

UC Berkeley

UC Berkeley Previously Published Works

Title

Migrant farmworker injury: temporality, statistical representation, eventfulness

Permalink

<https://escholarship.org/uc/item/2305m930>

Journal

AGRICULTURE AND HUMAN VALUES, 37(1)

ISSN

0889-048X

Author

Holmes, Seth M

Publication Date

2020-03-01

DOI

10.1007/s10460-019-09965-8

Peer reviewed

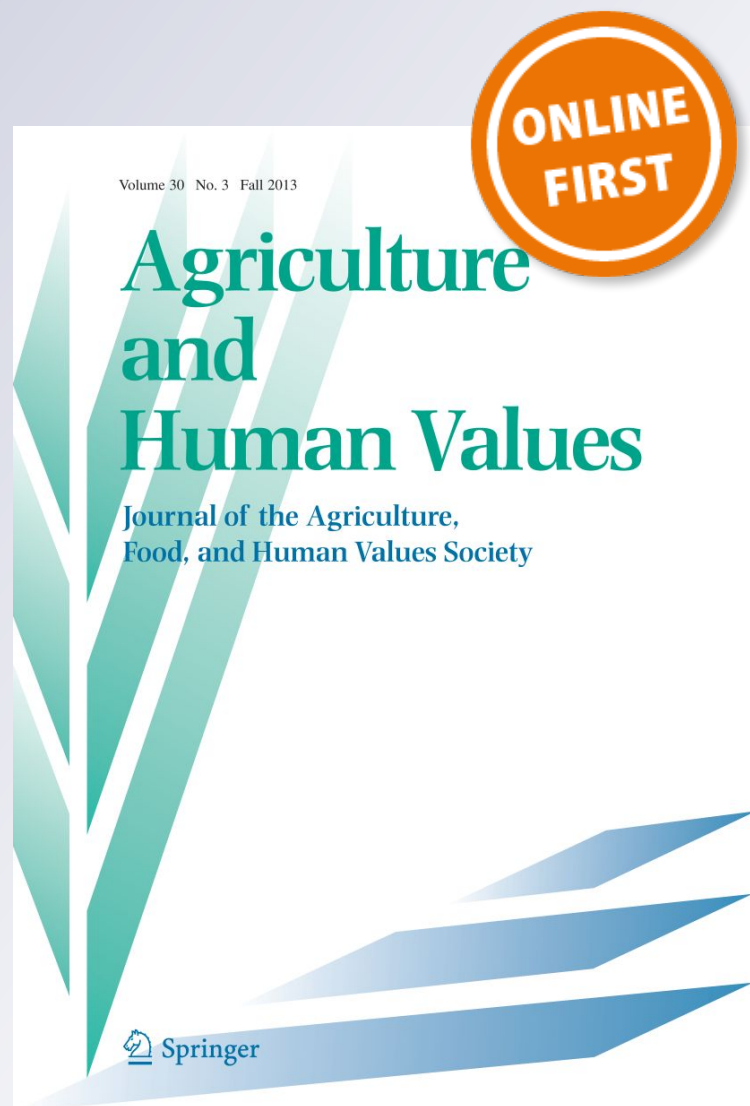
Migrant farmworker injury: temporality, statistical representation, eventfulness

Seth M. Holmes

Agriculture and Human Values
Journal of the Agriculture, Food, and
Human Values Society

ISSN 0889-048X

Agric Hum Values
DOI 10.1007/s10460-019-09965-8



Your article is protected by copyright and all rights are held exclusively by Springer Nature B.V.. This e-offprint is for personal use only and shall not be self-archived in electronic repositories. If you wish to self-archive your article, please use the accepted manuscript version for posting on your own website. You may further deposit the accepted manuscript version in any repository, provided it is only made publicly available 12 months after official publication or later and provided acknowledgement is given to the original source of publication and a link is inserted to the published article on Springer's website. The link must be accompanied by the following text: "The final publication is available at link.springer.com".



Migrant farmworker injury: temporality, statistical representation, eventfulness

Seth M. Holmes^{1,2,3}

Accepted: 20 June 2019
© Springer Nature B.V. 2019

Abstract

This article considers ethnographic field research in order to analyze the violence and exploitation inherent to our transnational agro-food system and the ways in which temporality and statistics may aid in making visible and invisible certain experiences of migrant farmworker injury as well as individual and collective actions for wellbeing. Based in long-term, in-depth ethnographic research, this article utilizes theories of temporality and events in order to highlight social and health inequalities in agricultural labor and encourage agricultural, food and health scholars to consider critically the effects of our methods. Juxtaposing the injury and health care experiences of one Mexican migrant farmworker with statistics on the health and health care of migrant and seasonal farmworkers more generally, the article confronts both the normalization of migrant farmworker injury and the taken-for-granted helpfulness of quantitative and qualitative research alike. In addition, the argument acknowledges the everyday, individual practices and collective actions migrant farmworkers engage into demand and build wellbeing for themselves, their families and beyond.

Keywords Migration · Farm work · Statistics · Ethnography · Health

Introduction

The first indigenous Mexican picker whom I met when I initially visited the Skagit Valley in Washington State was Abelino, a 35 year-old father of four. I recount his experiences as an immigrant farmworker (c.f. Holmes 2013) in order to theorize the experiences and representations of farmworker wellbeing. In the process of considering Abelino's injury and health care experiences, the readers will be confronted with the ongoing inequality and violence in our transnational agro-food system that seems to be intensifying in the current context of anti-immigrant politics and discourse. Concluding this article, I hope to challenge us as scholars in the fields of agro-food systems and health to reflect on and potentially reimagine our own methods for both data collection

and representation. As researchers, we must then consider the implications not just for farmworkers, but for all workers across the food chain, their bodies, their health, and their deservingness for health care and social services.

