APUS Library Capstone Submission Form

This capstone has been approved for submission to and review and publication by the APUS Library.

Student Name: Braveboy James
Course Number: TLMY699
Professor Name: Wade, Keith
Program Name: Transportation and Logistics
Keywords: Seaport congestion, the back-up of cargo ships in ports worldwide
Passed with Distinction: Y
Security Sensitive Information: N
IRB Review Required: N
Turnitin Check: Y

Capstone Approval Document

The thesis/capstone for the master's degree submitted by the student listed above under this title:

WORLDWIDE SEAPORT CONGESTION

has been read by the undersigned. It is hereby recommended for acceptance by the faculty with credit to the amount of 3 semester hours.

Program Representatives

Signed, 1st Reader: *
[capstone professor]
Signed, 2nd Reader (if required by program)
Recommendation accepted on behalf of the program director: *
Approved by academic dean: *

Signatures

Keith Wade

Stacey E. Little

Date (mm/dd/yyyy)

12/Nov/2015

Send thesis submission to:

ThesisCapstoneSubmission@apus.edu

Attachments must include:
- This completed form
- FINAL Thesis document as Microsoft Word file
- IRB Review docs (if applicable)
WORLDWIDE SEAPORT CONGESTION

A Master Thesis

Submitted to the Faculty

of

American Public University

by

James Anthony Braveboy

In Partial Fulfillment of the

Requirements for the Degree

of

Masters of Arts

October 2015

American Public University

Charles Town, WV
The author hereby grants the American Public University System the right to display these contents for educational purposes.

The author assumes total responsibility for meeting the requirements set by United States copyright law for the inclusion of any materials that are not the author’s creation or in the public domain.

©Copyright 2015 by James A. Braveboy

All Rights Reserved.
Dedication

I dedicate this thesis to my late mother Willie Mae Henry whose spirit is always with me. I also would like to dedicate this thesis to my wife, my family, my friends, and the faculty of American Military University for standing by me and supporting me in so many ways over the course of my studies and as I completed my thesis. Your understanding of the time and energy displaced from pleasurable to academic pursuits is appreciated and will always be remembered. Thank you!
Acknowledgements

I would like to thank GOD who is the head of my life. I would like to also thank the men and women who serve in the United States Armed Forces and those who serve the country in numerous other incredible ways – be it law enforcement, fire fighters, paramedics, doctors and nurses. These selfless individuals embody the American dream and what we all should strive to be. I would also like to thank Professor Keith Wade for his guidance and support while I was completing this thesis and my course of studies. I would also like to thank all of my professors and instructors who have taught me during my Master’s degree experience. I have learned so much about who I am not only as a person but as an academic, and as a citizen.
ABSTRACT OF THE THESIS

WORLDWIDE SEAPORT CONGESTION

by

James Anthony Braveboy

American Public University System, October 25, 2015

Charles Town, West Virginia

Professor Keith Wade, Thesis Professor

Seaport congestion, or the back-up of cargo ships in ports worldwide, is a growing phenomenon in light of the globalization of the container shipping industry. Cargo ships filled with merchandise sit in ports for many weeks, unable to unload, destabilizing economies that depend on maritime import/export in both the developed and developing world. Given the development of post-Panamax, or super-sized, liners, along with alternate sea routes such as the Northern Sea Route and the newly-widened Panama Canal, shipping should be faster and easier than ever; this is however not the case, and this thesis explores several theories as to why. Using the U.S. West Coast as a jumping off point, this thesis contends that that a major source of friction and contribution to the problem of massive seaport congestion worldwide is the dissonance between globalized worldwide shipping networks that operate on sea, and the locally-based, unionized, and heterogeneous dock workers they encounter in port.
# TABLE OF CONTENT

