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Handling Globalization: Labor, Capital, and Class in the Globalized Warehouse and Distribution Center

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Handling Globalization: Labor, Capital, and Class in the Globalized Warehouse and Distribution Center

A Dissertation submitted in partial satisfaction of the requirements for the degree of

Doctor of Philosophy

in

Sociology

by

Jason Young Struna

June 2015

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This dissertation bears my name as its sole author, but as with most other products of human labor and ingenuity, it truly is a collective work. Many friends, family members, teachers, advisors, coworkers, students, informants, collaborators, and coconspirators injected their energy into its construction. Long before the theories and methods were learned, or the subject matter was identified and analyzed, the influence, love, and support of my communities provided me the strength and tools to finally bring this work to fruition. Flaws and faults are surely found below: they fall squarely on my shoulders. But, where the insights do make sense, or advance our scholarly, political, and social causes, they spring from the long chain of relationships that fertilized their realization.

Southern California was hard on Betsy Kindblade, Benjamin Struna, and me—especially in the early years of my Ph.D. program. Despite our knowledge that C. Wright Mills’ admonishment to understand the links between biography and history applied to us too, it was hard to not take economic and personal hardship personally. Betsy was more than a “good wife and partner” who endured relocating to a new state with a newborn and a crazy academic husband. She was (is) an adventurer who bore the brunt of moving to a foreign culture without an established social support network during the worst recession in a generation. Thanking her or showing appreciation in these acknowledgements seems woefully inadequate given her immeasurable and innumerable contributions to this process, and Ben’s and my wellbeing. If a Ph.D. degree could be jointly held, Betsy certainly earned that right.
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UAW 2865 showed me the potential that trade unions still have to bolster the day-to-day struggles workers face in any industry at any occupational status level. While not sufficient for thoroughgoing social change, they remain necessary and indispensable when constructed and directed as mass organizations.

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DEDICATION

For my mothers and fathers.

To my mom, who showed me how to work.

To my dad who always said, “You know I like that work shit, boy!” when a job kept me from visiting as promised. You are missed.

And, to my son Ben: May your work be vivifying!
ABSTRACT OF THE DISSERTATION

Handling Globalization: Labor, Capital, and Class in the Globalized Warehouse and Distribution Center

by

Jason Young Struna

Doctor of Philosophy, Graduate Program in Sociology
University of California, Riverside, June 2015
Dr. Katja Guenther, Co-Chairperson
Dr. Ellen Reese, Co-Chairperson

This dissertation provides a case study of the labor process and employment conditions within warehouses and distribution centers in Southern California—a crucial stop in the global supply chain for a myriad of transnationally sourced goods. It employs qualitative research methods including in-depth interviews with warehouse workers, managers, and contractors, in addition to using participant observation to examine workers’ understanding of the workplace, resistance, and class relations embedded in global commodity chains. Combining theoretical insights from research on the labor process and global capitalism, it argues that the appropriate foci for the analysis of globalization and class are the shop floors integrated into these chains. While research on the transnational capitalist class has been robust, transnational working class formations have been relatively understudied. Thus, to analyze these issues the dissertation focuses on the following questions: How do transnational corporations maintain control over labor within warehouses and distribution centers despite large geographic distances and complex institutional environments mediating relationships between capitalists and workers? What are the mechanisms of exploitation used in warehouses and distribution centers, and how do workers experience and respond to those mechanisms when executing labor, comprehending the labor process, and resisting exploitation and control?
How does the coordination of the labor process on global capital’s part contribute to the formation of a global “working class in-itself”? How are warehouse workers in Southern California organizing to improve their working conditions, and build alliances with other workers in the global supply chain? These questions are addressed by analyzing relationships between the complex networks of transnational firms—global retailers, logistics and warehousing companies, and temporary employment services—and warehouse workers, labor organizations, and their allies. Findings suggest that coordination and control is achieved through information and transport technologies, task standardization, and complex workplace regimes relying on the use of immigration, gender, and racial and ethnic statuses. Such arrangements induce precarity for workers, and dangerous working conditions that create substantial stresses and strains. Finally, the relationships that obtain from participation in these workplaces embedded in transnational commodity chains have impacts on transnational class formation and resistance in the global era.
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CLASS FORMATION

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CHAPTER ONE
INTRODUCTION: JUST-IN-TIME, AND JUST-IN-CASE—ESSENTIAL NODES IN THE COMMODITY CIRCUITS OF GLOBAL CAPITALISM

INTRODUCTION

Unless you are among the fortunate few in the contemporary world who are able to consume goods produced and sourced truly locally, it is likely that as you read these words, nearly everything around you was handled by a worker in a warehouse or distribution center inextricably linked to the global economy. From electronics and plastic products, to furniture and staplers; or from car parts and chemicals, to components for the latest appliances, warehouses and distribution centers move, hold, monitor, transform, and inventory everything we consume (Bonacich and Wilson 2007). Goods are brought together from transnational sources, and assembled for final sale. They are separated and packaged for consumption, they are soldered and tested for quality control, or they are merely held in place until the order for replenishment is sent from a cashier’s register at the big-box retailer to a worker’s hand scanner at the distribution center.

---

1 I say “fortunate few” because of the current privileging of “the local” in what Sklair (2001) calls the culture-ideology of consumerism (Sklair 2001). Of course, such a statement omits people existing on the periphery of the global economy who are more or less formally excluded from contemporary consumption practices in more transnationally-integrated areas. However, with the exception of goods like fresh dairy where economical transport ranges are relatively limited, transnational sourcing of goods heavily impacts many if not most markets. As Rodrigue, et al. (2013) point out, “any major grocery store around the world is likely to carry tangerines from South Africa, apples from New Zealand, bananas from Costa Rica and asparagus from Mexico” (Rodrigue et al. 2013: see online version Chapter 5). Even commodities once considered local and seasonal now have a global, year-round reach. The question is not about a local-global dichotomy, but about degrees of local- and global-ness.
Such warehouses and distribution centers are frequently situated in areas called “logistics clusters,” or chunks of land developed where goods movement facilities are densely concentrated (Sheffi 2012). The regions are usually situated adjacent to seaports, railways, or other transportation hubs in areas that have infrastructure capable of supporting massive one story buildings (now architecturally fashionable to the industry) that can be as large as 1,000,000 square feet or more (Bonacich and Wilson 2007; Rodrigue et al. 2013; Sheffi 2012). Further, the areas must be able to support the tens of thousands of semi trucks required to move the goods in and out of the distribution centers. These are the facilities that global capital has not (yet) figured out how to “offshore,” insofar as they must be embedded relatively closely to the retail and commercial markets they serve (Bonacich 2003; Bonacich and Wilson 2007).

An additional important consideration for the location of warehouses and distribution centers is proximity to a pool of cheap labor (Bolz and Hagemann 1958; Bonacich and Wilson 2007; Spechler 1975; Taff 1972). The often brutal, fast-paced, dirty, physically demanding jobs do require skills, as Bonacich and Wilson (2007) point out, but they do not command high wages or prestige. Instead, in areas where “there is a shortage of alternative jobs [and] unions are weak or nonexistent,” warehouse work is treated as an unfortunate inevitability for workers with relatively lower levels of education, and marginalized racial, ethnic, and immigration backgrounds (Bonacich and Wilson 2007: 226). Given the industry’s propensity to adopt state of the art technology and managerial practices that enable the coordination and control of transnational
commodity chains, the profit margins can be as tight as the demands on workers is high (Bonacich and Wilson 2007; Gereffi and Christian 2009).

Warehouses and distribution centers are the essential nodes in the networks of global commodity production that make the logic of transnational accumulation possible. The analyses of contemporary globalization concerning the shift away from “Fordist” logics of mass production where stock is created and held “just-in-case” to maximize economies of scale, and the shift toward post-Fordist logics of creating and moving stock “just-in-time” (JIT) on the basis of demand, tends to focus on manufacturing functions or JIT in the abstract (Dicken 2007; Gereffi 1994; Robinson 2004). Yet, as Bonacich and Wilson (2007) have suggested, the “logistics revolution”—improvements in transportation and materials handling associated with the advent of the shipping container, the bar code, information technology, and the rise of retailer power in production relationships—is a driving force behind contemporary production and accumulation patterns globally (Bonacich and Wilson 2007; Levinson 2006).

Changes in the global division of labor that give rise to extended “subcontracting networks” and extended commodity chains have been “driven by the desire to take advantage of the wide differentials in labour costs between different parts of the world” (Dicken 2007: 155). At the same time, “the emphasis is increasingly on rapid product turnover, speed to market, responsiveness to customer needs, [and the principles of] ‘lean’ production” (Dicken 2007: 155). Through “deep integration” of production processes and application of information technology (Dicken 1998; Robinson 2004) to problems associated with coordination and control over the process of production throughout these
“distributed commodity chains,” as many suggest (Bair and Gereffi 2003; Bonacich and Wilson 2007; Dicken 2007; Gereffi and Christian 2009; Robinson 2004; Sassen 2001), capital successfully overcomes problems arising from the extensive enlargement of social and economic space and the compression of time transnationally (Dicken 2007).

Warehouses and distribution centers represent the crystallization of globalized capitalist production processes under these conditions. In 2013, the value of world trade in intermediate, primary, consumer, and capital goods totaled roughly eighteen trillion dollars (UNCTAD 2014a). In some capacity, warehouse and distribution or other materials handling functions were largely responsible for pre- and post-transportation management of those goods, as well as a great deal of other logistics functions. Some of those functions were engaged internal to extraction and production firms, and many were dispersed throughout the myriad of contract relationships that exist across suppliers, primary and intermediary producers, and logistics firms that provide more than just storage and transport functions. In the US alone, logistics services (including transport and related functions) account for more than eight percent of GDP with 2013 total logistics costs of nearly $1.4 trillion dollars (Schulz 2014).

Yet, distribution and warehousing largely “remains hidden, mainly confined to the specialist fields of supply chain management and transportation” within the debates and analyses on globalization (Dicken 2007: 410). Certainly, some scholars like Dicken (2007) and Bonacich (Bonacich 2003; Bonacich and Wilson 2005; Bonacich and Wilson 2007) have highlighted the importance of the field to contemporary political economy. And others have begun to assess the social impacts on workers and communities
embedded in logistics industries (Allison et al. 2014; Allison et al. 2013; De Lara 2013b; Gonos and Martino 2011; Sowers et al. 2014) as have various journalists (cf., McClelland 2012; Yarow 2011). The literatures have begun to investigate the critical importance of logistics and materials handling to global political economy, and have analyzed some of the on the ground consequences of the of the prevailing labor practices—crucial steps in the exposition of “the circulation processes” that make contemporary global capitalism possible (Dicken 2007: 410 emphasis omitted).

At the same time, the research program of the “global capitalism school” (Carroll 2010; Harris 2009; Murray 2009; Patterson 2013; Robinson 2004; Sklair 2001; Struna 2013) has begun explicating the social landscape associated with contemporary capitalist globalization (1970s-present). Focusing on the internationalization (transnationalization) of the productive circuit of capital (Palloix 1977; Robinson 2004; Sklair 2001), and attendant transformations in relations among transnational corporations, the state, and civil society, the perspective has tended to focus on the emergence of a “Transnational Capitalist Class” that acts as a “dominant class” in a broad swath of local and global contexts (Carroll 2010; Robinson 2004; Sklair 2001). The overarching goal of the research program has been to assess how the emergent transnational capitalist class, through the coordination and control of capitalist productive and financial processes, asserts class dominance within these local and global contexts, and in so doing forges the contemporary social world in their terms.

Beyond the “commanding heights” of the “Transnational Capitalist Class” (Robinson 1996; Robinson 2004) and the dominant side of the global class equation,
research on the “subordinate” side, or a global or transnational working class has
emerged from a global capitalism perspective too (Carroll 2013; Embong 2000; Robinson
2014; Struna 2009; Struna 2014). In these cases, emphasis has been on burgeoning
global civil society organizations that have possibilities for emerging as a
counterhegemonic movement opposed to global capitalist practice (Carroll 2013).
Alternatively, they have focused on conceptual problems regarding theory construction
on global class formation in general (Embong 2000), or broad macro-theoretical claims
about the shape of a global or transnational working class in particular (Robinson 2014;
Struna 2009). Empirical research on the formation of a globalized or transnationalized
working class from this perspective has so far been lacking.

Building on these frameworks, and the Marxist traditions that proceed them, class
formation as it is used here primarily concerns the relationships that arise between people
engaged in the process of production—or more accurately the process of consumption of
labor-power in the creation of commodities (Marx 1990 [1867]).

The labor process, when it is the process by which the capitalist consumes labor-power, exhibits two characteristic phenomena.
First, the worker works under the control of the capitalist to whom his [or her] labor belongs; the capitalist takes good
care that the work is done in a proper manner, and the means of production are applied directly to the purpose, so
that raw material is not wasted, and the instruments of labor are spared….
Secondly, the product is the property of the capitalist and not that of the worker, its immediate producer…. The use
of a commodity belongs to its purchaser, and the seller of labor power, by giving his labor, does no more, in reality,
than part with the use-value he [or she] has sold. (Marx 1990 [1867]: 291)
Marx’s (1990 [1867]) formulation of the capitalist labor process highlights power relationships concerning the production of commodities first and foremost: workers are under capital’s “control,” as are the products of the creative process, and the rights to their sale. This is the material foundation of the labor-capital relation (1990 [1867]).

The social character of the labor process cannot be overemphasized from this perspective. The labor-capital relation is the basis for social class in-itself under the conditions of capitalist production (Braverman 1974; Edwards 1979; Marx 1990 [1867]; Marx 2006 [1933]; Robinson 2004). Where significant variation in the content of that relationship can change relative to the technological mix, as well as the distance and scale of production, it is the control over the labor process and its ultimate product that determines one’s social class position under capitalism. On the basis of the technological and scale changes, among other tendencies like the form and extent of commodity trade, different research perspectives periodize phases or epochs of capitalist development differently (Arrighi 1994; Dicken 2007; Palloix 1977; Robinson 2004).² What remains

² While it is beyond the scope of this investigation to put to bed the debate between world-systems perspectives (Arrighi 2001; Moore 2001; Wallerstein 2004), and the global capitalism school/ associated Gramscian perspectives on political economy (Cox 2003; Gill and Law 1989; Robinson 2001; Sklair 1999), it is important to note that the primary epochal distinctions revolve around what makes the current period more ‘global’ than previous periods. Where world-systems see a dialectical march from local to global from at least the 15th Century, if not prior (Chase-Dunn 1998; Hall and Chase-Dunn 2006), the Gramscian turn locates globality in the extension of the productive circuit of capital to international contexts (Palloix 1977). While the latter perspective concedes that the commodity circuit of capital has been global since the 1490s as a result of world trade, and the financial circuit of capital was largely global by the 1850s, they argue that the productive circuit begins to globalize only in the second half of the 1900s (Dicken 1998; Palloix 1977; Robinson 2004). Later perspectives that emanate from Palloix (Dicken 1998; Robinson 2004) eschew the notion that fractions of capital can directly be linked to the circuits—where commodity trade equals the commercial fraction, financial
the same across capitalist epochs is the basic class relationship that emanates from uneven control over the labor process and its products.

Thus, following Braverman (1974), “this is [primarily] a book about the working class as a class in itself, not as a class for itself” (Braverman 1974: 27). Insofar as the general character of the labor-capital relation pertains, it is an assessment of the outlines of that relation under the specific conditions of contemporary global capitalist practices (Robinson 2004; Sklair 2001). “Relics of bygone instruments of labor possess the same importance for the investigation of extinct economic formations of society as do fossil bones for the determination of extinct species of animals. It is not what is made but how, and by what instruments of labor that distinguishes different economic epochs” (Marx 1990 [1867]: 286). The same archeological approach to unearthing social relationships embedded in production practices can be applied to the current instruments and techniques of coordination and control. That is the primary objective of this dissertation.

Yet, if class formation begins in the labor process and is largely determined by relationships that happen at the point of production, we must still remember that emergent class relations do not end there (Veblen 1953 [1899]; Weber 1964 [1947]; Wright 2005). The social effects of the power differentials, relative incomes, occupational prestige (or its absence), and other status markers related to working all seep into other aspects of existence. I term this nexus of work and non-work, class-life:

---

trade equals the banking fraction, and productive trade equals the industrial fraction of capital—but the notion of functional integration of industrial production across borders as the hallmark of globalization in the contemporary period remains a key theoretical claim that distinguishes the global capitalism perspective from world-systems analysis following Wallerstein (1979) especially.
relationships and statuses that derive directly from the labor process (the labor-capital relation), and the subsequent social outcomes of that relationship—i.e., wage rates, subsistence wages, relative purchasing power, commodity preferences, etc. Included in class-life are the cultural-ideological tendencies that suggest a modicum of class or class-fractional identification, or homophily among similar sets of workers.

However, the total picture of class still remains incomplete. Class formation on the basis of the labor-capital relation may lead to socioeconomic similarities and differences expressed in active class-life, but it does not evenly, or predictably flow into active class-consciousness (Thompson 1966 [1963]). The latter largely “happens when [people] feel and articulate the identity of their interests as between themselves, and as against other[s] whose interests are different from (and usually opposed to) theirs” (Thompson 1966 [1963]: 9). Of all three elements of the total class picture—objective formation on the basis of position and participation in the labor process, class-life, and class-consciousness—the active expression of class interests and solidarity is frequently the most fleeting, and tenuous in the always-emergent, and historically located experience of class.³

³ Standing’s (2011) notion of the “precariat” is largely applicable to the analysis that follows in terms of the attributes of the population he describes, and the massive insecurity that he and others (Kalleberg 2009) have identified among their ranks globally. However, the approaches substantially diverge theoretically. Standing’s (2011) coinage and use of the Ancient Greek “banausoi,” or that class “required to do the productive labor in society” without the ability to “participate in the life of the polis” (Standing 2011: 13) largely misses the continuity of precarity among workers under capitalism. The types of security he regards the proletariat as having historically were more artifacts of the postwar interregnum’s class compromise than stable attributes of a formal proletarian working class. Further, like his “banausoi” the proletariat has a pre-modern “antecedent” as well. Under the Roman class system, the term proletarius, or lowest
The analysis below primarily focuses on the objective basis of class formation related to the contemporary globalized capitalist labor process as it unfolds in particular warehouses and distribution centers. To be sure, class-life-related issues arise: economic and other stresses and strains, as well as demographics of workers are addressed in the analysis. And, pockets of class-conscious workers appear in the case of Warehouse Workers United organizing activities and actions. But, the labor-process in warehouses and distribution centers provides the primary focal point throughout as the practices of coordination and control in these environments in this particular time are assessed from a global capitalism perspective.

The task here is to link these literatures—research on the centrality of logistics to contemporary capitalist globalization practices, as well as work on the emergence of transnational class formation—and flesh out the relationships between both. However, to do so requires integrating the sociology of the labor process and sociology of work (Braverman 1974; Burawoy 1979; Edwards 1979; Marx 1990 [1867]; Salzinger 2003) among others into the mix (Blauner 1964; Silver 2003; Smith 1998; Vallas 2003a; Vallas and Beck 1996; Vallas and Prener 2012). By synthesizing the literatures on labor process sociology, and global political economy with empirical research that situates particular work processes within the context of global class formation, this study bridges the gap between micro-/meso-social and macrosocial action. To further contextualize the labor level of Roman citizen “denot[ed] a person having no wealth in property, who only served the state by producing offspring [or, prole]” (New Oxford American Dictionary 2005). Regardless, the continuity of precarity, and the overdetermination of class resulting from the labor-capital relation within capitalist workplaces warrants the continued use of Marxian terminology and class analysis despite some novel configurations of that relation in the current era.
process and class-life this study also draws on intersectional frameworks and Marxist-feminist standpoints (Choo and Ferree 2010; Hartsock 1983). In other words, it seeks to understand how issues of race, gender, and ethnicity interact to inform social life in and outside work (Choo and Ferree 2010; Hartsock 1983; Salzinger 2003). In so doing, it “extends” existing theory and research in novel directions in order to better reflect relationships between apparently disparate or unconnected processes (Burawoy 1998).

The central questions is this: how do transnational corporations maintain control over labor in specific locations—such as warehouses and distribution centers—despite large geographic distances and complex institutional environments that mediate relationships between capitalists and workers in global commodity chains? What are the mechanisms of exploitation used in warehouses and distribution centers (among other nodes in global commodity circuits), and how do workers experience and respond to those mechanisms in terms of executing the labor, comprehending the labor process, and resisting exploitation and control (Burawoy 1998)? Finally, how does the coordination and control of the labor process (Edwards 1979) on the part of global capital contribute to the formation of a global “working class in-itself” (Robinson 2004; Thompson 1966 [1963])?

In other work (Struna 2009), I advanced a fractional perspective on the global working class that hinged on laborers’ embeddedness in commodity circuits and their relative mobility or immobility relative to polities and points of production.4 The primary

4 I called this scheme a “spatial-productive perspective.” Class fractions are segments of social classes that do not necessarily have independent class positions in their own right, but nonetheless occupy different relative statuses, interests, or relationships to other
theoretical assertion being that a worker need not cross political borders in order to be consider a member of a transnational working class—although, many clearly do so. One’s participation in globalized and distributed commodity production processes creates transnational relations between both workers and capital, and among similarly situated workers across the geography of the distributed commodity circuit regardless of a worker’s mobility or immobility relative to political borders (Robinson 2004; Struna 2009).

The effort sought to build on Robinson’s (2004) notion that, following Thompson (1966 [1963]) a class “in-itself” constitutes “a group whose members objectively share a similar position in the economic structure of society independent of the degree to which they are [or are not] aware of their collective condition [or act] on the basis of this condition” (Robinson 2004: 38). Thus, insofar as the economic structure is globalized or transnational, the class relations that obtain from them are transnational too (Robinson 2004; Sklair 2001; Struna 2009; Struna 2014).

Here, I make no effort to categorize warehouse workers according to the fractional designations, but the notion that spatial-productive considerations overdetermine class membership in general remains. I test the assumption that workers’ embeddedness in global commodity circuits governed through capital’s coordination and control over the labor process contributes to the formation of a global working class regardless of a worker’s typical immobility in the labor process. Clearly, some workers

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groups within a class. Following Marx, many researchers and class theorists advance a fractional perspective on different occupational, professional, intersectional (racial and ethnic segments within labor markets), or other bases (Edwards 1979; Mallet 1975; Marx 1991 [1894]; Sklair 2001; Struna 2009).
are moving across political boundaries. For example, immigrant warehouse workers, and workers required to travel in the course of their work cross national and state borders. However, this study primarily concerns the analysis of warehouse workers’ participation in the labor process, and the nature of the transnational class relationships that emerge from that activity, regardless of their mobility across borders.

This dissertation addresses these questions by interrogating and analyzing the relationships between the complex networks of transnational firms—global retailers, suppliers, logistics and warehousing companies, and temporary employment services—and the workers subject to the command and control over the labor process in facilities that make the global flow of commodities possible. Through the use of information technology and the efficiencies afforded by containerization, warehouses and distribution centers offer localized snapshots of the transnational circuits in process, and thus social relationships between people in those circuits.

This investigation focuses on the observation of warehouse and distribution center workers responsible for handling the flow of commodities produced and consumed throughout the world economy, in addition to the ways that participation in these processes effect workers’ class-lives. The coordination and control (Edwards 1979) of warehouse workers’ labor largely occurs through sophisticated information technology and communication networks that operate over vast geographic distances, and cross both the political boundaries of nation-states and the institutional boundaries of various types of firms (Aneesh 2009; Bonacich and Wilson 2007; Gereffi and Christian 2009). Thus, warehouses and distribution centers provide ideal cases for the analysis of transnational
commodity circuits’ effects on workers’ class identity, and their understanding of the relationships between subordinates and superordinates in a globalized labor process. Further, such contexts provide a site to observe workers’ understanding of possible relations between themselves and other workers in other geographies within the same value chains.

**METHODOLOGY**

Burawoy’s (1998) assertion that reflexive science is in part “the aggregation of situational knowledge into social process” on the basis of “prior theory” (Burawoy 1998: 15) informed my choice to use ethnographic methods in this investigation. Following the Marxist view that the production of commodities provides the material basis for class relations under capitalism (Braverman 1974; Edwards 1979; Marx 1990 [1867]; Thompson 1966 [1963]), I both stepped into the ‘hidden abode’ of production (Marx 1990 [1867]) within a warehouse and distribution center, and spoke to workers in and outside the workplace to better understand their views and experiences. In particular, I sought to determine what about particular workplaces—warehouses and distribution centers—are shaped by broader capitalist labor processes in the era of globalization. Following Burawoy’s extended case method, I sought to “move beyond social processes to delineate the social forces that impress themselves on the ethnographiclocale” (Burawoy 1998: 15). In this case, transnational production processes reveal the specific class actors *in situ.*
While the core theoretical premises of the investigation derive from principles elaborated in the 1860s (Marx 1990 [1867]), this study also sought to reject and/or modify the components of the materialist perspective that do not accord with the realities of capitalist production in the contemporary period (Burawoy 1998). Just as Burawoy (1998) admonished that “we seek not confirmations but refutations” (Burawoy 1998: 16), the social processes and forces revealed in warehouses and distributions centers helped reveal the flaws in “nation-state-centric” sociological thinking about proper units and levels of analysis (Levitt and Jaworsky 2007; Robinson 1998). The notion that nation-states are coextensive of societies provides convenient shorthand for borders, but social processes and interactions embedded in contemporary political economic practices frequently exceed the boundaries of national states (Chase-Dunn 1998; Robinson 2004; Sklair 2001). We must thus assess how such transnational practices and processes (Sklair 2001) articulate with other social action on the ground to fully understand the “ethnographic locale” as well.

Finally, ethnographic methods using participant observation provide a more direct method of analysis of people and places than other modes of data gathering, such as survey collection or formal experiments, that start from the premise of distance and detachment. I have no illusions about my objectivity, or rather, the presence of my subjectivity as I attempt to navigate interviews, observations, and analysis from a class-based and intersectional theoretical-ontological perspective. Burawoy’s (1998) first premise of reflexive science—that we embrace the fact of our “intervention” both as a mode of giving voice to the informant, and as a mode of explication (Burawoy 1998:
14)—is consistent with the idea that “the point…is to change it” (Marx [1845] 1959).

But, just as importantly, the closeness of the subject allowed by ethnographic methods permits a finer-grained analysis than other tools, and enhances possibilities of theory construction beyond other forms of hypothesis testing.

To be clear, the choice of participant observation and related techniques (semi-structured interviews, and archival analysis) affords the best opportunity to link the macrosocial processes to micro- and meso-social contexts that make the more-abstracted levels of reality possible. We thus focus our observations on “extending out” to develop not only better empirical understandings that traverse the levels of analysis, but to extend theory to contexts which hypothetically fit, yet have so far remained beyond the purview of existing theory (Burawoy 2000: 27). It is often easy to view globalization as a concept and a tendency that happens in other places to other people (Salzinger 2003), but by observing practices and processes that actually constitute the core of transnationalization in our own backyards, we can demystify the concept and reveal the men and women behind the curtain intent on keeping those processes obscure. Applying the extended case method (Burawoy 2000; Burawoy 1998) to understand the emergent properties of specific places structured by transnational and capitalist processes, by its nature can shed light on the emergent properties of the broader system itself.
CASE SELECTION

I arrived in the Inland Empire of Southern California in 2009 to begin my Ph.D. studies at the University of California Riverside. Betsy Kindblade (my wife and partner), our six-month-old son Benjamin, and I rolled into the region that August amidst wildfires, staggering air pollution from the industry I would come to study (CCAEJ 2011), and growing unemployment that would peak a few years later at nearly thirteen percent. With no social network to speak of beyond the collegiality of my cohort and the mentorship of my advisors, we came to Riverside with little understanding of the place or its embeddedness in the broader regional or global political economy (Patterson 2014). I intended to develop a means of empirically assessing some of the assumptions of the global capitalism school (discussed above), but beyond that had no idea we had come to rest in one of the major “logistics clusters” that makes the global economy possible (Bonacich and Wilson 2007; Sheffi 2012).

The logic of case selection overall stemmed from a theoretical interest in transnationalized labor process and the proximity to sites thoroughly embedded in global commodity chains. While I wish I arrived in the area with foreknowledge of the predominant industry and its depth, it was only after introduction to Warehouse Workers United organizers, mentor and colleague suggestions, and meeting many undergraduate students who work(ed) in warehouses and distribution centers or had family who did so, that I focused my research on the sector. Knowing now that the ubiquitous twenty-four hour flow of semi-trucks on the freeways, and freight trains on the intersecting rails is destined for an immense complex of warehouses and distribution centers hidden in plain
sight, it should have been apparent sooner that my research would be in our new backyard.

To be clear, the area of Southern California frequently referred to as the “Inland Empire” (Bonacich and Wilson 2007; Davis 1990; Patterson 2014) is composed of the suburban zones of Riverside and San Bernardino counties—in particular, the metropolitan statistical area incorporating the cites and surrounding communities of Riverside, Ontario, and San Bernardino.5 While always largely a hinterland of Los Angeles, the region was once home to burgeoning citrus groves that gave way to dairy farms, military installations, and finally warehouses and distribution centers as the former industries, industrial complexes, and historical conjunctures began to change in the 1980s and 1990s (Bonacich and Wilson 2007; Davis 1990; Patterson 2014).6

The existence of the key geographic and demographic attributes required for the location of a massive logistics cluster, as listed above, presented neatly in the Inland Empire: proximity to seaports, inexpensive and massive tracts of real estate, and a pool of cheap, but relatively skilled labor. As a result, the area, just 60 miles from the port complex of Los Angeles and Long Beach—handling roughly forty-percent of imports to the US (Allison et al. 2013; Bonacich and De Lara 2009; Bonacich and Wilson 2007; De Lara 2013b)—has come to be occupied by warehouses and distribution centers that cover

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5 Contemporary policy makers and boosters prefer the moniker “Inland Valley” for the region, believing that “Inland Empire” is largely pejorative, but most locals widely use the latter.

“1.65 billion square feet of industrial property involved in logistics” (Patterson 2014: 227). If the facilities were contiguous, they would be roughly the size of the island of Manhattan, or thirty-three square miles (Patterson 2014; Struna 2012). Within the seasonal ebb and flow of temporary employment practices based on demands created by the temporal patterns of American consumption (Christmas, back-to-school, etc.), roughly 100,000 workers are employed by the logistics industry regionally (Allison et al. 2013; Bonacich and De Lara 2009; Bonacich and Wilson 2007; De Lara 2013b).7

It is worth mentioning that the Inland Empire has traditionally been a stronghold of social and political conservatives, and has been associated with being relatively friendly to agriculture and industry (Davis 1990; De Lara 2009; Patterson 2014). Where labor frequently faced uphill battles in Southern California and LA in particular through at least the 1990s (Milkman 2006), it has been less successful in the Inland Empire traditionally. Nonetheless, it is a demographically and politically shifting area with increases in Latino/a populations and relative shifts leftward in local elections (De Lara 2009). Regional growth in labor organizing activities and relative victories from campaigns like Warehouse Workers United, United Food and Commercial Workers in the retail sector, and other organizations may mark a trend toward a stronger labor presence in the Inland Empire moving forward. However, given systematic resistance to unionization efforts (Logan 2006; Logan 2007; Logan 2013), and the political dynamics

7 Future regional employment in the industry is difficult to predict. On one hand, the industry is gobbling up more space, and expanding to ever-larger facilities; on the other, task automation reduces the number of workers needed in these ever-larger spaces.
of the region (De Lara 2009) labor faces a strenuous battle to gain a foothold in the Inland area.

The region and the globalized industry embedded in it thus provides an ideal site for the observation of social life situated in the context of transnationally distributed commodity circuits. The shifting patterns of industrial production associated with the end of the Cold War and the rearticulation of workers in the US into global, neo-liberal labor markets (Bonacich and Wilson 2007; Freeman 2008; Patterson 2014; Robinson 2004) provides sites that are perfect for the observation of labor processes that are either typical, or ascendant in may industries and sectors. As Sassen (2001) asserts, the rise of “producer services,” such as logistics and materials handling activities, among others, is concomitant with the institutional configuration of the current era (Sassen 2001).

Consequently, the case of warehouses and distribution centers in the Inland Empire of Southern California lends itself well to Burawoy’s (1998) extended case method through which I seek to use my observations of the labor process within warehouses to expand and improve current theories of global class formation.

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8 In an observation corroborating some of Logan’s (2013; 2006) findings regarding corporate union opposition campaigns and avoidance (Logan 2006). I attended an International Warehouse and Logistics Association meeting cosponsored by Conoco-Philips (2012). The conference was convened to educate members (including logistics firms and temporary agencies) about health and safety regulations, and to combat then-pending legislation (AB 1855) regulating warehouse contractors’ wage and labor obligations—key focal points in the region for Warehouse Workers United organizing campaigns. Among the speakers were a “pro-prosperity” Republican candidate and lobbyists outlining the strategy to unseat the recently elected Democratic Assembly Member from the region who sponsored the bill. For roughly a year after, I received emails from the association advertising anti-union seminars, and resources for their members to use in active anti-union campaigns on their shop floors.
METHODS AND DATA

Methods and data used in research for this dissertation include semi-structured interviews, participant observation, and archival sources. Additionally, I rely on demographic and wage data obtained through University of California Riverside Labor Studies’ collaborative work with the Blakely Center for Sustainable Suburban Development, Undergraduate Research in the Community, and our community partners, Warehouse Workers United, and the Center for Community Action and Environmental Justice (Allison et al. 2013). Our undergraduate students collected 136 surveys—sampling from warehouses and distribution centers across the Riverside-San Bernardino-Ontario metropolitan statistical area by approaching workers in parking lots adjacent to the facilities. We used a sampling strategy that attempted to account for the ownership structure of the warehouses by matching the proportion of retailer, suppliers, or third-party logistics facilities to our sampling targets (Allison et al. 2013). Data from other local surveys of warehouse workers serve to contextualize the demographic picture locally as well (Allison et al. 2013; De Lara 2013b; Warehouse Workers United and Cornelio 2011).

I conducted twenty-one semi-structured interviews with warehouse workers (temporary and direct hire), managers (temporary agency and direct hire), and organizers employed by Warehouse Workers United, and the International Longshore and Warehouse Union beginning in 2010. The interviews focused primarily on basic questions regarding the work environment, the labor process and management, and evidence of transnational relationships that workers see in the work they do on a daily
basis. Interviewees were sampled on the basis of convenience as well as targeted sampling to balance groups relative to affiliation with Warehouse Workers United, the type of firm, and were derived from student populations as well. Of those interviews eleven were conducted with workers or worker-organizers affiliated with Warehouse Workers United. Many of the interviewees remained long-time informants and have become friends in the process.

Of the fifteen workers or worker-organizers interviewed (excluding managers, agents, and staff organizers), nine were Latina women between the ages of eighteen and sixty years old with warehouse work experience that ranged from several months to nearly twenty years; six workers were Latino men between the ages of twenty and seventy years old with a similar range of work experience in warehouses. Given that the surveys listed above, and discussed in chapter two in more detail, indicate that more than eighty percent of warehouse workers in the region are Latino/a (Allison et al. 2013; De Lara 2013b; Warehouse Workers United and Cornelio 2011), I chose to oversample Latino/a workers for interviews.

Four male warehouse or distribution center executive managers, all in their mid-forties to early fifties were interviewed. Of those, two executives were white, one Latino, and one African-American with average warehouse-related tenure being about ten years. The temporary employment agent was a forty-year-old white male with approximately fifteen years experience in warehouse-related staffing.

Outside of the Warehouse Workers United informants (staff organizers and researchers) I had continuous contact with as a participant-observer, I also interviewed a
high-level organizer with the International Warehouse and Logistics Union (ILWU). While interested in organizing in the Inland Empire, the ILWU has struggled to gain a foothold beyond a few represented facilities such as the Rite Aid warehouse in Lancaster, California. This is so despite an ILWU organizing drive in the region that was interrupted by the recessionary period of 2008 (De Lara 2013a: 87). My informant’s familiarity with the overall organizing climate in California, and the sector generally, helped contextualize Warehouse Workers United’s place in the local labor movement as well as the difficulties organizing temporary workers.

To assist in conducting interviews in Spanish, I employed undergraduate interns to conduct Spanish interviews with me, and translate Spanish responses, in addition to transcribing both Spanish and English recordings for a total of five cases in which Spanish was the predominant language spoken in the interview⁹. While less than ideal, this solution was optimal—given my Spanish-language limitations—when interviewees were Spanish-speaking only. A large proportion of interview subjects were significantly bilingual, especially in occupational contexts (Greenfield 1972), and the number of English-only speakers is equally high among non-immigrant workers even with the prevalence of Latino/as in the industry.

I by no means want to convey to the reader that I have Spanish language skills adequate to consider myself bilingual beyond the most rudimentary level, but my own employment history as a restaurant and kitchen worker is marked by extensive experience in navigating bilingual environments. Workers from diverse linguistic backgrounds often

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⁹ Three cases were Spanish-only, and two cases were conducted in a mix of Spanish and English.
labor together in workplaces that force precise communication despite the absence of a shared language (McGroarty 1990), and thus develop ways to overcome a lack of formal language training. In the contexts of participant observation at Warehouse Workers United meetings and rallies, I feel my Spanish speaking ability was adequate to apprehend a large portion of discourse and was fully capable of communicating in Spanish with co-participants about the specifics of shared events. In my workplace observation, all of my coworkers were English-speaking.\(^1\)

Fieldwork based on participant-observation occurred in two broad contexts. The first concerns Warehouse Workers United general meetings, health and safety trainings, demonstrations, pickets, press conferences, and research consultation with lead organizers. The organization was founded in 2008, and largely funded by the Change to Win labor federation until 2014 (De Lara et al. 2015 [Under Review]). Put together by Change to Win and constituent organizations’ staff (namely International Brotherhood of the Teamsters, and United Food and Commercial Workers), Warehouse Workers United was organized as an industry-wide campaign modeled on successful labor organizing drives like Janitors for Justice and the Carwash workers campaigns in the Los Angeles region (Milkman 2006). An important goal, beyond the immediate tasks of improving working conditions on the ground for workers employed in the industry, was to organize in order take advantage of the strategic importance of the Inland Empire in the global

\(^{10}\) Two janitorial workers with whom we had little contact on the shop floor spoke the only Spanish I heard in the warehouse in my observations. Otherwise, all observed at-work communication was conducted in English with the exception of some friendly, ad hoc Tagalog instruction offered by a coworker to a line manager.
economy and its relationships to the ports of Los Angeles/Long Beach (Allen 2010; Bonacich 2003; Bonacich and Wilson 2007).

Warehouse Workers United observations took place mostly between 2010 and 2013. Such observational contexts provided access both to the labor process related themes I sought to investigate in this research, but more importantly allowed access to workers’ class-lives and perceptions of their work-conditioned social life that interviews could not convey. In particular, observation made clear the hardships of temporary labor, problems with immigration status, health and safety stresses and strains, and the manifold reasons workers joined the organization in order to change their particular workplaces, and ideally the industry overall. Further, Warehouse Workers United meetings provided an opening into an important attempt to organize marginalized workers, and a microcosm of efforts to revitalize the labor movement in the US, and foster at least formative links between similarly situated workers transnationally. Throughout my participant observation, I gathered Warehouse Workers United press releases, reports, training materials, leaflets, and other documents that provided insight into the labor process and organizing activities.

The second context of observation concerned my participation in the labor process at a global retailer’s warehouse and distribution center. For roughly eight weeks in the early peak season of 2013 (in the fall months before Christmas) I worked as a part time (20-plus hours per week), direct hire employee in an 800,000 square-foot warehouse alongside roughly 200 other coworkers from diverse economic, occupational, age, and racial and ethnic backgrounds. Insofar as a great deal of employment in the local
industry, as well as the industry globally is part-time and short-term, seasonal, or temporary, my experience largely approximated the experience of workers in a temporary seasonal job.

Seeing the whole of the research site in action, and having the ability to investigate the material record constituted by my own and others’ interaction with capital in the labor process and other socio-cultural structures of the workplace, lead to richer data than reliance on subjective self-reports of informants alone. Further, coping with the job search and hiring process in an employers’ market, the intricacies of payment remissions from the firm, and the interpersonal relationships that developed on the line allowed a more complete understanding of the total employment picture and the labor-capital relation workers endure in the region. As, I hope I demonstrate below, participation in the labor process yielded rich data on relationships that obtain from the process itself.