This article presents Abelino's experiences of work, injury and health care as a starting point to reflect on the ways in which farmwork is defined, in part, by ongoing injury experiences such that these harms become expected and taken-for-granted. The analysis utilizes the concept of "slow death" as developed by Lauren Berlant (described further below) to understand the ways in which chronic harm and injury come to be expected for certain categories of people in society. I argue that the extended temporality of farmworker injury understood as a form of slow death is part of what makes farmworker experiences difficult to portray in their fullness with statistics in agricultural and public health research. In addition, this temporality may contribute to injuries among farmworkers being (mis)understood as natural and normal. In this article, I want to spur us to consider (and act in response to): how might the injuries of farmworkers become more visible in society? When and how might such visibility lead to meaningful social, political, and health change? More specifically, how might statistics in agricultural research and public health make the slow death

✉ Seth M. Holmes
setholm@berkeley.edu

¹ Division of Society and Environment and Joint Program in Medical Anthropology, UC Berkeley, Berkeley, USA

² Joint Program in Medical Anthropology, UC San Francisco, San Francisco, USA

³ Alameda County Medical Center, Oakland, USA

of farmworkers visible as well as what might be hidden in the process? This article is not an analytic competition nor judgment between qualitative ethnographic and quantitative representations of farmworker injury. Rather, it is an provocation via social theory of some implications of temporality, injury, eventfulness as well as our responsibility to farmworkers, who form an integral, foundational aspect of our transnational agro-food system.

Context: methods and positionality

The ethnographic data presented in this article come from a long-term project focused on social hierarchies in our transnational food system and their effects on health and health care. Abelino's work, injury and health care are typical of indigenous Mexican farmworkers and allow in-depth consideration of several representative features of this population's experiences. In this project, I spent 15 months full-time in the early 2000s followed by multiple short-term trips per year through the present day living in labor camps with, picking fruit and pruning plants alongside, and migrating with indigenous Mexican immigrant farmworkers from southern Mexico to the farms of California, Oregon and Washington State. I accompanied these farmworker families when they sought traditional medicine in labor camps or apartments or biomedical health care in clinics or hospitals all in Mexico and the U.S. During this time, I collected thousands of pages of participant observation fieldnotes, transcribed hundreds of hours of ethnographic interviews and conversations, and analyzed medical charts given to me directly by farmworkers. This study received IRB approval from X University. These ethnographic data were analyzed using multiple qualitative analysis methodologies described in detail elsewhere (c.f. Holmes 2006). As a White, U.S. Citizen researcher, I gathered and analyzed ethnographic data not only about how indigenous Mexican farmworkers were treated but also about how this differed from the ways in which I was treated. In these ways, differences between my positionality and that of my research interlocutors served directly as data to be analyzed in order to understand social and health inequalities in relation to our transnational food system.

Ethnographic case study: Abelino and the pain of picking

Abelino, his wife, and their children lived together in a small shack near mine in the furthest labor camp from the main road. During one conversation over homemade tacos in his *cabina*, he explained in Spanish why indigenous Mexican

people have to leave their hometowns in the southern Mexican state of Oaxaca.

In Oaxaca, there's no work for us. There's no work. There's nothing. When there's no money, you don't know what to do. And shoes, you can't get any. A shoe like this [pointing to his tennis shoes] cost about 300 Mexican pesos. It's difficult. We come here and it is a little better but you still suffer in the work. Moving to another place is also difficult. Coming here with the family and moving around to different places, we suffer. The children miss their classes and don't learn well. Because of this, we want to stay here only for a season with [authorized immigration] permission and let the children study in Mexico. Do we have to migrate to survive? Yes, we do.

The National Agricultural Worker Survey indicates that 73% of farm workers are immigrants and 68% were born in Mexico (USDOLETA 2016). Researchers have estimated that there are one million indigenous Oaxacans in the U.S., mostly Mixtec, Zapotec, and Triqui people (McGuire and Georges 2003). Estimates of the total migrant farm laborer population in the U.S. range from 2.5 to 3 million (Kandel 2008) and the average age is 38 (USDOLETA 2016). Statistics for migrant farm workers are difficult to produce due to the impossibility of an accurate census, largely because they move at times within a transnational circuit maneuvering through often intentionally hidden spaces. However, as Ferguson (1994) indicates in the case of international health reports, the lack of good data does not hinder the production of numbers.

These statistical facts, interpreted within the individualized rational actor model ubiquitous in contemporary political and cultural formations, are understood most often to characterize economic migrants as opposed to political refugees, voluntary as opposed to forced migrants. The binary in immigration studies between the voluntary, economic migrant and the forced, political refugee serves to delineate those who deserve incarceration and deportation from those who deserve protection and care (c.f. Holmes and Castañeda 2016; Yarris and Castañeda 2013). The economic, voluntary migrants, as Abelino is categorized, are understood to choose to migrate based on so-called push and pull factors. The focus, here, is on the moment of choice. They are categorized as "illegal" and framed as causing suffering, for example in California's Proposition 187, which was approved by voters to deny health and social services to migrants (Quesada 2011). Because they have chosen to do something illegal, the argument goes, the appropriate response is understood to be denial of services, criminalization and deportation.

However, as Abelino made clear, the migration of indigenous Oaxacan people is experienced as anything but

voluntary. Abelino's previous statement shows that the economic situation in the highland, indigenous region of Oaxaca is depressed and depressing. Ironically, the further the indigenous Oaxacan people migrate, the more likely they are to survive, keep their homes, and support their families. According to several indigenous farmworkers I interviewed, every indigenous household in Oaxaca has at least one family member in the U.S. Moving from place to place allows for the most earnings to be saved toward each worker's goal as well as to be sent back to family members in Oaxaca. At the same time, this ongoing movement affects their wellbeing, leading to periods of homelessness, fear of apprehension and deportation, uprooting of connections and relationships, and disruption of studies for children. Moving from state to state also functionally disqualifies workers, including pregnant women and recent mothers, from social and health services to which they would otherwise be eligible. As social scientists have shown in diverse contexts, economics and politics are often indistinguishable, and the framing of something as individually and voluntarily chosen is a central movement in what Calhoun calls neoliberalism's "privatization of risk" (2006).

Later that same night, Abelino explained the difficulty of picking berries,

You pick with your hand, bent over, kneeling like this [demonstrating with both knees fully bent and his head bowed forward]. Your back hurts; you get knee pains and pain here [touching his hip]. When it rains, you get pretty mad and you have to keep picking. They don't give lunch breaks. You have to work every day like that to make anything. You suffer a lot in work.

After arriving in the Skagit Valley of Washington State, many indigenous Oaxacan people attempt to obtain various types of jobs, including construction or the farm's processing plant positions, however the only job they are offered is the harvest of berries.

