ASEE 2022 ANNUAL CONFERENCE
Excellence Through Diversity
MINNEAPOLIS, MINNESOTA, JUNE 26TH-29TH, 2022 ASEE

Paper ID #37822

# Teaching Engineering for Human Rights: Lessons Learned from a case study-based undergraduate class

## Davis Chacon-hurtado

Davis Chacon Hurtado, Ph.D., is an assistant research professor at UConn. He co-directs the Engineering for Human Rights Initiative, which is a collaboration between UConn’s Office of the Vice Provost for Research, School of Engineering, and Human Rights Institute to promote and advance interdisciplinary research in engineering with a clear focus on societal outcomes. Davis is working with several faculty at UConn to develop research and curriculum at the intersection of human rights and engineering. Davis completed his Ph.D. in Transportation and Infrastructure Systems at Purdue University in West Lafayette, Indiana, in 2018. His research interests include transportation equity, environmental justice, and economic resilience. He grew up in Cusco, Perú, where he obtained his B.S. in civil engineering at the University of San Antonio Abad of Cusco. He also earned an MSCE degree from the University of Puerto Rico at Mayagüez.

## Sandra Sirota (Assistant Professor in Residence)

## Shareen Hertel (Dr.)

© American Society for Engineering Education, 2022
Powered by www.slayte.com

# Teaching Engineering for Human Rights: Lessons Learned from a Case Study-Based Undergraduate Class

**Davis Chacon-Hurtado**, *Assistant Research Professor, Civil and Environmental Engineering & Human Rights Institute, University of Connecticut,* davis.chacon@uconn.edu.

**Sandra Sirota**, *Assistant Professor-in-Residence, Human Rights Institute, University of Connecticut,* sandra.sirota@uconn.edu.

**Shareen Hertel**, *Professor of Political Science & Human Rights, University of Connecticut,* shareen.hertel@uconn.edu.

**Abstract:** Engineering and technological developments are at the core of societal change, influencing and being influenced by society's cultural, political, economic, and socio-technical context. However, traditional engineering education tends not to equip future engineers with the critical thinking and tools necessary for interpreting their obligations in relation to codes of professional ethics and the duty to hold paramount the safety, health, and welfare of the public. Ongoing environmental and societal challenges (ranging from social inequality to the climate crisis) urgently require the development of an engineering workforce that can perform successfully in a multicultural and globalized world. This paper shares the pedagogy and lessons learned from implementing an undergraduate course at the University of Connecticut based on a Human Rights-Based Approach to Engineering called "Engineering for Human Rights."

## Introduction

Perhaps more than any other profession, engineering has the potential for an extensive and enduring impact on human and environmental systems. For centuries, technological developments, ranging from aqueducts and interstate highway systems to the advent of electronic computing, have been catalysts for significant changes at multiple levels of society. At the same time, society constantly presents new challenges to engineering within a socio-economic and environmental context that requires engineering innovation. Engineering and society are thus part of an endogenous relationship within a constrained system. Most engineering students recognize the importance of engineering and technology for the development of society; however, the above endogenous relationship is not traditionally discussed within the engineering curriculum. Yet engineering design does not take place in a vacuum (Leydens & Lucena, 2014; National Academy of Engineering (NAE), 2017) but rather within socio-technical and political systems.

Furthermore, research in engineering education has shown that learning related to public welfare and ethics in engineering undergraduate education declines with seniority (i.e., from first-year students to senior year) (see Cech, 2014). Therefore, although the National Academies of Engineering reports such as those issued in 2004 and 2005[1] recognized the importance of ethical engineering, engineers still struggle to see connections between their work and societal issues related to public welfare stated as paramount in engineering codes of ethics. Further, issues affecting public welfare, such as social exclusion, poverty[2], and hunger, are not discussed in the traditional education of engineers. Therefore, there is a need to adopt frameworks that help translate this emerging awareness into actionable items and provide standards for accountability across engineering fields and design processes.

In this article, we describe such an effort to provide engineering students with the critical role of engineering in society, drawing on a range of ethical paradigms and human rights principles. Based on Chacon-Hurtado et al. (2022), we argue that a Human Rights framework provides an encompassing language to advance ethical goals of public welfare by focusing on the dignity and development of human rights and following universal principles of interrelatedness, indivisibility, and equity. The class analyzed in this paper centers around the assumption that human rights-based lectures and case studies can equip engineering students to handle both extant challenges and the potentially disruptive impact of emerging technologies because human rights are focused on minimum standards that uphold human dignity. This paper draws on the experience of teaching “Engineering for Human Rights” in order to advance engineering curricular development by i) sharing the pedagogical methods and content of the class and ii) analyzing the students' experience based on data from anonymous post-course evaluations.