To record my observations, I engaged in an average of one and a half hours of note taking after each shift. Frequently, I would record observations via digital recording on my smartphone during my “long” twelve mile commute home (that sometimes took one hour or more!) after my 5:30-9:30PM shift, and transcribe the recordings or add detail in notes after the fact. I further used my phone to record text-based notes during breaks, and in the parking lot after shifts. Given the ubiquity of text messaging, an ethnographer can unobtrusively record notes on his or her phone—while giving the appearance of text-messaging—without arousing the suspicions of co-participants or supervisors.
Archival materials have presented me with data regarding the overall sentiment the industry has for the workers it employs: documents gathered from agency dumpsters by informants, warehouse break rooms, and employment/ training manuals suggest the level of regard or contempt specific firms have for laborers in the region. The personal identities of workers often appear as disposable as their bodies whether we look for evidence in trashcans, or in workers’ compensation lines at clinics. Other themes for analysis that presented in these materials, beside those above, include language choice of training materials and contracts, managerial or organizational hierarchy (agency-warehouseretailer-supplier), and demographic information indicated on hiring and employment forms.

Finally, I also analyzed secondary materials from reports on the industry by news media and industry press, as well as managerial scholarship focusing on logistics, goods movement, and materials handling. Overall, the use of multiple sources of data and a variety of observational contexts has allowed me to form a mosaic picture of work and contestation of the industry that any single data source or method would be unable to obtain. The variety of sources presented a mode of triangulation that (hopefully) has compensated for flaws in any one approach I engaged. In analyzing work in the warehouse and distribution center, and other social milieux from the theoretical perspectives advanced above, this research has given me access to empirical material that helps integrate findings from various literatures on globalization, sociology of work and the labor process, and the intersectionality of race, class and gender. In so doing, it helps
advance the project of understanding human social relations more clearly in the contemporary period.

OVERVIEW OF THE DISSERTATION

In the chapters below, I discuss the ways that the organization of work through the coordination and control of the transnational labor process impacts workers, and contributes to the formation of a global working class—the subordinate analog of the largely dominant transnational capitalist class.

In chapter two, I provide an overview of the warehouse and logistics industry in the region by looking at the functions of the industry, and the main institutional actors within the field: Logistics service providers, retailers, and temporary agencies. By understanding the shapes of the networks and the power relations among them, we are better able to understand the nature of coordination and control over the labor process, and the ways the industry articulates into global capitalist practices. Further, I describe the employment conditions and social characteristics of warehouse workers in the Inland Empire of Southern California, based on survey findings (Allison et al. 2014; Allison et al. 2013; De Lara 2013b; Struna et al. 2012; Warehouse Workers United and Cornelio 2011) and observations. Overall, this data shows that blue-collar workers in warehouses and distribution centers tend to earn poverty-level wages and face other economic hardships related to employment in an area with high costs of living. While most are full-time workers in the industry, a significant portion are employed by temporary agencies, and/or work part-time or on a seasonal basis, and most lack health insurance.
Further, workers tend to have lower levels of formal education, frequently hail from immigrant and/or Latino/a backgrounds, and most have dependent children and families to support on below-subsistence incomes.

Chapter three provides a closer analysis of the work and sense-experience of warehouse workers based largely on my ethnographic observations and in-depth interviews. I first discuss how the “built environment”—the vast spaces and scales of contemporary warehouses in addition to the physical capital and technology—affect workers’ experience of workflows, and constrain or enable action within the labor process. I also further discuss the centrality of labor related to distribution functions to practices of contemporary globalization. Turning to the division of labor, chapter three tracks some of the detail of the flow of work in the facility I observed and worked in order to offer a glimpse of the specific activities warehouse workers execute during goods movement. Finally, given the arduous, sometimes Sisyphean nature of warehouse work, I analyze some of the typical stresses and strains warehouse workers face in terms of workplace injury and illness, and economic precarity.

Chapter four features a discussion of workplace inequalities and social standpoints (Hartsock 1983) in terms of ethnicity, race and immigration status, as well as gender and age differences among warehouse workers. The impacts of difference on the experience of work are significant, as many report (Munoz 2008; Peña 1997; Plankey-Videla 2012; Salzinger 2003) and frequently reflect management’s structuring of performance and the division of labor. The chapter further discusses the ways that informal social groupings coalesce into cliques and networks of camaraderie. Such
groups are frequently, but not always influenced by different types of homophily. Still, the ways people from different social standpoints interact, associate, and affiliate tends to condition the collective experience of work on particular shop floors. Under some conditions management’s interests are served, and under others, workers’ social needs are met.

Chapter five is an analysis of the particular techniques of coordination and control over the labor process in warehouses and distribution centers. It is an assessment of the technological and ideological operations workers are subject to in facilities that function on the logics of just-in-time production within global commodity circuits. The purpose is to contextualize the nature of the contemporary “game” (Burawoy 1979) that warehouse workers participate in at the workplace, and the ways that pressures to produce collude with managerial strategies to exact efficiencies and profits from the digitalized and transnationalized labor process. I also emphasize the precarity embedded within capital’s strategies of coordination and control, and assess the presence of temporary employment agencies that cooperatively direct labor with their contracting firms.

Chapter six reasserts the theoretical claims of the global capitalism perspective, and presents an analysis of the transnational dimensions of the relationships between workers and capital, and of the relationships among workers. In terms of the former, I

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11 By “game” I primarily mean participation in a labor process that has known or relatively knowable rules that workers more or less follow to both fulfill output expectations, and cope with the various mental and physical pressures of production (Burawoy 1979). Following Burawoy (1979), workers and management co-create the rules of the game through varying practices and acts of contestation, and workers engage in activities within a range of consensual or coercive frameworks. I argue below that the current managerial ideology and practice hinges more on the coercive, and less on the consensual mode of regulation of participation in the labor process.
assess evidence of these relationships presented through management’s coordination and control of the labor process. In terms of the latter, chapter six examines evidence showing that workers share relationships with one another locally and transnationally through participation in shared institutions like global retail firms and contractors, the globally dispersed labor process, and material-cultural elements that workers observe on the shop floor. Insofar as management’s hegemony is never uncontested, the chapter concludes with an assessment of collective and individual worker resistance to work under the globalized logics of capitalist production.

The final chapter presents a discussion of the dissertation’s contributions to scholarship in terms of transnational class formation, labor process sociology and the sociology of work, as well as other literatures related to organizing labor in the global era. While it may seem grandiose to assert that scholarship is among the paths to the formation of a global working class for itself, if “we begin with real, active [human beings], and from their real life processes show the development of the ideological reflexes and echoes of this life process” (Marx and Engels 1956 [1846]: 75) we can move one step closer to overcoming social structures that produce these “echoes.” Already, the work of scholars, in collaboration with efforts by labor activists, has led to increased public awareness of the deplorable work conditions in warehouses, legislative changes to increase the accountability of global retailers for those conditions, and legal challenges to illegal labor practices within the local industry. Again, the point is to change it and extend these findings to other contexts (Burawoy 1998; Marx [1845] 1959).
It also discusses policy and organizing recommendations based on my assessment of work in warehouses and distribution centers, and the social consequences of class-life experienced in the contemporary era of globalization. I briefly highlight the importance of a working class pedagogy of liberation (Freire 2000 [1970]; McLaren and Jaramillo 2010) to the formation of global working class consciousness. Despite evidence that participation in the globalized labor process creates objective relationships between labor and capital, and among workers embedded in transnational commodity chains, policy and organizing lessons will be difficult to realize on the scale necessary to combat the hegemony of the transnational capitalist class in the absence of both practical and critical global working class consciousness.
CHAPTER TWO
THE FIELD: FUNCTIONS OF THE WAREHOUSING AND LOGISTICS INDUSTRY—INSTITUTIONAL ACTORS

The reference to materials handling as an art and science is made advisedly, because the solution of most handling problems is not susceptible to a single definite answer, but depends largely on the experience and judgment of the individual materials handling engineer. Although this fact indicates that [the field] is still an art, modern analytical methods are being perfected, and engineering data, formulas, statistics, and standards, which are approaching the stage of a science, are being developed. (Bolz and Hagemann 1958: 1.1 emphasis original)

The activities that are encompassed in the broad term distribution include sorting and cutting, invoicing, billing, and other paperwork; labeling, packaging, storing, moving, shipping—plus wholesaling, retailing, financing, and insuring. Physically, distribution contributes little; it can only mar, soil, tear, scratch, or otherwise damage or downgrade the product. Economically, however, distribution is the process in which physical properties of matter are converted into economic value; it brings the customer to the product. (Drucker 1962: 103)

LOGISTICS SERVICE PROVIDERS: FIRMS AND THE FUNCTIONS OF THE INDUSTRY

Like most terms of art, materials moving, logistics, supply chain management, goods movement, etc., are essentially contested concepts (Gallie 1956). However, given the state of the field overall, a great deal more consensus and overlap of definitions exist in the class of firms and actors involved in goods movement. Maintaining analytical distinctions between particular types of firms involved in goods movement or materials handling on the basis of conventional wisdom—i.e., between warehousing and
distribution firms, transporters, logistics providers, *etc.*—obsures the functional eclecticism and integration of the processes actually undertaken by the variety of firms operating in the field. Frequently, firms are simultaneously providing the range of services suggested by any one of the specific types of companies regardless of how they are billed or branded.

The first introductory quote indicates the degree to which the materials handling and goods movement industry regards itself as something akin to a precise and essential instrument—even as far back as 1958 when the quoted volume was published as the first formal materials handling handbook. Despite the centrality of the functions identified by Drucker (1962), materials handling and logistics activities remain obscured in the contemporary period from at least a sociological, if not value-added standpoint: “distribution [is] one of the most sadly neglected, most promising areas of American business” (Drucker 1962: 103). While I could add little to Drucker’s (1962) summary quoted above, the functions have continued to expand to activities like light assembly and goods finishing. The work performed in warehousing and distribution facilities frequently includes far more than “moving” boxes or loose stock—goods are put together, branded, and made saleable in their final packages after being sourced from multiple suppliers and geographies. Thus, the attention to that “promising area” of distribution and materials handling domestically and transnationally has been one of the primary drivers of the globalization of the production process from at least Drucker’s (1962) time to the present.
One of the American Material Handling Society’s first codified definitions of materials handling regarded the field as “the art and science involving the moving, packaging, and storing of substances in any form” (Bolz and Hagemann 1958: 1.1 emphasis omitted). Yet, importantly, other definitions were considered by the industry association: “Materials handling is the creation of time and place utility in a material…; materials handling is the creation of time and place utility in a material, excluding movement by transporter,” or finally for our purposes here, “materials handling is the movement and storage of materials at the lowest possible cost through the use of proper methods and equipment” (Bolz and Hagemann 1958: 1.1). Regardless of some of the elegant abstractions those definitions employ, the point is clear: the industry is organized on principles of efficient manipulation, storage, and delivery of goods under time- and place-specific constraints.

The contemporary definition employed by the Material Handling Industry (MHI) incorporates “logistics” into the scope of the industry’s responsibilities: “Material handling and logistics is the movement, protection, storage and control of materials and products throughout the process of their manufacture and distribution, consumption and disposal” (MHI 2014a). In so doing, they include activities conventionally understood to mean ‘transportation’—trucking, shipping, intermodal freight handling, end-user delivery,

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12 The American Material Handling Society is the predecessor to the Materials Handling and Management Society, one of the educational arms of the Materials Handling Industry (MHI) trade association (MHI 2014b). Notably, the MHI has dropped the “A,” for America, from MHIA to indicate its global scope and reach as a structure that impacts national and transnational manufacturing and distribution standards through regulatory bodies like ANSI (American National Standards Institute) and ISO (International Organization for Standardization [sic]).
and security into the industry’s purview. Theoretically, materials moving and logistics functions are present in every aspect of a given commodity’s life cycle.

Moving commodities of any shape or size across short or great distances represents the core of the industry’s practices, as does storage and retrieval, but it has come to encompass a much wider range of specific tasks.

This process involves a broad array of equipment and systems that aid in forecasting, resource allocation, production planning, flow and process management, inventory management, customer delivery, after-sales support and service, and a host of other activities and processes basic to business. Solutions include sophisticated techniques that expedite information flow, including RFID [Radio Frequency Identification tags] and satellite tracking systems, and the electronic transmission of order and shipping information. These innovations along with traditional material handling and logistics equipment and systems are the solutions that make manufacturing and supply chains work. (MHI 2014a)

The deployment of information and transport technology that links each of the different but interconnected moments of production is frequently managed and facilitated by materials handling and logistics firms that specialize in either one particular function essential to the process, or the monitoring, coordination, and control of the interrelated functions in general. Where the industry was once embodied by expert “middlemen” who mediated between suppliers and retailers by providing services at an arm’s length for each (Drucker 1962), logistics and materials handling firms are now functionally integrated into the operations of suppliers, retailers, and contractors throughout a commodity’s production cycle.
Indeed, the MHI’s trademarked tagline, “the industry that makes supply chains work,” (MHI 2014a) suggests the centrality of materials handling, goods movement, logistics, warehousing and distribution, fulfillment, supply chain management—whatever one wants to call it—to global commodity chains. One of the definitions of “supply chain management” offered by a textual introduction to the contemporary software package, SAP, states that it is “the observation and administration of logistical processes along the entire value creation chain, which includes suppliers, customers and end consumers” (Kappauf et al. 2012: 1). SAP is the gold standard for business software that allows the management of logistics operations “in complex information systems” that cross the boundaries of firms, geographies, and industrial sectors (Kappauf et al. 2012: 1). SAP provides the glue for the “functional integration of different segments” of the commodity circuits (Robinson 2004: 15) so many researchers discuss in the abstract when they comment on the importance of information technology in the era of globalization (Aneesh 2009; Dicken 2007; Robinson 2004; Sklair 2001). Ideally, every moment of the commodity circuit is observable by electronic data monitoring at the level of individual products, and aggregations of products in process, storage, and transport. Further, the software not only allows the tracking of those product-moments within and between firms as suppliers, handlers, and retailers or end users, it allows for rapid passage through state boundaries and regulatory agencies that monitor and control transnational trade. SAP and similar applications provide the degree of panopticism

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13 The SAP brand was initially derived from the German for Systems Applications and Products. While many proprietary software packages are in use across the field, SAP is almost ubiquitous as the premier software package for logistics operations at all levels of supply chain management.
global capitalism requires for profitability as it negotiates massive scales of complexity and geographic scope.

A frequent analytical target used to assert the empirical shifts in production and distribution practices in the global economy is Walmart (Bonacich and Wilson 2005; Bonacich and Wilson 2007; Gereffi and Christian 2009). Gereffi and Christian (2009) highlight the centrality of the firm in the transformation of commodity chains from what Gereffi (1994) terms “push” systems dominated by supplier-driven relationships and producers, to “pull” systems dominated by buyer-driven relationships and retailers. The company’s “rise as a [global] retail leader embodies its commitment to business efficiency and low prices, mediated by a passion for technology-driven supply-chain management” (Gereffi and Christian 2009: 576). As an innovator who has implemented market-changing practices related to the elevation of materials handling to something that approaches a science, Walmart has contributed to the transformation of the global economy, but it is not alone. The many suppliers and contractors who have agreed to integrate their processes into the information technology- and transportation-based supply chain management system Walmart uses, share credit for such thoroughgoing transformations—as do the many firms that mimic the structures Walmart initiated. Whether the causes of such isomorphism are coercive, mimetic, or normative (DiMaggio and Powell 1983), the acceptance of the logic of comprehensive supply chain management practices from a rational materials handling perspective has affected firms at every level of the physical or ‘real’ economy (Bair and Gereffi 2001; Bonacich and Wilson 2007; Dicken 2007; Gereffi and Christian 2009).
To be clear, the individual firms that operationalize the logic and technology required to be competitive in contemporary transnational production chains and markets all share the belief that “logistics is considered an essential element of strategic corporate leadership” (Kappauf et al. 2012: 1). Gone are the days when cutting-edge firms could relegate “distributive work [as] donkey work, [and] put a donkey in charge” of the warehouse (Drucker 1962: 268). Instead, goods movement and logistics functions are considered areas of core competency in themselves, and require proper professional expertise, management, and technology (Bonacich and Wilson 2007; Gereffi and Christian 2009; Kappauf et al. 2012; Sheffi 2012; Zylstra 2006). As such, the services are frequently outsourced to specialist firms known as, 3PLs (Third-Party Logistics Providers), ‘public’ warehouses and distribution centers, and contractors of various stripes.

Yet, operationally, the third-party firms are not independent; nor are the suppliers, retailers, or temporary employment agencies linked in various contract relationships. All of the institutional actors are embedded in network structures that create practical integration that formal firm boundaries belie (Granovetter 2001 [1985]; Powell 1990). In another prescient observation, Drucker (1962) asserts that “as we apply data processing to segments of the distribution process it becomes even more important to make sure that distribution is seen and managed as something that crosses legal and organizational boundaries” (Drucker 1962: 268). From the perspective of capital and its managers, that admonition has proved effective in ensuring transaction costs remain in check through externalization (Williamson 1981): contract for labor, logistics services, and other value
added functions gives the appearance of distinct entities, and serves to keep certain types of overhead low. From the perspective of labor, as the case of warehouse and distribution center workers shows, the maintenance of functionally artificial boundaries within integrated processes frequently serves to obscure chains of responsibility for working conditions, production rates, and value-added contributions in ways that direct employment does not.

To be sure, 3PLs and warehouse firms can be subsidiaries of shippers (retailers and suppliers) or transport firms like Maersk, P&O Nedlloyd or other “steamship lines” (Bonacich and Wilson 2007: 14). They can also be independent “global companies that plan and operate the entire supply chain” for other firms, and “some are mainly IT firms that provide computer [support] for improving the efficiency of the supply chain” (Bonacich and Wilson 2007: 14). Functions of warehousers and 3PLs have proliferated even since the writing of Bonacich and Wilson’s (2007) seminal research on the field, and the industry continues to evolve. Regardless of the functions and ownership structures of warehousing and distribution, the embeddedness of supply chain specialists in circuits of production serves to integrate disparate and complex processes.

Tools like SAP and their proprietary equivalents that mediate between distinct legal entities while seamlessly integrating the firms’ supposedly independent functions within value chains, offer material evidence that the processes are jointly controlled and monitored. In 2011, Warehouse Workers United facilitated the filing of *Carrillo et al. v. Schneider et al.* (settled in 2014) claiming that Walmart should be considered a joint employer on the basis of shared electronic data interchange, and information technology-
based monitoring. Although the claims were not fully adjudicated prior to settlement in the *Carrillo, et al. v. Schneider et al.* case the court did not summarily dismiss the plaintiffs’ claims either. In fact, Judge Snyder ruled previous to settlement that Walmart could indeed be added as a codefendant in the case on the basis that

Plaintiffs have…produced evidence that Walmart exerted control over Impact and Premier employees’ working conditions by conducting detailed audits of operations at the Mira Loma warehouses, and instructing SLTD [Schneider Logistics Transloading and Distribution] to speak with Impact and Premier [temporary staffing agency contractors’] employees directly if those employees were not following Walmart’s procedures (2013: 5).

While the direct presence of Walmart representatives on their contractor’s shop floor contributed to such audits—as is common throughout the industry regardless of the specific firm, as discussed below—a crucial means of observation and monitoring of compliance with performance standards were electronic. Walmart, Schneider, Impact, and Premier all likely had high levels of access to individual and collective output statistics per the contract relationship standards dictated by Walmart, and the functionality of software-based Warehouse Management Systems.

Within *SAP*, for example, “Labor Management” functions within the Electronic Warehouse Management (EWM) suite “can be activated for a specific warehouse number” with in a network of warehouses, and for “certain process steps” (Kappauf *et al.* 2012: 206). Electronic or manual triggers can be initiated locally or remotely within the network of firms:

EWM requests the start and end time when certain activities are performed, such as when warehouse tasks are confirmed. Using this data, the system can determine
whether the times stored in the system for a certain task have been adhered to. It is also possible to communicate this information to the human resources management component...to compensate activities in a performance-related manner (Kappauf et al. 2012: 206).

Crucially, the “human resource management component” need not be internal to the firm. The ‘human resource partner,’ a euphemism for temporary employment agency, is frequently the management component responsible for securing laborers and their labor-power as the technical employer of record. Further, disciplinary actions—not just compensation—can be levied against underperformers via analysis of electronic output data. Frequently, the retailer will ask the agency to dismiss workers who do not meet the preordained production standards determined by the process engineers (discussed more fully in the chapter on coordination and control).

Finally, I want to emphasize, “a certain warehouse number” subtly indicates geographic dispersion of locations within a given supply chain—as well as the expectation of this fact on the basis of the SAP software’s planned functionality. While it is easy to get bogged down on the local aspects of information technology-based materials handling operations because of the American-ness of the dominant firms used as examples here, supply chain management for enumerable goods implies transnational supply chain management. Again, central to the software’s implementation is the management of cross-border trade formalities.

Depending on the type of goods, departure and destination locations, transit countries and involved business partners, a cross-border shipment can require the correct generation and punctual submission of up to 35 documents. What is more, up to 25 business partners and institutions have to communicate with one another, including customs agents,
freight carriers, logistics service providers, banks and security administrations…. The risks…can be reduced if suitable data processing systems with high performance integration and connectivity to business partners and authorities are employed for documentation and process execution (Kappauf et al. 2012: 216).

Digital linkages that trigger approvals, requests to begin other tasks within a process, compliance with trade regulations, and stock record-keeping are all nearly simultaneous and diffused across multiple boundaries. While cross-border trade is a feature of every epoch of capitalist political economy, the rapid management of complexity afforded by contemporary information technology like SAP solutions makes the kind of transnational capitalism that Walmart, Amazon, Apple, or Toyota embodies possible at ever-increasing efficiencies.

Take the example of a German air conditioner manufacturing firm, as offered by Kappauf, Lauterbach, and Koch (2012). In order to comply with Eurozone regulations for preferential export consideration, only forty percent of “precursor materials” may be procured from foreign countries (Kappauf et al. 2012: 223). Such regulatory parameters for a wide range of products can be entered into SAP and considered against variables like pricing supplied by partner vendors relative to total cost of the commodity. The system can thus offer the rational selection of a vendor from a range of suppliers in real time, allowing for the selection of the lowest cost solution as well as compliance with trade regulations simultaneously (Kappauf et al. 2012). Given the range of suppliers and geographic constraints, a specific distribution center can then be chosen to execute final assembly of components prior to shipping to retailers or end users. Each of the
institutional actor’s data is integrated, sourcing and compliance is rationally executed, and successive functions like labor management are triggered at the next stage step-wise.

The important thing to keep in mind in this example is that applications like *SAP* enable managerial control over multiple types of complexity in terms of tasks and geographic distribution of activities. From customer orders, all the way back through the various steps of a global supply chain, communication between actors minimizes ambiguity, and thus diminishes lags in times between tasks. Where such lags were minimized in the past by maximizing ‘‘throughput’’ of materials within a…plant or works’’ where “several stages where integrated and synchronized technologically and organizationally within a single industrial establishment (Chandler 1977: 241), they are now coordinated across decentralized facilities. Frequently, it is only when products from multidudinous sources enter the *distribution center* that they are finally compiled into the saleable products we recognize on our shelves. Where the primary innovation of mass production in previous periods was the internalization of “several processes of production” under one roof (Chandler 1977: 240; Marx 1990 [1867]), the contemporary innovation is externalization. Whether through contract relationships among firms within networks, or via intra-firm relations or subsidiaries, information technology enables that externalization to generate value in complex chains.

The contemporary job of the warehouse and distribution center, whether contract or proprietary, is to execute the logistics functions necessary to get the retailer or end user’s commodities to market. As a result, supervisors employed by the third party logistics providers do most of the direct management of work in contract warehouses.
Insofar as the physical facilities are leased and maintained by the contractor, the warehouse firm has final responsibility for efficient handling of commodities. Further, the expertise offered by the firm is frequently superior even to advanced logistics-based retail firms like Walmart or suppliers like Proctor and Gamble whose partnerships significantly advanced the retail revolution in supply chain management (Gereffi and Christian 2009).

In sum, materials handling and logistics operations have evolved at a pace consistent with the movement away from an “art” to a “science” in the contemporary period. The gradual standardization of definitions of practices and concerns for the industry have come to encompass more and more functions as the capacity to generate and interpret output data has increased. As a result of improved communication across firm and geographic boundaries, the various institutional actors—retailers, some permutation of warehouse and distribution center firms or third-party logistics service providers, suppliers, and temporary staffing agencies—have coalesced to form functionally interdependent networks. While the units of the networks are able to maintain distinct boundaries among firms despite nearly seamless integration, and such boundary maintenance offers relative advantages to the individual firms, such structures frequently obscure who is responsible for working conditions, and who benefits from production. The implementation of shared software packages and labor management systems allow rational and systematic communication across economic and regulatory actors, and overall, provides the basis for shared coordination and control over complex, transnational production processes.
OTHER INSTITUTIONAL ACTORS

A host of firms and commercial entities play a part in warehouse and distribution center operations, and participate in processes that rely on various phases of materials handling tasks. Shippers (retail and supply firms) use carriers (steamship, trucking, and rail lines) to move commodities to warehouses and distribution facilities that are either proprietary (owned by the retailer or supplier), or contract (owned by a third-party logistics firm, or 3PL) (Bonacich and Wilson 2007). In warehouses, the facilities can either be dedicated to a specific customer like Walmart, Target, Amazon, Toyota, or Kraft for example, or they can be what are sometimes referred to as “public warehouses” that handle goods for a variety of firms simultaneously. Firms classified in the later category often sell a specific amount of space to a customer for a specific amount of time, and represent what often comes to mind when one hears the term “warehouse.” On the other hand, warehousers identifying as “3PLs” frequently provide more services than mere storage, compared to public warehouse firms, and engage in a multitude of functions throughout supply chains as they provide services for clients.

The section below introduces the other two major players in contemporary goods movement beside the specific logistics firms described above: retailers, and temporary agencies. While many other types of firms are involved, and influence the labor process in warehouses and distribution centers, these three types are the primary movers and shakers in the industry. Further, insofar as these firms frequently share physical space in warehouse and distribution center facilities, and maintain staff on premises to cooperate
in the management of shared operations, the interrelationships produced in their interaction often has the largest impacts on workers participating in the labor process.

**Retailers**

Retailers are the most powerful institutional actors in supply chain operations overall (Appelbaum and Lichtenstein 2006; Bonacich and Wilson 2007; Gereffi 1994; Gereffi and Christian 2009). They represent the end user of the services and labor contained in the various moments of production prior, and largely control information and data that provides the glue for the contract and supply relationships they rely on to bring goods to market (Bonacich and Wilson 2007). As Bonacich and Wilson (2007) make clear, the “retail revolution” is by and large a result of the “logistics revolution” that companies like Walmart and their suppliers like Procter and Gamble pioneered (Bonacich and Wilson 2007).

The impact of retailers on global political economy is well documented in various literatures that highlight the transition in power relations within supply and production chains from a “push” dominated by manufactures, to a “pull” economy dominated by retailers (Appelbaum and Lichtenstein 2006; Bair and Gereffi 2001; Bonacich and Wilson 2007; Gereffi 1994; Gereffi and Christian 2009; Gereffi and Korzeniewicz 1994; Lichtenstein 2009). Further, as retailers consolidate power, their overall influence on global political economy changes. As Wrigley, Coe, and Currah (2005), citing Dicken (2003) state

One clear indication of the rapid growth of…retail TNCs is that, while in 1993 there were no retailers in the top 100
TNCs, in 1999 there were four, namely Royal Ahold (The Netherlands), Metro (Germany), Carrefour (France) and Wal-Mart (USA). By 2003, there were no less than 14 retailers (all but two were food and general merchandise retailers) each deriving over US$10bn of annual sales from international markets.

Recently, changes in market structures and shifts in consumer spending toward online retailers have resulted in a decrease in the number of retail TNCs in the UNCTAD top 100, but their economic power remains substantial (UNCTAD 2014b). The top firms have a decidedly global orientation, and account for a significant proportion of activity in the sector: “Highly internationalized, the top five retail TNCs (table I.2) account for nearly 20 percent of the total sales of the world’s 250 largest retailers, and their share in total foreign sales is more than 30 percent” (UNCTAD 2014b: 16). Additionally, the incidence of cross-border mergers and acquisitions has reshaped the field in recent years (UNCTAD 2014b), further concentrating power and structural influence for the sector.

In terms of the presence of retail in the world of goods movement, globalized retail is highly dependent on maritime shipping (Bonacich and Wilson 2007; Levinson 2006; Lillie 2006) and other modes of transport including trucking and rail (Bonacich and Wilson 2007). A significant mix of proprietary warehouse and distribution systems, and contract relationships with logistics service providers exists, and is somewhat dependent on firm preference, and calculations of costs to internalize or externalize warehouse and distribution functions. Walmart, for example, utilizes contracts for warehouses and logistics services at multiple points in their supply chain before transferring much of the goods to internally operated distribution centers (Bonacich and Wilson 2007). Still, other lines of supply are handled through third-party providers.
On the other hand, some firms like Amazon, while still very much dependent on third parties for materials handling, have a propensity to internalize as many functions as possible within their warehouse and distribution networks, frequently treating the goods movement functions as part of the firm’s core capacities, thus mimicking Walmart’s methods (Bonacich and Wilson 2007). The retailer’s mix of logistical planning abilities, computer-based forecasting, and capability to leverage suppliers, partially determines the degree to which contractors are used. Long term relationships between service providers and retailers may also result in acquisition of the logistics facilities or firms—especially if the logistics provider offers significant innovation in standard practices relative to competitors. Occasionally, the reverse will be true as well: proprietary warehouses can be the object of acquisition efforts by third party logistics firms seeking to leverage retailers into positions of dependence on their contract services.

Because of the centrality of materials handling to retail’s bottom line, retail firms frequently maintain office space and personnel in warehouse and distribution center facilities in addition to maintaining a ubiquitous digital presence. While delegating managerial responsibility over the labor process to their contract firms—logistics companies and temporary agencies—the ability to oversee operations in real time allows for rapid adjustment to variable demand conditions in markets the facilities service. Further, the presence of the retailer in the contractor’s space serves to strengthen commitment to the retailer’s needs and reinforce power dynamics across institutional boundaries—including those between temporary employment agencies and the retail user.
Overall, retailers are visibly in charge to all parties concerned: contractors, subcontractors, and the workers employed across the institutional boundaries.

*Temporary Employment Agencies—Vendor on Premise and off*

Temporary agencies represent an essential institutional actor in the contemporary landscape of the goods movement industry. They provide workers according to the same just-in-time logic that industry wields for other, physical commodities, and supposedly lessen the overhead liabilities that contracting employers hold in regard to workers’ compensation insurance, benefits, taxes, etc. It creates what others have called a “triangular employment relationship” where the “agency acts as the legal employer…and contracts out its workers to various businesses” (Hatton 2011: 11). Alternatively, agencies can focus on a few sets of employers, or even a single firm—operating as a standalone human resources unit for companies that would prefer to farm out all employee relations operations. Regardless of the range of customers the agencies service, the workers dispatched “might work at a particular job for just one day, or they might work there for a year or more” (Hatton 2011: 11). In one extreme case highlighted by a warehouse chief operating officer in an interview, individual warehouse workers employed by agencies contracted at his facility had been employed as temps for more than ten years.

In my field experience in the warehouse, the agency was euphemized as the “human resources partner”—being the employer of record for half of the workers on the floor. They maintained offices at the facility, and had their own managers observing and
directing temporary workers (mostly correctively should the direct management’s instruction fail to stick). This common arrangement in warehousing and distribution as well as manufacturing, is known as “vendor on premise,” and includes a range of activities including “recruiting, interviewing, hiring, training and overseeing the workers” (Hatton 2011: 109). The main advantage in such a model is that it relieves the contracting firm (retailer or warehouse) of the “liability” of employing workers, and farms out administering workers’ non-productive functions to the agency (Hatton 2011). All the while, the agency supposedly enhances or complements the managerial capacity of existing structures on the shop floor.

Alternatively, agencies can maintain offices off site from the warehouse. In such cases, managerial functions may be less thorough than in vendor on premise relationships, and the agency merely provides human resources support, and staffing decisions based on demand at the time of service. A local agent reported in interviews that his firm no longer provided vendor on premise services insofar as it significantly increased his own overhead and operational complexity. Overall, it appears that vendor on premise services may be the domain of larger agencies.

In 2013, temporary staffing agencies sold “$109.2 billion” in services in the US, and “hired a total of 11.0 million temporary and contract employees” (Poole and Berchem 2014: 6). While accurate estimates of numbers on regional and sectoral employment by temporary agencies are difficult to obtain, Luo, Mann, and Holden (2010) estimate that twenty percent of temporary employment in the US is utilized in materials moving industries (Luo et al. 2010), and surveys suggest that at least forty
percent of warehouse workers in the Inland Valley of Southern California are hired through agencies (Allison et al. 2014; Allison et al. 2013). As such, the extent of temporary employment in the regional industry staggeringhly exceeds the two percent of the state’s labor force that is hired through temporary agencies (Dietz 2012). While such disparities are difficult to account for, the commonality of vendor on premises services in warehouses and distribution centers suggests a likely source of the anomaly. As Bonacich and De Lara (2009) report, the region has a relatively higher concentration of temporary staffing agency employees than other surrounding regions in the greater LA area—thus reflecting the reliance logistics has on the agencies compared to other industries (Bonacich and De Lara 2009).

Agency ownership, like the ownership structure of logistics service providers, is varied. Global firms like Manpower, Labor Ready (TrueBlue), and Adecco operate in many countries, and may hold many subsidiary staffing firms that service a variety of industries (Peck et al. 2005). Other agencies are held as smaller subsidiaries by warehouse parent firms, and exist as mere shell corporations or legal fictions that shield companies from wage and hour, insurance, or safety laws (Smith and McKenna 2014). Still others are proprietary, and operate in smaller national or regional contexts focusing on specific industries and occupational specializations (Peck et al. 2005; Smith and McKenna 2014).

Overall the short answer to the question, “For whom do warehouse workers labor?” is that warehouse workers labor for the end user: the retailer or supplier for whom

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14 Temporary employment numbers are discussed in more detail in the worker demographic descriptions below.
the temporary employment agency, and/or warehousing firm contracts. In some cases, the relationship between employer and worker is that simple: retailers directly hire employees to work in their warehouses and distribution centers. My fieldwork experience as a warehouse worker embodied a relationship of that type. However, I labored alongside workers who were employed by a temporary employment agency contracted by the retailer to manage additional seasonal workers needed for peak demand times. Yet, that temporary agency had a more or less permanent contract relationship as the “human resources partner” with offices at the distribution center facility. Even when seasonal demand hits low points, the agency remains on premises and continues to act as the “employer of record” for large numbers of workers on the shop floor. Thus, some workers work for both the agency and the retailer.

It is on that level that the various institutional boundaries complicate knowledge of employment relationships, and also complicate responsibility for working conditions. While some joint employment or triangle relationships, as described by Hatton (2001) may result in honest confusion over the legal roles and responsibilities of agencies and contracting firms, some appear to be more or less intentional obfuscations of safety, wage, and insurance responsibilities. “By inserting labor brokers like staffing agencies between themselves and workers, host companies can more successfully avoid liability for violations of workplace laws that apply only to the companies’ ‘employees,’” even as they benefit from and have the right to control the work being performed” (Smith and McKenna 2014). Agencies thus represent an effort to skirt labor and wage protections
guaranteed under employment law by keeping temporary workers employed as contractors at an arm’s length.

At the time of writing, a National Labor Relations Board (NLRB) decision is pending regarding the joint employment status of contracting firms and temporary agencies (International Brotherhood of the Teamsters Local 350 v. Browning Ferris Industries and Leadpoint Business Services, NLRB Case Number: 32-RC-109684). Relatedly, and perhaps signaling a shift in NLRB interpretations regarding the joint employer relationship, the NLRB ruled in July 2014 that franchises and the McDonalds Corporation hold joint responsibility for working conditions within franchised stores—earlier rulings and interpretations having stated the contrary. However, as previous research suggests, courts and the NLRB vacillate over time, shifting from interpretations that side with workers and unions, arguing that temporary agencies and contracting firms are indeed jointly responsible for employment, to interpretations that maintain the legal fiction of distinct employment by the employer of record only (Gonos and Martino 2011; Hatton 2011; Rogers 2000). In California, larger firms using temporary workers employed through agencies are regarded as joint employers, and are responsible for working conditions within their facilities along side the agency as employer of record (California Assembly Bill 1897, signed into law in 2014). Thus, the particular jurisdiction in which firms operate have a great deal of bearing on the legal relation between agencies, contracting firms, and the workers who labor for them.

Regardless, worker resentment toward agencies runs high. While industry advocates like the American Staffing Association argue that many workers prefer the
“flexibility” of temporary employment, they also admit that “permanent employment is a top priority majority for most staffing employees” (American Staffing Association 2015). When asked about potential improvements to the industry, or things workers would change about warehouse and distribution center work, interview respondents frequently identified the elimination of temporary agencies as a goal. Far from a boon to low-wage workers looking for work, temporary employment services appear to workers as an unnecessary mediator in an already complex work environment.

As indicated above, the handling and distribution of consumer goods can involve a range of firms. To be comprehensive we would need to include a much wider range of companies and agents than space permits here: The specialty architectural and construction firms who design and execute the plans for state-of-the-art warehouses; the real estate brokers who have access to markets that can accommodate the acreage necessary for the construction of these facilities; and the process engineers who engage in the analysis of space, production needs, output costs and constraints, technological requirements, and labor process planning. Further, transportation planners assessing geographical and infrastructural considerations, and demographers reporting on labor market characteristics and prevailing wages, etc. often influence facility locations. Perhaps finally, the analysis should address the automated machinery, software, and powered industrial vehicle vendors and designers in order to understand the players involved in the execution of distribution and materials handling operations.

All of these institutional players have significant impacts on the labor process in contemporary warehouses and distribution centers. Each have knowable, but sometimes
invisible, effects on the workers performing the tasks that result in the final moment of “bringing the customer to the product,” in Drucker’s (1962) phrase. However, the question of “for whom?” helps us to identify those with the most influence over the coordination and control over the labor processes in warehouses and logistics functions.

WAREHOUSE WORKERS: A BASIC DEMOGRAPHIC OVERVIEW

While estimates of warehouse workers’ average wages in the region varies somewhat, they all show that their wages and annual earnings are fairly low, particularly among temporary and part-time workers (Allison et al. 2014; Allison et al. 2013; De Lara 2013b; Struna et al. 2012). The paucity of data obtained on temporary workers within federal and state labor market surveys makes it difficult to accurately estimate both the wage characteristics of temporary workers employed in the industry as well as the total number of temporary workers in warehousing regionally (Bonacich and De Lara 2009; De Lara 2013b; Struna et al. 2012).

Using 2007-2011 American Community Survey data, De Lara (2013) reports that men who are full-time blue-collar warehouse workers in the area, and are employed directly earn on average roughly $22,000 annually, while women in the industry, “who account for [approximately] 33 percent of blue-collar warehouse occupations, earned $19,000, roughly $4,000 less than men” (De Lara 2013b: 3). By contrast, De Lara (2013) also finds that part-time temporary workers “who are hired to do the same jobs and work at least 20 hours per week—earn a median income of $10,067 per year” (De Lara 2013b: 4). The seasonal nature of the industry—highly dependent on peak periods related to
holiday spending in the US, back-to-school spending, and other cyclical phases in the consumer market—creates endemic underemployment for temporary workers hired on a flexible basis (Bonacich and Wilson 2007; De Lara 2013b; author interviews and observations).

Finding slightly different averages relative to the American Community Survey data, Allison, Reese, and Struna (2013) find the average wage for warehouse and distribution center workers in the region at $10.46—just under $22,000 per year at $21,757 assuming full-time hours based on the earnings reported (Allison et al. 2013). Yet, on closer inspection that low, full-time wage belies even higher rates of exploitation: temporary workers earn a paltry $9.42 per hour on average compared to $12.56 earned by direct hires, or $19,594, and $26,125 respectively (Allison et al. 2013). Further, warehouse workers frequently lack health benefits. In a separate study, Allison, Gonzales, Jaworski, and Reese (2014) find that “despite working nearly full-time, only 35 percent of the total sample [n=224] had health insurance when surveyed. Among those with insurance, about one-third received publicly subsidized health insurance, while one-third lacked vision and dental care” (Allison et al. 2014: 2). Thus, on top of low wage rates, warehouse workers frequently face health-based precarity, among other challenges.