One day in the middle of my first summer on the farm, I followed Abelino, his wife and their oldest daughter as they led the way to the field we were to pick that morning. It was pitch black before the sun rose and we wore warm, heavy clothes in layers to take off as the sun came up. We walked through a line and our picking cards for the day were marked with our beginning time, though, as we came to expect, the cards were marked as though we had arrived 30 min later. We were assigned rows next to each other and began picking into our individual buckets without saying a word. We picked as fast as we could while squatting, alternating back and forth from right to left to pick both rows of berries next to us.

In the middle of one of the rows while picking, Abelino experienced intense pain in his right knee one of the countless times he pivoted from the right to the left. At the end of

the day, he told me about the incident. He described that it felt like his foot would not move and that is when his usual knee pain increased significantly. The pain was most intense on the inside of the knee just behind the kneecap. He also felt like there was something loose moving around within his knee. He attempted to keep working for the rest of the day in vain hopes that the pain would go away. He tried picking with his knees straightened while he bent at the hips, but this hurt almost as intensely and slowed him down significantly and he almost missed the minimum weight. At the end of the day, as we approached our cars to drive back to the camp, Abelino told our supervisor about the incident. The supervisor said simply "OK" and drove away in his farm pick-up without any follow-up. Unsure of what to do, Abelino tried to pick again the next day in great pain and once again barely picked the minimum. Abelino ended up seeing four doctors, a physical therapist, and an indigenous Oaxacan healer as well as attempted to go through the bureaucracy of worker's compensation to have this healthcare covered. In the end, his pain was diagnosed by a rehabilitation medicine physician as patellar tendonitis or inflammation of the tendons surrounding the kneecap. Tendonitis is understood biomedically to be inflammation caused by repetitive strain and stress on a particular tendon. The inflammation can be brought on over years of overwork and triggered by individual straining events.

The social and political genesis of Abelino's knee pain could not have been clearer. His pain was caused by the fact that he, as an undocumented indigenous Oaxacan man, had been excluded by both international market inequalities and local discriminatory practices from all but one narrow and traumatic labor position. This occupation required him to bend over 7 days a week, turning back and forth, in all kinds of weather picking strawberries as fast as possible. Abelino's position at the bottom of the farm's ethnicity, citizenship, and labor hierarchy meant that he, like hundreds of other indigenous Oaxacan pickers with knee, back, and hip pain, was positioned in the precise conditions ripe for the harvesting of chronic joint inflammation and deterioration.

Public health research among Mexican migrants shows that a majority have musculoskeletal pain of some kind, specifically 44% have back pain, 26% have foot pain, 25% have knee pain, and 23% have neck pain (Weigel et al. 2014). Moreover, agricultural workers have a fatality rate five times that of all workers (Frank et al. 2004). In addition, farmworkers have increased rates of chronic conditions including obesity, hypertension, cardiovascular disease, and diabetes (Lighthall 2001). All of this research is, in part, a response to public health scholar, Villarejo's (2003) call for comprehensive accounting of migrant farmworker health. Specifically, he wrote, "epidemiological research is severely hampered by the absence of ... cross-sectional assessments of health status" (Ibid.). The word, cross-sectional, in public health

research implies not only comprehensiveness but also existence within one moment of time, one temporal slice. These statistics indicate at one moment how many farmworkers have a particular type of pain, though only the farmworkers who happen at the moment of the survey to be in the location where the survey is being administered are counted. Such cross-sectional accountings are incapable of capturing all the forms of pain and suffering experienced by farmworkers throughout their spatially and temporally extended experiences. The problems of time and space are, on some level, suspended in the production of statistical facts, but for migrant farmworkers these spatial and temporal concerns and constraints are key to understanding the conditions of their exploitation and the causes of their ill-health.

Researchers estimate that less than 20% of migrant laborers have health insurance, contrasted with an estimated 84% of U.S. residents overall (Health Outreach Partners 2010; Villarejo 2003). Furthermore, it is estimated in California that less than 10% of indigenous Mexican farm workers have health insurance (Mines et al. 2010). Largely due to these obstacles, migrant laborers are less likely than others to obtain health care, with 27% never receiving a routine physical exam and 25% never having a dental check-up (Slesinger 1992). Many such cross-sectional statistics of farmworker ill-health and lack of health care were presented in the acclaimed 1960 CBS documentary, "Harvest of Shame." Because all of these statistics were understood to show a lack of health, the appropriate response was understood to be health care. In 1962, the Presidential committee on migrants started the Federal Migrant Health Program to provide much needed health services to this population. 30 years later, this program was estimated to reach 13% of the population it attempted to serve (Rust 1990) and only 5% of farm workers have been estimated to receive employee-provided health insurance (Lighthall 2000). While this federal program provides important and often life-saving services, it cannot address the fundamental causes of suffering among migrant farmworkers. Partially because the statistics cited earlier are unable to show the lived experience of health problems over time and space, they are incapable of confronting the temporally and spatially extended realities producing farmworker injury in the first place.

These health and health insurance statistics indicate many of the downstream effects of social, political, and labor conditions on the wellbeing of im/migrant farmworkers. The inequities and exploitation inherent in the structure of our transnational food system harm the physical health of farmworkers in specific ways. Beyond the ubiquitous, almost expected musculoskeletal injuries and lack of health insurance coverage, such unequal social, political and working conditions affect the mental health, social functioning, and hope for the future of im/migrant farmworkers. In short, the structures of transnational agricultural labor stratified along

ethnicity and citizenship lines affect the overall wellbeing of farmworkers and their families, including and moving far beyond physical bodily injuries.

Two days after Abelino's knee accident, the crop manager suddenly canceled work in the morning during a heavy, cold downpour. Abelino and I went into a nearby clinic funded by the federal Migrant Health Program. Over the next several months, Abelino saw several doctors and a physical therapist, usually without a translator in Spanish, never in his native language. During these months, he limped around camp, taking care of his kids while his wife and eldest daughter continued to pick in the fields.