## Background Concepts

### *Human Rights*

The United Nation's *Universal Declaration of Human Rights* (UDHR) has served as a globally recognized standard that briefly outlines the essential rights, including life and liberty,

[1]NAE (2004), for example, stated that future engineers need to pay more attention to intellectual property, project management, multilingual influences and cultural diversity, moral/religious repercussions, global/international impacts, national security, and cost-benefit constraints.

[2] See Catalano (2014)

freedom from slavery and torture, freedom of opinion and expression, the right to work and education, among other civil, political, economic, social, and cultural rights. "Everyone is entitled to these rights, without discrimination," the *Declaration* reads (United Nations (UN), 2019), and this consensus has in turn been accepted by most countries worldwide. The ethical philosophy that grounds human rights is debated but is frequently cited as being based on the concepts of human dignity, adherence to non-discrimination, and equality. Given that the very universality of human rights is based on the premise that all people are born "free and equal in dignity and rights" (Art. 1, Universal Declaration), non-discrimination is a central principle. The fulfillment of both individual and group rights then sets the fundamental base for public welfare. Therefore, as engineering could impact both individual and group rights, it could also directly impact individuals' and groups' well-being.

In addition to fundamental rights, another crucial area to explore in the relationship between human rights and engineering is the intrinsic and instrumental[3] roles of technology. An impact associated with engineering on the intrinsic right to physical integrity is that buildings must be designed with safety at the forefront; otherwise, our safety would be violated. Some technological advancements and access to "scientific advancement and its benefits" are already enshrined in human rights law as intrinsic rights—meaning that they are constitutive/ essential to being human. Access to technology has been deemed as a means that enables the fulfillment of other primary rights, meaning access to technology is instrumental. An "instrumental" right is grounded in its utility for realizing other rights. For instance, the right to vote is integral to our political rights – so cybersecurity measures that safeguard voting play a key instrumental role in achieving political rights. Similarly, transportation-related technologies could help fulfill access to health or education.

*Engineering Ethics*

There is a distinction between engineering ethics and engineers' ethics. Engineering ethics deals with macro issues or the professional role of engineers within society in a broader sense (Herkert, 2001). Engineers' ethics deal with specific norms of conduct for "responsible" engineers. Normative ethics are translated into codes of conduct intended to lay out engineers' obligations and responsibilities to the public, the client or employer, and other engineers (Zandvoort et al., 2000). Although these "professional ethics" are useful within codes of conduct and industry guidelines, their narrowness often diverts attention from macro-ethical issues such as the role of engineering in society and the effects of the profession on the public interest, therefore failing to establish moral principles to guide the profession (Ladd, 1985).

Nonetheless, an important aspect of engineering codes is that they are constantly evolving and adapting, as shown, for example, in the inclusion of principles of fairness and non-discrimination (see, for example, American Society of Civil Engineers (ASCE) Canon 8 and National Society of Professional Engineers (NSPE) Section III.1.f.). Although the factors influencing those changes could be diverse, there is a clear pattern towards the recognition of human dignity and the protection of the environment in which we live -- both of which are covered under the principles of human rights. Therefore, we argue that an ethical approach based on human

[3] *Instrumental rights* are not tied directly to human dignity and respect (as fundamental rights); however, they contribute toward achieving important goods to realize fundamental rights; see DesJardins & McCall (2014).

rights links engineering practice to these goals and measurable performance standards focused on access to food, water, health, among others, that are key for human dignity.

### *A Human Rights Approach to Engineering*

A human rights-based approach to engineering complements these normative values by infusing human rights principles into the design criteria (Chacon-Hurtado et al., *2022*). Human rights law creates a framework of norms and corresponding institutions to protect the dignity and worth of every human being and safeguard peace and security (e.g., the UN Guiding Principles on Business and Human Rights, or *Ruggie Principles*, lay out this "Protect, Respect, Remedy" framework). Engineering focused on human rights is an approach for engineering design framed around concrete minimum standards (Nickel, 2007) based on human rights; in practical terms, the human rights approach not only prevents harm to people (negative rights) but also promotes the fulfillment of economic and social rights (positive rights) thus tackling structural injustice and inequalities in the world (i.e., extending the "Protect, Respect, Remedy framework). "Engineering for Human Rights" stands to transform engineering ethics education and practice by harmonizing traditional engineering ethics with the core human rights obligations to respect, protect, and fulfill human rights.