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15 The assumption of full-time employment produces an overestimate itself: as De Lara (2013) reports, “Approximately 70 percent of all temp workers in warehouse occupations reported working less than 40 weeks (roughly less than 10 months) out of the year.”
workers’] wages remain much lower than the $12.43, [and] $13.44 considered sufficient to cover necessary expenses for residents of Riverside and San Bernardino counties” for single individuals and families of four respectively (Allison et al. 2014: 10). That is, something like a subsistence wage in the region would accrue to $25,854 for a single individual, and $27,955 for a family of four at those wage rates. However, using the criteria set according to the Massachusetts Institute of Technology “Living Wage Calculator” for the Riverside-San Bernardino-Ontario metropolitan statistical area, an individual would have to earn $22,298 to support him- or herself, or $42,994 annually to support a family of four (Glasmeier and Schultheis 2015).16

Admittedly, the individual living wage rate approximates the actual wages variously estimated for individual warehouse workers in the region, but as Allison, Gonzales, Jaworski, and Reese (2014) indicate, fifty-six percent of warehouse workers have at least one child under the age of twenty-one. Similarly, Allison, Reese, and Struna (2013) find that surveyed workers had two and one half dependents on average (Allison et al. 2014; Allison et al. 2013). Thus, given the presence of other dependents and members of households, possibilities of temporary and part-time employment, and the overall cost of living considerations of Southern California, the average annual wages—by whatever estimate—hover around the 2015 federal poverty guideline of $24,250 for a

16 According to Glasmeier and Schultheis (2015) “the living wage…is the hourly rate that an individual must earn to support their family, if they are the sole provider and are working full-time” and “would enable the working poor to achieve financial independence while maintaining housing and food security” (Glasmeier and Schultheis 2015). Their data obtains from a variety of sources, and is primarily based on figures from 2010.
family of four (U.S. Department of Health and Human Services 2015). For all except male direct-hires the annual wage is well below the federal guideline according to most studies.

Estimates made by Warehouse Workers United researchers and organizers indicate that forty to sixty percent of workers in the area are employed by temporary agencies, and other research roughly confirms that range on the lower end (Allison et al. 2014; Allison et al. 2013; Bonacich and De Lara 2009). However, De Lara (2013) reports, “it is unclear how many of the region’s roughly 30,000 temporary workers [all industries] are actually employed in local warehouses. Depending on the economic model, between 15 percent (4,500) to 30 percent (9,000) of all temp workers are employed in blue-collar warehouse occupations” (De Lara 2013b). Yet, given the seasonality of the industry and the temporary employment model and the common employment of undocumented workers, this 30,000 figure probably underestimates total temporary employment.

The California Employment Development Department (2015), using the Current Employment Statistics Survey reports seasonally unadjusted temporary employment (all industries) in the Riverside-San Bernardino-Ontario metropolitan statistical area at 39,800 in November 2013, 38,500 in December 2013, and 34,900 in January 2014—showing temporary employment volatility over the peak holiday season (California Employment Development Department 2015d). Similarly, direct hire employment in warehouses and distribution centers in the same region (transportation and warehousing) shows substantial volatility in the 2013-2014 peak production season with employment in
the industry at 79,000, 80,300, and 77,100 for November, December 2013, and January 2014 respectively. Thus, the average employment in the industry as well as in temporary services can fluctuate fairly rapidly—reflecting the flexibility imperative of retail and supplier operations—making accurate employment models difficult to obtain.\textsuperscript{17}

On the shop floor at the firm I worked for in my field observation, roughly 50\% percent of the workers were employed by the in-house temporary agency, and the vast majority were formally employed on a part-time basis. In the later part of the peak season—post-Thanksgiving to just after Christmas—sixty hour work weeks were \textit{mandatory for part-time workers} regardless of direct hire or temporary status. When the demand for labor decreased, the majority of temporary hires were laid off, and the part-time direct hires went back down to twenty-hour-or-less work weeks with few workers being “converted” to full-time workers (in the industry lingo).

Despite majority employment via full-time direct hire relationships, a large proportion of the roughly 100,000 workers employed in the industry in this region (including white-collar occupations as well as direct materials moving occupations) work mostly part-time, non-standard work schedules that can be highly seasonal, and thus fit Kalleberg’s (2009) definition of precarious work: “employment that is uncertain, unpredictable, and risky from the point of view of the worker” (Kalleberg 2009: 2).

While the part-time, variable nature of temporary employment is attractive to some—as

\textsuperscript{17} It is unclear how many of the vendor-on-premise temporary agencies are included in the Current Employment Statistics samples. Bonacich and De Lara (2009) report higher location quotients of agencies in the region relative to similar metropolitan areas, but short of concerted, large scale sampling and occupational tracking within the temporary employment services designation, lack of precision remains.
industry boosters frequently contend—the vast majority of workers I encountered in site observations shared the goal of obtaining full-time, direct-hire employment with stable and known hours.

In this region, the temporary employment model is ubiquitous, and for many workers serves as the primary mode they have experienced for much of their working lives. As reported in an interview with a chief operating officer at a subsidiary global third-party logistics firm, individual workers often end up temping for the same agency at the same contracting firm for ten years or more. Yet, those examples may well be extreme. The survey results we gathered indicate frequent turnover among temps in the industry as well: “Direct hires report far greater employment stability, with an average of 54 months (or 4.5 years) at their current facility. In contrast, temporary hires report working at their current place of employment for slightly less than 12 months on average (3.5 years less employment than their direct hire counterparts)” (Allison et al. 2013: 9).

Regardless, temporary employment arrangements constitute a unique experience for workers in the industry insofar as temporary workers frequently make less, lack opportunities for internal advancement, experience high turnover despite long experience in the sector, and interact with better compensated workers performing exactly the same tasks.

Most warehouse workers are members of racial and ethnic minority groups, while many are women and immigrants. Estimates of the number of women who work in warehouses range from thirty percent to more than forty percent (Allen 2010; Allison et al. 2014; Allison et al. 2013; De Lara 2013b). According to a recent survey,
approximately eighty-five percent of warehouse workers are Latino/a, seven percent are black, four percent are white, and three percent identify as belonging to some other racial or ethnic category in warehouses and distribution centers in the region (Allison et al. 2013). This is so in a region with roughly forty-eight percent of the population identifying as Hispanic or Latino (all races), fifty percent identifying as white, seven percent identifying as black, and six percent identifying as Asian (U.S. Census Bureau 2013).

The majority of warehouse workers identify as native-born, with only twenty-three percent of respondents indicating immigrant status in the Allison, Reese Struna (2013) survey. However, others estimate a much higher percentage of immigrant workers employed in the industry, positing that roughly half of all Latino/a warehouse workers are immigrants—mostly of Mexican nativity (Allen 2010; De Lara 2009).

Precise estimates on the documentation status of immigrant workers are not available, but in interviews and informal conversations workers report that the industry is fairly open to hiring undocumented workers. The work is dangerous, employment is precarious, and it is regarded as a good fit for ‘unskilled’ and ‘uneducated’ workers entering the labor force. Thus, regardless of educational backgrounds and abilities not reflective of those assumptions, and a great deal of skill and problem-solving ability being required in the

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18 The sampling strategy for the survey attempted to balance the sample collection locations according to the distribution of warehouse type—retail, supplier, or third-party logistics—and presence in Riverside-San Bernardino-Ontario metropolitan statistical area. Breakdowns of location and warehouse type were based on data obtained from private real estate databases (Allison et al. 2013).
warehouse and distribution center labor process, undocumented immigrant workers readily meet the needs of firms seeking high output for low wages.

The average age of warehouse workers is twenty-nine, and more than half are in the age range between eighteen and twenty-five (Allison et al. 2013). While older workers are common, and still represent a large proportion of the warehouse workforce, the physicality of the tasks and the fast pace of production tend to focus management’s hiring preferences on younger and less experienced workers.

Nearly one-third of warehouse workers report having had some college education in the Allison, Reese, Struna (2013) survey—again contradicting the notion that warehouse workers are uniformly an uneducated and unskilled mass. Indeed, as a teaching assistant and instructor at UC Riverside for almost six years, I never had a single classroom where I did not have at least one student report that they or at least one of their family members worked in the industry.

In fact, firms such as United Parcel Service, Amazon, and others frequently advertise to college-aged workers and offer special programs to attract college students to warehouse positions seasonally. Such incentives include “flexible scheduling” that allegedly does not interfere with coursework on the low end of the “benefit” spectrum, to actual tuition reimbursement for some majors. Overall, roughly half of warehouse workers report having at least graduated from high school, fifteen percent report having attended some high school, and thirty-five percent report having attained some post-secondary education. Consequently, this mixed educational picture partially verifies some of the tropes concerning the relatively undereducated workforce prevalent in the
industry regionally. However, it also indicates a more complicated picture than that suggested by regional boosters (Husing 2008) who champion warehousing as the best possible job source for hopeless workers. Lack of employment options does not necessarily equal “uneducated” or “unskilled;” it partially reflects the development choices of policy makers in the region.

In chapter four, I return to a discussion of the social characteristics of warehouse workers insofar as their attributes and standpoints are frequently used in conjunction with the techniques of coordination and control discussed in chapter five. The uses of social diversity and other techniques of direction of the labor process are prevalent in warehouses and distribution centers as well as similarly situated industries throughout global commodity circuits. Overall, regardless of background, the industry harbors bleak opportunities and practices that result in low incomes and instability for the vast majority of blue-collar workers in the region.

CONCLUSION

Multiple institutional actors participate in the goods movement industry, and inform the social structure of warehouses and distribution centers. The warehousers themselves, frequently embodied in third-party logistics firms or proprietary facilities run by retailers or suppliers, represent merely one of the institutional forces encountered in the labor process. The retailers, more often than not, the power behind the curtain that exerts the most pull on the shape of coordination and control over the labor process, represent the end-users of the services that the logistics firms are contracted to engage.
Not to be left out, temporary employment agencies, euphemistically referred to as the “human resources partner” in some cases, frequently reside within the facilities they contract to as “vendor on premise” providers that manage workers in parallel. Their dual purpose of dividing workers and absorbing risk makes them a particularly popular option for the management of vulnerable populations in a region marked by a large reserve army of labor.

The people who labor in warehouses and distribution centers come from diverse social backgrounds and social positions. While Latino/as represent the largest subgroup of warehouse workers, other ethnic and national groups with both native and immigrant histories participate in a labor process that is dirty, fast-paced, and dangerous. Estimates vary on the rates of participation of women in the industry, but the differential and intersectional experience of women in warehouses and distribution centers indicates higher rates of exploitation relative to men (see chapter four below). Nonetheless, men and women alike experience great degrees of economic and social precarity in terms of wage rates and wage theft, high regional costs of living, underemployment, health and safety concerns, and lack of access to health insurance and healthcare.

In the chapter that follows, we step inside the “hidden abode of production on whose threshold hangs the notice ‘No admittance except on business’” (Marx 1990 [1867]: 279) in order to better understand the nature of warehouse work and the social environment that it overdetermines. By analyzing the physical and spatial organization of the work the division of labor, and the stresses and strains faced by warehouse workers on the job and off, we can both understand the local environment—and the class relations
that obtain from the interaction of workers and management as the agents of capital—as well as extend the findings out to other contexts that use similar methods of coordination and control in capitalist relations of production globally.
CHAPTER THREE
THE WORKSITE: SPACE, THE DIVISION OF LABOR, AND PRECARIOUS WORKING CONDITIONS IN THE WAREHOUSE

This chapter begins by assessing the spatial and physical nature of warehouses and distribution centers in order to analyze the impact that scale and space have on the experience of the labor process. Because of the vastness of many of the facilities, and the contradictions between the global scale of production and human scales of experience of the built environment, sense-experience of warehouses and distribution centers requires analytic attention relative to the division of labor. The chapter then turns to an analysis of that division of labor in order to describe and understand the process as workers experience it, and in so doing prepare for subsequent chapters on coordination and control over the labor process, as well as the class-formative aspects of work in warehouses and distribution centers and related contexts. However, before turning to the chapter on managerial control, this chapter concludes with an assessment of stresses and strains: workplace injuries and illnesses, and economic precarity owing from the social organization of work in the industry.

THE RELEVANCE OF SPACE IN LABOR PROCESS ANALYSIS

Analyses of the labor process typically focus on the execution of particular tasks and procedural details in productive activities as they relate to social organization—from Smith (2003 [1776]) and Taylor (1967 [1911]) onward. Alongside this, there is often an emphasis on the spatial dimensions of the shop floor, and the ways that the built environment directly impacts the relational content of workplaces. Marx’s (1990 [1867])
assertion that the core site for the observation of class relations is social action happening behind the closed doors of the private economic sphere, requires us to analyze the use of space as carefully as we analyze interactions within “the hidden abode of production” (Marx 1990 [1867]: 279). As one of capital’s great advances is the aggregation of “numerous workers…side by side in accordance with a plan…in the same process, or in different but connected processes” (Marx 1990 [1867]: 443), the physical location and the layout of the instruments of labor overdetermine the patterns of relations happening within the production process.

Blauner (1964) observes that “although some common features link all modern employment situations, more striking are the differences between…work settings…. These differences produce sociotechnical systems in which the objective conditions and the inner life of employees are strikingly variant” (Blauner 1964: 5). Where one works, environmental conditions (which range from lighting, ergonomic considerations, temperature, open or constrained spaces), and other considerations that preoccupy industrial engineers in the design of workspaces directly impact the nature of interactions among workers and between labor and capital. Burawoy’s (1979) notion of the labor process having “two analytically distinct but concretely inseparable components” comprised of relational and practical aspects (Burawoy 1979: 15) finds its clearest expression in specific workspaces. The former are the interactions “of the shop floor into which workers enter…both with one another and with management” and the latter are the

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20 Labor and capital here refer both to classes who interact with one another, and in terms of laborers who interact with the instruments of production: fixed and variable assets manipulated by people in the commodity production process.
actual “activities that transform raw materials into useful objects…with the assistance of instruments of production” (Burawoy 1979: 15). Their concrete unity unfolds in specific spaces and times.

Geographers (Dicken 2007; Dicken et al. 2001; Harvey 2006; Harvey 2008; Rodrigue et al. 2013) and world-systems analysts (Bunker and Ciccantell 2005; Chase-Dunn 1999; Ciccantell and Bunker 1998) have long held that geo-spatial considerations are central to understanding social life and the development of capitalism. Other social scientific perspectives focus specifically on the social content of the built environment in areas including architecture, ergonomics, aesthetics, and other aspects of the use of space in buildings (Della Crociata et al. 2013; Peponis et al. 2007; Sklair 2010). In so doing, researchers place material artifacts at the center of social analysis.

This chapter extends that latter focus to warehouses and distribution centers and attempts to locate “the relationship between the material and the active components” embedded in the workplace in “the small-scale spatial and temporal patterning of social life” (Fletcher 1995: xviii). Further, this study seeks to locate the workplace and the industry within the broader context of the global political economy by assessing it relative to “large-scale [considerations] which affect the capacity of a community to replicate itself and its material context” (Fletcher 1995: xviii). To be clear, the ‘community’ in this research refers to social relationships within the logistics industry that are global or transnational in nature, including transnational class formations exemplified by the interactions and relations of the parties analyzed here.
Thorough ethnographic study of the labor process observes relational and practical aspects *in situ*: the context is meaningful in itself, and informs workers’ and observers’ sensual appropriation of work as social interaction as well as material or symbolic transformation. An holistic or “ecological understanding of workplaces, materiality, and interaction” thus allows not just the development of “a social justice agenda by valorizing previously neglected people or things,” but the comprehension of “the relatively understudied infrastructure that permeates” both the relational and practical aspects of the labor process (Star 1999: 379). The buildings, the machinery, the information technologies that link machines and people to one another virtually, and physical constructions that allow for transitions from one moment of the production process to another are not just abstract patterns that enable and constrain, but material forces of social structuration (Giddens 1986).

What follows is an “infrastructural inversion” (Bowker 1994; Star 1999) or the “foregrounding [of the mostly] backstage elements of work practice” (Star 1999: 380). It is an assessment of taken-for-granted elements of action at work (Goffman 1983), up to and including spatial and technological interactions resulting from the conscious construction of places to labor. Throughout, I analyze the magnitude of warehouses and distribution centers and the ways that human scales are juxtaposed with their size, as well as the specific technologies warehouse workers use and confront physically and sensually. Keeping in mind the ways space informs the labor process—as relational and practical activity—the focus shifts to pressures associated with work practice in such an
environment. The interaction of space, technology, and people on the shop floor produces physical and emotional stresses that have immediate and lasting impacts.

WAREHOUSING AND DISTRIBUTION CENTERS: BEYOND STORAGE

Before turning to that analysis it is worth pointing out that popular and scholarly treatments of secondary or tertiary functions within commodity production processes—like warehousing and goods movement—are often viewed as infrastructural or incidental functions that add little or no value (Hardt and Negri 2001; Poulantzas 1975). The labor added in warehouses and distribution centers is intuitively assumed to be exclusively composed of moving objects from point A to point B; a shell game overseen by go-betweens who would be omitted from the circuit if supply chain managers could find a way. To be sure, aspects of that view are correct: much warehousing and distribution remains an intermediary function of storage, retrieval, and preparation to or from transport. Further, it is infrastructural in the sense that the facilities, processes, and populations working within them are “invisible, [or] part of the background for other kinds of work” (Star 1999: 380) despite their centrality to the global retailers and suppliers with whom we are all familiar. Ignoring warehouses’ and distribution centers’ key contributions to global commodity chains is akin to “[studying] a city and

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21 This is a tendency perpetuated by overly literal readings of Marx’s (1963 [1861-63]; 1990 [1867]) notion of necessary and unnecessary labor—especially in relation to services. While some services do indeed seem superfluous, it is not the function of the labor that makes it necessary within capitalist production relations, but its surplus value-producing character. That is, labor is necessary if capital requires it to realize profit—not merely the object produced in the practical aspect of the process.
[neglecting] its sewers and power supplies” (Star 1999: 379): if the flows of outputs or inputs stop, the production systems, like the city, breakdown.

However, the labor process in contemporary warehouses and distribution centers includes more than the movement of goods. Firms like Ingram Micro, “the largest global information technology (‘IT’) wholesale distributor by net sales, providing sales, marketing, and logistics services for the IT industry worldwide” (Ingram Micro 2012: 1), engage in finishing and assembly activities in their warehouses and distribution centers. From actually assembling the saleable computers for brands we are familiar with, to aggregating the various components (cords, cables, chargers, monitors, mice, etc.) into packages that are then shipped to retailers in the forms we encounter, Ingram Micro and similar firms participate in light manufacturing and finishing functions despite their classification as logistics providers. Globally sourced goods like clothing, furniture, plastic consumer products, toys, commodities _ad infinitum_ receive their labels, packaging, differentiating marks, and final assembly in warehouses and distribution centers. They are, in short, the places where all of the elements of consumer and industrial goods come together. They are in practice closer to factories than repositories.

Alternatively, there are indeed facilities focused on processing goods already finished elsewhere. The “sortation” center I worked in handled goods that had previously been ‘picked’ from storage locations and ‘packed’ in cartons in other warehouses in the retailer’s system, then transported by truckload or shipping container to a central location
like our site. From there, the finished goods are prepared for direct delivery to consumers at home. Inventory flows through sortation centers on a more or less continuous process basis (Blauner 1964; Vallas and Beck 1996)—with products usually stopping in the warehouse for less than 24 hours. By the time the finished commodity arrives at sortation, it has passed through perhaps five or more warehouses after leaving a container port or domestic supplier. Regardless of the particular type of, or the relative degree of capital intensiveness, contemporary warehouses and distribution centers are work sites that incorporate a mix of machinery and human inputs to rapidly deploy commodities sourced from multiple geographies and firms within a proprietary or contract network.

Thus, the factory-like labor process discussed below forms merely part of “the ecology of the [geographically and organizationally] distributed high-tech workplace” (Star 1999: 379) linked at every moment of production by information and transport technology. Each component of each commodity assembled, finished, or shipped is tracked by barcode in an effort to precisely measure inventory, and in the case of manual scanning operations performed by workers, precisely monitor labor inputs. Therefore, within the spatial and practical relations performed on the physical shop floor, there is an embedded virtual shop floor (Aneesh 2006; Aneesh 2009) that partially determines relations in its own particular way. Keeping this in mind, the algocratic mode of organization (Aneesh 2009) enables links between sites across geographies and firms, but

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22 *Sortation*, despite the term of art’s awkward phrasing, refers to “merging, identifying, inducting and separating products to be conveyed to specific destinations” (Carter and Burgess Consulting 2006).
it also simultaneously directs labor at the individual level and allows for economies of scale that demand 1,000,000 square-foot warehouses.

It is important to keep in mind that despite the high-tech, and more or less capital-intensive environments embodied by contemporary warehouses and distribution centers, the terms for tasks like *pick, pack, stow, sort, etc.* derive from agricultural contexts. Where large numbers of workers in the Southern California region once *picked* citrus fruit in groves of trees (Patterson 2014), they now *pick* Barbie dolls from acres of shelves in warehouses on the very same grounds. Where workers once *packed* boxes of produce and *lumped* the crates onto waiting eastbound freight cars, they now *pack* shoes into boxes and *lump* them into shipping containers bound for far off markets. The tasks, like the demographics of the workers, remain similar even if the contexts change from the open air to concrete and steel structures.

**THE SENSE-EXPERIENCE OF SPACE AND THE LABOR PROCESS**

Contradictions of size are the first thing one notices when entering a warehouse that is just under 900,000 square feet. On the one hand, the spaces are gigantic in terms of their design related to the flow of commodities, the operation of machinery, and transport equipment, and the capacity for storage or staging. Yet on the other, the entryways for the workforce are remarkably small and close to human scale. Security vestibules with a set of double doors can only hold a few dozen people at a time, and the workforce of 200 (per shift) glides through the smartcard badge-operated steel turnstiles
with relative ease as the shifts change. All entrees and exits are tracked by “badging” in and out, or scanning one’s identification badge, at electronic readers that monitor a worker’s presence in the warehouse prior to actually badging in or out on a timeclock. Such measures allow management to ensure that all present are authorized to be there for a given shift, as well as monitor the continued presence of a worker once paid time starts. Further, insofar as one’s badge is used to activate different functions or particular labor tracking processes within one’s hand scanner or other computers and automated instruments, the act of scanning the badge can serve as a proxy for locating a worker in physical space within the facility.

Workers leaving the distribution center floor are required to pass through metal detectors. Although knives and weapons are banned in the facilities, as posted on many entryways, metal detectors are rarely in place for facility entry: they are primarily used for “loss prevention” or to discourage theft. If one walks on to the floor and forgets to store personal items in one’s locker—things like keys, mobile phone, wallet, or any personal item available for sale by this particular global retailer—a search of one’s person follows. All photos are deleted from one’s phone, and an affidavit that the

23 The ease of movement is evidently not as forthcoming in some facilities. Amazon warehouse workers in Kentucky, Tennessee, Washington, and Nevada have filed wage theft lawsuits related to unpaid time spent in security lines (Jamieson 2013).

24 A recent suicide by self-inflicted gunshot wound at a Burlington Coat Factory distribution center displays the ease with which contraband can enter in the absence of prior screening processes (Pinion-Whitt 2013). It also potentially highlights the severity of work-related stress, but details on the motives for the worker’s suicide are not forthcoming.
personal belongings and/or trade secrets have not been stolen from the firm must be signed prior to exit.

When the number of workers needed on the floor “flexes up,” and the number of shifts increase from three to as many as five per day, an identical entry system will open on the opposite side of the gigantic facility—only to be shut down a month later when peak season ends. Looking at the redundant entryway from the opposite side, one can almost see enough detail to determine the identity of particular coworkers. Even then, with most of us outfitted in identical orange high-visibility vests, protective gloves, badge lanyards hanging from our necks, and white cotton protective sleeves donned as a prophylactic to the sweat and bacteria of the worker who used the arm-mounted scanner on the shift before one’s own, identity at that distance is a stretch. In such spaces, coworkers begin to resemble a homogeneous mass of worker bees or ants that can only be differentiated up close. As such, the similarity visually reinforces the notion that management ideally hires standardized workers to fill its standardized tasks. The magnitude of the facility allows for quick adjustments to the size of the labor force—either up or down depending on seasonal demand—and can quickly binge and purge workers on the assumption that each individual’s labor is as identical as the equipment issued.\footnote{This is born out in interviews where workers repeatedly report assertions by managers made to temp and direct hire workers alike that, “we have dozens of people waiting for this job.” Even workers in upper echelons are subject to the logic of precarious employment in firms like Amazon, according to the journalistic website, \textit{Gawker}: “there's [sic] a thousand people out there that would love your job. They will tell you this on the}
In fact, the ability to see across the floor from entry to entry was fleeting. In an industry committed to the managerial ideology of continuous improvement (Vallas 2006), and more pointedly in a firm that pushes continuous improvement to its limits, the second entry disappeared behind a three-story set of automated storage racks about half way through my eight week observation—over the course of about three days. From shift to shift, the physical capital on the floor would often visibly double. Our “on boarding” process in the training sessions began in a newly finished shell of a building that had one conveyor line, and ended two-weeks later with a fully operational semi-automated sortation system capable of moving 100,000 orders per day. A year from now, as the system is increasingly automated per the firm’s plan, the capacity will have doubled, and within eighteen months after opening operational capacity will exceed 300,000 orders per day.

The cyclical, shift-to-shift change in the physical environment from a space that feels massive, where one can see the peripheral walls from the center of the production floor, to a claustrophobic maze of packages stacked six-and-half feet tall on hundreds of individual forty by forty-eight inch pallets is daunting. Separated by a mere eighteen inches, the fully loaded pallets form canyons—places where workers quickly shimmy past one another trying to make rate (achieve production quotas), or skillfully hide from management when not making rate becomes an option for a lucky few. If the pallets are built to specification, and the *Tetris* game played by one to five (or fifteen at peak)

regular” (Nolan 2014, quoting a buyer in the toys division). Standardization is as much about ideology as it is actual practice, and ideally applies to workers and job tasks equally.
scanners per line is successful, the assemblages of cardboard containers that range from six-by-eight-by-two inches to two-by-four-by-one foot, or bigger will be stable. That is, the pallets of a hundred or more packages will not fall on a person if they bump them in passing, or in construction. Yet, if they are haphazardly stacked by harried workers responding poorly to the “management by stress” (Head 2003) techniques that accompany the algocratic modes of discipline (Aneesh 2009), the pallets tumble down, and one is lucky to avoid serious injury. The fact that precious space on the facility floor is specifically carved out to house onsite/on demand paramedics—who double as safety inspectors when their medical training is not needed—speaks volumes both to the danger of the workplace, and to the industry-leading safety practices of the firm. While I did not witness any serious injuries or work related illnesses beyond relatively minor cuts, dehydration-related fatigue, back and muscle strain, and ring worm contracted from the failure to wear prophylactic scanner sleeves on one’s arm, injury was regarded as an inevitability. Several trainers remarked in different training sessions, “someone will get hurt [in this process]—make sure that someone is not you.”

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Tetris is a video game based on stacking virtual blocks of various interlocking shapes and sizes at increasingly faster speeds. As with pallet building, the higher the structure, and the faster the pace, the more difficult even layers are to achieve—the goal of both “games.”
THE DIVISION OF LABOR\textsuperscript{27}

At six and a half feet, the pallets are wrapped in plastic wrap by support workers called “water spiders,” men or women who are supposed to provide as needed support, but more frequently “close,” or manually move pallets to staging areas via pallet jacks—human-powered hydraulic lifts.\textsuperscript{28} The wrapping happens in the pallet-building canyons, or just to the side depending on who is managing and who gets to interpret the universal standard work practice employed. Our aluminum wands (“Nelson Wrap Dispensers”) standing five feet tall, and weighing 10-13 pounds when fully loaded with plastic wrap help us stretch the film as we circle round the pallets at least nine times before hoisting the wrapper over the palletized boxes to make an x-shaped seal over the top. The act must be negotiated as others continue to scan their packages at adjacent pallets. Bad accidents are rare, but I had my glasses knocked off in a hit to the head by another worker’s wand, and was lucky not to have been severely injured.

Once the water spiders move the pallets to the staging lanes for forklifts and other powered industrial trucks (PIT) to transport them to spaces at the loading docks, the pallet building for that specific location begins again \textit{ad infinitum}. Yet, in moving the towers of boxes from spot to spot, and from building to staging location, the geography

\textsuperscript{27} While this section, like the spatial descriptions above frequently addresses physicality and some of the common risks associated with the labor process, a specific section on physical and emotional stresses and strains focusing especially on workplace injury, illness, and worker health risks will follow.

\textsuperscript{28} “Water spider” is another term of art used in systems that use lean production methods. While the definition varies, it refers to a “material handler who [ensures] stock levels are kept at the correct level” on the basis of predetermined signals or indicators (Eaton 2013). The job may be used as a precursor to promotion in some systems because of the breadth of knowledge required to assist multiple positions (Miller 2010).
of the shop floor constantly shifts. It is easy to get turned around, or to lose sight of landmarks that help one locate oneself in space.

In the moments prior to the conveyor lines starting, the distribution center is remarkably quiet. The place looks like the acoustics would carry voices as far as one can see, but the reality is quite different. Shouting across the floor at a certain distance is futile. It is easier to see a person shouting by their gesticulations than it is to actually hear their words hurled at the top of their lungs. The layout diffuses sound remarkably well. Yet, once the warning horns piercingly announce the conveyor belts’ eminent movement, the whir is deafening. While my own hearing is less than perfect because of work in a previous life, the effect is the same whether loud or quiet: one cannot hear or be heard without close proximity to others, or amplification. Management took to setting up mobile public address systems to communicate during standup meetings. For a full two hours at a stretch—except when the machinery jammed, or was shut down for lack of product volume—the physical capital vibrates with an oceanic roar.

The PIT vehicle operators are required to sound their horns whenever they start to move forward, change direction left or right, or reverse direction of travel. This is so even at the multiple four-way stops that present whenever a dedicated PIT lane intersects with a dedicated pedestrian lane. The effect is to hear a constant Roadrunner-like, meep-mEEP that blends in with the tidal roar of the conveyors and diverters. While the intent is to announce the approach of 5,000-pound vehicles carrying compact one-ton loads, the
practice leads to desensitization. The multiple horns from multiple PIT become part of
the background.

Akin to the desensitizing impact of the horns are the lines of tape indicating traffic
lanes, pinch-points at conveyor incline junctions, manual equipment placement locations,
security or loss prevention control points, and emergency egress areas. A rainbow of
lines spreads out and communicates about as effectively as the colored stripes in hospital
corridors—which shade of red-orange designates no entry? Nonetheless, such indicators
and practices that enhance or enable safety are frequently absent in other facilities. Even
if such practices are often enacted by rote or for show, their enforcement is a far cry from
the Walmart contract facilities targeted by WWU and OSHA citations (Cal-OSHA
Reporter 2012). Even if the company edict to enforce safety practices results from risk
management calculations, the presence of things like functional “dock plates”—steel
bridges that cover the gap between trailer/shipping container and the dock—and
paperwork ensuring their proper deployment, saves lives and limbs (Warehouse Workers
United 2013b).

On the back of a fifty-three foot truck or in a container of the same size, one is
presented with a wall eight or nine feet high composed of boxes of all sizes, and spanning
roughly eight feet wide. “Liquid loads” like this, where the contents are not loaded by
pallet or other larger, encompassing containers, often shift in transit and create unstable
structures that can fall when opening the doors, or while unloading. One develops
techniques to “safely” disrupt the structures so they implode, or fall away, but
“avalanches” are frequent. It is not a matter of “if,” but of “when” someone unloading an
inbound truck will be struck by a truly liquid mass of corrugated containers flowing out of the ubiquitous trucks we pass daily on the highway. Every facility deals with the phenomenon to some degree or another.

However, when the unloading process is normal, the openness of the million square foot floor is contrasted with the confines of the roughly 416 square feet of the trailer or fifty-three foot container. In such a tight space, as many 7,000 packages can be transported and stored in the liquid load, and can be unloaded by two workers at a rate of roughly 1,800 pieces per hour. In some loads, the area closest to the doors is reserved for larger cardboard containers called Gaylords—roughly six-foot tall pallet-sized boxes—filled with small boxes and envelopes that can be unloaded manually, or by a semi-automated machine that dumps the contents into a diversion system for automatic or manual sortation. In those cases, 10,000 packages can be handled by a team of two workers in a short four-hour shift.

Once “lumpers,” workers who manually unload or load trucks or containers, begin to move into the truck, a semi-automated conveyor extends into the cavern to whisk the boxes out and up an incline that leads the contents through a series of other conveyor lines—eventually to a second-story mezzanine that uses a combination of gravity and conveyance to get the boxes to the correct outbound lines for palletization.31

30 “Liquid” in the sense that particles, or boxes in this case, behave like fluids at a certain concentration regardless of their size. They are also called, liquid, because the loads are not constrained by tie-downs, or other methods of restricting contents from movement.
31 “Palletization” is the process of building structures of cartons or commodities of any shape and size on wooden or plastic pallets—bases also commonly known as “skids.” In the sortation center we palletized boxes and occasional loose, unpackaged goods, but
In terms of the actual order of operations, the “inbound” functions associated with unloading represent the facility’s first direct handling of goods. Thus, the lumpers effectively control the pace of the whole facility’s output once trailers and containers are in position at the loading docks. As such, the job task is among the most physically demanding. That said, it is a task that requires little supervision if the flow of goods is continuous, and workers frequently prefer inbound functions over scanning—if they are healthy for the shift, prepared to keep moving at a steady pace, and want to avoid computerized tracking of their individual rates of production.

Large, lighted fans, similar to those used by firefighters to clear smoke from burning buildings, are mounted at everyone of the facility’s 115 docks, and succeed in circulating air about half way into the container in order to offer workers much needed ventilation. On hot days, exceedingly frequent in Southern California, the temperature in the containers/trailers often tops 120 degrees. The temperature differential can thus be as much as 30 degrees or more between the back of the truck and the climate controlled distribution center floor. Such extremes may not induce illness *per se*, but the drastic differences are highly uncomfortable. In other facilities that lack air-conditioning, or where management cuts costs by not regulating the internal climate, the difference is nominal. It is dangerously hot inside and out (Cal-OSHA Reporter 2012; Yarow 2011). I easily drank four liters of water in a four-hour shift on hot days, and had no need to relieve myself in the restroom afterward.

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anything from shelves to individual musical drums can be placed in aggregate and secured to a pallet for transport or storage.
On the mezzanine, workers divert the packages to those lines in what can best be described as a gigantic funnel. However, by the time the facility matures to full operational capacity, the workers on the diversion positions will largely be replaced by automation. Until then, the flow of goods from 2-4 trucks dumps into hoppers, or holding bins, where workers read the numbered/lettered label and shove the boxes down an open hole leading to a conveyor line. In so doing, they reduce the avalanche of packages one by one, sending each to one of eight staging lines for palletization. Men and women strong-arm forty- and sixty-pound boxes as quickly as possible, or work to knock down the heaps of small items and envelopes at breakneck speed, with as little error as possible. To reduce the risk of injury, workers are admonished: “Nose over toes! Pivot, don’t twist!” But the pace itself and the repetitive motion frequently trumps managements’ instructions. These four to six people handle every package the lumpers move out of the trucks: easily touching 30,000-40,000 pieces in a four-hour shift.

At the bottom of each inclined conveyor descending at a roughly forty degree angle—leading down from the horizontal conveyors that run perpendicular to the diverter and the palletizing lines—stands a worker called a facer. The facer manipulates the packages so that the labels face up, and pushes/pulls them to the correct side of the line on the basis of the letter/number indicated on the product carton. On the facer’s side of the conveyor the line might be designated “A,” and across their conveyor line it is designated “B.” As they move the product to each side, the worker handles roughly one-quarter of the goods that flow through the system on a given shift. When the flow is light, boxes drop one by one on to the flat conveyor at the bottom of the diagonal ramp; when
the flow is heavy, the cartons come down in yet another avalanche. The facer task has a great deal of potential for inflicting injury on the worker executing it. While I did not witness any strikes that caused a worker to report a problem, I would attribute the near-misses or glancing blows of rapidly falling and accumulating product to the workers’ youth and ability to move quickly.

Just down the line from the facer is a splitter. On a good night, when management has properly staffed the floor on the basis of ergonomics, there are two splitters: one for each side of the conveyor line at A or B. The splitter pulls packages for ten pallet positions on a spur line that runs perpendicular to the main conveyor, and sends the cartons on a steel skate, or roller-top table toward a scanner who handles those pallet positions. When management seeks to save labor costs, and “flexes down,” the splitter handles both sides of the line—pushing cartons on the spur line to B, and pulling cartons on the spur line to A. Of all the tasks that strained my body, this was the worst. I stretched across a moving conveyor belt—which safety inspectors instructed us not to touch or lean on—while I shoved five-ounce to sixty-pound cartons across a nearly three-foot span. The contortions and repetitive motions cause backaches and soreness that take days to recover from—especially when management gets lax on task rotation, or changing a worker’s assignment, over a few shifts. Forty feet away, another splitter or set of splitters handles an identical pair of spurs before the conveyor ends at a steel skate running continuously along the length of 25 or more pallet locations that are set in double or triple rows. Up to 75 locations can be active for the last and longest segment.
It is on these skates that the scanners finally grab “1-plus” packages (or as many as one can manage) without dropping the product or having to set it down on the floor. The scanner (worker) then determines the pallet number associated with an individual package, scans the appropriate barcode on the carton, places the product on the pallet, and scans the pallet location…repeat *ad infinitum*. In so doing, the worker “matches the product’s virtual location” in the database “with the product’s physical location” on the shop floor, and not incidentally locates her/himself physically, virtually, and temporally in the system as well.\(^{32}\) Having placed the product in its designated destination, the worker has readied the commodity for its final transfer to the customer, after it leaves the staging areas discussed above, only to be touched again in another facility by the postal or shipping workers who will transfer the product to the delivery truck later the same day.

This environment resembles the continuous process factory settings highlighted within various literatures from Blauner (1964) and Edwards (1979), to Peña (1997) and Vallas (1996), and beyond (Bonacich and Wilson 2007). Far from conventional, common sense assumptions about what constitutes warehouse work, these environments have minute divisions of labor that closely resemble manufacturing activities, and use many of the same technologies identified in other literatures examining various aspects of the sociology of work and the labor process (Aneesh 2009; Appelbaum and Lichtenstein 2006; Chun 2001; Salzinger 2003; Smith 1998). As such, understanding the technological, social, and managerial similarities (see chapter five below) between

\(^{32}\) In this case, location means the object assigned to a given pallet in our facility, but the scan operation includes locating objects virtually and physically by container generally—pallet, Gaylord, steel shipping container, bin location, etc.—or by staging location.
warehouses and distribution centers and other industries analyzed in the context of
globalized circuits of production (Aneesh 2009; Bair and Gereffi 2003; Dicken 2007;
Muñoz 2008; Sallaz 2009) allows us to judiciously, and partially generalize about the
nature of work within globally embedded workplaces. It is with this in mind that the next
chapter assesses modes of coordination and control in warehouses and distribution
centers.

However, this machine-like efficiency and emphasis on standard work, discussed
more specifically in chapter four, takes its toll on workers physically and spiritually.
Before discussing the nature of coordination and control over the labor process in
warehouses and distribution centers, it is worth examining the incidence of injury and
illness in the industry, and some of the causes and consequences of the substantial
stresses and strains experienced by workers in contemporary warehouse facilities.

STRESSES AND STRAINS

Warehouse work is dirty, dangerous, and fast-paced (Bonacich and De Lara 2009;
Bonacich and Wilson 2007; Husing 2015; Struna et al. 2012). While it has nearly always
been so in some capacity (Bonacich and Wilson 2007; Woodward and Webster 1954), the
contemporary demands of just-in-time or flexible production (discussed in chapter five
below) contribute to intense physical and emotional stresses and strains (Bonacich and
Wilson 2007; De Lara 2013b; Struna 2013). This is so notwithstanding the widespread
introduction of labor saving devices and techniques in contemporary goods movement
firms. Regardless of whether facilities are highly capital intensive and overwhelmingly
automated, or they have lower capital intensiveness and rely on more human inputs, the interaction of people, goods, machinery, and pressures for workers to produce, creates high risks for injury and illness.

Below, I summarize some of the findings from my fieldwork observing Warehouse Workers United meetings, worker interviews, and collaborative research with colleagues that compares “the results of a survey of 103 warehouse workers in the Inland Valley, collected by WWU and UCLA [Labor Occupational Safety and Health program] (WWU and Cornelio 2011; WWU 2011), with the October 2011 findings from the Bureau of Labor Statistics (BLS) Survey of Occupational Injury and Illness census (BLS 2011a, 2011b)” (Struna et al. 2012: 4). In that study, we find that despite likely underreporting of injury and illness in the BLS’s (2011a; 2011b) employer-based surveys, and likely over-reporting in the Warehouse Workers United and Cornelio’s (2011) worker-based survey, “both [surveys] lend credence to the assertion that warehouse workers suffer relatively high rates of injury and illness when compared to other types of workers” (Struna et al. 2012: 8). In addition, I briefly summarize some of the economic stresses and strains related to workers’ lack of health insurance, and the problem of wage theft.