The doctor Abelino first saw explained that he should not work, but should rest and let his knee recover. This physician also filled out the paperwork to open a worker's compensation claim with the State of Washington Department of Labor and Industries (LNI) to have Abelino's medical care covered. Notably, only 36 states require farm employers to provide workers compensation, and 5 of those require this only for large farms (Rural Migration News 1996; c.f. Sakala 1987). The next week, when Abelino and I went into the clinic for his appointment, the original doctor was not on duty, so we saw one of his partners. This physician looked at Abelino's chart, listened briefly to Abelino tell him what had happened, and told him that he could work "light duty," provided he did not bend, walk or stand for long periods. This doctor filled out a form to this effect and gave it to Abelino to take to the farm. Abelino went to the farm office to ask for lighter work of this sort. The bilingual receptionist told him in Spanish in a frustrated tone, "No, because no," and did not offer for him to talk with anyone else. After a few weeks, the occupational health doctor passed Abelino's care off to a rehabilitation medicine specialist who told Abelino that he must work hard picking strawberries in order to make his knee better. She asked me to translate to Abelino that he had been picking incorrectly and hurt his knee because he "didn't know how to bend over correctly," though, notably, in her rushed schedule, she had not asked him the details of his work or body position.

After a few months, LNI arranged a meeting for Abelino with administrators from the farm and a consultant to clarify what kind of work agreement might be reached. Abelino and I went to the farm's front office for the meeting. When Samantha came into the room 20 min late, she greeted us warmly. The other farm official was meeting with the LNI consultant in another room and called to say that they were running late. Samantha replied, "no problem, take your time." Once the LNI consultant and the Tanaka Farm administrator arrived, the consultant explained to Abelino, with Samantha translating, that she would help him get light duty work on the farm. Abelino explained that he needed to move to California with his family a month later when the picking season in Washington State ended. He told her that

what he really wanted was for the farm to guarantee him a light duty job for the following summer. The consultant explained that if Abelino left the state of Washington, LNI would no longer cover his medical bills related to the work-injury and would no longer help him get light duty work. He re-stated his request for light duty work for the next season and she re-stated that his file would be closed if he left the state. The farm official sat silent, the meeting ended, and everyone shook hands.

Soon thereafter, the LNI consultant filed a form recommending that Abelino be given the job of “General Laborer” with “light duty work.” The activities specified by the consultant included “hoeing by hand,” “trimming raspberry plants,” “hand harvest of berries,” “machine harvest of berries,” and “other general laborer duties as needed.” According to this form, “hand harvest of berries” had become considered “light duty work”. There was no mention in the report that picking berries involves repeatedly bending at the knees, precisely that which began and exacerbated Abelino’s knee injury. Though Abelino’s care had been transferred to the rehabilitation medicine physician, LNI sent the report to the original urgent care doctor whom Abelino had not seen in months. This urgent care physician signed his agreement to the report. The letter later sent to Abelino indicated in English that his claim had been closed and concluded, “best wishes with your further health, employment and safety.”

Abelino’s pain was diagnosed as tendonitis, an inherently ongoing, chronic injury. Because of Abelino’s citizenship, race, and class, he was categorized primarily as a farmworker. Because farmwork is, by definition, ongoing and repetitive joint stress and strain that is, by definition, the cause of an injury like tendonitis, this injury becomes accepted and invisible. Such injuries that are expected in the context of farmwork are understood to be normal and natural for those categorized as farmworkers. In this context, Abelino’s knee pain compelled impotent bureaucratic responsibility from the health care and worker’s compensation industries. In the end, the prescribed treatment of “light work” for the patient was defined as precisely the conditions causing his injury in the first place. And regardless, his case would have been closed a few weeks later when he migrated with his extended family to California.

At the same time, Abelino repeatedly demands recognition, care, and wellbeing for himself and his family. Despite multiple experiences of rejection and dismissal by doctors, bilingual farm receptionists, and social service systems, he continues to ask for, request, and demand a life that is livable (c.f. Willen 2014, 2019). His resilience and resistance in the face of overlapping stratified political economic, labor and agricultural systems works to build an inhabitable life of wellbeing for himself and his family in the midst of unequal, harsh circumstances (see Jackson 2011; Willen 2014). In addition, Abelino also engaged in collective resistance

working for safer labor conditions to promote broad wellbeing among farmworkers (Holmes 2013)

Yet, on some level, the statistics cited earlier may serve to naturalize further the injury of farmworkers. As explained by Hacking (1990), “In the early years of the century, it was assumed that statistical laws were reducible to underlying deterministic events, but the apparent prevalence of such laws slowly and erratically undermined determinism. Statistical laws came to be regarded as laws in their own right....” Following this argument, the knowledge that farmworkers tend to have knee pain has become its own causal law such that one has knee pain simply because they are positioned in a particular category and not because of working conditions, exploitation, or historically entrenched racial and transnational hierarchies.

Migrant farmworker injury as slow death

In an essay on the phenomenology and responses to obesity in the contemporary world, Berlant (2007) develops a theory of “slow death.” Exploring temporality, suffering, and agency within contemporary forms of capitalism, she defines slow death as “the physical wearing out of a population or deterioration of people in that population that is very nearly a defining condition of their experience and historical existence.” Later, she describes slow death as “the embodiment towards death as a way of life.” Berlant describes the ordinary and taken-for-granted attrition of life, agency, and the subject herself in the context of neoliberal capitalist exploitation. Related to structural violence, this concept highlights the ways in which political economic systems produce harm for bodies, minds, people. With slow death, however, Berlant focuses further on the affective, phenomenological results of political economic structures. She argues that slow death is “not memorable” and not capable of causing meaningful change because it is experienced as “crisis ordinariness,” as a defining characteristic of normal life for particular classes of people. She writes, “in this domain dying and the ordinary reproduction of life are coextensive.” Akin to symbolic violence, this concept underlines the ways in which society comes to accept or even expect certain harms for specific categories of people. Again, Berlant’s theorization brings into relief both the normalization of and especially the experience of slow death.

Farmworkers experience an everyday, ongoing life akin to the slow death described by Berlant. Migrant farmworkers suffer myriad health problems due to the conditions in which they live and work, including chronic pesticide and heat exposure, repeated carrying of heavy loads, regular work with dangerous machinery, and protracted harvesting while bent over or kneeling. It would be equally fair to mention that the chronic conditions causing migrant

farm worker injury include the neoliberal weak state and strong market, for example the North American Free Trade Agreement disallowing poor countries from protecting their citizens with tariffs while allowing wealthy countries to protect their products with inverse-tariffs known as subsidies. Other chronic conditions contributing to farmworker injury include racism and anti-immigrant prejudice effectively barring certain classes of people from specific jobs and funneling undocumented immigrants into some of the most dangerous, unhealthy positions in society.