A significant advantage of applying a Human Rights-based approach to existing efforts such as the UN Sustainable Development Goals (or SDGs) is that engineers can leverage indicators and data collected under those efforts. For instance, the 2010 Resolution 64/292 of the UN General Assembly recognizes the human right to water and sanitation. The UN "[r]*ecognizes the right to safe and clean drinking water and sanitation as a human right that is essential for the full enjoyment of life and all human rights"* (United Nations General Assembly, 2010), which is a compelling guiding principle for engineering projects related to water (See also Wyndham and Harris, 2014). Finally, it should be noted that whereas human rights approaches could differ in their conceptualization, some common principles can be distinguished; these include universality, the interdependence of rights, accountability, participation, non-discrimination, and empowerment (Sano & Hansen, 2006). All such principles are well-aligned with the principles of engineering for human rights, presented in the next section.

## Previous efforts to Incorporate Human Rights into Engineering Education

The discussion of Human Rights in the context of engineering has been increasing in the past decade. A recent study analyzed the 357 references which contained the keywords "human rights" and "engineering” from the Web of Science and found that most of the papers discussed the intersection of human rights and technology in various fields such as sociology, medical ethics, genetics, and psychology (Bielefeldt, 2019). Previous efforts to incorporate human rights education into the engineering curriculum include Bielefeldt (2019), who pointed out that, although human rights professional education is mostly found in social work, health sciences, and teacher education, the number of publications and the level of interest in engineering for human rights has increased over the past two decades. Bielefeldt also explores the intersection of nine articles of the UDHR with engineering practice and engineering teaching, concluding that engineering ethics could be readily taught using a human rights lens. Similarly, Lynch (2004) argues that human rights and their responsibilities could become a compass to guide and reform engineering education. Lynch (2004) also highlights that liberal arts and humanities courses taught within the engineering curricula are limited or incomplete in developing an understanding of ethical ideas and professional ethics. Finally, Hoole (2002) states that human rights knowledge becomes important as an extension of domestic law knowledge given today's transnational nature of engineering practices, and Hoole & Hoole (2002) describe their experience in teaching human rights using real-life scenarios at a university in Sri Lanka.

These trends are significant because research (Graham 2018, The global state of the art in engineering education) drawing on a survey of the world's best engineering programs finds that one of the anticipated curricular themes of future world university leaders in engineering education includes the role, responsibilities, and ethics of engineers in society. This theme comprises tackling societal issues such as water scarcity, air pollution, among others, for which the human rights framework presented herein is relevant. Also, US engineering schools and engineering students are becoming more interested in experiences and careers that have the potential for positive societal impacts (Leydens and Lucena, 2019). Examples of these trends are given across different engineering schools (see, for example, Engineers in Technical Humanitarian Opportunities of Service Learning (ETHOS) at the University of Dayton; Engineering Projects in Community Service (EPICS) at Purdue University; Community Assessment of Renewable Energy and Sustainability (CARES) at the University of California, among others). We argue these trends will help motivate other programs and students to adopt new paradigms of engineering focused on human and societal challenges.

Desha et al. (2019) also describe efforts by international engineering organizations (International Engineering Alliance and World Federation of Engineering Organisations) to incorporate sustainability as part of their international engineering benchmark standards. Those authors also list education for sustainability initiatives such as Australian Campuses Towards Sustainability, the Campus Sustainability Network in Japan, the Sustainability Education and Economic Development Center, among others, that, although they have different levels of an engineering focus, have contributed to bringing awareness and appreciation of knowledge and skillsets for sustainability (Desha et al., 2019). The American Society for Engineering Education also provides various examples of similar efforts, such as those discussed in Tranquillo (2018) in Biomedical Engineering or Brunell (2019) in Civil Engineering. Other international examples include Ramirez-Mendoza et al. (2020) in México and Kopnina (2018) in the Netherlands.

## Class Description and Pedagogy

Our course "Engineering for Human Rights" taught at the University of Connecticut was open to engineering and non-engineering students (sophomore through seniors) interested in the intersection of technology and engineering with human rights. Students explored the role of engineering in building a just society and developed the skills to assess the human rights and environmental impacts of engineering projects, such as life cycle thinking. The main idea is not only to cover these fundamental concepts but also to provide a critical perspective in terms of the limitations and how they could be "re-engineered" to overcome those challenges. The class was taught during the Fall 2021 session and enrolled 21 undergraduate students (i.e., 8 from engineering and 13 from the social sciences and humanities). Engineering disciplines included Chemical Engineering, Electrical Engineering, and Civil Engineering.