**Injury and Illness: Physical and Emotional Strains**

Despite public awareness of occupational hazards in industries like logging, mining, and construction—due in part to ‘reality’ television programming depicting work in these and other dangerous or dirty industries—the relative obscurity of warehousing
diminishes awareness of high rates of injury and illness in warehouse and distribution center operations. Yet, “compared to the logging, mining, and construction industries, warehousing has a higher rate of injury” according to BLS statistics (Struna et al. 2012). In 2009, the BLS survey indicated “about 4.5% of the full-time warehouse workforce experienced an injury” compared to three and four-tenths percent of loggers, three and two-tenths percent of miners, and three and one-tenth percent of construction workers (Struna et al. 2012: 5). To be clear, there were 53,000 injuries reported to the BLS by employers for 1,192,700 workers in the warehouse industry across the US.

In terms of workplace-related illnesses, although “none of these [four] industries, including the warehouse industry, have a rate greater than 1%” according to employer reports to the BLS, warehousing is again at the top of the list (Struna et al. 2012: 5). It is highly likely that the illness rate for these industries, and others are “gross under-estimates” resulting both from worker underreporting because of worries about losing jobs or pay due to absence, and employer underreporting due to efforts to minimize workers’ compensation insurance costs (Boden and Ozonoff 2008; Dong et al. 2011; Struna et al. 2012).

In contrast to the BLS findings, the Warehouse Workers United and Cornelio (2011) survey shows substantially higher rates of injury and illness related to work and

33 Data from the Struna et al (2012) survey is based on 2009 BLS figures, but BLS statistics available for 2013 (the most recent year released as of writing) are similar overall for all of the industries we compared. It may appear that the severity of injuries may be less dramatic in warehouses than in the other listed industries, but the presence of industrial equipment, falling objects, vehicles, chemicals, and pressures to produce makes the environment more similar than dissimilar in terms of hazards. Being pinned between a 5000 pound powered industrial truck and a steel girder poses the same risks to life and limb in a warehouse as it does in a mine.
working conditions. More than fifty-four percent of warehouse workers report having had at least one personal injury, and nearly sixty percent report having witnessed at least one injury among coworkers (Struna et al. 2012). Of the personal injuries reported, “The three most…common injuries were to the hand, foot or back. About 20% of respondents reported injuries to the hand or the muscles in the hand. About 14% reported injuries to their back, and 8% reported injuries to their feet” (Struna et al. 2012: 6). While most respondents in the survey report only one injury, roughly ten percent report having experienced at least two.

In my own worksite participant observation, I (re)injured my back, having been subject to bouts of sciatica previously, suffered from a deeply bruised big toe and partial nail loss resulting from walking long distances during shifts (an injury common to long-distance runners), as well as acute elbow pain in my right arm related to the wrist-mounted scanner required for most work operations (all in roughly eight weeks of work). Like many colleagues on our shop floor, and many interview respondents in the Warehouse Workers United Cornelio (2011) survey, I refrained from reporting my injuries to management. While my failure to report was more in the interests of maintaining access to my research site than gainful employment, fear of dismissal or missing work due to reporting was very real.

Beyond the repetitive motion related strains on musculoskeletal systems, more catastrophic injuries like amputation, crushing events involving powered industrial trucks and forklifts, and extremities becoming trapped in “pinch-points” where moving

34 During this period I was an otherwise healthy thirty-five year-old with a work history that included foodservice and landscaping in addition to office and classroom work.
machinery intersects with goods and other materials are common. Admittedly, in environments where safety precautions are in place, and workers are relatively well trained in proper work practice—as in the facility I worked—such events can be minimized, if not eliminated. Yet, where safety is sacrificed, and cost cutting or negligence is king, radical dangers to life and limb are possible. In facilities targeted by Warehouse Workers United, hazards included acid leaking from 2000 pound forklift batteries, missing dock plates that bridge the one-foot-plus gap between trailers and warehouse floors, fallen stacks of improperly stored wooden pallets, fallen stacks of boxes nearly two stories high, and loading procedures that allowed workers to be trapped behind walls of boxes within shipping containers and trailers, ad nauseam (Cal-OSHA Reporter 2012; Lifsher 2012; Warehouse Workers United 2013a; Warehouse Workers United 2013b; Warehouse Workers United 2013c; Warehouse Workers United and Cornelio 2011). Similar conditions have been highlighted across retail-linked facilities throughout the US and globally (Head 2014; McClelland 2012; Soper 2011; Warehouse Workers United 2013a; Yarow 2011).

Illness rates reported in the Warehouse Workers United and Cornelio (2011) study diverge even more starkly from the BLS-reported illness rates (Struna et al. 2012). “Out of 103 workers interviewed, over 80% reported experiencing 1 to 3 work-related illnesses” with nearly sixty percent having experienced at least one work-related illness (Struna et al. 2012: 6)—all compared to the less than one percent highlighted in the BLS illness reports above. Workers in that survey report sickness stemming from work or working conditions that includes “respiratory-related illnesses (17%), headaches (13%),
cold and flu symptoms (12%), stress and fatigue (10%), insomnia (10%), and general feelings of uneasiness (9%). Finally, 6% of respondents reported dizziness and anxiety, respectively, the remaining 5% reported a variety of other illnesses” (Struna et al. 2012: 6). While it may be difficult to precisely attribute work as the cause of all of the self-identified illnesses (for example cold and flu may be aided by co-presence with others at work, but work is not the direct cause), it is instructive that workers regard the workplace as the source of physical or mental anguish.

Workers’ identified “perceived causes of actual [illness and injury] incidences (observed or experienced)…among warehouse workers. The most common causes reported [were] equipment accidents (23%), injury from heavy and sharp objects (22%), and dust (10%)” (Struna et al. 2012: 7). Other hazards identified included undetermined and incidental chemicals, sometimes left behind in shipping containers from previous loads; insects and “animal droppings,” in addition to exposure to chemicals and fumes created in electronics and other production processes (Struna et al. 2012). Nearly three quarters of respondents also identified “excessive heat and cold as a problem,” as well as temperature ranges “from as little as 10 degrees Fahrenheit” in refrigerated food facilities, “to as much as 125 degrees” in shipping containers and non-climate controlled buildings (Struna et al. 2012: 7). Among the more disturbing findings in the survey, “over 45% reported that they had no easy access to drinking water” (Struna et al. 2012: 7). In perhaps the most egregious case, workers in a contractor’s Walmart-dedicated facility
were only given access to water via outdoor garden hose located adjacent to rodent traps.\(^{35}\)

Not directly addressed by workers in the Warehouse Workers United and Cornelio (2011) survey, but significant in my interview research and Warehouse Workers United observations, was reported lack of concern by management for pregnant women requesting light duty or reassignment (Struna \textit{et al.} 2012). In at least one case, respondents claimed that one of their coworkers lost her pregnancy as a result of work. Despite efforts to change her work tasks, the woman was not placed on modified duty, and was faced with the false choice of ceasing work (an economic impossibility) or risking health. The coworkers were saddened by the fact that they were not surprised she took the latter option. Similarly, a Warehouse Workers United worker-organizer, Marta, was among the leaders of the “Wal-march” actions in 2012, recounted her fears of giving birth prematurely as a result of working her full-duty shift, and not being afforded light duty. She was eight months pregnant, handling a large unloading project and saying, “I felt like he was going to come out. But, [management] didn’t care” (Warehouse Workers United 2012b).

While these cases may appear extreme, the recent United Parcel Service case heard before the US Supreme Court hinged on related circumstances in precisely the same industry (Liptak 2015). The plaintiff in that case, Peggy Young, took unpaid leave,

\(^{35}\) That particular facility has since undergone significant physical improvements consequent to actions by Warehouse Workers United resulting in fines and citations by Cal/OSHA and the department of labor. It was among the facilities that provoked the “Wal-March” and is identified in a Warehouse Workers United press release (Warehouse Workers United 2013b).
but not all workers believe they have such a luxury. And, as Ms. Young rightly asserts in her suit, she—and the thirty-five to forty percent of workers in the industry who are women—shouldn’t have to make choices between economic security and health.

**Economic Strains: Health Insurance, and Wage Theft**

Instructively, it is worth reiterating that most warehouse workers lack health insurance (Allison et al. 2014). Further, even when workers are injured on the job or away from work, warehouse workers frequently delayed getting healthcare when they felt they needed it: “36 percent reported that they had delayed receiving medical treatment they felt they needed during the last year; this result is similar to the proportion of workers (35 percent) who reported ever delaying getting prescription medicine” (Allison et al. 2014: 16). As Allison, et al (2014) show, these rates compare to roughly five percent of the general US population who report delaying treatment overall. Thus, warehouse workers’ precarity extends beyond economic insecurity and workplace risk insofar as many are unable to receive corrective or palliative care for health problems they encounter.

A final risk addressed here is wage theft in the warehouse and distribution center. “Wage theft includes paying workers less than the minimum wage or agreed-upon wage, requiring employees to work ‘off the clock’ without pay [including paid break periods], failing to pay overtime, stealing tips, illegally deducting fees from wages owed, or simply not paying a worker at all” (Cho et al. 2013: 4). It is difficult to determine exactly how widespread the incidence of wage theft is in the warehouse industry, but the institutional
complexity, and fly-by-night nature of some of the contract arrangements creates opportunities for workers to be shorted intentionally or incidentally by employers.

As discussed in chapter six, Warehouse Workers United used the occurrence of wage theft in the region, as well as health and safety violations, as a focus for organizing workers by targeting specific bad actors, and publicizing the illegal wage and safety practices in the media. Overall, Warehouse Workers United was able to amass multiple administrative judgments against Walmart contractors and temporary agencies functioning as joint or individual employers that yielded nearly $1,000,000 in combined actions for wage theft and other violations (De Lara et al. 2015 [Under Review]). Further, the union was able to secure two separate judgments in US District Court that totaled more than $25,000,000 resulting from wage theft and wrongful termination by Schneider Logistics, the primary Walmart contractor in the case (De Lara et al. 2015 [Under Review]). While the case settled prior to the judge possibly ruling that Walmart was among those directly responsible for the violations, the judge allowed Walmart to be listed as a codefendant in the amended complaints—an unusual occurrence in cases involving the Walmart Corporation.

In these cases and others, employers and their contractors constructed policies that preyed on workers vulnerabilities by either intentionally deceiving them about wage and hour laws, or by failing to provide detailed information on the labor tracked and wages remitted. Given the variety of institutional actors, a great deal of room for confusion and miscommunication exists between firms’ responsible for paying workers—despite highly accurate modes of monitoring output—so it is not surprising that missteps or even
malfeasance occurs. Regardless, the precarity of the workers, the social positions they occupy as men and women of color who frequently have a history of immigration, or are perceived to be immigrants and second-class citizens by their employers all collude to make them vulnerable to victimization.

Material and physical hazards that potentially induce injury and illness can be minimized through proper safety plans and procedures, and environmental risks in the workplace can be mitigated through concerted efforts to protect workers health and safety. Vigilance in monitoring wage and labor law can prevent violations, and lower the risk of exploiting workers beyond the letter of the law. Yet, even in facilities that actively do so, risks remain, and stresses can be extreme. Perhaps most tellingly, roughly forty percent of workers in the Warehouse Workers United and Cornelio (2011) survey stated that “pressure form management led to injury or illness” (Struna et al. 2012: 7). Despite the fact that only a little more than one-fifth of workers felt they had “adequate training before starting the job…90% of [respondents] said that they received pressure from supervisors to work faster” (Struna et al. 2012: 7). However, it is crucial to note that the risks workers face from pressures to produce are not inherent to the work tasks. Despite ever-present dangers related to moving objects manually or mechanically, and storing them at greater and greater heights and scales, safety is possible if it is truly regarded as an end in-itself by management.

In the firm that I worked for in my site observations, one of the many mantras recited by management was “take ownership of your work!” For workers subject to wage theft and other efforts to minimize costs related to labor, such admonitions ring hollow.
The retailers contracting the logistics firms and the temporary agencies actively distance themselves from “ownership” while simultaneously demanding it of workers. The maintenance of the status quo allows for the continuation of a system of coordination and control (discussed below) that spans the industry, and suppresses safety and wages to the advantage of the firms concerned—even in the presence of “good actors.” If a rising tide lifts all boats, a race to the bottom causes stagnation. As even the industry insiders reporting in the trade journals admit, “warehouse wages have been virtually flat for about a decade. For example, a forklift operator, on average, earns about 25 cents an hour more today than in 2004” according to the analyst quoted in the article (Solomon 2014). And yet, such conditions need not exist in the face of enforced labor law, active organizing, and legislative innovation.

As Ana, one of the worker-organizers for Warehouse Workers United stated at a rally against Walmart’s involvement in substandard working conditions in their contractors’ distribution facilities, goods movement can be, could be, “a dignified kind of work.” Facilitating the transmission of the world’s myriad imports and exports, and manipulating the fascinating panoply of consumer goods of the modern era is a fantastic task that should be celebrated. Industry advocates correctly identify warehouse and distribution center jobs as a perfect fit for relatively undereducated workers, and underemployed workers are justifiably happy if and when work does come (the only thing worse than being exploited in a capitalist economy is not be exploited at all). Given enhanced safety practices, robust wage rates, long-term employment protections, and other compensatory factors these jobs would be good jobs. Despite my emphasis on the
precarity, and the critique of the flexible labor process, the work is frequently challenging, physically active, and enjoyable—so long as it does not come at the cost of life, limb, sanity, or social stability.

Unfortunately, all too often the imperatives of reducing labor costs via flexible models of production, and the attendant employment structures that induce precarity through contingent employment, trump workers’ safety and security physically, emotionally, and financially. This is reflected not only in the specific modes of coordination and control over the labor process described in chapter five, but by the dismal number of workers who believed that they were adequately trained prior to actually working as reported above. In many ways, the industry as it is structured in the current model represents a human recycling system where people enter more or less whole, and leave as “a mere fragment of his [or her] own body” (Marx 1990 [1867]: 482). The scale and physical structure of the facilities, the functions and imperatives of the industry, the division of labor, and the culture of production created by the specific modes of coordination and control collude to create precarity in many forms. Physical, emotional, and economic stresses and strains wear on participants in the labor process to the point of breaking.

It is no wonder that others have termed such production schemes, “management-by-stress” (Head 2003; Parker and Slaughter 1994). Nor is it a wonder that workers identify stress among their greatest problems in the industry. The particular techniques of coordination and control produce more than commodities: “Fragmentation, disorientation, and chaotic personal lives are increasingly the results of this new labor system” (Ciscel
and Smith 2005). On being asked her thoughts on what she related to in the film, *Walmart: The High Cost of Low Price*, Rosa, a worker-organizer with Warehouse Workers United said, “probably, like the pressure…. The pressure…. That’s one thing that never changes: it’s like, ‘Hurry up! Hurry up! Hurry up!’ [The Chinese production workers depicted in the film] are getting sick inside—because stress will do amazing things to your body. It can hurt you like you wouldn’t believe” (Struna 2012).

**CONCLUSION**

The task here is to understand the conjunction of the factors discussed above—the infrastructural elements of space, the division of labor, the stresses and strains—relative to the broader modes of coordination and control of work in the contemporary distribution center. The spatial and physical factors that shape the labor process and collude to cause stresses and strains must be analyzed in the context of the managerial ideologies and practices used to direct labor throughout the goods movement and production process. The conjuncture is not accidental. By understanding the spatial and physical aspects of work on the shop floor, as well as the managerial coordination and control of the labor process as presented in chapter five, we begin to see elements necessary for the objective determination of class relations discussed later in chapter six.

In the next chapter, I argue that warehouse managers also use social inequalities among workers to further exploit workers and control the labor process. Interviews with warehouse workers, and field research indicates a “matrix of domination” (Collins 1990) that includes factors of race, class, gender and immigration status exists in warehouses
and distribution centers. Thus, in order to clearly understand how transnational retail firms exploit and control warehouse workers, attention to inequalities based on gender, race, ethnicity, and immigration status is required.
CHAPTER FOUR
WAREHOUSE WORKERS: WORKPLACE INEQUALITIES, AND STANDPOINTS

It is common to question the centrality of the labor process to class formation (Dahl 1971; Stark 1980; Weber 1978 [1925]). And, even some Marxists argue that the current conjuncture can generate “a potentially infinite number of classes that comprise contemporary society based not only on economic differences, but on those of race, ethnicity, geography, gender, sexuality, and other factors” (Hardt and Negri 2004: 103). In contrast, this study begins with the premise that class happens in the process of production (Marx 1990 [1867]). This assertion does not preclude the experience of class as an antagonistic or unifying relation in non-occupational contexts such as neighborhoods or marketplaces, but it does insist that class-life derives first from work itself.

Even if status differentials are most acutely felt outside the workplace as a result of different capacities for consumption in market or non-productive contexts (Veblen 1953 [1899]; Weber 1978 [1925]), people tend to “invoke…and recognize…work as an organizing principle for their home or social life” (Dohan 2003: 66). While the preceding quote from Dohan (2003) pertains specifically to his findings in Mexican-American/Chicano/a neighborhoods, his assertion relates to many other social contexts. Dominant and subordinate groups alike, orient their activities to productive, reproductive, and generally creative tasks that we can then qualify on the basis of ownership and control, dominance and subordination, and other relational categories. In each case, status derives
as much from control and agency over productive capacities and activities as it does from consumptive or distributive abilities.

Having said that, work as a “primary organizing principle of…life” (Dohan 2003: 66) is not experienced uniformly. Nationality and immigration status in the warehouse and distribution center, as well as other types of precarious employment, collude to create individual and collective pressures on particular people in ways that would be experienced differently by others. “The routinization of illegal [sic] work [and] the legitimacy granted informality by employers” (Dohan 2003: 135) who exploit structures of “migrant ‘illegality’ and deportability in everyday life” (De Genova 2002) are conditions that are all but unimaginable for a US-born white male. Further, as Muñoz (2008), and others find (McKay 2006; Parreñas 2001; Peña 1997), there is a “dynamic interaction between the state, labor markets, and race, gender, and class in the production of labor regimes” and social life more generally (Munoz 2008: 10).

To be clear then, the experience of the class relation—the relationship that happens as a consequence of the buying and selling of labor-power, or the use of labor-power by another in the extraction of values—will be lived differently by different people from different socio-cultural, gendered, and racialized backgrounds. But, insofar as that relation provides the basis for the production of commodities, and/or the reproduction of daily existence, it remains the basis for a shared experience by those who collectively occupy a given side of that labor-capital relation regardless of other racial, gendered, sexual, or national differences. One’s standpoint will by all means affect one’s understanding of that shared experience, but it is a shared experience nonetheless.
First, this chapter draws insights from research on workplace immigration regimes and racial/ethnic inequalities at work (Bonacich 1972; Kennedy 2010; Muñoz 2008; Portes and Walton 1981). It then turns to literatures on gender and transnational production, and gender at work more generally (Muñoz 2008; Poster 2001; Rogers and Henson 1997; Salzinger 2003) in order to compensate for some of the oversights of “Marx’s schematic account” of capitalist social formations that neglected the role of other types of social inequalities, including those based on nation, ethnicity, gender and age (Hartsock 1983: 290). Insofar as age also reflects a salient form of difference in workers’ social lives, I briefly highlight the ways that different positions in the life course reflect the different responses to precarity engendered in the labor process and labor market in this region (Calasanti and King 2005; Glavin 2013; Kalleberg 2009). Finally, the chapter closes with analysis of cliques as important social formations that are both used by management, and by workers responding to the direction of the labor process in various ways (Hodson 2004; Lepadatu and Janoski 2011).

IMMIGRATION, RACE AND ETHNICITY

The spatial-productive perspective advanced in the introduction can contribute to an intersectional understanding of the labor process that considers “inequalities as multiply-determined and intertwined rather than assuming one central institutional framework” (Choo and Ferree 2010: 131) based on the reification of the nation-state. Ethnicity and nationality are clearly salient features of collective and individual identity, and “the historical spread of capitalism” continues to racialize “class relations worldwide”
Transnational circuits of production use different workers in different ways depending on not only race, ethnicity, and gender, but on immigration status and physical mobility chances. Some workplaces are structured around an “immigration regime [where] managers use immigration policy, the immigrant status of workers, and a racialized labor market” to despotically “enforce control [over] undocumented workers,” while hegemonic, or consensual domination is used to control “documented workers” (Muñoz 2008: 13). In such environments, the racialized labor market divides workers into specific occupational contexts on the basis of racial and ethnic relations in the broader social milieux (Bonacich 1972). Furthermore, such racialized markets are broken down into workers with formal legal rights to be present in a given geography, and workers who, although they may have rights as workers, have no legal right to presence in the region they work.36

Immigrants occupy a prominent social position on the shop floor as a result of sheer numbers of employment in the industry, and the demographics of the region. In Riverside and San Bernardino counties, the American Community Survey (2007-2011) reports that roughly twenty-two percent of the population is foreign born, with roughly seventy percent of the foreign-born population reporting Latin American ancestry. Based on previous research on Latino factory workers (Munoz 2008), I assumed that an

36 In the present case, the obvious examples would be Latin/ Central American, or Mexican immigrants who share some semblance of ethnic or phenotypic ties with resident and non-resident populations in the US with varying degrees of legal presence. But, the spatial concern—mobility chances across borders or regions with or without legal protections—is present in the case of Chinese migrants as well. While the borders are internal in the Chinese case, the structuring of relations among workers around legal/illegal presence produces status differentials relative to the labor process.
“immigration regime” that pits documented workers against undocumented ones would be deployed by management to create divisions among coworkers and erect hierarchies on the shop floor. In fact, interview respondents reported widely, “We are all treated as undocumented” (emphasis added).

Workers relayed accounts of managers threatening to call Immigration and Customs Enforcement for organizing activities, and stating in meetings that workers could easily be deported and replaced should they forget that they are lucky to have jobs. This is so despite federal and state protections against discrimination based on organizing and racial identity or immigration status. While such blanket threats appear to only target undocumented immigrant workers, the impact diffuses to coworkers who share racial, ethnic, and immigrant backgrounds regardless of documentation status. Like Muñoz (2008) “I argue that if all Mexican workers are constructed as illegal, then…managers can use that racialized status to enforce shop-floor control” (Munoz 2008: 89). In many ways, warehouse workers’ depictions suggested a racialized, segmented labor market with immigrant labor forming a vast pool of superexploited workers flowing in and out of a reserve army in the region (Bonacich 1972; Bonacich and Wilson 2007; Gordon et al. 1982).

Even in the “Cadillac” of warehouse jobs that I found myself employed in—in a firm that touts standardization through egalitarian, team-based practices supposedly designed to minimize maltreatment and divisions among workers—workers of color formed a disproportionate part of the labor force. This was so especially among temporary-hire colleagues who were also more likely to have worked for other warehouse
firms, sometimes concurrently, and were subject to even more precarity than direct-hires who were nonetheless seasonal employees. On our particular shop floor, workers of color from backgrounds typically underrepresented in the rest of the industry regionally were more common. That is, despite Latino/as remaining in the majority of the labor force, Asian, Black, and white workers had a more balanced presence in our facility.

However, like Muñoz’s (2008) explication of workplaces organized under racial and ethnic regimes that are concomitantly structured by immigration status and gender, workers in warehouses and distribution centers frequently labor in what could be termed an “ethnic industry that pays significantly lower wages” (Muñoz 2008: 172) relative to those in which white male workers predominate. Reflecting on wages, and labor force characteristics reported above in chapter two, Bonacich and Wilson’s (2007) overall assessment is concise:

The cost of labor in the Inland Empire is about 5 percent lower than it is in Los Angeles…. Educational standards are lower, the cost of living is lower, workers are generally young and get paid starting wages, there is a shortage of alternative jobs, unions are weak or nonexistent, the labor force is heavily Latino [sic], and lacks political representation at the local level. (Bonacich and Wilson 2007: 226 emphasis added)

Thus, the racialization of the workforce colludes with regional, and other factors in a reciprocal way that tends to suppress wages and upward mobility for the massively Latino/a and largely immigrant populations that labor in warehouses and distribution centers.

Despite the prevalence of Latino/as in the logistics labor force, the population is far from secure in its status as the preferred or default group. English language tests are
increasingly used to weed out Spanish speakers prior to hiring. I executed two exams in my hiring process, and certified English proficiency on many more applications. Non-Spanish speaking managers also express resentment toward the industry’s growing preferences for bilingual professionals (manager interviews). Such push-back against Latino/a workers may alter industry demographics in some facilities—especially for immigrant populations—but the overall effect may be continued downward pressures on already marginalized workers.

**GENDER**

In the warehouse and distribution center, as in other social contexts, “women’s lives differ structurally from those of men,” and “make available a particular and privileged vantage point on male supremacy [and] the capitalist form of patriarchy” (Hartsock 1983: 284). By interrogating the ways that masculinity and femininity are constructed and used in the workplace, and by seeking to understand the ways that women’s “experience [can serve] to expose abstract masculinity as both [ontologically] partial and fundamentally perverse” (Hartsock 1983: 299) we can better “reveal the real but concealed social relations” (Hartsock 1983: 304) that exist on the transnationally implicated shop floor. Empirically and theoretically, we must account for the fact that the contemporary labor process in globally networked firms contributes to the “sexual ordering of society within the class structure,” and that a transnational “class structure [contributes to] the sexual ordering of society” (Eisenstein [1977] 1999).
Insofar as thirty to forty percent or more of warehouse and distribution center workers are women (Allen 2010), the particular experiences of the production process and the labor-capital relation must be addressed from a feminist standpoint that accounts for the “contradiction between the systematically differing structure of male and female life activities” in institutions that are situated within “a particular time and place [and] located within a particular set of social relations” (Hartsock 1983: 303). However we must also not fail to include in the analysis of the labor process the “perspectives of multiply marginalized people, especially women of color” (Choo and Ferree 2010: 131). If the “standpoint of the new [materialism] is human society, or socialized humanity” (Marx [1845] 1959: 245 emphasis original), voices from marginalized ethnic communities and women must be heard in order to make apparent the links between particular experiences and generalized conditions.

The presumption that “certain femininities (and masculinities) [are considered] more appropriate for particular jobs” and that such considerations partially determine the “division of labor, recruitment, payment structures, and shop floor interactions” (Plankey-Videla 2012) extends to warehouses and distribution centers. That is, gender dynamics help to explain the control processes within the goods movement industry. Salzinger (2003) questions “whether or not transnational production can function at all in its current configuration without female workers” constructed as a particular type of “‘third-world woman worker’” (Salzinger 2003: 27). Likewise, this study questions whether or not the often brutal conditions present in warehouses and distribution centers (Struna et al. 2012) could function as it does in the absence of the immigrant Latinas who
make up the vast majority of women warehouse workers, as well as women of color from other backgrounds who present in smaller, but significant numbers.

Interviews and reports from Warehouse Workers United observations indicate that a variety of types of femininity exist on the shop floors of warehouses and distribution centers, and are used by management in similar ways to those encountered by Salzinger (2003). From the sexually-objectified women in her observations of the “Panoptomex” plant where workers were selected on the basis of physical appearance and amenability to managers’ male gaze (Salzinger 2003), to the antithesis of docility exhibited in a “femininity [based on] independence, assertiveness, and the capacity to make decisions” in the team-based maquilas (Salzinger 2003: 76), warehouses and distribution centers use various gendered strategies of coordination and control. In interviews, some workers reported workplaces that exhibited a culture of expectations of promiscuity and at least nominal acceptance of managers’ sexualization of women workers. Others presented evidence that the facilities were no less gendered in terms of task-segregation (Bielby and Baron 1986), but relied on women’s agency and collective participation in the labor process without a regime of overt sexualization (Salzinger 2003). In both cases, respondents report a tacit acceptance of a sexualized division of labor as either natural, or inevitable if unfortunate (Poster 2001).

In the facility I worked, the floor was evenly balanced between women and men, and tasks were designed and purported to be gender neutral. That is, men and women were supposedly eligible to be assigned any task—from “pallet-build” and “water spider,” to “facer” and forklift driver. Frequently, if management was conscientious about task
rotation, positions were staffed in a relatively gender egalitarian manner. Indeed, one of the oft-touted advantages of team-based or lean production systems like the one implemented on our shop floor is the idea that such arrangements “put differently perceived people together with equal status…while at the same time achieving a successful outcome recognized by all” (Lepadatu and Janoski 2011: 46). At least theoretically, a gendered division of labor is supposed to be more or less eliminated by the team concept.

However, informal patterns of task segregation by gender quickly began to emerge—especially in periods when the system was being intentionally “stressed” to test output capacities. In particular, few women were selected for forklift and powered industrial truck shifts, trailer-unload, or water spider activities requiring movement of fully loaded pallets. Such activities were frequently viewed as “men’s work” despite the fact that women were equally trained in the tasks and often executed them more efficiently. When understaffing, speed-ups, or other pushes for productivity increases demanded output at all costs, the carefully crafted managerial ideology of teamwork and formal equality of team members was easily cast aside in favor of tired gender stereotypes about ability. Such findings accord with Salzinger’s (2003) analysis of workplaces in which “workers distinguish jobs as more or less masculine or feminine”

37 “Management-by-stress” is a managerial ideology linked to total quality management (TQM), kaizen, and/or other flexible production schemes where managers and process engineers intentionally under-staff or speed up lines—i.e., “stress” operations—to test the capacity of whole production systems (Head 2003; Parker and Slaughter 1994). See chapter five below for an extended discussion of the concept.
(Salzinger 2003: 134), and management is more or less willing to reinforce that
perception.

Respondents in interviews with workers who labored in warehouses other than
my field site paint a very different picture of the gendered division of labor. Women
report that they are more frequently assigned to pick and pack functions that require the
handling of smaller objects, and involve repetitive motion. This suggests a division of
labor that accords with Poster’s (2001) findings concerning the “nimble fingers”
stereotype, or the notion that biology and socialization create gender-specific abilities or
orientations such as “patience, organization, interpersonal skills…, small fingers [and]
sexual attractiveness” (Poster 2001: 89). Thus, in warehouses, women’s tasks are likely
to revolve around the light manufacturing and final assembly activities done to prepare
commodities for sale prior to distribution. Further, they are more likely to engage in
tagging, hanging, and sizing clothes, or similar sorting and labeling activities—duties
frequently associated with household labor—for other goods relative to men in
warehouse and distribution jobs.

Although men are not excluded from such tasks, women report that they are often
grouped together in work teams responsible for the active finishing jobs and direct
handling of commodities, while men are responsible for “heavy lifting,” bulk moving,
and forklift operations (see also Bielby and Baron 1986). Activities typically associated
with either “dangerous spaces” or physical strength (Poster 2001) are frequently allocated
to men in warehouses and distribution centers. Thus, in addition to managerial tasks, and
shift lead roles, men tend to be placed into loading and unloading tasks, or jobs that are
“more mechanized, and as a result [are perceived to be] much more suited for men” (Muñoz 2008: 91). Such tasks, like their feminized “nimble fingers” analogs (Poster 2001), end up being as much about the performance of masculinity as they are about the performance of production (Connell 1995; Muñoz 2008; Poster 2001; Salzinger 2003). Further, they often, although not always, command higher wages than tasks considered better suited for women workers (Cha and Weeden 2014; De Lara 2013b)

Consider forklift, or powered industrial truck (PIT) operation. According to the California Employment Development Department, “The median wage in 2014 for Industrial Truck and Tractor Operators in California was $33,546 annually, or $16.13 hourly” (California Employment Development Department 2015b). The annual wage at the twenty-fifth percentile is $25,528 (California Employment Development Department 2015a), or slightly more than the average wage reported in chapter two for general warehouse workers. Overall, the job is considered a masculine job by workers and managers alike, and may partially account for the gendered wage differentials observed by De Lara (2013b). However, while it is true that the job still commands a higher wage than other warehouse jobs on average, task rotation—the ultimate mode of deskilling (Braverman 1979)—exerts downward pressures on wages for jobs once thought relatively better, and more secure as a result of skilled status. On my shop floor, PIT operation was among the “deskilled” jobs that remained largely masculinized in practice, but no longer commanded a higher wage than other tasks, and was technically opened to all.

Thus, the construction and enacting of an ideal workforce on the basis of specific gendered tasks emerges despite management’s “official line…that gender is unimportant”
A rhetoric of equality is reinforced with relatively equal training for men and women in the absence of enduring practices that would make such pronouncements substantive. As such, men and women acquiesce to the actual gendering of work assignments in the face of potentially egalitarian distributions that frequently fail to materialize with rare exceptions. When they do materialize, the leveling of the playing field is downward: men and women lose out on the privileges once enjoyed by men only.

As Baron and Bielby (1980) assert, “efforts to deskill and homogenize work often produce (or take advantage of) an increasingly larger proportion of female workers” (Baron and Bielby 1980). Warehouses and distribution centers in the context of increasing automation, and reliance on models of precarity and management-by-stress (Kalleberg 2009; Parker and Slaughter 1994) are no different.

In interviews, women report that men regularly occupy shift lead positions that, like forklift driving, often result in more perceived responsibility, and thus prestige. To be sure, shift-leads rarely offer a proportionate wage premium (if any) relative to other workers on the line. Yet, for men and women alike, such positions do afford more power and freedom from the same level of scrutiny other workers may receive insofar as leads are frequently held to lower standards for scanning rates because of their pseudo-managerial tasks. When women do occupy shift lead or lower-level management positions, interview respondents often attribute women’s advancement to male favoritism, perceived or actual sexual relationships among coworkers, or “pay to play” arrangements that are regarded as an unfortunate cost of working. That is, respondents report expectations of reluctantly permitting sexual harassment by male supervisors as a
prerequisite for advancement or even continued access to regular shifts consistent with other research (Muñoz 2008; Rogers and Henson 1997).

In many cases, respondents often blamed coworkers for participating in such arrangements. Instead of recognizing the harassment and favoritism as a structural framework that enables managerial control, “femininity is defined” and enacted in a way that suggests “women workers have little to offer each other compared to the pleasures of that achievement and the perils of its loss” (Salzinger 2003: 72). In a variation on divide and conquer tactics designed “to reduce working-class unity [by] using difference as discursive control to construct marginal jobs” (Rogers 2000: 70), women in some warehouses view each other as competitors for scarce opportunities to diminish individual hardship or to secure more permanent employment (Salzinger 2003). Yet, this is not so “because young women enter [the shop floor] ready-made for managerial purposes [but] because women workers are addressed and constituted within the confines of a particular set of gendered meanings” at work (Salzinger 2003: 73).

The connection between the construction of these meanings and control itself must not be missed. “In this light, sexual harassment” and the structuring of the social environment that contains the labor process “is about the control of women workers, of women as workers and workers as women” (Rogers and Henson 1997: 217). Conversely, it is also about the particular types of power and masculinity men are able to exert, or not, in the labor process (Salzinger 2003). Informal modes of coordination and control articulate with standardization, algocratic direction of work and the temporary employment model (Aneesh 2009; Rogers and Henson 1997; Vallas 2006) to create a
situation “that both fosters and tolerates sexual harassment” (Rogers and Henson 1997: 218). An implicit sanctioning of men’s performance of masculinity through the sexualization of coworkers in the warehouse and distribution center results from the same sources of disconnect and confusion that cause other stresses and strains beneficial to management overall. The presence of multiple institutional actors allows gaps in responsibility that prevent workingwomen from reporting harassment, and enable relatively higher-status workingmen to extract power from women on the shop floor (Rogers and Henson 1997).

Likewise, women in warehouses report retaliation for not playing along with men’s sexual advances, or disproportionate punishment for purported insubordination similarly to workers reported in other research (Rogers and Henson 1997). Vanessa, a twenty-five year-old Central American woman, later involved in organizing campaigns, stated that she was told to clean massive shelving units caked in dust. While she was unsure of the reason, it was clearly a punishment: she was given a rag, no other cleaning supplies or personal protective equipment, and resorted to using her own water bottle as a wetting agent as she crawled along spaces too small to stand in. Other women in the same facility were required to do shipping container audits (inventorying containers in massive parking-lot-like yards adjacent to the warehouses). This involved shinnying between the portable, fifty-three-foot-long structures into unsafe, narrow openings to record tracking numbers in temperatures that exceeded 100 degrees. Coworkers speculated aloud that the task was mere busy work designed to encourage the women to quit (thus avoiding unemployment insurance claims related to dismissal).
Thus, the “image of nubile pliancy” attributed to women on shop floors globally is “filtered through managerial intentions, desires, and strategies” in the coordination and control over work in warehouses and distribution centers, and largely contested in practice just as it is in the maquilas Salzinger examines (Salzinger 2003: 72). As in any particular setting “workers reinterpret and reapply accepted justifications of,” and modes of resistance against “inequality based on…staffing patterns, company policies, and [social] context of the organization” (Poster 2001). The particular negotiation of gender, racial, and other social dynamics between management and workers remains local in nature even if patterns repeat across contexts globally (Hossfeld 1990; Muñoz 2008; Poster 2001).

Far from compliant objects, we see women and men co-“constituting the shop-floor selves [as subjects] who make global production tick” (Salzinger 2003: 74). Workers in warehouses and distribution centers affirm Salzinger’s (2003) assertion that “although the images are transnational, the form in which they enter the shop floor and the consequences of their presence are specific to this plant in this moment” (Salzinger 2003: 74). Yet, despite this locally situated enactment of gendering production practices, the finding of similar circumstances in disparate cultural, geographic, and productive spaces highlights the fact that gender, and other standpoints including race, ethnicity, and immigration status are manipulated in similar ways throughout the global supply chain (Chun 2001; Hossfeld 1990; Muñoz 2008; Poster 2001).
AGE

Following Calasanti and King (2005), it is important to understand “age relations as a dimension of inequality…that intersects with gender, race, sexuality and class” (Calasanti and King 2005: 3). Regardless of direct hire or temporary status, my coworkers largely derived from two groups in the labor market: young workers in school, or having no previous work experience, or older workers (late twenties-plus) who had been cast out of other industries and sectors experiencing downsizing, offshoring, or restructuring by dislocations caused by the crisis of the Great Recession 2007-2009 and beyond. Consistent with Rogers’ (2000) findings on temporary workers, workers in the warehouse industry appear to be “overrepresented in both the under-twenty-five age category” and older cohorts (Rogers 2000: 77). In general, “older workers are more likely to suffer from the effects of outsourcing and industrial restructuring and be forced to put off retirement” when market-based retirement income solutions fail (Kalleberg 2009: 10).

From a recent immigrant who had been a scientific professional employed by a major food transnational in his home country, to a long-time immigrant-resident who worked production for a local newspaper until he was laid off by the paper’s closure, I worked alongside seasoned workers who involuntarily worked part-time for the first time in their lives. At least three of the workers I was hired with had long-term experience in housing-related financial industries, and had been unemployed for several years after the closure of the banks and real estate firms for which they worked. Likewise, the contraction of the public sector led at least two former public school teachers to take up
work warehousing. Thus, among the older workers, the warehouse represented a stopgap; a job to stand in for disappeared careers.

Workers who once experienced work lives based on secure employment, or even merely the “notion of secure employment …as a normative ideal in middle-class American culture” (Smith 1998: 414) were now confronted with long-term contingency, precarity, and diminished expectations of upward social mobility (Kalleberg 2009; Smith 1998). For many, their temporary, seasonal warehouse job marked their first job on returning to the labor force from long term unemployment related to layoffs and plant closures. At the time of my workplace observation in 2013, unemployment in the Riverside-San Bernardino metropolitan statistical area was over ten percent, having peaked at fourteen and four-tenths percent in 2010 (California Employment Development Department 2015c). In such cases where my coworkers were new to the industry, the work was welcome, but resulted in far lower earnings than they were used to in their previous careers, and frequently lower prestige than such workers experienced in their previous occupational lives.