Farmwork is defined by the temporality and spaciality of slow death. Strawberry pickers on the farm in Washington State are paid 14 cents per pound of picked, de-leaved berries and they are required to bring in a minimum of 50 lb of strawberries every hour in order to make the minimum wage of \$7.01, otherwise they are fired and kicked out of the labor camp. In order to meet this requirement, they take few or no breaks from before sunrise until the afternoon when that field is completed. Many do not eat or drink anything before work so they do not have to take time to use the “porta-potty.” They work as hard and fast as they can, picking bent over at the waist, working 7 days a week, rain or shine, without a day off until the last strawberry is processed. They leave their families and homelands to hike through a mortally dangerous desert in order to survive. Yet, these times and spaces of slow death are largely invisible as politicians ignore immigrant workers in the midst of ongoing debates on both sides of health reform. Because of the contemporary racialized, classed, and illegalized definitions of the categories of “migrant” and “farmworker,” the chronic wearing out due to these labor conditions is deemed normal for, even essential to those persons positioned in these social categories. For migrant farmworkers, death is happening, meted out over time and space. Migrant farmworker injury is invisible and uneventful not only because of social difference along race, class and citizenship lines, but also due to its extended temporality and spatiality. As others have analyzed more specifically (Gilmore 2007), structural racism and chronic harms go together directly producing premature death systematically for certain populations.

How might such slow death become visible? When and how might it be impactful, bringing about meaningful change? A secondary question here could be, how might statistics make these slow deaths visible and what might be hidden in the process? Working in the field of public health for several years, I have become increasingly interested in the role that biostatistics, epidemiology, and the quantified play in our understandings of and responses to health and injury. I have begun thinking about the ways in which statistics mediate our perceptions of and reactions to health and sickness, and what sorts of social, cultural and political gains and losses inhere in this process. In what sense might Helen

Verran be correct, in her work on accounting in West Africa (2000), that “politics ... and mathematics are inseparable”?

Relating numbers to visibility in his 1997 graduation address to Berkeley’s Mathematics Department, entitled “Mathematics Makes the Invisible Visible”, Keith Devlin explained, “without mathematics, there is no way you can understand what keeps a jumbo jet in the air. As we all know, large metal objects don’t stay above the ground without something to support them. It takes mathematics to ‘see’ what keeps an airplane aloft. In this case, what lets you ‘see’ the invisible is an equation discovered ... in the eighteenth century.” I would like to ask a related question, in the case of the slow, chronic, everyday, low-level harms common in migrant farmwork: what possibilities of visibility and resistance, as well as erasure and complicity are fostered by our research methods including statistical mediation?

Event and possibility

Several scholars have developed theories of events and eventfulness. The mathematician and French philosopher, Alain Badiou, developed a theory of the event through a unique interaction between mathematical theorems and continental philosophy. In *Being and Event*, he (2001) explains that an event is not simply a bare bones situation-as-it-is. For Badiou, an event is rather a supplemental overlay to the situation and must be seen as important and recognized as eventful. The recognizing subject, then, must relate to the world in a new way, in the words of Badiou, “from the perspective of its evental supplement” (2001). The event, when recognized as such, shifts the perspective of the subject, opening up new possibilities of relating to the world in terms of the event. In this way, the event demands fidelity to the unfolding potentialities in its wake. Badiou explains, “An evental fidelity is a real break (both thought and practiced) in the specific order within which the event took place.” This fidelity and this development are not pre-determined in one given direction. Rather, Badiou writes, “an event is linked to the notion of the undecidable.”

Following Badiou, Massumi describes the difference between the situation and the event more poetically, writing, “...the radical escape of a veer from the tried-and-true is unthinkable in the terms laid down by the situation. It hits in a moment of distraction, directly entering the flesh with unexpected impact, demanding attention. ... A new possibility” (1998).

Both Badiou and Massumi theorize the event with a certain implied temporality. The event is assumed to be locatable in time as well as finished, complete. Events are not ongoing. They are not *always only* partially completed. In one sense, then, the event serves as a useful analytic for the erasure of chronicity.

From one perspective, a chronic back injury or pesticide poisoning is an event for the person experiencing it and those immediately connected to them. They continually and inescapably perceive life and their bodies in new ways after their injury. They now relate to themselves, to others, to work, and to the state in new ways. However, this event often does not carry undecidability nor the potential hope of new possibility as theorized by Badiou and Massumi. Whereas events compel drama, response, and a new subjectivity, migrant farmworker injury often seems to reinforce existing hierarchical social and material relations.

In addition, the lived experience of farmworker suffering inhabits a different temporality than does an event. Events are temporally located and complete, often sudden and momentary. The experience of injury among farmworkers, on the other hand, is often ongoing, chronic. To repeat Massumi's words, this time in reverse, migrant farmworker injury does not "hit in a moment...with unexpected impact demanding...a new possibility," rather it permeates time with all too expected outcomes. If we follow Badiou and Massumi's theorization of events as leading to unknown futures, migrant farmworker does the opposite.

After the first week picking strawberries, I asked two young women who had been picking in the same field as me about their experiences. One said that she could no longer feel anything ("Mi cuerpo ya no puede sentir nada"), though she said her knees still hurt sometimes. The other said that her knees, back and hips are "always hurting." Later that same afternoon, one of the young men I watched playing basketball before the harvest told me that he and his friends could no longer run since their bodies were hurting so much ("Ya no corremos; no aguantamos").

The clinicians I observed in the migrant clinic nearby in Washington State often felt hopeless as they watched the bodies of young, healthy people systematically decline. A family physician working in the migrant clinic spoke of his frustration,

"I see an awful lot of people just wearing out. They have been used and abused and worked physically harder than anybody should be expected to work for that number of years. Then they come out with this nagging back pain. You work it up and it is not getting better and you don't think there is any malingering going on. It gets to the point where you just have to give them an MRI scan and their back is toast. In their early forties they have the arthritis of a 70 year old and they are not getting better. They are told, 'sorry, go back to do what you are doing,' and they are stuck. They are screwed, in a word, and it is tragic."

Another physician from the same migrant clinic explained to me that people can work picking strawberries for only 10 years and then, due to the predictable deterioration of their backs, have to "retire" and return to their home countries to be supported by their younger family members. I have

been told of such "voluntary" medical returns many times by health professionals and farmworkers, though it is difficult to collect and produce reliable statistics about these rates of injury-induced return migration.