Four modules integral to the course covered: 1) Foundational concepts of human rights and related ethical paradigms; 2) Historical perspectives on the role of engineers in society; 3) Human-rights-based approaches to engineering practice aligned with principles of distributive justice, participation, consideration of duty bearers, accountability, and indivisibility of rights; 4) The application of concepts through case-based learning. Modules 1 to 3 covered key concepts such as economic rights, social rights, cultural rights/community well-being, civil and political rights, group rights / Indigenous Rights, and intersectionality in Human Rights. The instructors also focused on environmental aspects such as planetary boundaries and ecosystem services and integrated them with human rights assessments using lifecycle principles. A critical link between human rights and engineering covered in these modules is engineering ethics. The class discussed key ethical theories, presented a historical description of engineering codes of ethics, and critically analyzed existing codes of ethics and engineering projects using human rights concepts.

Case study-based learning was an essential component of the course, in which groups worked together during each class to analyze a case study based on the material covered in lectures and readings. In addition, the instructors invited guest speakers who could share the application of these frameworks to real and ongoing case studies, such as the ethical considerations of solar geoengineering.

In addition to weekly reading, short essays, and a mid-term exam central to modules 1 to 3, students were assigned to small groups and worked together to develop a written evaluation of the human rights impact of one engineering project or technology in module 4. These groups were purposively composed of non-engineering and engineering students and students in varying years of college. The goal was to have diverse perspectives in each group and allow students to learn from each other. During the intensive group case study portion of the course, students used their knowledge of human rights, engineering ethics, and lifecycle analysis to assess one technology or engineering project. Each group produced an integrative assessment of the human rights, ethical considerations, and environmental impacts considered and not in these projects or technology developments. Their final projects were selected from a list of 14 alternative projects the instructors generated. Four student groups evaluated the following projects:

- Inclusive Biking
- Electric Vehicles
- Construction of Stadiums in Qatar for the 2022 international football World Cup
- Dam construction in the Mekong River system.

The class concluded with each group producing a final 10-page report that explained the findings of their project/technology-specific analysis and a group presentation featuring the group-based assessment results (This was planned initially as an open poster session but changed to an online format for the Fall 2021 session).

In addition to instructors' feedback for the evaluations, a peer review system was implemented through which students provided feedback for each group member. Students were also encouraged to offer feedback on classmates' work by asking questions or offering suggestions through peer review and final presentations, which counted for class participation in their grades. The final grades were based on their individual assignments, exams, class participation, and group performance and deliverables.

*Students' Perspectives*

The students' feedback analyzed below is drawn from UConn's Student Evaluation of Teaching (SET), which is an anonymous online survey administered by the University of Connecticut at the end of every semester. The class had two instructors, and each was evaluated separately. For

Fall 2022, out of the 20 students (one student dropped the course) enrolled in the class, seven responded to the survey (35% response rate).

- The overall rating of the course was above the department, school, and university 3000 – level classes. All of them considered the class good to excellent. 60% of the respondents stated that they learned much more than most courses or more than most courses.

- Another important lesson for the students working in interdisciplinary teams was that they learned to listen to different opinions; as one student stated that "[…] *I learned that my responses are different from others* […] *whatever you contribute in class is of value and is significant."* (Anonymous feedback from student), and another student stated that "*[t]hey were helpful and allowed us to connect with classmates."* Finally, another student stated that "*the way the in-class material tied together with the readings made it easier to make connections to the major topics of each section.*"

## Conclusions and Next Steps

We consider that the positive feedback from students comes from two main aspects. The first is related to the objective of the class to explore the human rights and environmental impacts of engineering projects. The second is related to the pedagogy of the class, as the class had the full participation of both instructors in all classes regardless of who was lecturing that day. The class activities and homework assignments were jointly designed using both engineering and a human rights perspective and taking into consideration the needs of students in different disciplines.

