Technical Notes

Case definition for occupational heat-related illness for claims identified from the California Workers' Compensation Information System (WCIS), California, 2000-2022

Claims were considered HRI cases if they met at least one of the following criteria:

- 1. Nature of Injury Code was 32 (Heat Prostration)
- 2. Nature of Injury Code was 53 (Syncope) and Cause of Injury Code was 03 (Temperature Extremes) and Injury Description keywords did not contain "Cold"
- 3. Nature of Injury Code was 53 (Syncope) and Injury Description keywords contained "Heat"
- 4. Cause of Injury Code was 03 (Temperature Extremes) and Injury Description keywords contained any word starting with "Dizz" (such as Dizzy or Dizziness)
- 5. Injury Description keywords contained "Heat Stroke" or any word starting with "Heat Exhau*" (such as Heat Exhaustion or Heat Exhausted) or "Heat Prost*" (such as Prostration or Heat Prostrate)

Occupation Coding

Between 2000-2022, census occupation codes schemes were updated several times. To adjust for these changes, we followed the methodology outlined in Beard et. al, which crosswalks the 1990, 2000, 2002, 2010, and 2018 census occupation codes. 106 occupations had at least one year where their estimated annual population was less than 1,000. For any occupation meeting that criteria, years with estimates under 1,000 were excluded in to adhere to CPS recommendations. These occupation-years were also excluded from analyses at the detailed group level. We excluded self-employed workers and unpaid workers from our query.

The following 106 occupations were partially or fully excluded from occupation-specific HRI rate estimates.

Occupations that we excluded due to having a small population estimate (<1,000 for any year from 2000-2022):

Agricultural and food science technicians; agricultural and food scientists; agricultural inspectors; ambulance drivers and attendants, except emergency medical technicians; animal breeders; animal control workers; animal trainers; architectural and civil drafters; archivists, curators, and museum technicians; avionics technicians; biological technicians; boilermakers; cargo and freight agents; chemical technicians; clinical and counseling psychologists; coin, vending, and amusement machine servicers and repairers; conservation scientists and foresters; control and valve installers and repairers; conveyor, dredge, and hoist and winch operators; crane and tower operators;

crossing guards and flaggers; cutting, punching, and press machine setters, operators, and tenders, metal and plastic; dancers and choreographers; derrick, rotary drill, and service unit operators, oil and gas; earth drillers, except oil and gas; electrical and electronics repairers, industrial and utility; embalmers, crematory operators and funeral attendants; emergency management directors; environmental scientists and specialists, including health; excavating and loading machine and dragline operators, surface mining; extruding, forming, pressing, and compacting machine setters, operators, and tenders; fence erectors; fire inspectors; firstline supervisors of firefighting and prevention workers; fish and game wardens; food and tobacco roasting, baking, and drying machine operators and tenders; food cooking machine operators and tenders; food preparation and serving related workers, all other; forest and conservation workers; forming machine setters, operators, and tenders, metal and plastic; furnace, kiln, oven, drier, and kettle operators and tenders; furniture finishers; grinding, lapping, polishing, and buffing machine tool setters, operators, and tenders, metal and plastic; hazardous materials removal workers; helpers--installation, maintenance, and repair workers; insulation workers; judges, magistrates, and other judicial workers; landscape architects; locksmiths and safe repairers; locomotive engineers and operators; logging workers; machine feeders and off bearers; maintenance workers, machinery; merchandise displayers and window trimmers; metal furnace operators, tenders, pourers, and casters; meter readers, utilities; millwrights; miscellaneous construction and related workers; miscellaneous plant and system operators; molders and molding machine setters, operators, and tenders, metal and plastic; morticians, undertakers, and funeral arrangers; motor vehicle operators, all other; nuclear technicians; other extraction workers; other machine tool setters, operators, and tenders, metal and plastic; other personal appearance workers; other production equipment operators and tenders; other textile, apparel, and furnishings workers; other transportation workers; other woodworkers; paper goods machine setters, operators, and tenders; parking enforcement workers; passenger attendants; petroleum engineers; photographic process workers and processing machine operators; physical scientists, all other; pipelayers; power plant operators, distributors, and dispatchers; precision instrument and equipment repairers; pressers, textile, garment, and related materials; print binding and finishing workers; pumping station operators; rail-track laying and maintenance equipment operators; recreational therapists; rehabilitation counselors; residential advisors; riggers; roustabouts, oil and gas; sawing machine setters, operators, and tenders, wood; ship and boat captains and operators; small engine mechanics; solar photovoltaic installers; structural metal fabricators and fitters; surveyors, cartographers, and photogrammetrists; switchboard operators, including answering service; underground mining machine operators; upholsterers; veterinarians; veterinary assistants and laboratory animal caretakers;.

We excluded the following occupations due to unavailable denominator data.

It is not possible to estimate rates for occupations without an annual estimate of how many individuals were employed in that field.

Did not work, children or infants, patients, disabled, inmates; housewives or homemakers; legislators; military, rank not specified; students; volunteers; wind turbine service technicians

Technical Notes Citation

⁽¹⁾ Beard, J. D., Verdeja, M. A., Bonsrah, D. A., Westfall, S. D., Steege, A. L., & Schubauer-Berigan, M. K. (2022). Crosswalks to Convert US Census Bureau Industry and Occupation Codes, 1980-2018. Epidemiology (Cambridge, Mass.), 33(2), e8–e9.