In *Economies of Abandonment*, Povinelli (2011) uses the term "quasi-event" to refer to such ongoing, hard-to-see harms among aboriginal Australians. Such ongoing injuries have an unclear status in relation to eventfulness precisely because of their temporality and incompleteness. For Povinelli, *quasi-events* are occurrences that are gerundive and ongoing, as opposed to *an event* that is experienced as sudden, locate-able in a moment, and complete. *Quasi-events* inhere uncertainty. Something clearly changes, but it is unclear at any point in time whether it has already happened or has yet to happen. The strawberry picker's back is always becoming bad, but in any given moment, is it already bad or is it yet to become fully bad? Instead of occurring in one moment, these *quasi-events* make up the fabric of everyday life for certain categories of people in the contemporary world. Injury on the farm in Washington State is gerundive, it is happening. Not only is it not pin-point-able in one moment, but it is experienced as normal life and, as such, does not bring the response, fidelity, or possibility for meaningful change compelled by an *event*. Many forms of farmworker suffering, from knee injury to back pain to pesticide exposure, are experienced as *quasi-events* not only by the sufferer, but also by society.

The managers of the farm in Washington State recognized the systematic, chronic nature of injury in agriculture. The crop manager in charge of the strawberry harvest explained to me that many pickers come away with pesticide poisoning and back, hip, and knee injuries. He went on to explain that the farm should not be held responsible for the injuries that occur during the harvest because each injury invariably had been developing in the working conditions not only on this farm, but on the farm where the picker worked previously as well as the farm before that. As seen in this explanation by the farm manager, such *quasi-events*, precisely because of their extended temporality and migratory spatiality, preclude the possibility of response and responsibility. As seen earlier, the *quasi-event* of Abelino's knee injury held limited eventfulness and appeared impotent to bring meaningful change.

Statistical events and fidelity

Public health practitioners understand all too well the difficulty of bringing to light the low-level, chronic harms of social inequality. Regularly, public health students and faculty speak of the difficulty and importance of using statistics to make unnoticed realities visible to broad publics. After all, in the contemporary world, statistics are one of

the primary ways by which non-events come to be seen. As Nelson argues on accounting after the Guatemalan genocide, “[numbers] are an essential part of the fraught struggle to make experiences and people ‘count’ in the sense of to matter, to have importance” (2015). Specifically, many public health practitioners see the statistical apparatus of epidemiology as a means to make invisible *quasi-events* like farm worker injury into recognizable *events* with the hope for a re-oriented, more equal and more healthy future.

As a field, public health epidemiology collects and classifies persons and then analyzes the aggregated categories in order to harness capital and compel interventions. In his work on autism, Hacking explains how epidemiology plays a role in “making up people” through re-categorization that leads to re-subjection (2006). Hacking describes this process through what he calls “engines of discovery,” including counting, quantifying, creating norms, and correlating. In this process, epidemiology takes the experience of chronic lethality, with its normal, everyday, incomplete and inescapable character, and produces through standardization a p value that is hoped to be eventful enough to change material reality through policy.

The p value is defined as the probability that the finding is real and not due to chance. The finding usually falls along the lines that one group is different from another in relation to a specific variable outcome. The p value determines if a finding is considered statistically significant or not and, consequently, if a finding will be published or not. Statistical significance is defined most often as a p value below 0.05, which indicates the finding could happen according to chance only 5% of the time. The ability to produce a significant p value depends partially on the degree to which the variable differs between the groups and partially on the size of the groups themselves, the numbers of individuals classified into each group in the study.

This second aspect, the number of people in the groups, is defined using technical terminology as the *power* of the study. My students regularly use the technical term, *power*, to discuss and analyze whether a study will be able to make visible that toward which it is aimed. Public health and medical practitioners often criticize studies for being *underpowered*, or use this word to explain why they were unable to produce statistical significance. An underpowered study is considered unworthy of being performed precisely because the goal of the study is to produce a p value significant enough to produce publication and, consequently, hopefully, change (c.f. Adams 2013). With a significant enough p value, the statistical event, we hope, will conjure a certain awareness and through that awareness a policy, material, social, and health change.

Considering the undecidability of the direction of change inherent to any event according to Badiou and Massumi, we must ask if a statistical event is enough to re-frame which

bodies count as human and which, therefore, are understood to be injurable (c.f. Jain 2006) and grievable (c.f. Butler 2010). Or on the contrary, as a provocation to consider, might the statistical event bring a momentary empathy that is incapable of challenging the ongoing neoliberal weakening of the state and strengthening of the market as well as anti-immigrant and racist sentiments, practices, policies, and votes? Finally, is it possible that, on some level, such an aggregated statistical event could solidify the boundaries separating categories of people while erasing connections and complicities?

In Badiou's work, the subject, newly produced by the event, perceives and acts differently in the world, faithful to the unknown potentialities in the wake of the event. Epidemiological events, when recognized, call for and lead to expert, technical responses such as different lengthed handles on hoes (c.f. Jain 2006) and changes in which pesticides are used and under which circumstances, often with significant and meaningful positive health outcomes. At the same time, such events do not, as a rule, bring challenges to the contemporary forms of neoliberal capitalism, class divisions, institutional racism, nor anti-immigrant prejudice structuring our transnational food system and its systematically and differentially injurious working conditions. In this way, statistical events carry only limited potentiality for change within specific, proximal, pragmatic realms.

In the middle of the 1960 documentary mentioned above, “Harvest of Shame,” the host, Edward Murrow, recites statistics related to the deaths of migrants that occurred while in transit. To the visible backdrop of school busses and pick-up trucks packed full of migrant farmworkers, Murrow describes to the audience an accident in North Carolina in which 17 men, 3 women, and 1 baby boy were killed. The film immediately moves to Secretary of Labor Mitchell, who states, “hardly a year goes by that we don't read in the paper of some very serious accident when sometimes a dozen or more people are killed purely because there is no interstate standard with regard to safety” (Friendly et al. 1960).