However, unemployment by age group varied considerably for the same period. In 2013, statewide unemployment for workers aged twenty-five to thirty-four was roughly at the overall average of ten percent for the region, while unemployment for those thirty-five to sixty-five and over was between eight and nine percent (California Employment Development Department 2015a). Conversely, youth unemployment in California was substantially higher at more than thirty-four percent for sixteen to nineteen year-olds, and almost sixteen percent for twenty to twenty-four year-olds (California
Employment Development Department 2015a). Thus, the overall employment picture suggests that unemployment, underemployment, and precarious work have different impacts on workers in different stages of the life course (Glavin 2013; Kalleberg 2009). Where older workers certainly perceive a lower level of personal control and self-efficacy resulting from participation in precarious employment arrangements, “workers in their 20s who report job insecurity…likely have encountered no other type of employment situation in their career. Job insecurity may therefore be a more normative experience for these individuals” overall (Glavin 2013: 134)

Consistent with those findings for many younger workers in the Inland Empire, employment in warehouses and distribution centers was perceived to be an inevitability: many had parents, siblings, and extended family working in the industry, and saw agency-based employment as the only option in a region that suffers high rates of unemployment and high costs of living. One of my coworkers, Elias, an eighteen year-old Chicano who graduated from a local high school, reported that he was pleased to have started at $11.50 as a temp, but that “he wouldn’t want to support a family on it.” He later informed me that he was actually helping support his parents on that wage. Another young coworker employed in two warehouses simultaneously, was helping support a newborn while living separately from his partner—occasionally sleeping in his car to stay close to his girlfriend and child who lived with her disapproving parents. Still, other young coworkers reported living with parents to either avoid rent, share in household economies, or stave off economic insecurity and social uncertainty generally (Konstam 2015).
Among the younger workers, there was a great deal of variation: some actually found the prospect of working for the firm exciting, and they seemed to honestly believe that advancement within the company would be forthcoming. Many more saw the job as relatively flexible with their school schedules, and therefore functional despite the hard work. One young man had attended an Ivy League university at one point, but was compelled to move home for unstated reasons. He, like many of my coworkers and myself, attended UC Riverside during standard hours, only to drive a dozen or so miles (although it frequently took one hour to commute!) to work five or more nights per week. Still others had escaped local high schools, and were alternately happy and despairing to have found work in the industry that so many of their family members and friends had been pulled to locally.\(^{38}\)

Some of the most frequent divisions on the shop floor concerned those between younger and older workers. Insofar as status differentials and authority derive from differences in age, or when they are incongruent with expectations, potentials for conflict are strong (Schieman and Reid 2008). Where younger workers, in observations and interviews, regarded older workers as slower and resistant to meeting production rates or rate changes, older workers chided younger colleagues as rate busters who did not understand the game. While there is not much of a learning curve for younger and less experienced workers regarding social pressures to resist unreasonable rates—most at least

\(^{38}\) Our employer required proof of high school diploma or equivalency for both direct-hires and temps. Other firms in the sector focus substantially less on educational background in the selection of workers. I hypothesize that the firm expects instruction-taking to be a prevalent trait among those who have experienced at least secondary “banking method” education (Freire 2000 [1970]).
nominally push back against speedups—some rate busting still occurs. Still, the myth that “if we work harder, we will make more” present among youthful and naïve workers provokes resentment among seasoned veterans on the floor.

However, to be fair the dividing line between younger and older workers is not bright and clear despite the potential for conflict. “Kaizen teams [often] brought young and old workers together on successfully functioning teams” where the different assets each group possessed—something like youthful energy and experience, respectively—could be relied on to complement each other in shared “communities of fate” (Lepadatu and Janoski 2011: 93). The interactions between older and younger workers operate in the context of “small groups [that] provide a social fabric within which new employees,” both in terms of new-hires and newly-minted workers, “learn how to survive on their jobs” (Hodson 1991: 282). As such, differences in age or other standpoints do not always need to produce divisions, but instead create conditions of shared circumstance and potential affinity among coworkers.

**WORKPLACE CLIQUES AND CAMARADERIE**

Like all workplaces and social contexts, I witnessed the formation of informal groups of workers, or cliques, who shared affinities, workstation proximity, backgrounds, and struggles throughout the course of my workplace and Warehouse Workers United observations. Sometimes the cliques would take shape around clear racial groupings, ethnicity, or nationality. For example, in the facility I observed, young Black workers frequently congregated together in break rooms, during stand-up meetings, or trainings
where the labor process was less formally controlled, and therefore more open to workers’ choices about the use of space socially (Muñoz 2008; Vallas 2003b). During the Warehouse Workers United “Walmarch” campaign, many of the spontaneous strikers (discussed in the chapter on class formation below) were white, English-speaking men who stood in a noticeable minority compared to more typical Warehouse Workers United members who were by and large Latino/a. As such, they often congregated together during the march, or in the churches that served as places to sleep at night as a function of linguistic affinity and familiarity with each other as workers. Finally, within Warehouse Workers United meetings and functions, primarily English-speaking Latino/as often coalesced in comparison to primarily Spanish-speaking members who, in turn socialized together during periods of informal interaction.

Such findings accord with Muñoz’s (2008) observation that while “managers successfully use ideas about race and gender to produce divisions and discourses in order to implement” a given workplace regime, “workers themselves produce and reproduce discourses and divisions around racialization and gender…that reflect workers’ independent concerns about how to organize relations of power on the shop floor” (Muñoz 2008: 86). The emergence of cliques on that basis thus represents a mode of resistance within workplaces as much as a continuation of racialized patterns of interaction that exist alongside and inform the labor process (Muñoz 2008; Vallas 2003b).

Sometimes groups would form around shared tasks—having no apparent source of homophily beyond the work process or the union hall itself. In the particular group I

39 By the end of the 60-mile march, many of the white workers had learned various chants in Spanish after having initially been resistant to Spanish slogans and rally cries.
became embedded in at the warehouse, our connections formed as a result of being “good workers” who tried to “do our jobs right.” Like Hodson’s (1991) “good soldiers” and “smooth operators” we shared the sentiment that we should work hard, and safely to the best of our ability while on the floor—but not work harder than necessary. At the same time, my close coworkers disdained shirkers—or those they perceived to be lazy at work—almost to a fault.

Among those who I would later call friends, and debrief on my observations and research program, were workers from a variety of backgrounds that included Manuel, a recent Pilipino immigrant with a scientific-professional work history and global education, KB a Thai immigrant who had worked in a local production industry for twenty years prior, and Frieda, a white woman from San Bernardino who worked in banking before the recession forced her layoff. Others in our group included Tabatha, a young white woman with limited work experience striving to get a fulltime hire at the firm, Cynthia, a Chicana helping to support her family while actively avoiding college (despite all of our advice), and Edwin, the Mexicano/Chicano right out of high school working two warehouse jobs and supporting a newborn.

Where we coalesced around work frustrations and teamwork, we found ourselves commiserating in the break room. Such collegial exchanges quickly led to after work sessions at In-and-Out Burger, and family get-togethers over Korean barbeque. In the long run, the people I worked with became friends and informants who continued to update me about their work and non-work lives long after I stopped showing up for
shifts. My welcoming group of coworkers affirmed the postulate in the human resources literature that “work is reportedly a more enjoyable and pleasant experience overall in high diversity teams” (Lepadatu and Janoski 2011: 77). However, our connections were not a result of planned relations between workers by managers. Through our complaints about other coworkers and management, our soreness and growing strength, and our speculations about who would be hired or dismissed most quickly, we made otherwise brutal work bearable for each other. The social world we shared, and our “company, association, and conversation” became an end in-itself where the “brotherhood of man [was] no mere phrase…but a fact of life” (Marx 1974 [1844]: 109). The labor process led to links between us that eventually transcended the work itself.

Thus, despite divisions and differing standpoints impacting the lived experience of work on the basis of race, ethnicity, immigration status, age, and gender (Hartsock 1983), shared participation in the labor process frequently produced camaraderie among socially diverse coworkers. Even in cases where tempers flared—my own included—and social cleavages based on historic patterns of racial or gendered divisions of labor manifested, the interventions of coworkers frequently diminished hostilities. The use of off color humor, “perilously close…to aggression” itself sometimes (Lepadatu and Janoski 2011: 78), could be deployed to consciously diffuse tensions among workers experiencing the pressures of the labor process and the complexities of socially diverse interaction.

40 I began notifying trusted coworkers of my researcher status shortly after informing the firm of my two-weeks notice.
Workers also engaged in self-policing behaviors—correcting colleagues for overstepping boundaries of discrimination and offense when their humor went too far. One of our cohort often made racist remarks about fellow coworkers within and outside our particular clique, sometimes under the guise of jokes and sometimes with little pretense. While the most frequent response among the group was a visible cringe, occasionally, the offender would be directly told, “You can’t say that! It’s racist! You are terrible!” Eventually, the frequency decreased, and the attempts at humor stopped insofar as few of us thought the comments were funny. What this illustrates is that, consistent with Hodson’s (1991) observation that “informal group controls are much more effective in limiting employee theft than are organizational sanctions” (Hodson 1991: 282), our informal interventions against racist attitudes were more effective than the firm’s DOW-Chemical’s-produced industrial films admonishing against discrimination and harassment.

“One of the most common and visible manifestations of [intra]group discipline…is the socialization of new members” (Hodson 2004: 231). Cliques and informal groups can, and often do serve to reinforce the interests of management, but they also signify solidarity among workers, and provide a means of coping with the pressures of the workplace. Warehouse workers on the shop floor and organizational contexts that I observed, created informal groupings across socially diverse circumstances. Sometimes, workers responded to the labor process by coalescing around each other according to racial or ethnic similarities, and sometimes they formed groups around other sources of homophily. Either way, the informal structures of work that
constitute “social life at the workplace [endow people with] meaning and fulfillment in their lives” (Hodson 2004: 236). Despite pressures to produce, induced stresses and strains, complexities fostered by working in transnational firms, and factors influencing work life precarity (Kalleberg 2009; Muñoz 2008; Parker and Slaughter 1994; Poster 2001; Salzinger 2003) workers co-create substantive social interactions across standpoints.

CONCLUSION

Of course, none of these interactions operate independently of one another. All of my coworkers and interview subjects inhabited and enacted various combinations of social standpoints in multiplicative, intersecting ways (Collins 1990; Hartsock 1983). One is not merely an immigrant, or a man of color, or a young father; social life is lived in ways that make one a young, immigrant man of color helping support a child on temporary wages. Similarly, we do not experience the labor process from any one standpoint. Various forms of difference collude to create an experience of process that is at once particular, and shared by cohabitants of the hidden abode.

Thus, social diversity in terms of race, ethnicity, immigration status, gender, and age has its uses in the labor process. Where it is brandished like a club by management in immigration, race, or gender regimes in an effort to impose discipline and division, it is also embraced by workers through the acknowledgement of shared circumstances in a multiplicity of ways. Local uses of diversity always take account of the people who inhabit labor markets, and shape social interactions in and around the labor process. Yet,
the patterns of racializing and gendering divisions exhibited in other contexts throughout global circuits of production (Muñoz 2008; Poster 2001; Salzinger 2003) repeat with remarkable regularity, and the warehouse and distribution center is no exception. Like other techniques associated with the coordination and control of transnational labor processes, the local application articulates with global logics.
CHAPTER FIVE
THE LABOR PROCESS: MANAGERIAL COORDINATION AND CONTROL

Economy of time, to this all economy ultimately reduces itself… Thus, economy of time, along with the planned distribution of labor time…remains the first economic law on the basis of [social] production. (Marx 1973: 173)

COORDINATION AND CONTROL

Regardless of the particular epoch of capitalism, or the specific mixes of technology and social structures that predominate at any given time, ideological and practical mechanisms must be employed in the exercise of coordination and control of work within the labor process (Edwards 1979). In fact, coordination is necessary “in all social production,” including pre-capitalist and post-capitalist modes of political economy “since the product of such production is by definition the result of labor by many persons” (Edwards 1979: 16). Thus, whether production processes are contained under one roof, or spread out through global commodity chains, the work of many people requires systems that can coordinate the incremental steps required for the creation of complex commodities. It is possible to create more or less hierarchical systems of coordination that range from despotically organized systems like slavery, command economies, and coercive regimes within contemporary capitalism, to democratically coordinated workplaces designed to “remain…accountable to the producers themselves” (Edwards 1979: 16). However, given the relations of power that obtain from differentials between labor and capital in the rights to the instruments of production and the products

41 For interesting treatments of the concept of time in Marx’s work see, Hanson (1997), and Booth (1991).
created in the labor process, “it is more appropriate to speak of control than coordination” *per se* in the capitalist era (Edwards 1979: 17).

Following Edwards (1979), “control is here defined as the ability of capitalists and/or managers to obtain the desired work behavior from workers” (Edwards 1979: 17). Methods that determine that ability can range from the coercive to the truly consensual as well, as demonstrated by this and many other studies (Blauner 1964; Braverman 1974; Burawoy 1979; Edwards 1979; Muñoz 2008; Vallas 2006). In any system of control, or “the social relations of production within [individual] firm[s]” or between firms that coordinate production across institutional boundaries, there are three dimensions used to effect outcomes favorable to capital (Edwards 1979):

1. **Direction**, or a mechanism or method…specifying what needs to be done, in what order, with what degree of precision… and in what period of time.
2. **Evaluation**, or a procedure by which the employer supervises…to correct mistakes or other failures in production, to assess each worker’s performance, and to identify individual workers or groups…who are not performing work tasks adequately.
3. **[And] discipline**, or an apparatus that the employer uses to [sanction] and reward workers in order to elicit cooperation and enforce compliance with [capital’s] direction of the labor process. (Edwards 1979: 18)

Different configurations and techniques of direction, evaluation, and discipline yield different social outcomes in terms of the distribution of power, and hybrids of competing systems may be present. Thus, when considering a particular type of control as dominant, the residues of previous periods may still exist by tradition, or by the continued effectiveness of a method in the presence of new techniques and tendencies (Edwards 1979).
Edwards (1979) identified three basic types of systems of control: simple, technical, and bureaucratic (Edwards 1979). Simple control concerns unmediated coordination and control over the labor process by individual capitalists or their agents. The work is physically overseen by managers or “a single entrepreneur,” and control over the labor process is more or less direct (Edwards 1979). Technical control concerns a system in which capital uses “machinery itself [to] direct and set the pace” of production (Edwards 1979: 20). The logic of the process is dictated by the instruments used, such as an automatically moving factory conveyor belt, and the ability to alter the process on the part of individual laborers is limited—or eliminated, ideally, for capital and its agents (Blauner 1964; Braverman 1974; Edwards 1979; Vallas and Beck 1996). Finally, bureaucratic control represents the “principal of embedding control in the social structure or the social relations of the workplace” in a rules-based manner that codifies and delimits the power of offices and functions within the hierarchy of the firm (Edwards 1979: 20). Typically, the firm offered a career trajectory for workers with incentives for advancement embedded in knowable rules (Burawoy 1979; Edwards 1979).

While all three systems continue to exist in some mixture, shifts in managerial ideology and practice associated with globalization since at least the 1970s have resulted in a turn away from the hegemony of bureaucratic control and attendant social structures (Aneesh 2009; Powell 1990; Robinson 2004). Systems of flexible or just-in-time production in conjunction with the elongation of commodity circuits across geographies, have combined with contracting relationships to alter firms’ preferences for stability and long-term employment (Bonacich and Wilson 2007; Dicken 2007; Gereffi and Christian...
Arguably, the shift has led to a return to preferences for technical control, but with the proliferation and ubiquity of information technology a new layer of coordination and control has emerged (Aneesh 2009; Leidner 1993; Vallas and Beck 1996).

Beyond the “numeric control” or computer control that enhances technical modes identified by Edwards (1979) and others (Leidner 1993; Vallas and Beck 1996), Aneesh (2009) argues that contemporary systems of coordination and control are best understood as “algocratic” where “the design of the work process itself” includes the presence of “software code[s] as the key to governing globally dispersed labor through data servers,” that “structure possible forms of work performance [and enable] the monitoring of work through the design of the work process” (Aneesh 2009: 347-349). Such systems thus combine the compliance and disciplinary mechanisms of bureaucratic control with the direction of the work process present in technical control.

The execution of technical control (Edwards 1979) has thus been modified to encompass many of the features of bureaucratic control as a result of the application of digital information technology to the direction of productive activities in diverse contexts (Aneesh 2009; Axson 2007; Peck et al. 2005) including warehouses and distribution centers. In an environment where “globally distributed work does not take place within a single firm,” governance is impossible “through usual mechanisms,” such as a rational-legal bureaucracy (Aneesh 2009: 347).

While Aneesh (2009) does not explicitly extend the logic of what he calls algocratic control, or governance by algorithmic programming (Aneesh 2009), to shop
floors like warehouses and distribution centers, the industry’s heavy reliance on warehouse management systems, labor management systems, and other integrated software packages (Agrawal and Smith 2009; Gilmore 2011; Hompel and Schmidt 2007) suggests that algocratic modes of direction, evaluation, and discipline play a central role in the mechanisms of labor control within contemporary warehouses. Such systems monitor not only inventory, but direct workers to specific regions of a given warehouse to ‘pick’ commodities (from stacks and storage racks often four or more stories high) for aggregation, packing, and distribution. Further, the coordination of such activities across the field of actors in the industry—the temporary employment agency, the warehousing firm, the retailer, and suppliers—allows for the intervention of any combination of the agents through the programming schemes to direct “a variety of…tasks from any location around the globe” (Aneesh 2009) depending on the level of access the end user of the labor allows or requires.

While other perspectives emphasize the transformative nature of technological shifts in the contemporary period (Vallas 2006), few explicitly link the spatial and technical aspects of coordination and control that enable transnational production regimes at the institutional level with both the global system and the logic of the shop floor (Aneesh 2009; Wallace and Brady 2001). Aneesh’s (2009) extension of Edwards’ (1979) technical control builds on others’ approaches to the ways social structures of accumulation are shaped by technological, institutional, and micro contexts (Wallace and Brady 2001).
Algocratic modes of control are thus found beyond the call centers and clerical/informational contexts studied by Aneesh (2009). A warehouse worker’s simple swipe of a hand-held laser scanner over any barcode in the distribution center can initiate a work process that is coordinated and planned in multiple geographies and institutions throughout the supply chain on the basis of binary codes, thus fulfilling the condition of direction over the labor process. But, the selfsame scanner also can report to the multiple institutional actors the speed with which picking occurred, the history of the worker’s output, and any violations of established production standards or rates. Thus, the “algocratic mode of organization” (Aneesh 2009) also fulfills Edwards (1979) preconditions of evaluation and discipline on the globalized shop floor—justifying Aneesh’s (2009) claim that algocratic systems transcend the bureaucratic system of workplace governance.

To be clear, the idea that algocracy presents capital with a superior managerial praxis relative to bureaucracy indicates that it is both a more efficient (and exploitative) mode of coordination and control, and that it is displacing bureaucracy as a preferred organizational form within contemporary capitalist firms. As Aneesh (2009) asserts, “while [algorithmic] code may not always succeed in organizing work as intended, its willing insertion into everyday business operations is pervasive and its usefulness in explaining not only global labor integration but also the decline of bureaucratic hierarchies is significant” (Aneesh 2009: 367). Where bureaucracy implies known or knowable rules that operate in particular socio-legal environments, and a modicum of reciprocation between workers and firms in terms of a longitudinal career path (Edwards...
1979), algocracy implies a more or less universalizable logic that overcomes particular contexts, and long-term obligations to workers (Aneesh 2009).

In this chapter, I examine the ways that algocracy (Aneesh 2009) and other techniques of managerial ideology and practice are used in the command and coordination of labor within warehouses and distribution centers. Managerial practices on the virtual and physical shop floor of warehouses include management-by-stress (Head 2003; Parker and Slaughter 1994), associated systems of standard work and the team model (Monden 1993 [1983]; Vallas 2003a), gendered and racialized workplace regimes (Muñoz 2008; Salzinger 2003) as well as precarity and the use of temporary employment firms (Bonacich and De Lara 2009; Hatton 2011; Rogers 2000; Smith 1998).

Here, I draw on my worksite observations in an effort to “extend” theoretical insights (Burawoy 1998) on the sociology of the labor process to warehouses and distribution centers.

In so doing, this chapter applies existing insights on the sociology of work emanating from those perspectives to a new case. Further, it is intended to improve existing theory on the labor process by providing the framework for its synthesis with perspectives on globalization that seek to overcome nation-state-centric sociology (Levitt and Jaworsky 2007; Robinson 1998; Sklair 2001). Overall, this chapter prepares the way for the discussion of class formation in the global era as it develops on specific shop floors like the ones on which warehouse and distribution center workers labor.
PRESSURES TO PRODUCE

Warehouse workers are under constant pressure to perform their tasks very quickly. Our scan rates ideally reached four per minute, or 240 per hour. While that sounds easy enough—grab packages, scan the label, place the package, scan the pallet location, repeat—making rate in practice is quite difficult. If one tried to build pallets as described above—stable, safe, and level—a rate of four per minute is highly unlikely. In fact, a site manager told me in passing that the industry standard for similar operations is 150 scans per hour. Our stated rates were actually unachievable goals for most workers, but the management-by-stress technique of intentionally oversetting goals led us to significantly out pace the industry standard.

Nonetheless, I was admonished that my rate of eighty-eight percent of the goal was not high enough. Even though I had accomplished an average of 210 scans per hour, exceeding the industry standard by nearly one and a half times, I was told that I could do better—and must if I wanted to avoid points being deducted from my quarterly maximum bank of sixteen penalty points (see also McClelland 2012). If that were to happen in a given three-month period, I faced termination. To be clear, direct-hires like myself were not subject to a point system proper; the temporary workers on the floor were, however. The direct-hire deduction program functioned similarly, and involved deductions of privileges for productivity violations, tardiness, early punching in, or too much unpaid time off being taken, but details of that program are likely proprietary. Regardless, an “accrual” of too many deductions in either system potentially leads to termination for direct-hires and temps alike.
As a result, rate busting is common. Managers praise the rate busters in standup meetings before each shift, and the individual—usually among the youngest on the floor—is awarded something like a five-dollar gift card for a fast food joint. Far from the rule-bound bureaucratic incentives to meet standards discussed by others (Edwards 1979; Burawoy 1979), such inducements are produced at the discretion of floor managers, and have no official bearing on workers’ performance evaluations overall. In fact, it is important to note that worker resistance helped to limit the impact of management’s efforts to control workers through incentives. Indeed, only after a series of epithets from other workers, reporting of substandard pallet building practices to shift leaders and managers, and worker-to-worker denouncement for grabbing only light objects called, “jiffies”—envelopes and other small packages that can be collected by the dozens—do the rate busters realize that five dollars worth of deadly food is not worth the social costs on the floor. If one wants to stay around without someone threatening to throw an elbow in the pallets, or cause damage to one’s car, the rate busting usually stops. While I never witnessed violence on the floor, heated confrontations were frequent, and the retelling of workers’ corrective acts related to such incidents in the break room served both to blow off excess steam and provide entertainment to confidants.

ON THE VIRTUAL FLOOR

The actual rate of scanning, the number of errors, the location of the worker in the facility are all tracked by the worker’s arm-mounted scanner. The data are then transmitted to the facility’s warehouse management system, which is in turn linked to the
firm’s broader data handling systems that are used to execute its retail functions. From the individual movement of a carton by an individual worker, to the tracking of 100,000 or more packages per day across the hundred-plus workers on the floor, the data systems allow management to plan operations on three to four week intervals with a level of precision only dreamt about in Polanyi’s and von Hayek’s socialist calculation debates of the 1920s.

While, at other facilities throughout the commodity chain, the scanner directs the labor process by instructing workers to perform specific tasks, the scanner in the palletization function is used primarily to monitor and discipline the worker. Again, the data are tracked in real time by monitoring the clicks of the worker’s finger-mounted scan trigger attached to the arm-mounted scanning computer, but the worker’s interaction with the equipment does not stop there. Each click of the trigger initiates the laser as it scans the label—the actual directive device is the carton’s identifying markings that have a number and a letter that corresponds to a pallet location—as well as an audible “beep” that indicates the transaction is taking place. If the location label, scanned next and also prompting an identical beep from the computer, is correct, the scanner registers a visual prompt on its display screen indicating that the system finds the physical and virtual locations matching and acceptable. The worker moves on to the next package for the next location.

42 Scanners track commodities from the batches of raw materials used at various stages of production, to individual components assembled together into a single, salable commodity. Both product and labor can be efficiently and remotely tracked.
However, if the location does not match, the incorrect barcode is scanned—there are often four or five distinct codes on each carton that serve different functions at different points in the system—or one failed to close out the previous transaction prior to scanning the next package, an alarm sounds. “Beeboo, beeboo” triggers the worker to check the display and hopefully determine the appropriate course of action to rectify the mistake. In the event that one cannot remember the last package location on the pallet or even the pallet itself in order to re-scan, and has walked the length of the line to the next location, the problem cannot be rectified and the error is recorded against your measured work rate—a potential trigger to deduct penalty points. Thus, the scanner at once disciplines and allows the worker to hopefully correct the missed or improper scan, or leads to eventual punishment through penalty points or dismissal as the errors accrue.

In general, if one is working at a good pace, and can keep up the pace, the sounds emitted from one’s own scanner are the simple “beeps.” The warning indicator, however, is part of the constant din of the floor regardless of one’s own accuracy: one hundred other people are executing the same tasks, initiating correct and incorrect transactions from line to pallet as quickly as their legs can carry them, with as many cartons as their arms can hold. Lying in bed at night after an extended shift, trying to shake the soreness that is already creeping into one’s muscles, the constant “beeboo, beeboo” repeats in one’s ears over and over against the struggle to relax. In four hours, a worker approaching the expected work rate on the extended main line of a steel skate will walk nearly four miles—substantially less than workers in “pick and pack” facilities who may walk twelve or more miles in a shift—with a pound of computer equipment strapped to
one arm, and full hands carrying up to sixty pounds per trip from line to pallet. All the while the scanner beeps indifferently, or admonishes us for our mistakes on the basis of algorithms that link us to past and future moments of the labor process, as well as the coworkers and managers executing and monitoring the commodity circuit.

To reiterate, algocratic modes of organizing work (Aneesh 2009) provide an infrastructural background (Star 1999) that efficiently contributes to direction, evaluation, and discipline within warehouses and distribution centers—fulfilling Edward’s (1979) criteria for technical coordination and control over the labor process. Indeed, at individual, facility-wide, firm-wide, or inter-firm levels of coordination and control, algocracy enables specific individuals in specific locations to contribute their labor-power to geographically distributed production and distribution processes according to the overall plan that firms execute. In a commercial environment that demands “just-in-time” production and distribution, algocracy provides the ability to minimize labor inputs through accurate forecasting, and maximize speed through rapid transmission of data. The retail firm that employed me, like many of its competitors, is testing same-day delivery in many of its largest markets. From customer “clicks” on the firm’s website indicating the order to begin the pick, pack, and sort functions in the warehouses and distribution centers, to the final delivery of the product to homes and workplaces, a set of algorithms will largely guide each step workers make. Further, algorithms will dictate the orders for replenishment from suppliers back through the commodity chain, *ad infinitum*, as inventories diminish—thus setting in motion labor processes across firm and geographic boundaries.
However, the digital and technical infrastructure still requires cultural and ideological mechanisms that allow workers and managers to function in workplaces guided by algocracy. In the section below, I discuss the ways that algocratic structures diverge from elements present in the bureaucratic systems observed by Burawoy (1979) and Edwards (1979), as well as the ways that logics of continuous-flow production coupled with drives for standardized work combine to create a workplace regime of “management-by-stress” (Head 2003; Parker and Slaughter 1994). As such, workers face precarity (Kalleberg et al. 2000) both in terms of temporary or nonstandard employment (Hatton 2011; Rogers 2000; Smith 1998), and in terms of workplace cultures they endure in their daily effort to escape mere subsistence, or at least earn their poverty-level wages (see Allison et al. 2014; Allison et al. 2013; De Lara 2013b; Struna et al. 2012; and chapter three above).

**CHANGING THE GAME: WAGES—NOT PIECE RATES**

One important consideration in this process is that, although I was monitored on the basis of per-piece output, I was working for a fixed wage. Contrast this with Burawoy’s (1979) experience where:

> For each production operation the methods department establishes a level of effort, expressed in so many pieces per hour, which represents the ‘100 percent’ benchmark…below [which] operators receive a base rate for their job, irrespective of the actual number of pieces they produce. Above this standard, workers receive…the base rate [plus] a bonus…in excess of ‘100 percent.’ (Burawoy 1979: 49)
No such bonus system was employed on my shop floor, and to the degree that bonuses were offered they were never regularized or predictable. The only “bonuses” advanced were the infrequent five-dollar gift cards to In-and-Out Burger for a given night’s top producer, as alluded to earlier, or the potential to be selected as a shift lead in the future—neither of which came with a raise or other enduring *material* incentive. Thus, the type of “gaming” within the piece rate model that Burawoy (1979) references—predicated on workers efforts achieve or exceed production rates according to hegemonic, or consensual domination (Burawoy1979)—is absent in this case.

The type of cheap bonuses offered my coworkers and me in 2013 resemble those described by Parker and Slaughter (1994) nearly twenty years prior. I experienced two pizza parties as a bonus for our shift’s productivity rates, and had pizza parties mentioned in interviews by a high-level manager contracting for a global retailer as a group bonus for temps at his facility.

Further, the idea that “activities on the shop floor [appear] as a series of games in which operators attempt to achieve levels of production that earn incentive pay” (Burawoy 1979: 51), falls apart in systems based on teamwork and management-by-stress (Head 2003; Parker and Slaughter 1994). Instead of “target[s determined] on an individual basis, varying with job, machine, experience, and so on” (Burawoy 1979: 51), targets are more closely determined by technical and algocratic pacing determined well in advance (Aneesh 2009; Edwards 1979), and are set for groups of individuals within a given task-based work unit (Parker and Slaughter 1994). This is not to say that piece rate schemes are not possible. In fact, one of the wage theft cases associated with Schneider
Logistics, Walmart, and their temporary agencies (the *Carrillo v. Schneider et al* case) involved a “group piece rate” where groups of workers were paid by the container load. Their individual hourly wage amounted to $4.00 per hour under that system (Warehouse Workers United 2012a). As such, neither the incentive system, nor the individual basis of bureaucratic structures existed in that scheme. The worst of all worlds was present in the form of wage theft coupled with high rates of collective production—the only incentive offered was the opportunity to keep one’s job. However, despite that exceptional case, my worksite observation was conducted under hourly wage conditions, and the majority of my respondents in interviews were hourly workers.

This is also not to say that games are not played, or that gaming is not engaged as a means of inducing “‘voluntary servitude’” within the labor process in the warehouse. Workers still use such techniques to ameliorate the “inexorable coercion of coming to work” (Burawoy 1979: 80) insofar as they engage in activities like singing and moving to the rhythm of machines on the line, joking with one another, competing against oneself to improve one’s rate, or in my own case striving to build the perfect pallet and meet my rate simultaneously! Yet, the structure of the algocratic shop floor changes the nature of the game. Instead of competition between individualized workers who “put their machines into motion single handedly,” or a situation where “workers control their own machines instead of being controlled by them” (Burawoy 1979: 81) the discipline and direction of the scanner dictates flow with little negotiation between workers and management. Here, the “rules of the game” are more closely “experienced as a set of externally imposed relationships” with less opportunity “to manipulate those
relationships” (Burawoy 1979: 51) than in other workplace regimes with less precise degrees of coordination and control.

The flow of goods on the near-continuous process basis also alters the game: algocratic systems permeate warehouses where conveyors, automated sorters and, in some cases autonomous guided vehicles, move goods in conjunction with human labor.45 There is very little opportunity to engage in individualized practices that allow for self-actualizing creativity or self-expression akin to the craft-like labor process of the machine shop. So, while it remains the case that, “insofar as games encompass the entire labor process, the value system to which they give rise will prevail on the shop floor,” some games “render the interests of workers and management irrevocably antagonistic” (Burawoy 1979: 85). In warehouses and distribution centers, the algocratic labor process combined with the need for concerted, but incremental production activities creates stresses that leave little room for the observation of a functional reward structure workers regard as fair.

These arrangements constitute a type of despotic labor regime (Burawoy 1985; Muñoz 2008) in which restrictions on the range of actions workers engage in the labor process are greater than in hegemonic systems that require significantly more worker consent and input (Burawoy 1985; Muñoz 2008). It is the mature manifestation of Burawoy’s (1985) “hegemonic despotism” insofar as it is not merely the cudgel of

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45 Autonomous Guided Vehicles (AGVs) are robotic systems that move shelving systems from storage areas to workers. Instead of workers picking a product from the stacks and delivering it to another worker to pack the goods, the stacks move to the worker who then pulls the product for packing. Such systems were installed in the pick and pack facility adjacent to ours shortly after I left the firm, and reportedly increased usable space by close to fifty percent.
offshoring wielded against workers according to “the ‘rational’ tyranny of capital mobility over the collective worker” (Burawoy 1985: 150), but the algocratic linking of firms already offshored to workers who may have never experienced a workplace with a hegemonic, reward-based, corporatist regime. As Burawoy (1985) asserts, hegemonic despotism is “not the resurrection of the old” or the “arbitrary tyranny of the overseer” (Burawoy 1985: 150); it is far more systematic in its structuring of the labor process.

Further, the algocratic regime is coupled with management’s persistent drive for standard work. Universal standard practices designed by process engineers are constantly reiterated through verbal instruction, visual process “maps” or diagrams, videos, and slogans. For example, collective reminders of the importance of working to standards in order to achieve daily output goals are repeated at the beginning of every shift in a “standup meeting.” During such meetings, which typically lasted five to ten minutes, workers on a given shift are informed of the collective goals for the shift or the day by management, and reminded of the values and processes they are expected to accept and perform. There, workers are asked by managers to provide examples of standard work practices, whereby volunteers recite, “Check your scanner after every scan!,” or “Wrap pallets three times at every layer!,” or my personal favorite, “Build your pallets from the corners in!” After a sufficient number of standard work practices have been recited, instructions on standard safety practices are similarly elicited. Should the group of 100-200 or so “associates” fail to produce volunteers for recitations, workers would be “voluntold” (arbitrarily picked by managers) to offer standards, and reminded to do so
If needed, standard process diagrams (identical to the charts available at each work station) on wheeled racks could be reviewed and discussed collectively.

Next in the standup meeting, workers would be publically admonished as group for not meeting the collective output of the shift working before us, or individually named for failures to meet quotas on previous days—consistent with Chun’s (2001) work on lean production methods in the electronics industry. Alternatively, rate busters would be held up as an example of how to achieve and surpass standards—models of heroic labor we should all emulate. After a round of applause and praise for the rate buster, or for being willing to correct our mistakes, a worker would be selected to lead the group in stretches designed to reduce fatigue and potential injury. Stretching also served to reinforce the fact that we were to move in concert as a team: visible evidence that the whole labor process was a highly choreographed game, and that we all had to play our part. Finally, the group would be led through a call-and-response chant by a rambunctious worker or manager: we would literally collectively sing the praises of the firm, and our sortation functions before actually handling materials. To be sure, even the standup meetings have a standard format, with conditionals—if X happened, then discuss, or chant Y—that determine proper procedure.

Consequently, the type of verbal and direct coordination and control of the labor process layered on top of the algocratic methods do not represent a return to Edwards’ (1979) modes of simple control. Instead it is a more sophisticated, planned, and

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46 Emotional labor (Hochschild [1983] 2003) is a component of the process as well. Volunteers and managers leading the standups are expected to convey a certain amount of conviviality and excitement about the standards in order to induce similar feelings in coworkers.
collectively choreographed direction of the labor process that attempts to mobilize
canned charisma and teamwork in the service of the firm’s goals (Parker and Slaughter
1994; Vallas 2003). To the degree that informal controls are used in a way that
resembles the despotism of previous periods (Burawoy 1979; Edwards 1979), it is
through the immigration, race, ethnicity and gender regimes (Muñoz 2008) superimposed
on the shop floors in various ways (discussed in this chapter below). In particular, the
distribution of jobs through task rotation can reproduce gendered divisions of labor;
workforces can be racialized and marginalized on the basis of (real or imagined)
immigration status; different types of idealized femininity and masculinity can be
employed in the service of the firm (Muñoz 2008; Salzinger 2003). Yet, such practices
and ideologies are deployed alongside other methods of control. As Salzinger (2003)
asserts, there are “parallel disciplinary edifice[s]” that exert more or less formal pressures
on workers in different ways (Salzinger 2003: 63).

In all, the game structured by algocracy and standardization provides little room
for “making out,” or using the game in a way that can cushion one’s own rate in down
times by exceeding rate when possible (Burawoy 1979). And, while cooperation among
coworkers frequently serves to mitigate individual failings on a given line at any
particular time, the emphasis on competition between different shifts, work teams, or
individuals, combined with individual labor tracking via recorded scans limits the degree
to which help by others can offset individual quota shortcomings.

To further facilitate standardization, consider the case of training and facility
opening. Almost all of our trainers in my facility were from other cities or regions
(including internationally): Cincinnati, Philadelphia, North Dakota, Pacific Northwest, Greece, etc. Most traveled within the bounds of the institution, and the US in this case—although I would not rule out travel to other nation-states to execute the exact same training for workers in other geographies. As the firm expands into new places (extensive enlargement), or increases the types of products or services it handles (intensive enlargement) experienced workers are shipped from different points in the commodity circuit to different operational locations. And, while this sometimes means transfer, it may also mean perpetual temporary migration for the firm as it grows. The trainers in our firm were not specialized managers who were selected to open new facilities: they were rank and file workers who were offered a small premium to travel, train others for two weeks, and then return to their own lines in their home facilities to execute the tasks they trained others to do.

The geographic scope of the labor power expenditure can either be local (within nation states) or global (between nation states), and with relative fluidity. Worker-trainers are thus members of a working class fraction that is dynamic (fluid across geographies with legal ability to move), and local/global insofar as their relation to the process of production remains essentially within the boundaries of the firm either within or between geographies. Management thus relies on these workers to transmit standard practices to other workers without significantly altering their class position. One of the trainers that worked with us during the facility opening remarked that he was frustrated

47 In the case of our Greek trainer, he was an immigrant to the US who had worked for logistics firms in Greece. In many ways, his experience bridges the local-global divide insofar as his physical mobility in the period I encountered him was relative to US state-state travel and work, but his previous mobility was transnational.
that his wage at home in the Southeast—having worked for the firm for several years—
was less than ours as new hires in California. The tasks in each facility were identical—
he was there to ensure that—but the wage rates differed by region.

Such differences in compensation, and the awareness of differentials across the
firm should not, however, trigger the instinct to ascribe a primarily local or regional class
character to workers (Embong 2000; Hardt and Negri 2001; Harvey 2006). Despite
uneven rates of exploitation that vary geographically, management regards workers
across facilities as interchangeable, and strives to impose standard work across sites
simultaneously. The firm’s awareness of the interdependence of each site on the others,
and the holistic approach taken to the coordination and control over the whole network
should trigger an analytical shift on our part as social scientists. Workers engaged with
the firm—the institutional manifestation of transnational capital—share more across sites
by virtue of participating in the labor process than the regional differences in
compensation or local culture suggests.

Pacing is determined in advance for the vast majority of workers on the floor—
according to one manager’s statement the “analytics” the firm uses allows them to
operate on a “twenty-one-day plan.” For those five-or-so workers per shift lucky enough
to be chosen as shift-leads, and so escape scrutiny on their rates, their compliance offers
only the reinforcement of standards in others, and a modicum of elevated status as the
reward.

Unlike even the “team leaders” addressed by Parker and Slaughter (1994) who
were rewarded by “an additional 50 cents an hour” for monitoring others, making up for
staffing deficiencies, and training new workers in given tasks (Parker and Slaughter 1994: 46), shift leads in our system assumed those responsibilities for the same rate of pay as the rest of us. To be sure, shift leads had a greater chance of being hired on fulltime after the end of peak season, or being offered a promotion to management, but those promises frequently failed to materialize for most of the five or so shift leads I worked with, one was converted to a direct-hire, and one was given fulltime status. Others have either left the company or remain on regular, part-time line positions.

Algocracy and the concomitant standardization imperative provides a reversal of the game as “worker initiatives” to find “means of enduring subordination to the labor process” (Burawoy 1979: 86). It is a game that is highly “regulated, coercively…by management” (Burawoy 1979: 86), insofar as it offers the pressures of piecework, and the rules-based structuring of bureaucratic control, without either the material rewards or the possibility of advancement. In the effort to extend coordination and control to every aspect of working life, algocracy and the various forms of “flexible” management schemes represent the appropriation of the game by capital and its agents. Where workers once used informal networks to engage in teamwork, management now mandates it. Where competition between colleagues or comrades once served to minimize drudgery, it now forms part of standard practice.