In terms of the class implications, exposing engineering students to a broad range of topics in human rights could equip the next generation of engineers to be not only more sensitive to the societal impacts of technology but also to take a proactive role in solving some of the most pressing societal issues. Furthermore, engineers could become essential players in advancing equitable and sustainable development goals of public investments and policies such as US White House's Justice 40 initiative, or the Executive Order on Advancing Racial Equity and Support for Underserved Communities. We believe that the cross-training provided to students in this class could help increase the potential for innovative solutions that are technically sound and socially and environmentally feasible.

At UConn, our "Engineering for Human Rights" course will become part of a Multidisciplinary Engineering (MDE) major in the School of Engineering at the University of Connecticut, which is an effort to provide UConn engineering students with a broad background to work in diverse engineering fields. The course is already integral to both the Human Rights Major and Human Rights Minor offered to students university-wide. We also consider our experience could benefit the curricular development of universities and colleges willing to adopt a Human Rights-based framework for engineering education in the US and abroad. There is a trend across different engineering schools to consider human and societal challenges as a critical focus area, where our experience in shared teaching of this class could be helpful.

## References

Bielefeldt, A. R. (2019). *Human Rights as a Lens for Engineering Ethics?* 2019 ASEE Annual Conference & Exposition. https://peer.asee.org/human-rights-as-a-lens-for-engineering-ethics

Brunell, L. R. (2019). *A Real-World Approach to Introducing Sustainability in Civil Engineering Capstone Design*. 2019 ASEE Annual Conference & Exposition. https://peer.asee.org/a-real-world-approach-to-introducing-sustainability-in-civil-engineering-capstone-design

Catalano, G. D. (2014). Engineering Ethics: Peace, Justice, and the Earth, Second Edition. *Synthesis Lectures on Engineers, Technology, and Society*, *8*(2), 1–85. https://doi.org/10.2200/S00589ED2V01Y201408ETS022

Cech, E. A. (2014). Culture of Disengagement in Engineering Education? *Science, Technology, & Human Values*, *39*(1), 42–72. https://doi.org/10.1177/0162243913504305

Chacón-Hurtado, D., K. Kaserounian, S. Hertel, J. Mellor, J. Barry, S. Tulasi, (*2022)* "Engineering for Human Rights: The Theory and Practice of a Human Rights-Based Approach to Engineering." Journal of *Science, Technology, & Human Values*. (Forthcoming)

Desha, C., Rowe, D., & Hargreaves, D. (2019). A review of progress and opportunities to foster development of sustainability-related competencies in engineering education. *Australasian Journal of Engineering Education*, *24*(2), 61–73. https://doi.org/10.1080/22054952.2019.1696652

DesJardins, J. R., & McCall, J. J. (2014). *Contemporary Issues in Business Ethics*. Cengage Learning.

Graham. (2018). *The Global State of the Art in Engineering Education* (New Engineering Education Transformation). Massachusetts Institute of Technology (MIT). https://jwel.mit.edu/assets/document/global-state-art-engineering-education

Herkert, J. R. (2001). Future directions in engineering ethics research: Microethics, macroethics and the role of professional societies. *Science and Engineering Ethics, 7*(3), 403–414. https://doi.org/10.1007/s11948-001-0062-2

Hoole, D., & Hoole, S. R. (2002). *A Curriculum With Human Rights In The Engineering Programme*. 7.42.1-7.42.8. https://peer.asee.org/a-curriculum-with-human-rights-in-the-engineering-programme

Hoole, S. R. (2002). *Human Rights in the Engineering Curriculum*. International Journal of Engineering Education. 18. 618-626.

Kopnina, H. (2018). Teaching Sustainable Development Goals in The Netherlands: A critical approach. *Environmental Education Research*, *24*(9), 1268–1283. https://doi.org/10.1080/13504622.2017.1303819

Ladd, J. (1985). *Ethical Issues in the Use of Computers* (D. G. Johnson & J. W. Snapper, Eds.; pp. 8–13). Wadsworth Publ. Co. http://dl.acm.org/citation.cfm?id=2569.2570

Leydens, J. A., & Lucena, J. C. (2014). Social Justice: A Missing, Unelaborated Dimension in Humanitarian Engineering and Learning Through Service. *International Journal for Service Learning in Engineering, Humanitarian Engineering and Social Entrepreneurship*, *9*(2), 1–28. https://doi.org/10.24908/ijsle.v9i2.5447

Lynch, D. (2004). *A Human Rights Challenge To The Engineering Profession*. 9.48.1-9.48.9. https://peer.asee.org/a-human-rights-challenge-to-the-engineering-profession

NAE (National Academy of Engineering). (2017). *NAE Grand Challenges for Engineering*. http://www.engineeringchallenges.org/challenges/11574.aspx

National Academy of Engineering (NAE). (2017, Spring). Special Issue on Engineering Ethics. *The Bridge*, *47*(1). https://www.onlineethics.org/Resources/40251.aspx

Nickel, J. (2007). *Making Sense of Human Rights* (2 edition). Wiley-Blackwell.