In this way, the documentary not only portrays the dangerous conditions in which migrant farmworkers move but also concludes that the needed solution is a pragmatic policy, a transportation safety standard. Here, statistics are wielded to change policy without analyzing the underlying conditions of systematic exploitation and hierarchy. They do not bring attention to historically entrenched inequalities nor do they bring an unfolding of potentiality or redirection of current political and economic forms. In medical anthropology, many have written about clinical reductionism. This phrase indicates the reduction of socially structured suffering to the biological and the medically intervene-able. Here, we see what we might call a statistical reductionism in which realities are reduced in terms of time, space, and political possibility.

Dame Marilyn Strathern in her work on audit culture, indicates that the apparatus of accounting can fuel contemporary corporate economic forms (1996). Considering potential relations between the functions of numbers and economies, Keith Devlin, cited earlier giving the 1997 address to Berkeley Mathematics graduates, is also the co-founder of Stanford's Media X industry-university research partnership. Concluding his address, he stated that, "using mathematics, we are able to look into the future." As a positive example of this he continued, "insurance companies use statistics and probability theory to predict the likelihood of an accident..., and set their premiums accordingly." The impactful documentary, "Harvest of Shame", was sponsored by Philip Morris, one of the largest tobacco companies benefitting from the exploitation of migrant farmworkers. The film shows the company's Marlboro Cigarettes slogan "filtered cigarettes, unfiltered taste" at the beginning and end of the movie, and depicts both Edward Murrow and Secretary of Labor Mitchell smoking cigarettes in almost every one of their scenes. These links between corporate interests and the use of numbers might lead us to question how the production, focus and use of health statistics might represent not only people and their suffering, but also the dictates of larger political and economic interests.

In one sense, statistical events are not faithful to the realities they purport to describe. The statistical event is temporally pin-point-able through *p* values, charts, and publication dates. This momentary statistical event erases the reality of chronic lethality, slow death experienced and expected as normal life, and injury as bodily deterioration that permeates the passing of time. This process elides racialized hierarchies of bodies, political and economic structures, and histories of complicity between the individuals classified for statistical analysis and those producing and empowered to respond politically or apolitically to the statistical event. As Adams (2013) argues in her work on evidence-based global health science, the pull toward statistically robust data undermines our ability to see other qualities of factual truths about causes of injury, sickness and death. Here, I am not criticizing the ability of quantitative methods to rigorously nor reproducibly produce incidence and prevalence of chronic health conditions, rather I mean to provoke us to consider the human experiential layers of slow death that are not fully represented through statistical mediation.

The practice described at the beginning of this article of checking pickers into the farm in Washington State systematically later than they actually arrive may serve as a useful metaphor here. Compelled by the exigencies of capitalist agro-food markets as well as ethnicity and citizenship labor hierarchies, the farm's time-clock is not able to get it right. Much like this time-clock, statistical events in this context distort time and space. In the important effort to make the invisible visible, health statistics produced and used in these

contexts of exploitation and hierarchy fail to challenge everyday, ongoing deterioration by market rule. Researchers have used various techniques to address the chronicity of health problems—including illness experience histories, surveys of chronic conditions, longitudinal following of cohorts over time—each with their own pros and cons in terms of representing the fullness of what Berlant might call slow death. Unable to render in its full experiential complexity and chronicity the temporal and spatial experience of migrant farmworker injury, statistics may be doomed to misrepresent experience and produce reductionist events incapable of bringing necessary responsibility, critique and change to the inequality and violence inherent in our food system.

This reflection on Abelino's injury and the too often taken for granted nature of the injuries of migrant farmworkers in general reminds us of the inequality and violence endemic to our transnational food system. The injuries and erasures of the quasi-event of slow death fall systematically along lines of citizenship, race, ethnicity and class throughout this multi-layered food system. Yet, even the methods and representations often utilized by researchers to push for change appear to be limited in the face of calcified inequalities and entrenched interests driving the production of food.

This is not to imply that any medium, including ethnography or documentary film, fully captures the causes and experiences of injury or sickness. Alongside my colleagues in medicine, public health, food studies and anthropology, I mean to challenge us all to be critically reflexive, attending to our representations and our methods—"mixed" or "pure"—and what specific forms of visibility, invisibility, resistance and complicity they foster. How might our qualitative or quantitative methods highlight certain aspects of the food system and draw attention away from others? How might we begin to see beyond our disciplinary blinders and engage more effectively with movements for social, political, economic, and environmental change in the food system, including especially the individual and collective actions of food system workers themselves? In the context of migrant farmworkers specifically, our representations and methods must attend to the ongoing temporality and transnational spatiality of the experiences of injury, sickness, and suffering, as well as the ongoing demand for and possibility of change.

In the midst of the current antagonistic, anti-immigrant political climate, our research and representation methods must pay attention to the everyday practices and collective actions of im/migrant farmworkers and all workers across the food system who demand wellbeing, the possibility of a livable life in the midst of limiting, harmful systems. As medical and public health professionals and researchers and agricultural and food studies scholars, we must attempt to acknowledge in our clinical work and express

in our academic work the full experiential reality of labor and living conditions that slowly and regularly harm those who provide us with our food. Beyond our specifically professional roles, we must attempt to support the individual resistance and collective actions of workers throughout the food system. These individual and collective actions not only point out the injurious inequities in our transnational food and political economic systems that must be challenged and changed, but also lead the way toward more equitable, fair and democratic futures that promote wellbeing for all.

Funding Funding was provided by William T. Grant Foundation (Grant No. 043579-002) and Western Center for Agricultural Health and Safety (Grant No. 2U54OH007550).