THE NAME OF THE GAME IS “MANAGEMENT-BY-STRESS”

Head (2003) correctly identified the name of this game as, “management-by-stress” in his application of the concept to call centers. Parker and Slaughter’s (1994)
work of the same name, from which Head (2003) borrows the concept, focuses on seven modalities of management-by-stress, emphasizing the fact that “the remarkable productivity figures cannot be attributed to any single” aspect:

1. Speed-up—ways for workers to do more in less time
2. Just-in-time (JIT) inventory and production
3. Extensive use of outside contracting
4. Technology designed to minimize indirect labor
5. Design-for-manufacture—products specifically designed to reduce indirect labor costs
6. Methods to reduce [waste]
7. Tighter management control. (Parker and Slaughter 1994: 24)

These principles have been closely identified with the management of the auto industry (Lepadatu and Janoski 2011; Parker and Slaughter 1994; Tuckman 1994). This is largely because of the success of Toyota, and the “Toyota Method” as imagined and espoused by Monden (Monden 1993 [1983]), an early academic analyst and proponent of Toyota’s innovative managerial praxis. However, the concepts and practices used in auto manufacturing permeate various literatures in their analysis of various industries and represent core concepts and practices within contemporary managerial ideology (Hill 1991; Juravich 1985; Khurana 2007; Leidner 1993; Vallas 2003a; Vallas 2006; Vallas and Beck 1996; Zylstra 2006). While there are a range of names, and specific programs for this form of managerial praxis—Kaizen, Continuous Improvement, Total Quality
Management, Lean Production, Six Sigma, Toyotaism, to name a few—and terminological fads come and go with each permutation, the overall effort to extract productivity on these bases is endemic in transnational corporations (Dicken 2007; Sklair 2001). All share emphases on numeric (labor force size) and functional (task) flexibility, just-in-time delivery, significant reduction of labor inputs including managerial strata, and frequently, some variety of team-based work practice.

In terms of the latter, it is important to note that “teamwork” is more euphemistic than accurately descriptive. Despite “the ideological hype…the main significance of teams is that they are simply the name management gives to administrative units” (Parker and Slaughter 1994: 35). In practice, the structure of teams rarely contributes to the empowerment of workers. Even in early ethnographic accounts of “quality circles” and team-based structures, the team concept is viewed as an “avenue…for increasing productivity and exerting more discipline on the shop floor,” and not in actual humanization of work despite its “rhetorical function…in advertising” (Juravich 1985: 125). Further, in cases where teams are structurally cooperative, continuous improvement “project teams [are] usually dominated by salaried or management employees, whose suggestions and proposals overwhelm…those made by other participants” (Vallas 2006). In all, teamwork in the labor process constitutes a function of coordination and control for capital—not a mode of access to autonomy and agency for labor.

Frequently the goal of a team is to engage in “continuous improvement” activities that have the goal of eliminating team members by making an individual’s labor
redundant (Parker and Slaughter 1994: 73). As in the case of the “splitter” position described above, our “team” was required to compensate for staffing shortages—induced by intentional tests of the system by management, or worker absenteeism—and thus continue to do the work assigned on the line. I frequently did the work of two people, without reducing productivity rates for workers in the scanner positions, and therefore worked as a member of the “team.” All rhetoric aside, the goal of continuous improvement within teams is not to “divide the tasks evenly among” workers (Parker and Slaughter 1994: 74), but to show where reductions in staff can be made by redistributing tasks to remaining workers when the system is tested by “stress.”

Toward the end of my site observation, a newly hired temporary worker in his early 60s was placed alone on the line as a facer. That is, he had no companion opposite his position to assist in the facing functions, and was thus responsible for both the “A” and the “B” side of the line on what would turn out to be a busy night. At six-foot-five, he represented the picture of hegemonic masculinity just past his prime: he was white, a former manager in a sales and service industry, and was used to dominating a conversation. As the product started coming down the line he joked with everyone, as we came to expect from working with him, but quickly became flustered as the flow of packages overwhelmed him. He began to shout, “WE NEED SOME HELP OVER HERE!” And, continued to shout it until one of the firm’s managers came over to inspect.

The manager tried to offer instruction on how to handle the flow for two positions, but the worker’s rage increased: “I CAN’T DO THIS ALONE. WE NEED SOME HELP OVER HERE!” The manager disappeared, and moments later two green-vested
managers from the in-house temporary staffing agency—the “employer of record” for the enraged giant, and half of the other workers on the floor—appeared and began to instruct the worker on standard practice. He continued to protest loudly, but was admonished that if he raised his voice to the firm’s managers, or temporary agents again, he would be terminated: “You can’t treat management like that. And, if you can’t do your job, you can leave.”

The fellow was unaccustomed to being managed, and perhaps approached the avalanche of goods in an inappropriate manner, but his reaction to the stress induced by the flow did not seem unreasonable. In fact, for the rest of us who were beginning to regard the pressures of the line as normal, his astonishment that he would not be given help, that the “team” would not be stepping in, and that management expected him to perform standard operations under non-standard conditions, served as a reminder to us all that work did not have to be organized under those conditions. Our “normal” was not necessary, or natural in working environments, but it was a fact of life in the warehouse guided by the ideology of “continuous improvement”—or management-by-stress.

Coincidentally, on the same night, after many of our coworkers had been sent home or offered the opportunity to leave the shift early (without pay!) for “voluntary time off,” management informed us that the offer would be rescinded. Voluntary time off was cancelled, and volunteers for overtime were sought.

In fact, time use constitutes a core mode of control and discipline over workers in general. When I was first hired, I recorded the following in my field notes:

The flexibility tests continue: “Given that you are scheduled to be off on [sic] tomorrow (Monday), I wanted
to see if you had the flexibility of adjusting your schedule for this week only and work Sunday through Thursday from 5:30pm to 9:30pm and be off the rest of the week. By doing this, it will not only let you stay in the same training groups as you were this evening but it will also help out our trainers tremendously as it relates to scheduling” (personal firm email communication). Of course, I said “yes”…, but let’s consider the record so far: the initial hire date of September 1, 2013 offered July 26, was changed (with my consent) to August 18, 2013, and the orientations ended up being scheduled for August 15 and 16…. My actual start date was thus, August 15. On Friday night, August 15, I was informed—contra orientation notification stating [that] one starts on day one of a normal schedule, i.e. Wednesday—that my actual first training shift would be August 18 [Monday]. I have not once engaged an activity on a date originally stated, and so far have committed to 5 schedule changes having only 3 training shifts under my belt. What’s next?!

These notes demonstrate a test of workers’ flexibility and ability to adapt to the just-in-time production demands of management in the retail and logistics industry. It is a test of loyalty and commitment to the firm’s expectations that one be more or less on call. In the event that workers cannot meet scheduling changes, they risk termination. As reported in interviews, failure to even answer one’s phone when the temporary agency calls to offer a position, could mean not being hired through that agency again for any position. Such schedule adjustments continued throughout my observations, and put significant limits on my ability to plan in my non-working life.

Alternating between “voluntary time off” requests (being asked if we wanted to leave our shifts early) and standard or even extended shifts not only strains social life outside of work in terms of family or other commitments—it strains circadian rhythms like sleeping and eating patterns. Consequently, time-flexibility demands potentially
contribute to attrition rates and worker turnover. On the margin there are costs to training replacements, but the standardization of tasks, goals of interchangeability of laborers, and large reserve army of low-wage workers in the region makes up for the sunk costs when workers cycle out of work in stress-managed operations. Beyond such fringe benefits to firms obtaining from this model, flexibility demonstrates the degree to which control over time extends to non-work contexts.

By way of a negative example, the case of my own forklift training exemplifies the importance of standardization to management. My trainer was among the very few vocally disgruntled coworkers I encountered on the shop floor—having been rejected by management as a supervisor candidate despite seniority and skills that suggested qualification—and one of the few to actively question the difference between the ideology and practice of continuous improvement. A Black man in his forties, Mr. Green had worked in warehouses in the region most of his adult life, and had seen the transition from forklift positions commanding a wage premium to a task compensated like any other in the warehouse. His advice to us in our 9:00PM to 2:00AM training: “Do not become essential, or too important in your area. You will not be able to move up, because your manager will not promote you if you are essential.” During much of the training, he reiterated this assertion while he partially covered the standards, and simultaneously advised to use his own technique—contrary to managerial standards. Given that he was among the only people certified on the full range of PIT (Powered Industrial Truck) equipment in the facility, he retained control over knowledge of operations in the labor process.
While his instruction was entertaining, and informative to me as a coworker and observer—both in a technical and class-theoretic sense—one of our colleagues was less than impressed with his methods. The first to fail out of the “PIT Theory” course, she reported Mr. Green’s insolence to management, and was readmitted to PIT courses contrary to firm policy that required a 30-60 day delay between instructional periods after failure. Mr. Green was promptly replaced as an instructor by a much younger white male coworker from a facility in the Southeast, and PIT courses were suspended upon his return to his home workplace.

The case above demonstrates that a qualified worker who refused to buy in to the language and task standards—in a specific effort to undermine management authority regarding a particular aspect of the labor process—was quickly replaced by a worker willing to accept and disseminate the standards in management’s terms. This was so despite the increased cost of “importing” a trainer relative to using someone local to the facility. Management would not risk either nonstandard task execution from newly minted workers, nor the contagion of dissent spread by non-compliant “experts.” As Braverman (1974) asserts, management is the conscious execution of “the formerly unconscious tendency of capitalist production…to ensure that as craft declined, the worker would sink to the level of general and undifferentiated labor power,” (Braverman 1974: 121). Mr. Green’s individual rejection of standard work and managerial authority, and management’s swift disciplinary action to restore it, shows that the notion of ensuring “undifferentiated labor power” applies not only to the mode of production.
generally as a capitalist class project. It is executed against individual laborers in specific workplaces.

A final example of the near total control over time demanded by firms that employ “flexible production” and just-in-time production techniques comes from my attempts to find warehouse work in the region. At a “job fair” advertised through online want ads, I was told that contrary to the advertisement, “only fulltime workers would be hired” at the time. When I asked the human resources worker if they would work with school schedules, she said: “No. We don’t work with schedules at all.” She took my application materials and assessment tests I had just taken and placed them in a pile with others. I let her know that I would be available nonetheless, and she retrieved my file and wrote “flexible schedule” on the cover, placing it on a different pile. Although I did not get hired by that firm—a local logistics operation that handles food for a global retailer—it was an important reminder that “flexibility” is the employer’s tool, and not an asset to workers industry advocates commonly claim (Kalleberg 2000; Vallas and Prener 2012).

Given the amount of real-time information management has about the flow of commodities into the sortation facility from other warehouses and distribution centers in the system, it is difficult to imagine staffing scenarios to be a product of accident or lack of planning. “The system itself is designed so that any deviation in the process—any failure by a worker or any other part of the system—is immediately exposed and magnified. At all points in the system, the consequences of error are substantial…and sometimes those consequences are even purposely made worse” (Parker and Slaughter 1994: 83). Whether induced by local management to test us on the floor, or induced by
executives further upstream to test our facility’s ability to overcome adversity, our system was being stressed to see if the production rates could still be met under suboptimal conditions.

In fact, management-by-stress succeeded in pushing past perceived limits at my workplace. We regularly exceeded the expected production rates during my tenure there, and my coworker-informants reported that they regularly exceeded performance goals through the peak-period after I left (Thanksgiving through the day after Christmas). The system compels individuals, and workers as a group to normalize precarity and incessant work (Ciscel and Smith 2005) in the quest for truly continuous improvement.

TEMPORARY WORKERS AND THE PRESENCE OF THE AGENCY

In the descriptions of the labor process above, little distinction is made in the discussion of the division of labor regarding temporary workers and direct-hires. From the very beginning of our training process, direct-hires like me were grouped with, and trained alongside, workers hired by the in-house temporary agency contracted by the firm to provide human resources functions for half or more of the facility’s workforce.48 In fact, our initial orientation was conducted in “the temporary agency’s” conference room—roughly half of us were direct hires and half were agency hires—located in a suite within the warehouse. Directly across the hall, the firm’s own human resources personnel frequently partnered with the agency in onboarding (worker hiring and

48 The percentage of temporary workers would shift upward or down depending on demand, and seasonality.
orientation activities designed to bring people “on board” with the firm’s system), paperwork, and other administrative tasks.

Supporting the findings of Smith (1998), on our shop floor the division of labor for direct-hires and temps was not significantly different: we all were trained in the same standard work practice tasks, shared the same terms and jargon, and were equally afforded access to apply for specialized activities like PIT (forklift) training, shift-lead, and quality control and auditing tasks. To be sure, insofar as our group of workers was being trained to open the facility, direct hires and temps alike were being trained substantially more than those workers who were hired a month later. Where we received two full weeks of training before handling real product, the next batch of temp hires—at fourteen days operational—were getting two days of training. At one month past startup, new temp hires were receiving mere hours of advance training in standard practices by comparison. Still, even where workers were thrown on the line for more or less on-the-job-training, we all were subject to instruction by shift-leads and firm managers who could assess and redirect workers at will. And, we all performed the same tasks regardless of period hired. Cross-training on all standard positions was religiously enforced whether direct-hire or temp.49

49 PIT instruction was not available to all employees despite many applying for training. Instruction was distributed on a first-come basis, and was only available for twenty or so of the initial 100 early temp and direct hires insofar as training is expensive, and PIT shifts are scarce. The real value of PIT operation for workers derived from the fact that one had the opportunity to be pulled off of scanning lines to run the forklifts. It broke up monotony, and was less closely monitored by digital observation. There was also a perception that PIT certification was a portable skill that could be taken to other firms that did offer a wage premium.
Again, the notion that any given worker should be able to fulfill most tasks with few exceptions drives the open division of labor. Horizontal task assignment, like the idea of teamwork, is frequently touted as an attractive aspect of work arrangements within firms that rely on flexible managerial praxis (Chun 2001; Kalleberg 2001; Parker and Slaughter 1994; Vallas and Beck 1996). Task rotation is sold to workers as a way to avoid burnout, and enhances feeling of equality among temps and direct-hires. On the other hand, it minimizes premiums for specialized or “skilled” labor. Despite being trained and certified on two different types of PIT, I received no wage premium for learning and executing forklift operations—a task that I can assure remains a skilled trade regardless of the industry largely eliminating it as a distinct job title. Thus, in most tasks that are considered standardized, the laborer is ideally regarded as interchangeable whether temp or direct-hire. In the warehouse, Smith’s (1998) electronics firm, white-collar functions (Hatton 2011), or other contracting contexts (Chun 2001) “the importance of the generic hard-working employee” is ideologically ubiquitous (Chun 2001: 148).

This is not to say that differences did not, or do not exist! The difference between temporary workers and direct-hires was immediately visually recognizable: our direct-hire employee badges that hung from our necks on lanyards were green. Temporary workers’ badges were white, and had the agency logo clearly visible. Further, the

50 Like many other mundane facts, the color of the badges are likely proprietary for both the firm and the agency. I have changed the colors in the description to prevent identification. In terms of the firm’s direct-hire badges, the name of the corporation is intentionally left off to prevent a lost or stolen badge from being used by an individual trying to gain entry into a facility anyone would immediately recognize.
firm’s shift-leads wore purple high-visibility vests, while the agency shift-leads wore yellow. In both cases—conventional temp and direct-hire line workers, and agency versus direct-hire shift-leads—coworkers and managers alike instantly knew the employer of record.

Thus, like the jail inmates described by Walker (2014), the colors one wore on the floor indicated status among peers and superordinates, and identity between different groups within the institution. Groups at the warehouse frequently describe each other by badge color—i.e., “check out that green badge over there”—or would ask in cases of unknown identity in conversation, “what color is her badge?” (see also Smith 1998). At the firm, it also indicated a degree of privilege: only direct hires could take home or wear company “swag” like company-branded T-shirts, water bottles, notebooks, etc. While such regalia may seem insignificant, it did serve to reinforce who was actually part of the in-group contrary to rhetoric of teamwork. Temp workers, despite functional equality on the floor, are regarded as poseurs attached to the firm until (or, more accurately, if) they are “converted” to direct-hires.

That distinction is most clearly marked by a wage differential of fifty cents: on our shop floor direct-hires made $11.50 per hour, and temps commanded a wage of $11.00.51 As is typical in the US workplace, we were asked not to discuss wages with

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51 While this wage is low relative to cost of living in Southern California—especially for part-time workers holding only one job—compare it to regional averages: “Overall, warehouse workers report low wages, with an overall average hourly wage of $10.46; while direct hire workers earn an average hourly wage of $12.56, temporary workers earn an average hourly wage of $9.42” (Allison et al. 2013: 2). The fifty-cent difference on our shop floor was relatively small compared to the nearly $3.00 per hour difference suggested by regional averages.
each other, but that wage difference between types of workers was readily known on the floor. Resentment toward direct-hires was frequently expressed by temps for executing the exact same tasks—frequently better—for 50 cents less per hour. While such resentment was often made known in passing, or in a half joking way, the resulting social distinction was palpable. When compounding temporary versus direct-hire differences with intersectional concerns of race, class, and sex and gender (discussed below) the resentments often became more acute.

Another practical difference between worker types regarded managerial communications. Both direct-hires and temp workers were instructed, assigned, monitored, and disciplined by firm managers. However, in the case of temporary staffing agents, their direct communication was mostly proscribed to workers hired by the agency. While agency shift-leads and managers could intervene directly to correct or discipline direct-hires, they more frequently would inform firm managers of problems with direct-hires to have firm managers assert discipline instead. Thus, temporary workers effectively had two lines of management and supervision, while direct-hires essentially had only one. This is so both in terms of direct managerial monitoring on the shop floor, and access to digital labor-tracking records available to both the firm and temporary agents for temporary workers. For this reason, among others, temporary workers are frequently regarded as working under “dual-employment” relationships with both their employer of record (the temporary agency) and their employer’s contractor (or employing firm) (Carrillo, et al vs. Schneider, et al Counsel for the General Counsel--Division of Advice 2014; 2013).
In talking with workers on the line, and during breaks or off-time social functions, temporary workers frequently had previous experience in the warehouse industry as temp workers. That is, they had previous or concurrent employment at other warehouses and distribution centers. Several coworkers worked simultaneously as temps for the agency contracted by the firm at our facility, and as temps for another global competitor at a facility less than a mile away that contracted with yet another global temp agency. To be clear then, under the joint-employment arrangement, those workers holding two jobs in different facilities, in different systems, essentially labored for four firms. For such workers, the institutional boundaries among their various employers was commonly complex and blurry.

This is not to suggest that the direct-hire relationship removed workers from a state of precarity (Vallas and Prener 2012). The vast majority of workers on the floor had only their single part-time jobs, and many were only hired as seasonal workers—thus being direct-hires, but nonetheless, functionally temporary. The importance of functional flexibility in the division of labor on the shop floor cannot be overemphasized. Like the experience of interview subjects who found their employers’ use of race, ethnicity, and immigration status to have a downward leveling effect where “all workers” felt they were treated as though they were undocumented, direct-hires and temporary workers alike feel as though they are contingent, and their work is precarious. Lack of ability to specialize, or advance maybe experienced differently—temporaries hope to convert to direct-hire, and direct-hires hope to convert to full time—but the horizontal division of labor reduces workers to their functions equally.
Other researchers have shown that the precarious employment model is dispersed globally and locally in the contemporary era (Aneesh 2009; Anner 2007; Appelbaum and Lichtenstein 2006; Bonacich and Wilson 2005; Bonacich and Wilson 2007; International Labor Office 2012; Kalleberg 2000; Peck et al. 2005; Rogers 2000; Smith 1998). I have tried to show that firms in warehouses and distribution centers rely extensively on this model, and that the techniques of flexible specialization—otherwise known as management-by-stress—and algocracy have been combined in ways that have significant impacts on workers in these environments.

In many ways, my findings corroborate Smith’s (1998) work on the structures and consequences of temporary employment for workers embedded in workplaces that use temporary labor (Smith 1998). The impacts of the “decentered organizational form,” the obfuscation of power dynamics as a result of “self-managed work teams,” and the “‘multivalent’” power relations that stem from institutional complexity pertain to contemporary warehouses as much now as they did in Smith’s study (Smith 1998: 413).54 Further, Smith’s (1998) findings concerning the ways that precarity for temporary workers contributes to the “‘dualistic’ system of control” that simultaneously pits temps against permanent hires while tending to ally both groups with management’s interests (Smith 1998: 415) remains salient in my case study as well.

Modes of differentiating employees by using specific badge colors, and/ or excluding temporary workers from particular “meetings and social events” relative to permanent workers despite “day-to-day experiences of many temporary workers [being]...

54 Of note in the Smith (1998) study, some unspecified portion of the forty-five respondents were “warehouse, [and] distribution” workers (Smith 1998: 416).
indistinguishable from those of temporary workers” (Smith 1998: 417 and 419) continue to be used in the coordination and control of work in warehouses and distribution centers as shown above. Over all, very little has shifted: “temporaries’ work and class identity,” and I would argue direct hires’ too, “in part have unfolded within the material arrangements of production and hiring contracts” (Smith 1998). Some of the outcomes of those arrangements are the tendencies toward individualized approaches to resistance against domination, and the structural impediments to collective responses to the problems temps face (Hatton 2011; Rogers 2000; Smith 1998; see chapter six in the section on resistance).

The divergence between Smith (1998) and the findings in this study differ on only two fronts, and then only in minor ways. First, to the degree that anyone has effectively organized temporary workers in the US in addition to the landmark information technology cases identified by Hatton (2011), Warehouse Workers United and Warehouse Workers for Justice (Luce 2014) have established relatively effective campaigns that show that structural constraints for collective mobilization are not insurmountable—even if they remain significant. Further, insofar as other aspects of association and affinity emerge in workplace social relationships among workers regardless of formal efforts on the part of management to segregate workers by hiring status, temporary-direct hire camaraderie is substantial according to my workplace observations. Overall, the differences between groups of workers are smaller than the differences within groups.
The second divergence hinges on the interpretation of the nature of what Smith (1998) calls “decentralized systems of control” typical in the types of firms and networks present in this period (Smith 1998: 412). I am less convinced that the decentered-ness identified there and among others (Hardt and Negri 2001; Hardt and Negri 2004; Harvey 2006) represents a kind of breakdown in hierarchical capitalist relations that makes power less recognizable. To be sure, production relations are fragmented across geographies and institutional boundaries like firms, and power throughout those relationships is diffuse (Gereffi 1994; Gereffi and Christian 2009; Gill and Law 1989; Robinson 2004). Yet, power resides in highly identifiable and concentrated capacities within the networks that particular firms occupy (Bonacich and Wilson 2007; DiMaggio and Powell 1983; Gereffi 1994).

As suggested in chapter six below and elsewhere (Struna 2012; Struna 2014), the co-presence of third-party logistics firms, global retailers, and temporary firms has the capacity to confuse workers seeking to identify mechanisms for redress of grievances or injury, per Smith’s (1998) findings. However, warehouse and distribution center workers also recognize the strength and ubiquity of retailers and suppliers. The question of “for whom do workers labor” is readily apparent to many workers on the shop floor-temp or otherwise.

CONCLUSION

Regardless of the mix of the retailer’s physical presence, branding, equipment, and personnel, the information technology linkages discussed above provide a digital
window into the operations of the distribution center shop floor. Inventory monitoring through the scanning operations discussed in the section on digital coordination and control offer the retailer a virtual presence in the facility even when a physical presence is impossible. For workers, that digital presence acts like an electronic panopticon (Lyon 1993): one does not know if one’s individual production rates are being actively monitored at any given moment, but one knows that they could be. In facilities where the managerial ideology of the retailer permeates shop floor culture, and standards are rigorously communicated and enforced, the retailer’s possible presence is enough to induce compliance.

I want to emphasize the links between management-by-stress (Head 2003; Parker and Slaughter 1994), algocratic control (Aneesh 2009), temporary agency and other nonstandard employment (Kalleberg 2000; Smith 1998; Vallas 2006), and geographically distributed networks of commodity production (Dicken 2007; Gereffi and Christian 2009; Robinson 2004). The reciprocal effects that each of these have on each other, and thus the organization of the labor process, have enabled a marked shift in class relations insofar as they have increased managerial coordination and control, and elongated relations between labor and capital both geographically and institutionally. That is, the distance between agents of capital is frequently spatially significant in terms of transnational process, as many have argued. But, the institutional complexity fostered by contracting, subcontracting, and dual-employer relationships has served to create distance between—or in the very least complicate—the relations between sellers and buyers of labor-power.
The logics of management-by-stress, algocracy, contingent employment, and geographically dispersed commodity chains are carefully applied in warehouses and distribution centers—*religiously* in the firm I observed. As such, they contribute to economic and occupational precarity for low-wage workers, as well as physical and emotional stresses and strains. But, they must not be viewed in isolation or understood as pertaining to certain sectors only. Labor processes structured on this model of managerial praxis are precisely the mechanisms that enable globalization in the current period, and provide the material basis for patterns of wealth inequality documented in other political economy literatures (Alderson and Nielsen 2002; Firebaugh 2003; Robinson 2004). Without the reorganization of shop floors on the basis of algocratic management-by-stress throughout the supply chain, the current configuration of the global economy would be impossible.

In certain respects, Edwards’ (1979) analysis of technical systems of control over the labor process applies to the contemporary period with little modification. The core elements of “direction of work tasks, evaluation of work done, and rewarding and disciplining of workers” is achieved by “designing machinery and planning the flow of work to minimize the problem of transforming labor power into labor” (Edwards 1979: 112). The algocratic elements examined by Aneesh (2009) coupled with the continuous improvement/management-by-stress techniques chronicled by Head (2003) and Parker and Slaughter (1994) represent mere extensions of the “structural” logic of technical control “embedded in the technological…organization of production” (Edwards 1979: 112). As applied to the warehouse and distribution center, the identification of these
techniques in situ provides confirmatory evidence for previous research on technical control in the sociology of work and the labor process (Aneesh 2009; Edwards 1979; Vallas 2003a).

However, the “social dimension, the inherent class nature of capitalist production, is added to the evolution of technology” (Edwards 1979: 112)—and vice versa. Edwards (1979) and Chandler (1977) show that technical control was a capitalist class project allowing for the consolidation of regional and national geographies of production creating “multiplant concerns” (Edwards 1979: 55). Similarly, contemporary efforts to manage “multiplant” realities now extend to transnational geographies. This marks a repetition of the process under national network expansion where “the capitalist in his office was now separated from the worker on the shop floor” (Edwards 1979: 55). Yet, under contemporary conditions the geographic separation between capitalists and workers extends across even greater distance and/or national boundaries.

There is a reciprocal relationship between the structuring of the labor process, the size and shape of organizations, and relations of power. Extensive enlargement of the capitalist project and “this increasing size and complexity of industry [transforms] the authority relationship between managers and workers, and hence the internal organization of industry” (Bendix 1974 [1956]: 9). Further, while various technological, social, and geographic intermediaries exist—algocratic structures, strata of lower level managers, contract relations among firms, state boundaries, etc.—we should not assume that they substitute for, or in any way diminish the relation between direct producers and the purchasers of their labor power.
In fact, algocracy and task standardization undermine Bendix’s (1974 [1956]) argument that “the few who command must control but cannot superintend the execution of their directives” (Bendix 1974 [1956]: 9). Precise information about the execution of planned labor processes—even at great geographic and institutional distance—increases capital’s social control over workers. While “the human hierarchy and the capitalist organization of production that has produced the technology appear to recede” (Edwards 1979: 125) the accumulation of social power, not to mention wealth, suggests otherwise on closer examination.
CHAPTER SIX
CLASS FORMATION: TRANSNATIONAL RELATIONSHIPS AND MODES OF RESISTANCE IN THE GLOBALIZED LABOR PROCESS

The [Transnational Capitalist Class] has received the lion’s share of attention in research on transnational class formation. However, capital is not a ‘thing’ but a relationship; we cannot speak of global capital outside of its dialectical relationship with global labor…. It is the globalization of the production process that provides the basis for the transnationalization of classes, understood as groups of people who share a common relationship to the process of production and reproduction…. [They] are [also] constituted relationally on the basis of social power struggles. (Robinson 2014: 48)

CLASS FORMATION

For Thompson (1966 [1963]), Robinson (2014), and others (Hartsock 1983; Marx 1990 [1867]; Poulantzas 1975), the making of a working class as an historical formation is less a “thing” than an enduring set of relationships characterized by commonality of social conditions (Thompson 1966 [1963]: 10). From this perspective, it is undeniable that “class happens when some [people], as a result of common experiences (inherited or shared), feel and articulate the identity of their interests as between themselves and as against other[s] whose interests are different from (and usually opposed to) theirs” (Thompson 1966 [1963]: 9). The enunciation of class interests according to some sort of more or less clear comprehension of shared circumstances remains a hallmark of mature class identity, and a precondition for concerted class action.

However, like Thompson (1966 [1963]), “I am convinced that we cannot understand class unless we see it as a social and cultural formation, arising from
processes which can only be studied as they work themselves out over a considerable period” (Thompson 1966 [1963]: 11). Class formation occurs within specific historical contexts, and is emergent relative to the particular relationships people engage in concretely. On the other hand, “consciousness of class” is predicated on the experience of power dynamics primarily surrounding productive activities that constitute those relationships (Thompson 1966 [1963]: 10). It “arises in the same way in different times and places, but never in just the same way” (Thompson 1966 [1963]: 10 emphasis original). As class unfolds relative to specific conditions on the ground, its particular shape and modes of expression generate a particular form of class-consciousness. In much the same way individual human beings have a physical-material form prior to a developmental self-consciousness (Mead 1962 [1934]), classes undergo a process of formation prior to the articulation of class interests by participating members.

The grounding for that formation is based on interrelationships between dominant and subordinate groups: “we cannot have two distinct classes, each with an independent being, and then bring them into relationship with each other” (Thompson 1966 [1963]: 9 emphasis original). Relations between labor and capital are reflexively constituted (Giddens 1986; Marx 1990 [1867]), and the overall correlation of economic, social, and political forces between them determines the relative strength of each class for a given period. In the contemporary era (roughly 1970-present) class power resides disproportionately in the hands of capital insofar is it is more organized, maintains control over relatively more institutions, and is ideologically dominant in addition to being so materially and politically (Harris 2006; Robinson 2014; Sklair 2001). On the
other hand, labor is fragmented and dispersed in orientation—although there are signs of
global counterhegemonic resurgence (Carroll 2013; Chase-Dunn 2005; Chase-Dunn and
Niemeyer 2009), and potentials for revolutionary waves to emerge in a manner similar to
previous periods (Hall and Chase-Dunn 2006; Martin 2008; Silver 2003).

Prior to containerization, the extensive application of information technology to
production and distribution, the collapse of Keynesianism and the Soviet Union, and the
internationalization of production (Bonacich and Wilson 2007; Dicken 2007; Palloix
1977; Robinson 2014) labor and working classes more generally possessed institutional
and political counterbalances to the structural power of capital (Gill and Law 1989). These took the form of ideological competition from Soviet socialism, welfare
protections within national states, and political-economic orientations that maintained a
nation-state-centric worldview throughout the global north (Robinson 2004). However
with the rise of a post-Washington Consensus, and the ascendance of transnational capital
materially and ideologically (Harvey 2006; Robinson 2004) working class power
substantially diminished. Within the labor process itself, a regime of “hegemonic
despotism” began to displace the hard-fought concessions workers extracted from capital
in the post-war era of class compromise (Burawoy 1985). The new era brought the
intensification of “the fear of capital flight, plant closure, transfer of operations…, plant
divestment” (Burawoy 1985: 150) and more.

55 Of course, such a balance of power in terms of capitalist marketization or popular
resistance to it is period-specific and cyclical (Boswell and Chase-Dunn 2000; Polanyi
2001 [1944])
Regardless, the class relation is “more than the sum of grievances and mutual antagonisms. It is a relationship [that takes] distinct forms in different historical contexts…related to corresponding forms of ownership and State power” and institutional arrangements (Thompson 1966 [1963]: 203). As such, the particular “forms of ownership” that predominate in the current period are represented by global firms that provide the primary mode of accumulation for a transnational capitalist class that has emerged as the dominant class in most state contexts globally (Carroll 2010; Robinson 2004; Sklair 2001).

Thus, subject to the power of capital under current institutional arrangements, labor experiences fashionable techniques, ideologies, norms, and modes of coordination and control in similar ways across the commodity circuits in which they labor (Gill and Law 1989). “Sectoral disarticulation” (Arrighi 1994) occurs between participants in the labor process who are relatively more embedded in globalized circuits than workers who remain peripheral to such production processes, and consequently share more experiences of the labor process with workers who work under similar conditions in other geographies. While there is divergence in rates and average periods of exploitation, standards of living, and other locally variable conditions, the extensive and intensive enlargement of transnational capital leads to homogenizing tendencies across commodity circuits that are related to the particular implementation of production techniques required under global regimes (Roberts and Struna 2010; Robinson 2014).

The present study is concerned with precisely those conditions that create the possibility for the formation of a working class constituted by the current modes of
coordination and control over the labor process. Following Robinson (2004), I operationalize class formation as “an ongoing historical process [that] refers to changes over time in the class structure of society, including the rise of new class groups and the decline of old ones” (Robinson 2004: 37). The antagonistic, dual-class structure of Marxist perspectives is maintained, but the particular ways in which classes interact dictate nuances that are historically located and contextually determined. “By class I mean a group of people who share a common relationship to the process of social production and reproduction and are constituted relationally on the basis of social power struggles” (Robinson 2004: 37 emphasis original). Under capitalism, the primary basis for that struggle is contained in the labor-capital relation, or situation in which “labor-power expenditure for the production of commodities on the part of one party,” labor, “is conducted in exchange for compensation from another party who retains the product,” capital (Struna 2009: 233).

Class formation on the basis of the labor-capital relation as it is currently practiced entails a nascent and emergent structure—as it always does under specific historical conditions. On the one hand, it is highly developed insofar as capital has deployed spectacularly effective techniques of coordination and control across borders and institutional boundaries. In so doing, capital as the active side of the relationship has provided the basis for its subordinate, transnational counterpart—a transnational working class, or global working class with transnational fractions (Robinson 2004; Struna 2009). On the other hand, labor, subject to the forces of transnational capitalist globalization, has yet to adequately respond to its formation in a concrete and actively class-conscious way.
That is, with the exception of fits and starts from small, but voracious pockets of workers creating structures and alliances like those discussed below.

To be sure, “global unions, including [organizations of] education workers, transport workers, and building and wood workers [who] engage…in different countries in campaigns against common employers, or around common problems…fill an important void” for organized labor (Luce 2014: 176). Several instances of transnational organizing offer exemplary cases of unionists responding to the complexities of the contemporary era, from maritime workers to security guards (Lillie 2006; Luce 2014; McCallum 2013). And, there are bright spots on the global left worldwide from the Latin American pink tide to the World Social Forum (Chase-Dunn and Niemeyer 2009; Reese et al. 2008; Robinson 2014). Yet, “a popular anticapitalist [response to globalization] requires not only political action, but also an historical-theoretical understanding of world capitalism, its underlying structures and dynamics, [and] its present incarnation” at multiple levels of analysis (Robinson 2014: 233).

In this chapter, I address the objective relationships that constitute the basis for an emergent transnational working class from the perspective of the “global capitalism school”—a research program constituted by the convergence of Marxian sociology, world-systems perspectives, and the Gramscian turn in global political economy (Robinson 2004; Sklair 1999; Struna 2013). While I am primarily concerned with the class-formative aspects of relationships that indicate the transnational working class exists as a class in-itself, elements of practices observed in fieldwork by workers on the shop floor, as well as actions and orientations by more class-conscious workers and
organizations, indicate that an even more nascent and fragile transnational working class may exist for-itself.

A GLOBAL CAPITALISM PERSPECTIVE

Taking the capitalist production and reproduction process in the abstract, and breaking down each moment into distinct phases as Marx and others do when they consider the commodity circuit, M-C-P-C’-M’…, allows us to interrogate relationships (Dicken 2003; Hopkins and Wallerstein 1994; Marx 1990 [1867]; Marx 1992 [1893]; Palloix 1977; Robinson 2004).\(^56\) In particular, when we begin to unpack each phase and assess who controls and contributes to each moment, we are able to identify the specifics of the “definite social relation[s] between people” often misunderstood to be “relations between things” (Marx 1990 [1867]: 165).

In previous theoretical work (Struna 2009), I argued that the logic extended by Marx in *Capital Volume II* (Marx 1992 [1893]) regarding production relations stemming from workers’ use of variable, fixed, and circulating capitals owned or controlled by the capitalist class applied to workers and capitalists in the contemporary period.\(^57\) The

\(^{56}\) M-C-P-C’-M’ refers to Money, Commodities, Production, the transformed Commodity via production, and increased values of Money resulting from the sale of the transformed commodity. Palloix (1977) offers a particularly thorough summary of the logic of commodity circuits, as well as the extension of the logic to international (or transnational) contexts.

\(^{57}\) Variable capital converts into wages, fixed capital generally constitutes machinery and other instruments of production, and circulating capital constitutes commodity inputs used in the production process. The class relation specifically obtains when the owners of capital and purchasers of labor-power transact with owners of labor-power to transform commodities into saleable goods through these different forms of capital (Marx 1992 [1893]).
relational shift described there, in terms of class relations in the current manifestation of capitalist practice, hinged on the fact that if each of the departments of capital described in Volume II were controlled by the Transnational Capitalist Class or originated from transnational circumstances, then the relation between labor and capital constituted a transnational relationship by definition (Struna 2009). I argued this in a general way by abstracting from political economic circumstances of contemporary transnational commodity chains. In so doing, I attempted to balance the class equation offered by the Global Capitalism School—a research program that focuses more extensively on transnational elites than the empirics of transnational working class formations (Struna 2013). If the dominant class is transnational as a result of their command and control of the contemporary means of production (Robinson 2004) via Sklair’s “transnational practices” (Sklair 2001), then the subordinate class experiences the relationship transnationally as well by virtue of their participation in the directed processes (Struna 2009).

Here, I build on this argument by examining the case of warehouses and distribution centers, and workers’ experience of class relations emerging in and around the labor process. In one sense the analysis is specific: I am examining particular workers, in particular facilities, in a particular geography. But the crux of the argument is that the processes and modes of coordination and control workers are engaged in and subject to are not isolated to warehouses and distribution centers but found in the capitalist labor process embedded in other global circuits of accumulation. Certainly variation exists as Salzinger (2003), Bair and Gereffi (2003), and others demonstrate
(Burawoy 2000; Muñoz 2008; Vallas 2003a). However, the broad strokes of categories and techniques associated with globalization in the contemporary period—information technology, flexible specialization, casualization, functional integration, etc.—largely apply in some combination to shop floors embedded in transnational commodity chains even if they do not occur everywhere in the same way.

The managerial ideologies and practices discussed in the previous chapter—algocratic direction, management-by-stress, continuous improvement, task standardization, temporary labor contracting, etc.—must not be considered in a social vacuum. The diffusion of these techniques of coordination and control of production across geographies and institutional boundaries (Aneesh 2009; Dicken 2007; Ietto-Gillies 2002; Salzinger 2003; Sklair 2001) represents a Transnational Capitalist Class project that forms the material basis for the global mode of accumulation. Best practices develop relative to experimentation and consensus either within a given field or across markets (DiMaggio and Powell 1983; Granovetter 2001 [1985]; Sklair 2001). They are frequently disseminated through managerial education (Khurana 2007). In so doing, the techniques are employed both in particular, enterprise-specific circumstances, and systemically across operations embedded within the global economy.

Millions of workers worldwide are subject to the logics that enable global commodity chains. While it is easy to lose the trees for the forest in terms of seeing the class relations that obtain in specific workplaces, it is precisely in those individual moments of production that the general, global class relations emerge. In this chapter I discuss transnational class formation as observed in the context of warehouses and
distribution centers. Following Burawoy’s (1998) methods, I extend the findings to global capitalist social life in general. First, I analyze evidence pertaining to relationships between workers and capital arising from management’s direction of transnational labor processes within warehouses and distribution centers. Next, I assess relationships between and among warehouse workers in Southern California that form as result of activity associated with geographically dispersed labor processes, and transnational material and cultural elements that are present throughout work-life on the globally integrated shop floor of warehouses and distribution centers. The chapter concludes with an analysis of class formation, resistance, and organizational responses of warehouse workers to their oppression and exploitation by transnational capitalist firms.

**RELATIONSHIPS BETWEEN WORKERS AND CAPITAL: MANAGEMENT’S DIRECTION OF THE TRANSNATIONAL LABOR PROCESS**

The active integration of local firms and populations into transnational processes “imposes the general direction and character on production worldwide and conditions the social, political, and cultural character” of production relations for participants in the process (Robinson 2014). This is so both at the macro level as suggested by Robinson (2004; 2014) and others (Carroll 2010; Palloix 1977; Sklair 2001), and at the workplace level as well. Admittedly, there is variation in the degree of success in implementing standard processes (Bair and Gereffi 2003; Vallas 2003a; Vallas 2006). However, minimization of variation—or control over its degree—is the goal of transnational managerial practice. In extending standard practices across sites, capital exerts social
control over local action, and thereby establishes class relations that transcend purely local contexts.

As labor process sociologists suggest, there is as tension between labor and capital in the coordination and control over work, and the tendency of capital to attempt to acquire ever greater power over practices (Braverman 1974; Burawoy 1979; Edwards 1979; Hochschild [1983] 2003). Hence, we must consider transnational managerial practices in their class character. As Bendix (1974 [1956]) argues, workers as “subordinates tend to acquire power even without authority to the extent that their expertise removes them from the effective control of their superiors” (Bendix 1974 [1956]: 9 emphasis original). Global standardization of tasks, thus represents a transnational effort to wrest that expertise from the bodies and minds of individual laborers.

