2011 and 2021 vs. 3.0% and 3.4% for White adults.
- Al/AN adults with stroke were most likely to have four or more vascular risk factors both in 2011 and 2021 at 23.9% and 26.4% vs. 18.2% and 19.6% in White adults.
- √ The persistent disparity in stroke prevalence from 2011 to 2021 leaves Al/AN adults more susceptible to incident and recurrent stroke

Grant No. R01MD016178

Heath, T., et, al., *J Stroke Cerebrovasc Dis*, 2024.



Indicators of Structural Racism and Severe Maternal Morbidity

- Data from 2017-2018 U.S. Natality file abstracted to assess the association between state-level Black-to-White inequity ratios and patient-level severe maternal morbidity (blood transfusion, eclampsia, hysterectomy, and/or ICU admission) during childbirth
- 4,804,488 birth certificates analyzed; 22.5% were for Black women
- Incidence of severe maternal morbidity was higher in Black women (106.4 per 10,000) vs. White women (72.7 per 10,000)
- Odds of severe maternal morbidity increased 35% per 1-unit increase in unemployment ratio for Black women and 16% for White women
- Odds of severe maternal morbidity increased 6% per 1-unit increase in incarceration ratio for Black women and 4% for White women
- ✓ State-level structural racism indicators of Black-to-White inequalities in unemployment and incarceration significantly increased odds of severe maternal morbidity



Birthplace, Neighborhood Cohesion, Length of Residency Impact Psychological Distress

- 2013-2018 National Health Interview Survey data to examine association between moderate-severe psychological distress and nativity/birthplace, and neighborhood cohesion, stratified by years lived in the neighborhood (≤10 years or >10 years)
- Low/medium neighborhood cohesion, regardless of duration of residence, was related to higher odds of moderate-severe psychological distress vs. high cohesion
- Foreign-born individuals had lower odds of psychological distress after 10 years or less of residency
- ✓ Findings underscore the importance of strong social cohesion in neighborhoods for mental well-being

Grant No. ZIA MD000015

Mamudu, L., Williams, F., et al., <u>J Affect Disord Rep</u>. 2024.





U.S. Burden of Cirrhosis Mortality by County, Race, and Ethnicity: 2000-2019

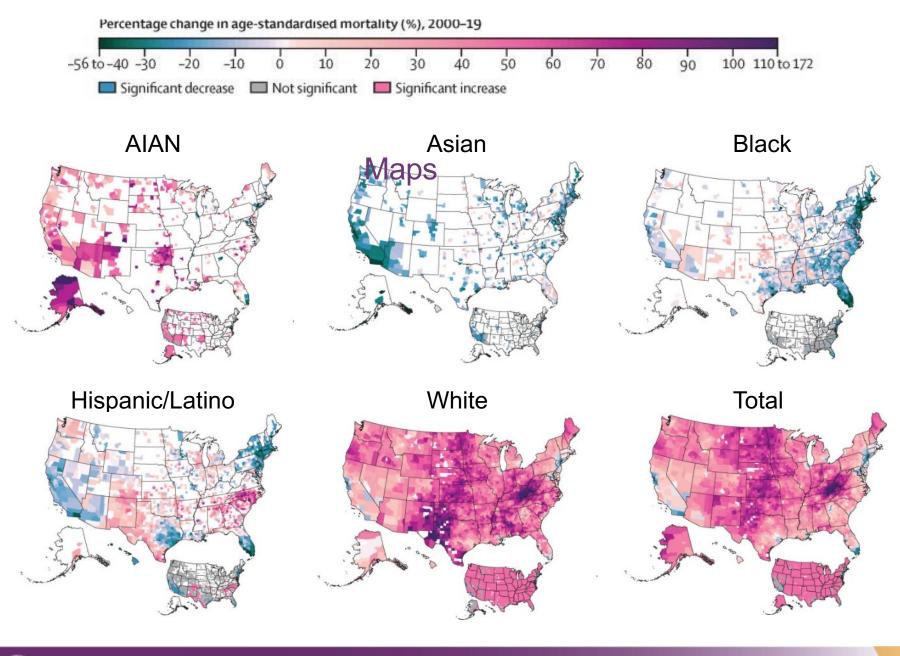
- Used small-area estimation methods and data from the U.S.
 National Vital Statistics System and U.S. National Center for
 Health Statistics to estimate cirrhosis mortality rates in five racial
 and ethnic groups in 3,110 counties.
- Cirrhosis mortality rates were highest among American Indian and Alaska Native (AIAN) populations
- Cirrhosis mortality rates increased in almost all counties for White and AIAN populations, but in fewer counties for Asian, Black, and Latino populations
- ✓ Findings underscore the need to implement targeted and locally tailored programs and policies to reduce the burden of cirrhosis at local levels

Nassereldine, H., **Nápoles, A.M., Pérez-Stable, E.J.**, et al., *The Lancet Public Health.* 2024.











2024 NIH Summer Poster Day NIMHD Summer Interns





















Summer Intern Presenters:

Top Row: Victoria Good Buffalo, Dagmawi Shimeles, Ketan Revankar, Nathan Mckinley-Pace, Gabriela Recinos

Bottom Row: Kate Choi, Jacob Schneider, Morgan Lee, Sarah Hoover, Megan Pavy



NIMHD Vacancy Announcements

JOIN OUR AMAZING TEAM!

NIMHD seeks outstanding candidates to support our vision of an America in which all populations have an equal opportunity to live long, healthy and productive lives.

Learn more at https://nimhd.nih.gov/about/employment.html



https://nimhd.nih.gov/about/employment.html



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Discussion