References

- Adams, V. 2013. Evidence-Based Global Public Health: Subjects, Profits, Erasures. In *When People Come First: Critical Studies in Global Health*, ed. J. Biehl and A. Petryna, 54–90. Princeton: Princeton University Press.
- Badiou, A. 2001. *Ethics: An Essay on the Understanding of Evil*. New York, NY: Verso.
- Berlant, L. 2007. Slow Death (Sovereignty, Obesity, Lateral Agency). *Critical Inquiry* 33 (4): 754–780.
- Butler, J. 2010. *Frames of War: When is Life Grievable?*. Brooklyn: Verso.
- Calhoun, Craig. 2006. The Privatization of Risk. *Public Culture* 18 (2): 257–263.
- Devlin, K. 1997, May 23. *Making the Invisible Visible*. Speech retrieved from <https://www.maa.org/making-the-invisible-visible>.
- Ferguson, J. 1994. *The Anti-Politics Machine: "Development", Depoliticization and Bureaucratic Power in Lesotho*. Minneapolis: University of Minnesota Press.
- Frank, A.L., R. McKnight, S.R. Kirkhorn, and P. Gunderson. 2004. Issues of Agricultural Safety and Health. *Annual Review of Public Health* 25: 225–245.
- Friendly, F., E. Murrow, D. Lowe (Producers), and F. Friendly (Director). 1960. *Harvest of Shame* [Motion Picture]. United States: CBS.
- Gilmore, Ruth Wilson. 2007. *Golden Gulag: Prisons, Surplus, Crisis, and Opposition in Globalizing California*. Berkeley: University of California Press.
- Hacking, I. 1990. *The Taming Of Chance*. Cambridge: Cambridge University Press.
- Hacking, I. 2006, April 11. *Kinds of People: Moving Targets*. Lecture retrieved from <https://www.britac.ac.uk/sites/default/files/hacking-draft.pdf>.
- Health Outreach Partners. 2010. *Breaking Down the Barriers: A National Needs Assessment on Farmworker Health Outreach*, 4th ed. Oakland, CA: Health Outreach Partners.
- Holmes, S.M. 2006. An Ethnographic Study of the Social Context of Migrant Health in the United States. *Public Library of Science Medicine* 3 (10): e488.
- Holmes, S.M. 2013. *Fresh Fruit, Broken Bodies: Migrant Farmworkers in the United States.*, California Series in Public Anthropology University of California Press: Berkeley.
- Holmes, S.M., and Castañeda, H. 2016. Representing the European Refugee Crisis in Germany and Beyond: Difference, Deservingness, Life and Death. *American Ethnologist* 43 (1): 1–13.
- Jackson, M.D. 2011. *Life Within Limits: Well-Being in a World of Want*. Durham: Duke University Press.
- Jain, L.S. 2006. *Injury: The Politics of Product Design and Safety Law in the United States*. Princeton: Princeton University Press.
- Kandel, W. 2008. Profile of Hired Farmworkers, A 2008 Update. Economic Research Report No. 6. *Department of Agriculture*.
- Lighthall, D. 2000. Community Health Care. *Rural Migration News*. <https://migration.ucdavis.edu/cf/more.php?id=95>. Accessed 20 Dec 2018.
- Lighthall, D. 2001. The Poor Health of Farm Workers. *Western Journal of Medicine* 175 (4): 223–224.
- Massumi, B. 1998. Event Horizon. In *The Art of the Accident*, ed. J. Brouwer and A. Mulder, 154–168. Rotterdam: Dutch Architecture Institute.
- McGuire, S.S., and J. Georges. 2003. Undocumentedness and Limitality as Health Variables. *Advances in Nursing Science* 26 (3): 185–195.
- Mines, R., S. Nichols, and D. Runsten. 2010. *Final Report of the Indigenous Farmworker Study to the California Endowment*. Retrieved from http://www.indigenousfarmworkers.org/final_report.shtml. Accessed 20 Dec 2018.
- Nelson, D. 2015. *Who Counts?: The Mathematics of Death and Life After Genocide*. Durham: Duke University Press.
- Povinelli, E. 2011. *Economies of Abandonment*. Durham, NC: Duke University Press.
- Quesada, J. 2011. No Soy Welferero: Undocumented Latino Laborers in the Cross-Hairs of Legitimation Maneuvers. *Medical Anthropology* 30 (4): 386–408.
- Rural Migration News. 1996. Minimum Wages/Workers Comp. <https://migration.ucdavis.edu/rmn/more.php?id=113>. Accessed 20 Dec 2018.
- Rust, G. 1990. Health Status of Migrant Farmworkers: A Literature Review and Commentary. *American Journal of Public Health* 80 (10): 1213–1217.
- Sakala, C. 1987. Migrant and Seasonal Farmworkers in the United States: A Review of Health Hazards, Status, and Policy. *International Migration Review* 21 (3): 659–687.
- Slesinger, D. 1992. Health Status and Needs of Migrant Farm Workers in the United States: A Literature Review. *Journal of Rural Health* 8 (3): 227–234.
- Strathern, M. 1996. From Improvement to Enhancement: An Anthropological Comment on the Audit Culture. *Cambridge Anthropology* 19 (3): 1–21.
- U.S. Department of Labor, Employment and Training Administration. 2016. Findings from the National Agricultural Workers Survey (NAWS) 2013–2014.
- Verran, H. 2000. Aboriginal Australian Mathematics: Disparate Mathematics of Land Ownership. In *Mathematics Across Cultures: The History of Non-Western Mathematics*, ed. H. Selin, 289–311. Berlin: Springer.
- Villarejo, Don. 2003. The Health of U.S. Hired Farm Workers. *Annual Review of Public Health* 24: 175–193.
- Weigel, M.M., R.X. Armijos, and O. Beltran. 2014. Musculoskeletal Injury, Functional Disability, and Health-Related Quality of Life in Aging Mexican Immigrant Farmworkers. *Journal of Immigrant and Minority Health* 16 (5): 904–913.
- Willen, Sarah. 2014. Plotting a Moral Trajectory, *Sans Papiers*: Outlaw Motherhood as Inhabitable Space of Welcome. *Ethos* 42 (1): 84–100.
- Willen, Sarah. 2019. *Fighting for Dignity: Migrant Lives at Israel's Margins*. Philadelphia: University of Pennsylvania Press.
- Yarris, Kristin, and H. Castañeda. 2013. Ethnographic Insights on Displacement, Migration and Deservingness in Contemporary Global Contexts. *International Migration* 53 (3): 644–669.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Seth M. Holmes PhD, MD, is Associate Professor of Society and Environment and Medical Anthropology and Chair of Society and Environment at the University of California Berkeley, Co-Director of the MD/PhD Track in Medical Anthropology coordinated between UC Berkeley

and UCSF, Co-Chair of the Berkeley Center for Social Medicine, and attending physician in Internal Medicine at Alameda County Medical Center. A cultural and medical anthropologist and physician and author of *Fresh Fruit, Broken Bodies: Migrant Farmworkers in the United States* (UC Press, 2013), he works on social hierarchies, health inequities, and the ways in which such asymmetries are naturalized, normalized, and resisted in the contexts of transnational im/migration, agro-food systems, and health care.