For warehouse workers, the pressure to meet quotas, to efficiently build pallets or execute other functions, and generally to operate under standard practices, serves not only to meet the goals of the management-by-stress model, it ensures that worker turnover is functional. In the short time that I was employed on the floor, several coworkers walked off the line, never to return, because the pressure was likely not worth the compensation. As planned, we responded in the moment to the stress the attrition produced, and on the next shift, we frequently saw the position the worker abandoned already filled by a new temp hire.

Further, the reserve army of labor in the region, bolstered by the temporary contract model combines with task standardization to repress wages. Any individual
from any walk of life—remember that my coworkers derived from both the expected populations of young and undereducated workers, as well as displaced, formerly middle class employees from other sectors—can be plugged in to the system to ensure its functioning. It is thus not the labor power of particular individuals that causes the selection of a given worker, but the fact that any worker from the class of laborers can be selected: in any geography, in any facility in the network, for any task.

Recall as well that workers are extracted from other geographies and shop floors within the firm’s network of operations in order to establish new facilities, and train new workers in standard practices. Worker mobility within firm boundaries at the national and international levels facilitates functional integration of nodes within the company, and in many cases contributes to the transnationality of operations (Kennedy 2010; Kennedy and Roudometof 2002; Sklair 2001; Struna 2009).

However, dynamic worker mobility is not the only determinant of one’s class position in the relation of labor to capital. For those of us who remained fixed on a particular shop floor, a common, and highly visible mode of transnational labor-capital relations presented in the form of video communications prepared by the firm’s units across its global operations. The instructional videos were produced on a competitive basis between facilities globally—i.e., the South African unit would vie against the North Dakota facility to create a video that best expresses the importance of a particular kind of standard work—and distributed for viewing to each unit in the system. Video content frequently included internal brand-promotional communications, announcements of new
products, and standard process demonstrations that were all presented in a manner that reinforced firm culture, and the immensity of the network’s operations.

Frequently, upper echelon managers such as the firm’s Chief Executive Officer, Vice Presidents of Operations and Development, or other high-level operatives would be featured in the videos, and would demonstrate or explain the standard practices or policies being communicated. In this way, the message could be quickly and uniformly distributed across the whole global network in a nearly simultaneous manner, and would directly convey the gravity of the communication to front line workers. The human face of capital was seen by nearly every worker in the network, and helped to reinforce the loyalty to the firm that management expected (but did not reciprocate). Thus, the precise algocratic direction, monitoring, and discipline of the labor process on the shop floor could be reinforced with internal mass communication that highlighted charisma, brand, and leadership strength. It also provided a sense of corporate leadership being present in the process despite their physical distance, and indicated to some degree for whom we actually labored.

These frequent video communications were shown in the gigantic break rooms, and were often accompanied by snacks or the promise of an extended break from the line beyond our normal fifteen-minutes. After the video demonstration, facility management would answer questions workers might have about processes, clarify how a standard was going to be implemented in our case, or provide some biographical and corporate background on the officers we saw in the videos. In terms of the latter, we would often learn that manager X was from the German facility originally and was now in charge of
global logistics operations, or that a given VP had been selected from Latin American operations to lead the global procurement division. Hence, the transnationality of the network, as well as the corporate leadership was simultaneously communicated as well.

For workers in retail and contract facilities, worker identification with the retail firm is frequently reported in fieldwork and interviews. The presence of retailers and their agents on the shop floor of warehouses and distribution centers (or other logistics functions generally) is commonplace; almost ubiquitous. It reinforces the fact that when we ask, “for whom is the laborer actually working?,” we frequently identify the end-user of the work: Walmart, Amazon, Apple, et al.Workers are well aware in most cases that their ‘real’ employer is the big name, ‘big box’ brand even when they receive their paychecks from a logistics firm or temporary agency. Logos, trademarks, and proprietary product lines are ever-present on the shop floor of many “dedicated” warehouses (i.e., facilities devoted to the handling of products for only one retailer like Walmart, or REI). Specific brands can also be so predominant in shared-use logistics facilities that workers come to identify with a particular brand or its end user.

That same paycheck tendered by a logistics firm or temporary agency may also have the logo of the global retailer embossed on it to distinguish the branch of the logistics service provider from other units in the firm. As a result, workers further come

59 Retailers and suppliers, while clearly distinct, will be used roughly interchangeably here. Each are potential contractors of logistics services, and temporary employment firms, and each may have ultimate control or ownership of the products handled in the labor process. In many systems both suppliers and retailers will have agents present within distribution centers—especially in complex chains like computer component manufacturing and distribution—but for the purposes of my analysis, the focus will be on retailers.
to identify with the retail brand, and may even report that they work for the company despite technically being employed by the firm’s contractor. More typically, employee manuals, work-task process instruction charts, instructional videos, physical equipment, work clothing, safety checklists, and other paperwork or stationary will have the retailer’s imprimatur emblazoned on them. The symbolic presence of firms makes their relationships to workers and the labor process difficult to ignore.

Beyond the symbolic presence, the retailer’s agents are frequently on site to inspect work. Even when retailers do not have an office within the warehouse facilities, audits are common. Often times, workers observe the presence of the retail agent or manager on the basis of identification tags indicating the manager’s employer, or on the basis of specific colors of ID badges required for entry into facilities by scanning or swiping the cards at secure access points. The retail managers may or may not directly communicate with workers, but their influence is understood insofar as the retailer contracting the logistics provider determines the particular practices employed within operations. In the very least, the retailer consents or objects to observed practices, and has ultimate control over their execution.

Sometimes, workers may not know who is observing the work. Inspectors present in business attire that workers deem inappropriate for the warehouse environment, and workers assume that ‘the suits’ are retail agents—even if they may not be. Surprise visits of various levels of firm management happen even in proprietary warehouses where direct retail ownership is known, and often coincide with observations by process engineers seeking to assess compliance with standard practices. Nonetheless, from the
perspective of the shop floor worker, professional appearance signifies the presence of retail managers or the end user of logistics services.

In the case of retailers inhabiting on-premises offices within facilities technically managed, leased, or owned by logistics providers, there is little doubt about for whom one works. The flow of warehouse and distribution center managers, and temporary employment agency representatives in and out of the retailer’s office space (or vice-versa) is a visceral indication of who has control over the labor process, and for whom the other companies contract. In the hierarchy of firms embedded in the relationships created by the contract arrangements, retailers are clearly dominant. This is so objectively in terms of the directional flow of revenue, services, and ultimately goods, as well as in the subjective assessment of participants on the shop floor.

Let us consider the concerted effort management makes in convincing workers to accept the standards not just in practice, but in language and description of procedures. The introduction of Kaizen and continuous improvement terminology, adherence to global standard work processes, and team-based operation can be compared to political organizing. Getting people to agree to, and internalize the system takes time. Management offers constant reminders, repeated personal contacts, and doable ‘asks’ by using terms that bring workers into the fold bit by bit—just as a union operates with organizers and rank and file workers to motivate individuals to collective effort.

In so doing, management induces the kinds of hegemonic consent to social control others identify (Burawoy 1979; Muñoz 2008), and coopts what may otherwise emerge informally through worker-to-worker interaction in the labor process. By
creating a language and practice structure in which emotional and intellectual energy can be channeled and focused, management uses discourse to “maintain…prevailing power structures” on the shop floor “in order to advance their own interests” (Whittle et al. 2014: 73). The desire to exert such total control also offers a partial explanation for company efforts to keep unions out worldwide: competing messages about collective agency and power not only eliminate the coordination and control aspects of the continuous improvement ideology, they confuse loyalties. In the same way that a worker may proudly display a union pin or tee-shirt, management encouraged the proud wearing of company swag (for direct employees only, remember).

To be clear, linguistic and symbolic standardization represents an important aspect of class domination on the shop floor. The effort to diffuse terms and modes of talking about work processes across different geographically and culturally embedded worksites happens both in the direct labor process, and in more targeted venues like break room video demonstrations. “In human work…the directing mechanism is the power of conceptual thought” (Braverman 1974: 49 emphasis original). Under capitalism, “the unity of conception and execution [is] dissolved…; the idea as conceived by one may be executed by another” (Braverman 1974: 51 emphasis original). Thus, in the production of standard videos, verbal modes of expression, and graphical depictions, management exerts control over the thinking about work across contexts. Under global capitalism, the mental labor that goes into the direction of the labor process and the semiotic expression of its standards are in the possession of capital and its agents in the firm (Braverman 1974; Marx 1990 [1867]), and are diffused across institutional and geographic boundaries.
Meanwhile, workers need only minimally comprehend what they must execute. In the words of my friend and literacy scholar, Manuel Espinoza, “well trained pigeons could do our job” (personal communication). Insofar as conception is agentic, the standardization of expression limits the agency of the collective laborer across the transnational circuits in which work is embedded.

Management as a capitalist class project in the era of globalization must be located in the nexus between firm-specific acts of coordination and control, and the generalized environment of something like a “social structure of accumulation” (Gordon et al. 1982). The class power exhibited by capital via control of transnational corporations, and the command of the labor process therein, conditions possibilities for individual and collective action within workplaces. Where we see potentials for resistance to processes that are not standard, as in the case of Mr. Green initially, or we see resistance to standard processes by avoiding labor-trackable tasks, as in the case of some shift leads (see chapter five), we must also note that algocratic and other methods of task standardization force a choice: individual compliance, collective action, or individual exit (Hirschman 1970).

It is not initially class struggle that creates classes, but the class relation that creates and informs the terms of class struggle. Before analyzing the modes of resistance and organizational actions workers have engaged relative to transnational capital embodied in warehouses and distribution centers, we need to first explicate the relations between workers that form in the labor process. That is, we must understand something about the nature of relationships that emerge among coworkers on particular shop floors
in specific geographies, as well as relations that emerge among workers across geographies in the value chain. As workers participate in the labor process subject to transnational capital’s coordination and control, their shared experience—albeit diversely viewed and differentiated according to specific social-material standpoint—conditions possible collective responses to class domination as well. It is thus the dual forces of direct exploitation in the transnational labor process, and shared participation in that process that contribute to working class formation (Marx 1990 [1867]; Robinson 2004; Struna 2009). The qualities of the actors and the facts of their particular relations in time and place are relevant to the investigation and explication of the class nature of the participants.

SHARED INSTITUTIONAL RELATIONS AMONG WORKERS

Three aspects of transnational class relationships are experienced among warehouse workers embedded in transnational circuits of production. That is, the class-formative aspects of participation in global commodity production that lead to shared social circumstances, and the collective “shape given to the working population by the capital accumulation process” (Braverman 1974: 27). First, these workers share connections to one another via global supply chain firms; such relations are internal to given companies or between contractors and subsidiaries. Second, warehouse workers share connections through direct participation in geographically distributed production processes; incremental contributions of labor to a given commodity link workers from one moment of the process to another. Third, workers observe the existence of other
workers in the production process. This is true not only through the process itself, but through incidental and unintended contact via ancillary objects, artifacts, and imagined links to one another. As I observed, warehouse workers frequently assess the differential social conditions of their peers in other geographies, and exert normative evaluations of that social distance and difference.

**Awareness of Globally Dispersed Labor Processes**

In all of my observational contexts, workers either report or display knowledge of the complexity of the commodity circuits and the institutional arrangements that involve their warehouses and distribution centers. One cannot help but notice that the goods handled are sourced from all over the world: labeling, branding, or bills of lading and their electronic equivalents all reveal the global origins of goods. As reported above, even in cases of contract labor by temporary workers, or workers employed by third-party logistics firms, the ultimate consumer of the labor is known to be the global retailer. In the firm I worked for, the mantric emphasis on the connections between facilities in “the network,” and the fact that our collective roles in making that system function were essential, frequently served as a galvanizing force for us as a “team.” Even the staunchest Marxist, and steadfast malcontent on the line can be compelled to put his or her effort into a collective project—no matter how fleeting or occasional that sentiment may be.

During our break periods and on the line in quiet moments, coworkers frequently expressed fascination with the complexity of the processes of “fulfillment” and other
supply chain functions, saying things like, “it amazes me that we can do this,” or “I can’t believe we can move a hundred thousand pieces a day.” Such senses of awe, and collectivity were reinforced when we would watch management’s videos. Learning that we were one facility among scores on every continent, and that we were part of a global team of more than 100,000 direct employees and many thousands of temps and other contract workers, puts the scale of the firm and its geographic reach into perspective.

Usually, this fostered management’s intended sentiment and such participation in the collective life of the firm reinforced one’s work and company identity. Other times, the “teamwork” adages and group-building rhetoric was cloying and provoked resistance. As Vallas (2003a) asserts, under certain conditions, “team systems appear to foster patterns of solidarity and mutual support that enable workers to contest or recast managerial initiatives” in a non-managerial light (Vallas 2003a: 220). The class line between “us” and “them” within the firm is sometimes bright and clear, and at others is fairly fine.

Beside the objective links that are more or less apparent, workers in other facilities and geographies subjectively appear in the imaginations of workers. As reported by informants in interviews and conversations, workers elsewhere within shared commodity chains present as an enigma: who are they, what are their working conditions like? Sometimes, other workers in the circuit may be imagined to have better working conditions. In one case, the high quality and physical beauty of the musical instruments handled by a worker I spoke with, led her to imagine that the production workers who created them in a Mexican factory labored under better conditions than she. The dusty,

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60 Data from interviews and observations in this subsection section on upstream workers are also discussed in Struna (2012).
dirty, poorly lit warehouse with fallen stacks and broken pallets she worked around in Southern California was surely worse than the factory in Mexico that, by her assumption, had workers who produced with pride that reflected in their products.

Still, poorer situations were the more commonly reported assumptions about working conditions for other workers in the circuit. Many workers identify their own workplaces as brutal environments wracked with physical danger and stresses, and even attribute the conditions to retailer exploitation (Author interviews; Struna et al. 2012). Yet, they equivocate when asked about their own position relative to others, saying things like “at least our conditions” and/or “wages are better than those in China.” On the one hand, the connections between workers are more or less apparent, and many if not most are aware of similarities, but an assumption of difference (read, assumed superiority of domestic workers and working conditions) trumps connectedness for some workers.

However, media reports of concerning worker suicides and strikes at Foxconn/Apple facilities, fires in Bangladeshi clothing factories contracted and overseen by Walmart, and other contemporary events provoke reflection among warehouse and distribution center workers. Knowing about shared links through firms and production circuits can prove both disquieting, and agitational: more than one worker I interviewed reported anger about Walmart responsibility for working conditions in Asia as among her/his motivations to engage in workplace organizing here in the US. No matter how nascent, tentative, or even negative, global working class formation is apparent to at least some workers.

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61 This is so for both Warehouse Workers United-affiliated workers, and interviewees not connected to the organization.
Connections among workers are also experienced in the direct labor process. Standard tasks are intended to produce standard products—and do so to an exceptionally high degree. Remember that the term “Six Sigma” associated with quality control managerial ideologies is intended “to produce only 3.4 defects per million, [or be] virtually defect-free” (Sklair 2001: 125). As such, workers come to expect products and components to present to them in a specific, standard form. While the six-sigma ideal may be a stretch to achieve across all product lines, deviation in product quality frequently induces blame and frustration with upstream workers.

In the facility I worked in, for example, a clear case of sabotage by an “associate” in the facility that handled product prior to ours, provoked anger among several coworkers handling the intentionally damaged cartons. Having removed the sealing tape from the seams of the bottom of dozens of cartons on the floor of a fifty-three foot tractor-trailer (the lowest box in many columns of boxes stacked from floor to ceiling), the contents fell out as we attempted to unload the products. Whether or not the worker intended the sabotage as a joke, an affront to us as downstream workers, or as an act of resistance against management, my coworkers handling the mess took it personally. “Why would they do this!?... What kind of [bastards] would put us through this!?... Don’t they know this doesn’t hurt management—it just slows us down!?” In a negative sense the, the connections between workers is made evident by the destruction of commonplace expectations of quality the standards induce. Viewed from afar and

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62 A physicist colleague of mine, Jackson Pitts, has frequently remarked that in his discipline, “if it ain’t at least five sigma” regarding the confidence interval associated with an observation, “it didn’t happen.” Our ninety-five and ninety-nine percent intervals seem puny in comparison to both physics and production standards.
“multiplied many thousandfold, such petty acts of resistance…may in the end make an utter shambles of the policies dreamed up by their would-be superiors” (Scott 1985: 35). The active introduction of variation in quality control standards should thus be heard more as a roar than a whimper.

Good or expected quality, because it is expected, yields fewer acknowledgements of other humans and their prior inputs, but some awareness of other workers still emerges. Perfectly built walls of cartons within a liquid-loaded trailer, offering a converse example to the saboteur, presented to one of my teammates and me one night. In our several weeks on the floor in similar situations, neither of us had not seen anything like it, and both remarked on the ease and safety of the unload. We were both impressed with the people who sent the products to us in that shape. Similar stories were reported by interviewees, including others who dealt with palletized goods received in what informants regarded as remarkably beautiful condition.

Beyond the warehouse and distribution center on this side of the commodity circuit, workers are also aware of disruptions and potential disruptions stemming from labor unrest in other sectors or geographies. Previous strikes at the ports of LA and Long Beach were reported by many long term workers as having been disruptive to their own work at warehouses and distribution centers inasmuch as they could not handle goods that were not moving to them in the warehouses. Further, both industry insiders via the trade press (various issues of the Journal of Commerce, for example), as well as workers and labor organizers reported disruptions in work resulting from the 2011 earthquakes and subsequent Fukushima Daiichi nuclear disaster. Consequently, workers report
frustrations resulting from impacts on their own just-in-time flow of goods: “We can’t work until they do.”

Workers are aware of relationships that link each other through the process of production itself. Shared conditions that spread across geographies within the firm, or incremental inputs across the commodity chains provide evidence of the existence of others in the process, and frequently lead to some acknowledgement of that existence in specific ways. This is no less true of cases where the primary evidence of others presents itself on the shop floor in the form of material and cultural elements that appear as incidental (unintentionally placed) objects found in shipping containers, disease fears, the co-presence of immigrant laborers, and coworkers’ reported familiarity with other global firms.

**Material-Cultural Elements on the Globally Integrated Shop Floor**

Beyond globally branded and sourced commodities, workers encounter material and cultural elements of transnational origins on the shop floor. In interviews, workers have reported finding objects like cigarette lighters among thousands of pounds of frozen shrimp harvested from Chinese farms—wondering aloud about who lost it, almost excited to keep it for themselves. Newspapers in languages foreign to workers in Southern California distribution centers appear as common packing material, and fascinating print to ponder the meaning of briefly while completing tasks. Frequently, dusty boxes smeared with the fingerprints of the loaders appear in shipping containers, and indicate to workers that the mirror image of the processes they execute happened
overseas, under similar physical conditions. Although these moments are fleeting, and appear peripheral to their work experience, the themes are commonly reported when workers are directly asked about “evidence of a human touch in the products” they handle.

Perhaps more impactful are moments when workers find intentionally misplaced objects among the commodities they process. Workers and managers share rumors about finding a pair of old sandals in a box otherwise designated for brand new Nike’s—the former having been substituted by a worker on the shipping side of the commodity chain. Such incidents are amusing, and relatable: the thought of substituting one’s own belongings for the new stuff workers handle, but cannot frequently afford is part of the culture-ideology of consumerism (Sklair 2001). However, other found objects are more disturbing. Informants report finding used condoms among the contents of clothing cartons holding coats workers had to label, as well as in shipping containers among boxes on the floor (Struna 2012). More commonly, workers find dried spittle (or other bodily fluids, they fear) on clothing they process for retailers. Consequently, workers often resent upstream laborers. Such discoveries perhaps contribute to the othering, and senses of superiority and/or pity workers in Southern California display toward overseas workers.

Discoveries of biohazards serve to reinforce the fears of disease frequently discussed in the news media. Workers who handled goods from Asia and Mexico reported fears of contracting Bird Flu and/or Swine Flu, and fears of contracting SARS (Sudden Acute Respiratory Syndrome) were common despite the short period of its publicity and geographic isolation. When workers processing clothing pricked fingers on
pins and tagging devices—warehouse workers placed those pins and tags in your recent purchases—they reported wondering, “who pricked their finger on this first?” and wondered about the health of the workers upstream.

Thus, even if workers regard their colleagues in previous points of the geographically distributed production process as exotic, deprived, or even dangerous, workers understand that there are very real social and physical connections made among one another in the production process. Intuitive fears of far-flung epidemics, if perhaps overblown, underscore the global nature of the labor process and the labor market. Infectious disease researchers actually reinforce such concerns: “Global commerce is rapidly globalizing our food supply, our supply of pharmaceuticals, even our supply of biological sources. It has been well demonstrated that this process entails new microbial threats” (Kimball and Hodges 2010: 110). There exists a very real material connection to others via transnational production, and warehouse and distribution center workers represent the vanguard in the armies of labor embedded in such networks.

As Kimball and Hodges (2010) reiterate, “Trade across borders (state or national) creates a new, very direct dissemination of infection and a new challenge for public health, both at the local and the global levels” (Kimball and Hodges 2010: 112). Public health and commercial officials are aware of such concerns. While I have no evidence regarding the intent of making hand sanitizer available on the shop floors and break rooms of the firm I worked for, it was ubiquitous. In the pick and pack facility next door to mine where workers handled goods prior to packaging (having engaged in some training activities and visits there), sanitizer stations were placed roughly fifty feet apart
throughout the 1,000,000 square-foot building. This is so despite a company-wide requirement to wear gloves at all times while on the clock. On one hand, the use of sanitizer may reflect an effort to minimize absenteeism related to illness. On the other it may reflect efforts to minimize the spread of globally sourced pathogens by workers at centralized facilities that distribute goods to consumers all over the world.

A final indicator of relationships among workers that develop relative to workplaces in the contemporary era concerns workers’ familiarity with processes at other global firms. Manuel, a thirty-five to forty year-old Pilipino immigrant I worked with, had been trained as a process engineer in the Philippines and had taken courses in metrology in China and Japan. He worked for a global food transnational that manufactures familiar brands, and would frequently regale us with Sinclairesque stories about food production we did not necessarily want to hear. He, like other coworkers who worked at other global firms, frequently compared and analyzed processes we engaged in relative to his training and experience at other firms, and could tell us where our processes stood in difficulty or reasonability relative to other standardized systems.

Another worker who taught me tricks to reduce risks in dangerously loaded trailers, remarked about his work experience having changed his own consumptive patterns, and outlook on the culture-ideology of consumerism. Matt, a 25 year-old American Indian reported that “having worked for, now two global retailers, there isn’t really much I want beyond necessities” as we unloaded thousands of precariously stacked boxes in a trailer with temperatures over 100 degrees. He clearly associated the processes we endured at work with broader social conditions, and wanted to disassociate
himself from them in his non-working life. Remarkably, he regarded our facility as significantly safer than his other employer, but still felt the model unnecessarily endangered us as workers despite serving the firms’ profitability.

Carl, a Black coworker in his mid-twenties, worked as a temp at three different global retail firms, and compared standard processes across the systems, as well as the amenities each firm had in terms of break rooms and small bonuses. In his second temporary stint with our firm, he was hoping to be hired directly by either of the companies he was then working for, but hedged preferences toward the other. The fact that his other employer had nap areas, multiple televisions, and videogame consoles in break rooms provided a draw compared to our austere areas that had one or two TVs and vending machines. However, Carl was clear that his temp experience was problematic, and that any direct-hire situation would be superior to contingency. Like many workers who were employed by the agency, Carl relayed the state of precarity lived by “us temps.” His identity as a worker, and a member of a group of workers was very much defined by the nature of the employment relation he endured.

Such comparisons and communications about work processes, and shared circumstances are not new in either local or global contexts. World-systems analysts have documented the importance of worker-networks in disseminating information about social movements and political ideologies that contribute to active, class-conscious working class formations (Agartan et al. 2008; Silver 2003). “Seamen, merchants, and diasporic communities were, in one way or another, central to the emergence, sustenance, and success of movements” world-wide (Agartan et al. 2008: 46). Thus, contemporary
moments of class formation on the basis of intra-firm connections, worker
communication, and shared processes should be expected to produce similar outcomes to
the degree that such relationships diffuse. Understanding the processes workers co-
experience across geographic and firm boundaries informs the analysis of resistance in
individual and collective forms, and should be considered by analysts and agitators as
transnational organizational efforts emerge.

The next section considers the forms of resistance mounted by workers in
collective and individual forms. While it emphasizes the role of Warehouse Workers
United, and assesses the organization in terms of local and transnational strategy, the
section also considers individual worker resistance as an important, if insufficient, mode
of contestation.

RESISTANCE AND ORGANIZATIONAL RESPONSES

Warehouse Workers United

Relationships between workers also form through organized resistance to control
over the labor process and employment conditions. Warehouse Workers United, formed
in 2008, has engaged in both local and global strategies to combat dangerous and unfair
labor practices within Walmart’s transnational commodity circuits. I present an overview
of the organization, highlight some of their innovative strategies used to impact working
conditions on the ground here in Southern California, and then turn to the transnational
links organizers developed in an effort to connect workers across global supply chains. I
then discuss individual resistance, and the ways that both organizational and individual acts of opposition to domination provide evidence of class formation in the global era.

Warehouse Workers United was funded by the Change to Win trade union federation between 2008 and 2014. The organization lost financial support as a result of changing alliances and institutional membership within the Change to Win federation (United Food and Commercial Workers rejoined the AFL-CIO in 2014). Since then, it maintains a presence in the region as a project of the non-profit Warehouse Workers Resource Center, formed by Warehouse Workers United staff and supporters in 2011. As a local labor organization formed to organize warehouse and distribution center workers in the Inland Valley of Southern California, organizers chose from the beginning to employ “social movement unionism” strategies that focused on creating links between labor and the broader community (Krinsky and Reese 2006; Ness 2011). In particular, Warehouse Workers United pursued an industry-wide approach to organizing that focused less on efforts to establish contract relationships with specific employers at specific worksites, and more on building capacity through links with local civil society groups.

While conventional unionization was (and remains) a goal of the organization, the heavy reliance on temporary and contract labor within the industry created multiple obstacles for a traditional unionization drive. Consequently, Warehouse Workers United partnered with immigrant rights, religious, and other labor organizations, as well as local universities to mobilize workers and community members against the abuses of the massive regional industry through a series of demonstrations and informational
campaigns, and by helping workers to file complaints against labor law violations. Among its goals were improving working conditions in terms of health and safety, securing wage increases to reflect regional costs of living, and decreasing (or ideally eliminating) the precarity of employment through the temporary agency system.

Warehouse Workers United differed from a conventional trade union in the US insofar as it has never been established as the exclusive representative body for any particular group of workers employed by a particular firm. That is, it has not been recognized in a collective bargaining process as workers’ contractual representative. Instead, the organization should be viewed as both a preliminary step toward conventional contractual representation, and as an alternative collective structure that engaged in workplace organizing, local community outreach, state-legislative political mobilization, and national and transnational network building.

The organization leveraged its strength by trusting and relying on workers who responded to such organizing efforts: primarily Latin American immigrant women and men willing to risk a great deal to make incremental gains in a brutal industry they knew intimately. Far from the tired stereotype that immigrant workers are averse to unionization, Warehouse Workers United used the organizing experience and ideological dispositions of workers from Central America and elsewhere in Latin America for whom concerted action and organizing was a more normal part of social life. Much like those observed by Milkman (2006), who had a “more collectively oriented world view than most native-born workers” (Milkman 2006: 118) Warehouse Workers United’s immigrant worker-organizers had a cosmopolitan disposition that was actively pro-union.
Reflecting the worker base and industry subcontracting structures of other successful organizing projects in Southern California like Justice for Janitors, hotel, and the garment workers’ campaigns (Milkman 2006), Warehouse Workers United largely sought to replicate the strategy. Nonetheless, many worker-organizers were fired by employers—some reinstated after public campaigns and unfair labor practice charges forced rehiring—and many others faced retaliation including significantly reduced shifts, threats of deportation, and other forms of intimidation. Yet, despite such threats and precarious conditions, workers often cast as the most vulnerable proved to be the strongest organizers insofar as they often have labor backgrounds in their home countries, have strong local social networks within workplaces and communities, and are willing to mobilize against anti-immigrant stigma and racism (Milkman 2006; Milkman 2011).

Women and men led health and safety trainings that attracted coworkers to union meetings that also served as educational forums designed to highlight various problems in the workplace and the community. While such meetings generally had their primary objective of identifying workers willing to learn occupational health and safety policy, wage and hours, or labor law violations laws in order to document them and initiate filings in the appropriate administrative or legal venues, the secondary educational objective varied. Frequently, lead organizers would employ role-play and the “theater of the oppressed” to engage members on topics like combatting sexism and racism in the workplace and community at large. Other sessions would focus on global linkages in the supply chain, and shared circumstances with other workers embedded in Walmart’s operations globally.
Warehouse Workers United’s lead organizers made conscious efforts to do educational and political work that expanded the voices of its members who were women of color, both immigrant and native born. Importantly, to move that effort into practice, beyond rhetorical overtures to gender equality, the organization provided services that made participation possible. At every meeting, childcare was provided to give parents an opportunity to focus on the activities without distraction or added expense, and dinner was served to members and guests to reduce the burden of spending long hours at weekly meetings. Legal clinics and access to lawyers was made available on issues that ranged from immigration matters to family law, DUI and traffic problems, and a range of other topics not necessarily related to employment—but directly impacting workers’ ability to work. The organization hosted English language classes at various points in its history, as well as citizenship classes in early phases. Further, members with older children were given opportunities to get assistance with college financial aid forms or applications. Overall, the organization made efforts to make participation in union life attractive and meaningful beyond the workplace.

Given the institutional complexity of the industry—retail and supply firms, third-party logistics services providers, transporters, and temporary agencies—as well as the economic and political power locally wielded by firms embedded in one of the world’s key “logistics clusters” (Sheffi 2012), organizers sought to engage in campaigns that would attack the major players in the industry. By using unfair labor practice charges against large “big box” retailers, as well labor law violations charges, Warehouse Workers United was able to target the worst offenders. On one hand, the unfair practice
charges allowed workers to strike, and allowed particular workers to engage in actions that could result in compensation for wage, and/or health and safety violations.\(^{63}\)

Further, concerted action relative to unfair labor practices provides a safeguard against deportation for undocumented immigrant workers because it is protected activity regardless of immigration status (Kutchins and Tweedy 1983). On the other hand, the publicity of those actions, and severity of the charges, served to highlight the plight of workers in the industry in general. As a result, Warehouse Workers United was able to win millions of dollars in back pay for individual workers, see massive fines assessed against particular firms, and mobilize portions of the public around the warehouse workers’ cause through judgments against companies for wage and safety violations (De Lara \textit{et al.} 2015 [Under Review]).

Such actions operated alongside concerted legal and legislative campaigns to enforce existing laws, or change laws to protect workers against wage theft at the hands of temporary agencies and other firms exploiting joint employer relationships. In general, beginning in 2010 Warehouse Workers United targeted Walmart facilities and contractors associated with their operations. This was so not only because of Walmart’s infamy, and dubious distinction as the face of malicious labor practices in their retail operations, but because of the extension of their anti-worker labor practices to their logistics and warehousing operations as well. Further, United Food and Commercial Workers, then

\(^{63}\) Worker-organizers frequently faced retaliation for engaging in organizing activities—a labor law violation in itself. In some cases the workers became fulltime organizers on the campaign, and in others the companies reinstated workers as a condition of settlement. Not all were as fortunate. For an overview of the prevalence of this problem in the US see Bronfenbrenner (2009).
affiliated with Change to Win, had begun to organize at Walmart. Thus, WWU staff
were able to secure funding from UFCW for the Inland Empire efforts as part of the
broader Making Change at Walmart campaign. The latter also included organizing
workplaces across global supply chains in conjunction with other unions embedded in
Walmart commodity circuits. 64

Through 2014, Warehouse Workers United claims to have secured more than
$30,000,000 in damages and fines for wage and hour lawsuits and administrative
complaints for over 4,000 workers in the region. In terms of health and safety violations,
the organization won close to half a million dollars in penalties against eight warehouses
that employed more than 2,000 workers. These victories and citations are impressive in
their own right, but they also served to pressure Walmart through financial impacts, and
publicity problems. 65 They also altered the behavior of other firms indirectly insofar as
logistics companies, temporary agencies, and other actors responded to wage and safety
claims by proactively improving conditions in their workplaces to avoid negative media
attention, potential legal and administrative action, and most importantly, worker
organizing campaigns connected to Warehouse Workers United and other unions.

64 Making Change at Walmart is a Change to Win/ United Food and Commercial
Workers project responsible for the recent Black Friday actions at Walmart stores, in
addition to the Our Walmart Campaign. United Food and Commercial Workers took
over primary funding responsibilities for Warehouse Workers United after losing support
from the International Brotherhood of Teamsters in 2010 (De Lara et al. 2015 [Under
Review])
65 Thanks to Ellen Reese for providing me with this summary of Warehouse Workers
United’s legal victories based on the organizations presentation at UC Riverside May 5,
2015 (Personal Communication 2015).
Indeed, local legislators have at least partially heeded Warehouse Workers United and others’ calls to engage in sensible regulation of labor conditions to protect temporary and contract workers. Legislation that passed in California with the help of Warehouse Workers Resources Center and the International Brotherhood of the Teamsters includes bills like California Assembly Bill 1897 that holds end user contracting firms like big-box retailers responsible for problems workers encounter with temporary agencies and contracted companies (Jamieson 2014). Or the passage of California Assembly Bill 1855, also pushed through with the help of Warehouse Workers United and other labor allies, mandating that contractors have sufficient funds to pay workers hired in subcontracting relationships. Both provide important exemplars for other organizations seeking to challenge or change existing law in their jurisdictions, and build locally on previous legislative victories attained in garment workers’ and other campaigns regarding the rights of workers employed by contractors (Fine 2006).

In 2012, Warehouse Workers United staff and organizers began planning a sixty-mile march to Los Angeles from Ontario/ Mira Loma—ground-zero for many of Walmart’s contract facilities, including sites responsible for many health and safety, wage and hour, and labor law violations. The demonstration coincided with the beginning of an unfair labor practice strike against a contractor in Mira Loma and their associated temporary agencies. Roughly twenty workers walked out the first day—many unexpectedly, and without foreknowledge of participation by organizers—and were joined by other Warehouse Workers United members, Our Walmart workers, allied community members and local media during the kick-off ceremonies. While
participation ebbed and flowed throughout the course of the march, a core group of twenty marchers were joined at different points in the journey by as many as 300 other participants at strategic points. Tellingly, United Farm Workers—on whose tactics the march was based—joined Warehouse Workers United members in East LA to accompany the strikers to LA City hall.

*Warehouse Workers United’s Global Connections*

During a break on the long six-day march from Ontario to Los Angeles (September 13-18, 2012), I naively remarked to one of the Change to Win global campaign directors that, “if you could organize temporary workers in the logistics sector, you could organize the world.” He laughed and simply said, “Yeah, we thought so too!” Edna Bonacich (2003) made similar remarks: “The logistics sector occupies a position of great strategic importance to global capital. Workers organizing in this sector have the potential to cause serious disruption to the flow of goods, and to demand important reforms for workers all over the world. The labor movement needs to consider taking advantage of this strategic opening” (Bonacich 2003: 41). The structural power of labor in the logistics sector, coupled with potential transnational solidarity networks among similarly situated workers in other locations provides an ideal opportunity for not only a renewal and reconfiguration of the labor movement in the US—away from conventional

66 The fact that the march route often followed the path of El Camino Real, the Spanish trade route that linked the mission system, was not lost on organizers or workers. Nor was the fact that the route intentionally ran parallel to contemporary goods movement corridors. American Indians and Mestizos have been employed and exploited in this region by a global goods movement industry for hundreds of years.
‘corporatist’ unionism dominated by organizations in the industrial sector, toward traditionally underrepresented workers, contingent employment, and other sectors—but for genuine transnational working class collaboration (Bonacich 2003; Fletcher Jr. and Gapasin 2008).

Warehouse Workers United’s obvious goals included transforming workplaces in Southern California into safe, direct-hire jobs that pay living wages for the more than 100,000 warehouse, distribution center, and logistics workers in the region. Yet, they also recognized that the workers they organized represent “the local face of global production—the part that cannot be moved offshore” (Bonacich 2003: 47). As such, they effectively operated on the principle that “solidarity…grows out of common interests at both the tactical and the strategic levels [and] presumes that workers across borders have common strategic interests” (Fletcher Jr. and Gapasin 2008: 195). The organization actively fostered connections through both formal and informal channels with workers in multiple geographies, and used Change to Win staff dedicated to fostering transnational links in Walmart’s global supply chain.

On March 9, 2012 Warehouse Workers United staff attended a joint rally in Seoul, South Korea at Walmart’s global procurement offices with Making Change at Walmart and “the Korean Confederation of Trade Unions, the Korean Public Service and Transportation Workers Union, and International Solidarity House” (Clawson 2012). Similarly, September 2, 2012, as a result of connections between Warehouse Workers United and Chilean trade unionists that were foraged with the help of Carolina Bank Muñoz, nearly 1,000 unionized workers from the Walmart distribution center in Santiago,
Chile gave an ovation in solidarity with Warehouse Workers United members attempting to organize in this region (Liga de Trabajadores por el Socialismo and Walmart Distribution Centre Union Chile 2012). While the actions certainly do not represent the enduring organizational structure of a global union, it represents efforts to build transnational alliances among workers in Walmart’s global supply chain.

As a result of the publicity and organizing visibility Warehouse Workers United generated in their Southern California Campaign, the organization’s office was a frequent stop for global labor activists engaged in fights against Walmart and other retailers. In 2013 and 2014, Warehouse Workers United was visited by activists from the Australian National Workers Union organizing temporary workers, as well as Kalpona Akter and Sumi Abedin, the Bangladesh garment factory workers organizing to improve working conditions throughout Walmart’s supply chain. During the meeting with the latter, they issued a joint statement of “Core Principles” calling for working standards across Walmart’s commodity chains (Eidelson 2013; Luce 2014; Warehouse Workers United 2013a). Eventually, the company did concede to “develop a mechanism to conduct random inspections at subcontractors, and review contract[s]” in addition agreeing to improve safety standards (Luce 2014: 192).

Further, in the same period, delegates from Chinese labor unions in Guangdong province visited Warehouse Workers United organizers in the US, and hosted Warehouse Workers United representatives as they toured Guangdong production and warehouse

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67 The Akter and Abedin visits followed the fire and collapse of the garment factory in Bangladesh (Eidelson 2013), and coincided with the administrative health and safety charges against the local Southern California Walmart contractor, Olivet for blocking worker access to emergency exits.
facilities with Chinese organizers, labor officials, and academics in a collaborative exchange designed to share tactical and strategic approaches to changing working conditions in globalized supply chains.

Yet, the global reach of the organization should not be overblown. Limited staff resources for global coordination, competing priorities among the various parties within the Change to Win federation, and pressing demands of local on the ground organizing campaigns suppressed the efficacy and extent of the transnational aspects of supply chain organizing. In fact, as reported by a lead Warehouse Workers United organizer and strategist, one of the biggest impediments to coordinating the various campaigns nominally linked across the commodity circuits was the disjuncture in timing and phases that each of the projects exhibited in their own locations. While they were connected and communicating, they were not strategically and tactically synchronized in a way that could build toward global supply chain unionism.

Thus, despite Fletcher Jr. and Gapasin’s (2008) legitimate concerns that organizations affiliated with the Change to Win unions—like Warehouse Workers United, and Making Change at Walmart—will emptily use the “phrase *global union* [as] simply a semantic matter” (emphasis original Fletcher Jr. and Gapasin 2008: 139), the cross-border organizing and solidarity efforts Warehouse Workers United engaged in should serve as a reminder that political and social orientations at local levels of organizational structures often differ from those above them in the union hierarchy (Stepan-Norris and Zeitlin 2003). Even in the presence of conventional trade unionism on the part of the internationals that compose the Change to Win Federation (Fletcher Jr. and Gapasin
2008), the on-the-ground organizing efforts of particular projects and their worker-organizers advances the causes of transnational solidarity, workplace democracy and worker agency, and labor movement renewal in much the same spirit as the progressive forces identified by Stepan-Norris and Zeitlin (2003) in previous periods of labor movement upheaval. In this case, workers and activists were directly engaged in networks with workers in Southern California, Chicago, Chile, China, El Salvador, and South Korea.