NSPE (National Society of Professional Engineers). (2019). *National Society of Professional Engineers*. NSPE Code of Ethics for Engineers. https://www.nspe.org/resources/ethics/code-ethics

Ramirez-Mendoza, R. A., Morales-Menendez, R., Melchor-Martinez, E. M., Iqbal, H. M. N., Parra-Arroyo, L., Vargas-Martínez, A., & Parra-Saldivar, R. (2020). Incorporating the sustainable development goals in engineering education. *International Journal on Interactive Design and Manufacturing (IJIDeM)*, *14*(3), 739–745. https://doi.org/10.1007/s12008-020-00661-0

Sano, H.-O., & Hansen, J. K. (2006). The Implications and Value Added of a Rights-Based Approach. In B. A. Andreassen & S. P. Marks (Eds.), *Development As a Human Right: Legal, Political, and Economic Dimensions*. Harvard University Press.

Tranquillo, J. (2018). *Sustainable Development Challenge For BME*. https://doi.org/10.18260/1-2--31038

United Nations. (2019). *Human Rights*. United Nations - Peace, Dignity and Equality on a Healthy Planet. https://www.un.org/en/sections/issues-depth/human-rights/

United Nations General Assembly. (2010). *Resolution adopted by the General Assembly on 28 July 2010 (A/RES/64/292). The human right to water and sanitation.* https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/64/292

Wyndham, J. M., & Harris, T. (2014). Introduction: Science, Technology and Human Rights: Lessons Learned from the Right to Water and Sanitation. *Science and Engineering Ethics*, *20*(4), 827–831. https://doi.org/10.1007/s11948-014-9515-2

Zandvoort, H., VanDePoel, I., & Brumsen, M. (2000). Ethics in the engineering curricula: Topics, trends and challenges for the future. *European Journal of Engineering Education*, *25*(4), 291–302. https://doi.org/10.1080/03043790050200331

**Davis Chacon Hurtado,** Ph.D.**,** is an assistant research professor at UConn. He co-directs the Engineering for Human Rights Initiative, which is a collaboration between UConn's Office of the Vice Provost for Research, School of Engineering, and Human Rights Institute to promote and advance interdisciplinary research in engineering with a clear focus on societal outcomes. Davis is working with a number of faculty on campus to develop research and curriculum at the intersection of human rights and engineering, such as the one discussed herein. Davis completed his Ph.D. in Transportation and Infrastructure Systems at Purdue University in West Lafayette, Indiana, in 2018. His research interests include transportation equity, environmental justice, and economic resilience. He grew up in Cusco, Perú, where he obtained his B.S. in civil engineering at the University of San Antonio Abad of Cusco. He also earned an MSCE degree from the University of Puerto Rico at Mayagüez.

**Sandra Sirota**, EdD, is an assistant professor in residence in human rights and experiential global learning with the Human Rights Institute. Her work explores human rights and social justice education in formal and non-formal settings in the United States and South Africa. Her current research, funded by the Human Rights Institute, focuses on how youth-led social movements may disrupt systemic racism in education. She is planning a new research project in conjunction with the launch of Dodd Impact's 3-year pilot human rights and civics education project for educators and youth, Human Rights Close to Home. Sandra's recent articles have been published in Comparative Education Review, The Journal of Human Rights, and the International Journal of Human Rights Education. She serves as Book Review Co-Editor for The Journal of Human Rights and Faculty Coordinator for UConn's Early College Experience in Human Rights.

**Shareen Hertel,** Ph.D., is a professor of political science and human rights. Her research focuses on changes in transnational human rights advocacy, with a focus on labor and economic rights issues. A consultant to foundations, nongovernmental organizations (NGOs), and United Nations agencies in the United States, Latin America, and South Asia, she has conducted fieldwork in factory zones along the US-Mexico border, in Bangladesh's garment manufacturing export sector, among NGO networks in India, and the multilateral trade arena. Hertel is editor of *The Journal of Human Rights*, serves on the editorial boards of *Human Rights Review* as well as *Human Rights and Human Welfare*, and is co-editor of the Routledge International Studies Intensives book series.