While we must be careful not to impute that a single network of activists is representative of efforts to renew the labor movement in the US, or that Warehouse Workers United is representative of broader trends in efforts to establish global unionism (Fantasia and Voss 2004; Fletcher Jr. and Gapasin 2008; Harrod and O'Brien 2002; Lillie 2006), it does provide an example of an admixture of organic worker-based democratic unionism that spawned from a more conventional labor federation like Change to Win. As such, their activities and campaigns contribute to the understanding of global class formation as it pertains to organizational structures (Stark 1980), and the broader literature on U.S. labor organizations and their evolution (Bonacich and Wilson 2005; Fantasia and Voss 2004; Fletcher Jr. and Gapasin 2008; Kimeldorf 1985; Milkman 1998; Stepan-Norris and Zeitlin 2003).

Workers across the global production system organize through formal bodies linked to existing union organizations, and spontaneously through wildcat actions that emerge from informal modes resistance. Occasionally, bonds between worker groups are strengthened, and concerted efforts are made publically to highlight the
interconnectedness of their contributions to the labor process, and the brutality of the working conditions that exist on their dispersed shop floors. In an industry that consistently has injury and illness rates in the top ten in the U.S. alone (Bonacich and Wilson 2007; Struna et al. 2012), “workers bodies…are often the cost of the high speed of commodity circulation in logistics space” (Cowen 2014: 125). The question is when, not if, workers push back against workplace regimes that put people on the line—as is whether the action will be organized or spontaneous.

Temporary Organizing

The Warehouse Workers United Campaign is also interesting insofar as it seeks to organize temporary workers whose legal status as employees is often unclear, and whose employer of record—the agencies, the warehousing firm, or the global retailer—is often in question as well. Far from representing the terminal crisis of American labor, the campaign provides an example of innovative strategies and tactics that can reinvigorate organizing in a variety of sectors that have been difficult to penetrate. In fact, the Warehouse Workers Resource Center is a member organization of the National Staffing Workers Alliance—“a grassroots based [coalition] for permanent work” that seeks to link different temporary worker organizing drives and activists in different areas of the US (National Staffing Workers Alliance 2015).

The heavy reliance on contingent workers through temporary agencies and subcontractors is part and parcel to globalized commodity circuits. The ability to effectively organize temporary workers, and workers in industries with high rates of firm
entry and exit is among the most important objectives of the contemporary labor movement globally. Just as workers in previous periods shared strategies and tactics, and expanded their union networks beyond their own individual shop floors (Kay 2005; Martin 2008; Silver 2003), workers in the contemporary era have begun to forge connections industry wide, and spread news of effective methods of limiting capital’s ability to unilaterally set the rules of the game in local, and global contexts (Brookes 2013; Luce 2014; McCallum 2013).

Yet, it is also important to remember that temporary employment agencies and subcontractors ultimately provide workers to the benefit of end-user firms such as retailers, suppliers, and third-party logistics companies. The “for whom?” question applies here too when considering organizing strategies. Thus, while Warehouse Workers United targeted specific firms within the contracting structure, and frequently filed legal and/or administrative actions against logistics provider firms and/or temporary agencies as employers of record, the ultimate rhetorical and organizational target was often retailers.

Firms like Walmart, particularly in later phases of Warehouse Workers United’s campaigns (De Lara et al. 2015 [Under Review]), provided a symbolic focus for the public “air war,” while their contract firms within the supply networks served as a focus for organizing in the “ground war” (Milkman 2006). That is, they largely directed media and community attention on the public face of the employment structure—i.e., Walmart—while focusing legal, legislative, and unfair labor practice campaigns on the
direct employers of warehouse workers. Nonetheless, such practices represented an effort to link working conditions back to the most powerful actors in the relationship in order to impugn the junior-partner contractors, and call into question the contracting model overall.

The temporary agency structure is frequently the focus of resentment and resistance on the part of organizers and individual workers. In interviews and conversations, workers associated with Warehouse Workers United as well as those who were not, frequently identified the elimination of the temporary agency as a first step in reforming warehouse work. Indeed, prior to the Walmart-focused campaigns of the later Warehouse Workers United period, the organization staged demonstrations outside temporary agency storefronts. For workers as well as analysts, the power wielded by agents resembles a modern “shape up”—except that instead of being “chosen on the spot” at the gate “to do the work” (Bonacich and Wilson 2007: 172), the algocratic methods described above initiate the call to workers’ cell phones. Nonetheless, agencies insure “no guarantee of hours, job choice, or pay rates,” and “acts of favoritism and discrimination” remain common (Bonacich and Wilson 2007: 172).

As Gonos and Martino (2011) state, agencies create conditions “Like the docks” depicted in the film, On the Water Front (1954): “It is a labor market characterized by erratic work schedules, poverty wages, hazardous conditions, demeaning treatment, and no voice or job control for workers” (Gonos and Martino 2011: 500). Thus, organizers,

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68 Such tactics often operated in tandem, but the Evarardo Carrillo, et al. v. Schneider Logistics Inc., et al case represents the convergence of those models insofar as it simultaneously attacked all of the institutional actors responsible for working conditions in a high profile federal case.
workers, and others call for the removal of agencies from the industry and something like a “basic hiring hall model [where] unions maintain lists of qualified, available workers from which employers fill their hiring needs” (Gonos and Martino 2011: 511) Thereby, workers would be able to assert more collective control over working conditions as well as collective voice. In so doing, such a hiring hall approach could approximate a stronger form of the corporatist model akin to that of West Coast Longshore workers.69

However, “temporary work, by its very nature, constitutes temporary workers as individuals” (Rogers 2000: 85 emphasis original). By retaining the logic of the shape up, removing workers from co-presence in the selection process, and even pitting direct-hires against temporary workers, temporary agencies help to diminish the potential for collective resistance (Hatton 2011; Rogers 2000; Smith 1998). As such, temporary worker resistance “is usually (but not exclusively) individualistic rather than collective in nature” (Rogers 2000: 90 emphasis added). Consequently, the end-user firms embedded in the institutional structures of the warehouse and distribution center have a vested interest in maintaining the presence of the agency even under legal conditions that have begun to limit the employers’ capacity to pass off responsibility to other actors in the relation. In some cases, workers’ complaints and resistance is displaced onto temporary agencies rather than directed at the global retailers per se, or even the logistics firms.

Hence, Warehouse Workers United’s industry wide approach to organizing in the region and establishing its global connections. By using successful strategies observed in

69 This model would certainly be preferable to the current agency structure, and may even be superior to conventional exclusive representation models. Yet, given the extraordinary effort needed to erect such a structure, more robust collective governance systems could be attainable with relatively little more manuvering.
other low-wage, high-precarity organizing campaigns (Milkman 2006), the organization sought to foreground the hows and whys of the “man behind the curtain” present in goods movement. Removing the veil of institutional complexity from the employment relationship, and helping workers show the public who is ultimately responsible for working conditions and transnational systems of exploitation, is an important first step in eliminating the utility of the agency structure.

Organizing temporary workers has proven elusive in the US (Hatton 2011; Rogers 2000; Smith 1998). Yet, to the degree that the agencies and retailers (or other firms that contract with agencies) can be clearly linked as jointly responsible for working conditions, and revealed as little more than legal fictions designed to minimize responsibility of employers or their contractors, workers can be mobilized to defy the individualism built into the contract relationship. Despite the fact that Warehouse Workers United and the Warehouse Workers Resource Center has not (yet) produced unionized workers exclusively represented by an organization under a conventional labor-management agreement, they have proven that collective resistance is possible—even among temporary workers. They have done so by insisting that workers are engaged in a shared, global labor process, and that neither they or the firms that employ them operate independent of that system. Multitudes of workers embedded in scores of worksites and firms all cooperatively operate at the behest of retailers who demand their labor—regardless of the agency as mere employer of record. By exposing that fact, Warehouse Workers United and their members collectively pushed the reluctant local industry to improve working conditions for temporary workers.
Individual Resistance

Resistance, both formal and informal, organized and individual, ebbs and flows as the industry responds to worker efforts to transform workplaces. While organized forms are frequently more visible, and potentially enduring, individual acts of resistance must not be dismissed. Subaltern acts like those noticed by workers above—substituted shoes, untapped boxes, spitting on goods—or other efforts to resist pacing by management represent significant acts of contestation of management power. Following Scott (1985), who argues that “a theft of grain, an apparent snub, an apparent gift” all represent acts that must be interpreted in terms of their lived class content, ostensibly minor and apparently unconnected behaviors need to be viewed according to the meanings the actors intended to express (Scott 1985: 46).

Even if the target of the acts—management, or the process itself—is missed, and workers downstream are the recipients of the affronts, such expressions remain conscious efforts to disturb production standards. As Peña (1997) asserts, “ghosts and their unending pranks and hauntings are not always easily noticed or appreciated” (Peña 1997: 105) but their efforts to disrupt can frequently manifest at each of the next steps in the globalized supply chain. Further, “individual acts of foot dragging and evasion are often reinforced by a venerable popular culture of resistance. [Yet,] by virtue of their institutional invisibility, activities on anything less than a massive scale are, if they are noticed at all, rarely accorded any social significance” (Scott 1985: 35). Still, such “foot dragging,” mild or moderate sabotage, vocalizations, or other forms of contestation
represent the active beginnings of resistance to capital’s efforts to totalize coordination and control over the labor process.

Sometimes, simple dodges like hiding in areas managers rarely enter, or skillfully avoiding their contact while consistently moving through stacks of products need to be understood as more than laziness or “soldiering,” in Taylor’s (1967 [1911]) term. They frequently take a great deal of energy, and in the case of my facility, required building enough trust to be appointed as a shift lead, since they were among the few whose labor was not as closely digitally monitored. “We cannot assume that unplanned” or unsophisticated “resistance is not resistance, ‘proper’” (Rogers 2000: 91.). Workers use everyday means of pushback in ad hoc ways as the opportunities present (Rogers 2000; Scott 1985). However, enacting work avoidances in standardized environments also requires forethought and knowledge of the labor process if one wants to do them well. On the other hand, intentionally dropping a 2500-pound forklift battery in order to damage it and prevent the machine’s operation until it can be repaired, as reported in a worker interview, takes less planning, but it is more overt.

Resistance also takes less insidious forms. On a particularly busy night, I watched and strained to overhear two of my coworkers “freestyling” as they worked on an adjacent line.70 Despite music being banned on the shop floor, as is common in many industrial workplaces (Korcynski 2003; Korczynski 2007) these young men took turns impressing each other and their line mates with their improvised vocalizations. As such, their musicality served as a means of passing time, and as a way of appropriating the

70 Freestyling is a form of hip-hop vocalization, often termed, “rapping.”
pacing of the conveyors by “using music creatively and functionally to [enhance] the labour process” (Korcynski 2003: 330) like the song of Wordsworth’s “Solitary Reaper.”

Further, workers sometimes alter the labor process where they can, and in so doing resist standard practices (Vallas 2003a). One of my coworkers, when working as a facer, would stand boxes vertically for the splitter on one side of the line, and lay them horizontally for the other—thereby making it easier for downstream workers to identify the products they needed to manipulate. Despite the fact that management repeatedly admonished him to stop, and to “let the splitters do their jobs,” he would continue the practice in their absence. Thus, the facilitation of the labor process for others against the wishes of management became a game, and way to reclaim control over work (Burawoy 1979; Hodson 1991; Rogers 2000; Vallas 2003a) for operations that were not digitally tracked.

The workers who spontaneously joined the strike connected to Walmarch represent the nexus of individual and collective resistance, and in many ways embody a broad swath of workers employed in the industry. Several of the men who struck reported living in their cars despite working mostly full time for a temporary agency contracted by one of the largest transnational corporations in the world. More than one remarked that the sleeping arrangements in the churches and community organizations that hosted the marchers were better than what they normally endured. And, many lacked adequate shoes for the march despite working in an industry that requires walking long distances each shift—frequently equivalent to the ten-mile daily averages of the demonstration. These were not workers who volunteered to come to meetings, or had
been contacted by organizers in advance. They were men and women who refused to
cross the picket line established to kick-off the larger action, and decided on the spot to
march to Los Angeles instead. They thus confirm Rogers’ (2000) finding that temporary
workers resist in *ad hoc* and opportunistic ways—*their participation in collective action
was spontaneous and unplanned, and they joined when presented with an opportunity—
but they also support Vallas’ (2003) finding that workers often resist less
individualistically, and “in a far more *collective* way” than others assume (Vallas 2003: 221 emphasis original).

Prior to knowing that these workers had joined the march without having been
previously organized by Warehouse Workers United staff or worker-organizers, many of
us who had participated in other strike actions and pickets remarked on the unusual lack
of discipline they exhibited relative to other Warehouse Workers United members. On
learning of their living situations and precarity, we remarked on their bravery. “The
rootedness” of their class positions both within the labor process and in the class-life
outside of work suggested “how individual grievances become collective grievances and
how collective grievances may take on the character of [class symbols] tied…to local
experience” (Scott 1985: 1944). Given the opportunity to voice their grievances in
solidarity with others, these workers seized on a chance they may otherwise not have
taken (Hirschman 1970; Scott 1985).

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71 The spontaneous workers were more resistant to being marshaled by organizers along
the march route, and frequently failed to understand the importance of decorum in public
forums with members of the public or press present. However, by the end of the second
day, they became more integrated into the core group, and by the end of the march were
undifferentiated in behavior from the seasoned, organized workers.
Regardless, individual acts of sabotage and disruption, as well as organized dissent represent resistance to work consumed in different geographies, and resistance to working conditions controlled by transnational corporations. And, while this work has focused primarily on a picture of a transnationally embedded “working class as it exists, as the shape given to [it] by the capital accumulation process,” or as “a class in itself, not as a class for itself,” moments of resistance to workplace domination show the nascent formation of globally conscious workers (Braverman 1974: 27 emphasis original). As individual experiences accumulate, and workers communicate in directed or incidental ways, we should expect to see continued peaks and valleys of collective, concerted action, as well as steady, individualized ad hoc refusals to comply with the letter and spirit of capital’s coordination and control of the labor process.

CONCLUSION

The transnational relations constituted in the labor process organized within TNCs matter because they are a dominant mode of exploitation that expands apace with globalization. When we talk about capital mobility and off shoring, we refer to the technologies that enable the global commodity circuit. When we talk about global labor markets, and the race to the bottom, we refer to technical and institutional fixes that collude with spatial fixes to enable differential rates of exploitation. When we talk about global firms and networks standardizing practices to minimize capital outputs and

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72 On the notion of “fixes” see Arrighi (1994) and Harvey (2006)
maximize returns as profit, we refer to a global effort on the part of the TCC to extract value from the global working class at its lowest rate *globally*.

Resistance as an expression of “voice…is a far more ‘messy’ concept” than a dichotomous, organizational-versus-individual set of options of contesting managerial control (Hirschman 1970: 16). The use of “voice” in workplace resistance is “graduated…all the way from faint grumbling to violent protest” (Hirschman 1970: 16), and its various forms can be distributed as widely across the commodity circuit as the various shop floors themselves. Voice in its individual, direct manifestation can be easily shut down. Recall the worker shouting “WE NEED SOME HELP OVER HERE,” and the quick dismissal he faced should he use voice against management again. Or the illegal retaliation by logistics firms and agencies faced by Warehouse Workers United worker organizers, and similar workers nationwide (Bronfenbrenner 2009).

Nonetheless, subaltern acts, and overt organizing erupt frequently. The challenge, built into the geographically distributed, algocratically managed shop floor and all its panoptic reach, is to have one’s voice heard, and to have an impact on the governance of work processes. Of course, for many, that means effective coordination of resistance across worksites (Allen 2010; Bonacich 2003; Luce 2014; Silver 2003; Warehouse Workers United 2013a). As Luce (2014) argues, “unions must build strategic alliances across corporate supply chains, even across borders, and learn to see that their own powers and interests are intertwined” (Luce 2014: 200). Taking that logic a step further, unions must transnationalize as effectively as capital itself. Again, insofar as unions responded to the expansion of capital to national markets by growing to be nationwide
“international” organizations in the nineteenth and twentieth centuries, viable organizational responses to the rise of global capital twenty-first century require transnational solutions.

The particular techniques of coordination and control used in worksites embedded in globalized commodity circuits have important social effects on participants in those processes. Transnational relationships between workers emerge as a result of managements’ direction of the labor process, as well as from shared activities and material-cultural elements that present in working life. As these relationships form and continue to emerge on the basis of the labor process, workers contest capitalist hegemony in various individual and collective ways, as can be seen in Southern California’s warehouses. For some warehouse workers, individual forms of resistance like sabotage or foot dragging (Hodson 1991; Scott 1985) become a viable, if less than effective option for contestation overall. For others, collective organizing leads to substantive changes to working conditions, or in the very least more active enforcement of existing law. For still others, transnational alliances among workers in global supply chains are beginning to emerge, and provide a model for other workers in their efforts to resist transnational capital.
CHAPTER SEVEN
CONCLUSION: IMPACTS ON SCHOLARSHIP, ORGANIZING, POLICY RECOMMENDATIONS, AND PEDAGOGY

In highlighting the ethnographic worlds of the local, it challenges the postulated omnipotence of the global, whether it be international capital, neoliberal politics, space of flows, or mass culture (Burawoy 1998: 30)

IMPACTS ON SCHOLARSHIP

This dissertation has focused on developing an understanding of transnational working class formation as an analog to transnational capitalist class formation. The objective class relationships obtaining from the internationalization of the productive circuit of capital (Cox 1987; Dicken 2003; Palloix 1977; Robinson 2004) require analysis and explanation from a bottom up perspective in order to balance the class equation empirically and theoretically. Most research on transnational class formation from a global capitalism approach has focused on the transnational capitalist class and changes in relations of production from the perspective of dominant groups (Carroll 2010; Cox 1987; Robinson 1998; Robinson and Harris 2000; Sklair 2001). Far less attention has been given to the effect of the transnational capitalist class’ emergence on working class formations. In many cases, the globalization of class relations is assumed to affect only the capitalist globalizers—workers in their local lives thus retain a local class character despite the transnational reach of the capitalists and managers executing coordination and control over work, and thus workers’ non-work lives (Embong 2000).

To show that there is indeed an emergent transnational class relation between labor and capital on the basis of the production process both participate in, I focused on
the case of warehouse and distribution center workers in the Inland Empire of Southern California. As a major hub for goods movement in the US, handling as much as forty percent of the one-quarter of total US imports that pass through the ports of Los Angeles and Long Beach (Bonacich and De Lara 2009; Bonacich and Wilson 2007), the logistics cluster (Sheffi 2012) of the Inland Southern California region represents an ideal site for research on labor and capital in the globalized world economy.

My research combines the empirical traditions of labor process sociology and the sociology of work (Aneesh 2009; Braverman 1974; Burawoy 1979; Edwards 1979; Edwards and Garonna 1991; Vallas 2003a; Vallas and Prener 2012), with theoretical approaches to class structure from a Marxian/global capitalism perspective (Chase-Dunn and Hall 1997; Gramsci 2005 [1929-1935]; Marx 1990 [1867]; Poulantzas 1975; Robinson 2004; Sklair 2001; Thompson 1966 [1963]). In doing so, this dissertation mediates between institutional-level sociology and macrosociology. On the one hand, it provides a fine-grained analysis of the practices and ideologies of coordination and control inherent to contemporary logistic firms embedded in global commodity chains. On the other, it argues that it is precisely those practices and ideologies transnational capitalism requires for its global spread.

One of the primary modes of coordination and control capital uses to efficiently manage labor across disparate geographies and institutions is the “algocratic” structure embedded in information technology (Aneesh 2009). Where Aneesh (2009) identified control over work by use of algorithmic codes that coordinate and discipline workers in the context of call centers, the same logics and technologies can be found in the
warehouse and distribution center. SAP software, scanner-driven or disciplined work processes, and the conditional logic of the algorithm dictates action in the warehouse and distribution center. Thus, the algocratic system extends to goods movement and physical labor as much as it does information transmission and mental labor.

Further, algocracy (Aneesh 2009) in the warehouse is combined with total quality management, Kaizen, team concepts, or other euphemistic expressions of management-by-stress (Head 2003; Monden 1993 [1983]; Parker and Slaughter 1994; Vallas 2003a), as well as the temporary work contract model (Gonos and Martino 2011; Hatton 2011; Rogers 2000; Smith 1998). In the logistics functions of global supply chains—and presumably in other functions as well—digital coordination and control, standard work, and precarity are levied against workers in the perfect totalizing mix designed to extract the most work for the least pay. Taylor (1967 [1911]) could only have dreamed of the degree of managerial control over the labor process exhibited in contemporary materials handling activities.

Massive spaces and their cramped, containerized analogs combine with technological and social elements in the labor process that induce stresses and strains on the shop floor, and linger long after workers clock out and head home. Poverty-level wages, employment precarity, injuries and illnesses, and a systematic disregard for the persons and communities that inhabit or live adjacent to warehouses and distribution centers in the region conspire to make hard work even harder. Labor law, wage and hour, and health and safety violations are foisted on already marginalized men and women as if their age, immigration, race, or gender status justifies maltreatment and exploitation.
And, yet they return to move, and hold, and transform the goods of the world. Despite all of the stultifying effects, workers extract meaningful relationships and a sense of wonderment from the labor processes in which they are imbedded. Some resist. As individuals they push back where they can, and as groups they seek to institutionalize methods that would make their workplaces and others’ safer, secure, and less exploitative.

Management is a class practice. “The verb to manage, from manus, the Latin for hand, originally meant to train a horse in his paces, to cause him to do the exercises of the manège” (Braverman 1974: 66 emphasis original). When we attempt to locate the source or origins of the formation of a working class on the basis of capitalist practices, we must keep in mind the level of objectification of laborers and labor, as argued by Braverman (1974) and others (Edwards 1979; Marx 1990 [1867]). Individuals and groups subject to “exercises of the manège” share a social location on the basis of their participation in relations of sub- and super-ordination. As others have asserted, the extension of the act of management to transnational and global contexts is a concomitant extension of the social relations of production (Aneesh 2009; Palloix 1977; Robinson 2002; Robinson 2004). It is incumbent on those of us studying those relations in places like warehouses and distribution centers to develop ways of describing the specifics and generalities of the class relations that emerge in transnationally linked (but) local contexts.

As the global extent of the world-economy continues to develop apace with political, economic, and other social-cultural structures, sociologists must theoretically and empirically update the scope of our conceptual apparatuses (Chase-Dunn and Hall 1997; Robinson 2002). Chase-Dunn and Hall (1997) remind us that “the similarities
should be emphasized first” when it comes to world-systems comparison, or different epochs of development, but “most sociologists are still in the habit of studying single societies” as if sociocultural life is actually contained by the local only (Chase-Dunn and Hall 1997: 229). However, “in order to understand both social reproduction and social change” a broader framework is required (Chase-Dunn and Hall 1997: 229). The totality of interactions determines the scope of social structure—not merely the “imagined communities” of national societies (Anderson 2006 [1983]).

Thus, in terms of both the actual social practices, and our social scientific analysis of them, “the new locus of development [and accumulation] processes is emergent transnational social space (Robinson 2002: 1066 emphasis original). Contemporary warehouses and distribution centers offer an empirical case to assess the extent to which transnational formations impact institutions and individuals on the ground and vice-versa. Indeed, these facilities are among the essential elements that enable the emergence of fragmented and decentered networks of production in practice (Robinson 2004; Smith 1998). Labor process sociology must continue to be attentive to techniques of coordination and control as they apply to global systems of commodity production, and develop more concise ways to delimit and describe the social practices observed on the ground in the context of their globality.

A cynic or skeptic may ask pointedly, “why do transnational processes matter if people only experience their social relations—especially class—at an immediate, local level?” The answer is that the “hows,” “whys,” and “for whoms?” of globalized circuits of production matter. Paraphrasing Georgina Murray, who once said to me in a review, “a
Marxist analysis devoid of mention of exploitation isn’t Marxist at all.” Since the differentials in experience, wages, capitalization, and other aspects of local contexts are the very differentials that transnational capital draws upon when selecting particular geographies to locate their sites of production, distribution, storage, and consumption, it is precisely the global that determines local articulation with it. Who exploits whom, where they are exploited, and whence the profits go—even in the physical absence of capital’s human face—all matter.

Yet, in order for the analysis of the labor process and material relations to be relevant, there has to be something consequential; the evidence has to point to both power imbalances within the observed relations, and to their potential solution. As Marx argues, the point is not merely to understand the world, the point is to change it. “By studying the fundamental data [of production relations] it is possible to discover whether in a particular society there exist the necessary and sufficient conditions for its transformation” (Gramsci 2005 [1929-1935]: 181). Far from assuming a place of distance as a researcher and something like objectivity, the purpose of this research on warehouses and distribution centers is to inform the work of others who have proposed that organizing across the supply chain is an essential task of labor in the global era (Allen 2010; Bonacich 2003; Bonacich and Wilson 2005; Bonacich and Wilson 2007; Gonos and Martino 2011; Quan 2008).
LABOR ORGANIZING AND CONTESTING TRANSNATIONAL CAPITAL

Just as firms like Sears, national steel concerns, oil, and railroad companies engaged in the consolidation of national markets in the Nineteenth Century (Chandler 1977), Walmart, Amazon, Unilever, and Alibaba, and others are engaging in contemporary consolidation of transnational markets. In each case, the diffusion of technologies, institutional practices, and managerial ideologies, along with the diffusion of neoliberal policies, announces the extensive enlargement of the broader capitalist project. The dominant managerial practices of the era constitute the basis for institutional isomorphism (DiMaggio and Powell 1983), and thus mark a major form of sociation in the regions penetrated by these practices.

If the spread of firms’ scope in previous periods led to the consolidation of national markets, it also led to novel forms of contestation and resistance that diffused across the same spans. While unionization efforts happened in particular points of production within national firms, the extension of similar strategies and tactics across whole industries and sectors led to now-ubiquitous national and international union organizations as well as trade union federations responsible for the codification of working class power in national and international law (Cornfield 1991). In establishing themselves as arbiters of quality, and a voice for worker control in the workplace, labor organizations also contributed to the diffusion of best practices for workers beyond represented workplaces.

To impact global capitalist practices, we should see—and indeed do see at least nascently—similar efforts to expand the institutional scope of labor protections, and
codify legal practices into transnational contexts (Rawling and Howe 2013; Silver 2003). As Luce (2014) affirms, “unions may be one of the only institutions capable of correcting the great imbalances in today’s global economy” (Luce 2014: 11). Unions affiliated with the International Trade Union Confederation, and organizations seeking to establish International/Global Framework Agreements, Codes of Conduct or other governance mechanisms are becoming more numerous despite their many limitations and flaws (Luce 2014; McCallum 2013). Indeed, some of the bright spots in global campaigns (if tenuous and fragile) include organizations targeting the supply chain, such as Warehouse Workers United in California, Warehouse Workers for Justice in Illinois, the Bangladesh Center for Worker Solidarity, and allied trade unions embedded within Walmart networks in South Korea and Chile (Luce 2014; author notes).

Nonetheless, nothing like the broad-based, truly global labor organizations called for by Fletcher Jr. and Gapasin (2008) currently exist in any significant capacity. Union Network International may be teaming up with the US-based United Food and Commercial Workers, and Service Employees International Union has cooperated in significant campaigns against transnational corporations in India and South Africa (McCallum 2013), but the hope of industry-wide organizations representing workers across a firm’s global networks remains largely elusive. Yet, potentials do exist: if labor organizations throughout Walmart’s massive commodity circuits continue to pulse, such projects could “blossom into the most historic global union victory of all time” (McCallum 2013: 151). Institution building is possible even in the face of a diverse and complicated political economic organizing landscape.
However, in order to do so effectively, we must understand the production practices, modes of coordination and control, and institutional frameworks operative in the contemporary transnational firm. Further, we must understand the local conditions on the ground, and the ways that the local environment articulates with other firms and their contract networks. As a lead organizer with Warehouse Workers United emphasized to me, the real victories in the limited global campaigns supported by the labor federations came not from the official links between organizers and organizations, but in the moments where rank and file workers realized they shared the same problems and endured managements’ techniques in common. When Korean drayage truckers report to drayage truckers in Los Angeles that they too were misclassified, or warehouse workers in Mira Loma, California learn firsthand that warehouse workers in Guangdong province also face wage theft by the very same global retailers for which they labor, the global realities of their predicament become imminently clear. Management shares strategies across borders—so too must workers.

Nearly all of the major research on global income inequality finds increasing within nation inequality, and decreasing between nation inequality (Firebaugh 2003; Milanovic 2005; Piketty 2014). There are well-known mechanisms for this trend, including deunionization, educational disparities, decreases in social services, sectoral disarticulation, and other forms of neoliberal austerity (Alderson and Nielsen 1999; Alderson and Nielsen 2002). The inequalities observed in the global epoch indicate strong support for the global capitalism school thesis that transnational production networks have shifted the geography of inequality from national-state based logics to a
global logic of accumulation. This is so because the embeddedness of facilities and workers in these transnational chains is one of the mechanisms for transnational accumulation of wealth and income (Bornschier and Chase-Dunn 1985). Thus, it is precisely the logic of production that requires the modes of coordination and control in the globalized warehouse and distribution center—just as the globalized warehouse and distribution center is required for the productive and distributive methods of the era.

Thus, the Polanyian answer to these transnational patterns of accumulation and exploitation—a shift away from the dominance of marketizing ideologies and policies, and movement back toward ideas and practices oriented toward protection of non-market life—should not center on institutions and structures based on national-cultural geographic limits. Instead, transnational policies and solutions are needed to address the current phase of labor exploitation under transnational commodity capitalism (Polanyi 2001 [1944]). Capital mobility is capital’s answer to local or national organizing strategies. Managerial ideologies and practices that favor worker precarity over longevity and loyalty are the endemic social structures of the contemporary firm. Organizational models must therefore account for that capital mobility, and must be appropriate to the institutional structures to which they respond.

This dissertation has highlighted the precarity that workers in Southern California face. Similar tendencies and structures exist wherever transnational commodity circuits function and are part of the broader cataclysmic consequences of the continued extension of global capitalist logic. Sklair (2001) has termed the twin crises of global capitalism: the “class polarization crisis,” and the “ecological crisis” (Sklair 2001: 6). The carrying
capacity of the natural environment and social limits of capitalism may well be immanent, as other scholars suggest (Chase-Dunn and Hall 1997; Harvey 2006; Robinson 2014). Without a shift from “an accumulative logic to a social logic,” the current conjuncture may prove highly destructive of the global system and its inhabitants (Robinson 2014: 233).

To circumvent the crisis, global democratic socialism represents more than a political choice or ideological position—it may well prove to be the only choice between the transcendence of modernity and global civilizational collapse (Chase-Dunn and Hall 1997; Chase-Dunn and Niemeyer 2009; Robinson 2014). But, building such an alternative future, a counterhegemonic challenge to global capitalism, requires “mass organization and [mass] mobilization” (Robinson 2014: 234). For those that are serious about holistic transformation, we must disabuse ourselves of the notion that “we can ‘change the world without taking power’ [and instead live] in the interstices of the global capitalist” order (Robinson 2014: 221). Further, we must renounce perspectives promoting the rejection of “revolutionary theories and political organizations” (Robinson 2014: 221). Indeed, it is fantasy to imagine escaping a total system without counterpoising a systematized and universal rejection of its logic. As Robinson (2014) asserts, it is not enough to ‘speak truth to power’; those who hope to construct a more just world must confront power with power” (Robinson 2014: 234 emphasis original).

To do so means building movements from within and outside of workplaces, and disseminating strategies of disciplined confrontation and organizing throughout the supply chains and their embedded social contexts—as has happened within revolutionary
waves of the past (Bush and Morris 2008; Chase-Dunn and Niemeyer 2009; Robinson 2014; Silver 2003). World counterhegemonic organizing projects have diffused under far less sophisticated communicative circumstances than those of the present moment. Where I disagree with Robinson (2014) is on the insistence that such a project requires the rejection of gradualist action in favor of “a rupture with the rationality or basic logic of the prevailing order rather than generating counterpositions within that logic” (Robinson 2014: 233 emphasis original).

To be clear, a “rupture” may be ideal, and desirable insofar as overcoming the logic of global capitalism is essential to long term (or even mid-term) survival, but we must not abandon any tactical approach to improving the working and living conditions of the great mass of humanity. Where conventional wage-setting contracts move the field forward for workers, we should see it as a victory for the working class. Where global framework agreements or supplier codes of conduct (Luce 2014; McCallum 2013) alleviate, however partially, the worst exploitative practices of global capital, we should hail their implementation. Or, when a local state legislature and its executive branch institute legislation to ensure that contractors have the capital reserves to pay the warehouse workers they contract through temporary agencies (as with the passage of AB 1855 in California), we must see it as an incremental step toward greater protections for actually existing workers.

Seeing victories where they are achieved is not a pragmatism of compromise, but a pragmatism of accumulating victories where they may be taken; where they can be built upon in the future. The best laid plans to thrust ruptures on the world may end up being
just plans. But, “every step of real movement is more important than a dozen programmes” (Marx 1970 [1875]). Thus, alongside broader strategic goals of forming a global counterhegemonic bloc (Carroll 2013; Robinson 2004), we must be prepared to advocate and fight for policy changes that make sense on the ground and in the moment.

POLICY RECOMMENDATIONS

First, as Gonos and Martino (2011) recommend, a major policy goal domestically and transnationally would be the elimination of temporary employment agencies and the establishment of union hiring halls. Temporary staffing firms are among the most insidious and widely distrusted institutional agents in the warehouse and logistics world, and they are increasingly present in many industries (Dietz 2012). Their removal or severe curtailment would be a positive first step in the transformation of employment relationships into safe, secure, knowable relations between workers and firms. While this is perhaps a long shot, local or national legislation mandating direct employment relationships, or severely restricting the use of temporary agencies and other types of contract labor, is achievable in the presence of sufficient will, cleverness, and political mobilization.

Second, short of temporary agency disestablishment, removal to impediments to unionizing temporary workers, or burdensome requirements to establish “community of interests” among direct hires and temporary workers should be abolished (Gonos and Martino 2011; Hatton 2011; Rogers 2000; Smith 1998). Currently, the National Labor Relations Board vacillates according to administration in regard to workers’ rights to
organize in the workplace. While perhaps a short-term fix, recent decisions to recognize franchisees and parent corporations as “joint employers,” and pending decisions to recognize contracting firms and their temporary agencies as joint employers are promising advancements for workers seeking to ameliorate legal divisions in the workplace.

Third, continued surveillance of working conditions in California, and extension of oversight to other jurisdictions and geographies is needed. The California Division of Labor Standards Enforcement has made inroads into the protection of workers wage and hour, as well as health and safety rights in warehouses and distribution centers and other low-wage industries, such as garment production and agriculture, in recent years. This is so in large part to the Warehouse Workers United and other campaigns and worker centers, which have drawn attention to wage theft, and health and safety problems among workers, such as exposure to heat and dehydration risks (Cal/OSHA 2010; Cho et al. 2013; Warehouse Workers United and Cornelio 2011). Connected to these concerns is the establishment of clear-cut responsibility for workers in joint employment relationships in the presence of contractors and contracting firms—beyond just the temporary agencies as indicated above. Improved legal clarity through legislation, and judicial rulings at state, local, and ideally global levels should combine with increased enforcement and a re-funding of inspection and labor law complaint protocols.

Short of the abolition of global capitalism and the domination of the transnational capitalist class, global unions that represent workers throughout the supply chain remain the best possibility for rebalancing coordination and control over the labor process in
favor of workers (Allen 2010; Bonacich 2003; Bonacich and Wilson 2005; Bonacich and Wilson 2007; Fletcher Jr. and Gapasin 2008; Luce 2014; McCallum 2013). Again, contesting capital at the point of production across globally dispersed circuits is a logical institutional step akin to the extension of labor organizations to national contexts in previous extensive periods. Whether through “global unions” that “engage [workers] in different countries in campaigns against common employers, or around common problems” (Luce 2014: 176), or through some other institutional configuration that matches the structural power of firms with the numerical power of labor, transnational organizing is the only viable response to capital’s global mobility.

Why do transnational labor processes matter for workers? Because they homogenize exploitative practices across contexts. Such homogenization is the purpose of the standardization of work, physical capital and materials, and algocratic direction of the labor process. Despite differences in people on the ground in different places, the labor process is designed to create uniform and knowable outcomes. As such, it is a diffusion of social practices that has the capability of producing likeminded participants, and more than just an objective basis for class formation. Thus, whether we address this potential at the level of a global socialist counter hegemonic project, or merely fight for the improvement and implementation of workers’ labor rights at the local level, actively responding to capital’s coordination and control over the labor process pushes us together more than it pulls us apart.
TOWARD A PEDAGOGY OF CLASS FORMATION

At the risk of being trite, or aggrandizing the importance of education for our own professional purposes, it is perhaps pedagogy alone that has the potential to transform the objective conditions of class formation observed in the labor process into subjective stances oriented toward global working class power (McLaren and Jaramillo 2010). “Liberation is a praxis: the action and reflection of men and women upon their world in order to transform it” (Freire 2000 [1970]: 78). Within all of the observational contexts that I found myself in this research, it was in classroom-like spaces focusing on political education that workers were most receptive and imaginative in reflection on their work processes and class-life. From health and safety trainings at Warehouse Workers United meetings, or film screenings designed to encourage international solidarity among supply chain workers, collective discussion of shared meanings and circumstances most effectively encouraged solidarity. One could not help but feel a sense of “collective effervescence” and sociation (Durkheim 2001 [1912]) when workers learned with and from each other intentionally.

At its best, learning is “dialogical,” and is based on partnerships between learners in a “quest for mutual humanization” (Freire 2000 [1970]: 75). Consonant with working class egalitarianism, “liberating education consists in acts of cognition, not transferals of information” from knowing teachers to unlearned students (Freire 2000 [1970]: 79). Instead, similarly situated individuals commiserate, share tactics and strategies, and otherwise rely on a “profound [cooperative] trust in people and their creative power” (Freire 2000 [1970]: 75). The foci of the environment can be on mundane, local matters
that impact a single plant or firm, or on issues that spread across supply chains and geographies. The techniques of communication can focus on role-playing, dialog, or other communicative organizing tools. Either way, the organic nature of the shared experiences created by co-participation in the labor process should inform the subject matter (Gramsci 2005 [1929-1935]). “The general aims and tendencies of the working class spring from the real conditions in which it finds itself” (Marx 1971 [1870]: 176). Abstractions and theoretical positions only have their place insofar as they reflect conditions on the ground.

Even in the massive break rooms at the firm I worked at during observations, training meetings (described in chapter six above) that used videos to communicate new processes and products evoked a palpable fascination in even the most aloof workers. Learning about linkages and practices, and distant or close moments in which we participate, piques our tendencies to affiliate and regard ourselves as part of something bigger. The global retailer I labored for knew that as clearly as the organizers for Warehouse Workers United. Associational sentiments can be organized in capital’s interests or in labor’s.

Where objective determinants like the transnational politics of the globalized shop floor provide a fertile ground for class formation, worker educational activities intensify the cultivation of class-consciousness, transnational or otherwise. There is “a moment… in which one becomes aware that one’s own corporate interests, in their present and future development, transcend the corporate limits of the purely economic class, and can and must become the interests of other subordinate groups too” (Gramsci 2005 [1929-
It may be that such a moment can arise organically through participation in the objective structures alone, but it is more likely to emanate from concerted efforts to develop such awareness. The conjunction of organizing, policy-making, social scientific research, and movement building represents a pedagogical nexus in which the formation of transnational class-consciousness can take place. Focal points can emerge anywhere within those spaces for different actors. For me, as with others (Braverman 1974; Burawoy 1979; Edwards 1979; Marx 1990 [1867]; Salzinger 2003), critical analysis of the labor process is central to the development of class-consciousness and the process of transforming transnational “classes in-themselves” into transnational “classes for-themselves.”

In a response to critics who found Monopoly Capital: The Degradation of Work in the Twentieth Century pessimistic, and largely devoid of focus on class consciousness, Braverman (1998 [1976]) postulated that the

Working class as a class conscious of and struggling [on] behalf of its own interests will begin to revive as two conditions begin to be satisfied: first, as a clear picture of the class in its present conditions of existence is formed by patient and realistic investigation; and second, as experience begins to accumulate of the sort which will teach us to better understand the state of mind and modes of struggle of this class. (Braverman 1998 [1976])

This dissertation represents an effort to pursue the former through the lens of global capitalism, and offer an account of the ways that we can see transnational class formation in local practice. The work of others (Lillie 2006; Luce 2014; McCallum 2013; Quan 2008) provides us a picture of the latter. Such efforts, combined with the on-the-ground experience and action of organizers and workers, give us an emergent possibility for a
transnational counterhegemonic project responsive to the present moment, and respecting
of the needs of the workers who handle the world.
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