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td></td>
</tr>
<tr>
<td>INTRODUCTION</td>
<td>8</td>
</tr>
<tr>
<td>Problem Statement</td>
<td>9</td>
</tr>
<tr>
<td>Purpose of the Study</td>
<td>13</td>
</tr>
<tr>
<td>Theoretical Framework</td>
<td>13</td>
</tr>
<tr>
<td>Definition of Key Terms</td>
<td>17</td>
</tr>
<tr>
<td>Research Design and Data Analysis Method</td>
<td>18</td>
</tr>
<tr>
<td>II.</td>
<td></td>
</tr>
<tr>
<td>LITERATURE REVIEW</td>
<td>19</td>
</tr>
<tr>
<td>III.</td>
<td></td>
</tr>
<tr>
<td>METHODOLOGY</td>
<td>38</td>
</tr>
<tr>
<td>U.S. West Coast Labor</td>
<td>39</td>
</tr>
<tr>
<td>Analyzing Labor</td>
<td>40</td>
</tr>
<tr>
<td>Globalization Theories</td>
<td>41</td>
</tr>
<tr>
<td>Ways Around</td>
<td>42</td>
</tr>
<tr>
<td>IV.</td>
<td></td>
</tr>
<tr>
<td>RESULTS</td>
<td>43</td>
</tr>
<tr>
<td>U.S. Labor in the Global Shipping Landscape</td>
<td>43</td>
</tr>
<tr>
<td>Multi-port Options for Conglomerate Liner Companies</td>
<td>47</td>
</tr>
<tr>
<td>Liner Companies as Multinational Corporations</td>
<td>51</td>
</tr>
<tr>
<td>Alternate Sea Routes</td>
<td>55</td>
</tr>
<tr>
<td>V.</td>
<td></td>
</tr>
<tr>
<td>DISCUSSION</td>
<td>58</td>
</tr>
</tbody>
</table>
Chapter I: Introduction

In October of 2002, operations shut down along U.S. West Coast commercial seaports between Portland, OR and Long Beach, CA due to a labor dispute between the Pacific Maritime Association (PMA) and the International Longshore and Warehouse Association Union (ILWU). The result of the shutdown, as Day and Arnold (2002) noted, was that over one hundred and fifty freighters were sitting stagnant off the U.S. West Coast (p. 35), unable to unload their cargo. The seaport congestion caused by the 2002 shutdown posed major complications that could have potentially altered both logistics and the economy worldwide. In 2002, concerns over effects on the market were swirling. Economic theorists predicted a transnational marketplace meltdown affecting the U.S., Asia and Oceania (Woodyard, 2002, p. 5), but President Bush’s use of Taft-Hartley Act managed to rescue the economy and squash anxiety for the next twelve years.

Tension along the stretch from Portland to Long Beach skyrocketed once again in February 2014, as congestion reached a critical due to labor disputes. Not surprisingly, this second incident resulted in many companies deciding against shipping to U.S. West Coast ports in favor of new alternatives. The recent labor-induced congestion along the West Coast seaports is related to several issues unique to the contemporary globalized seaport and maritime economy. As Burnson (2015) points out, the post-Panamax era ushered in new scenarios for both labor and logistics (Logistics Management). Many of these new challenges continue today not only to rework and reroute seaport congestion, but also how we think about global shipping and logistics, congestion on the seas, and the maritime economy.

Proposed resolutions to the contemporary issues of seaport congestion include opening the Northern Sea Route along the Arctic Circle in Russia (Blunden, 2012). McCalla et al. (2004) describe the way that globalization has created a lag in the container shipping industry between
ultra-modern at-sea operations, which are highly conglomerated, and land (dock) operations, which still run heterogeneously. According to Jaffe (2010), the rapid divergence of new super-sized (post-Panamax) freight liners away from congested West Coast ports via the Panama Canal to Gulf and East Coast ports also destabilizes the monopoly on competitive wages that the West Coast-based ILWU historically has had over the East Coast-based International Longshoremen’s Association (ILA). Ducruet and Notteboom (2012) illustrate the shift in port hierarchies through a series of network maps that reveal the decreasing importance of the U.S. West Coast ports and overall congestion worldwide, indicating not solutions created by global reorganization, but simply reorganization in the face of rapid global growth.

The general problem faced by commercial shipping industry today is unresolved worldwide seaport congestion. An unanswered question remains: is globalization incompatible with the shipping industry, or does the industry simply need to catch up in order to resolve issues such as congestion? The discrepancies within the global shipping industry that are in contention today are problems of old methods meeting new, but the question begs further examination. This document will assess the contemporary causes and proposed solutions to worldwide seaport congestion and identify the challenges that contribute to the ongoing problem. Also included in this document will be the purpose of study, significance of the problem, research questions, definition of key terms, research design and data analysis method.

Problem Statement

General Problem

Before the era of modern globalized business, seaport operations were run heterogeneously both on the high seas and on the docks; multiple companies operated lines on the oceans, and multiple companies and operated on the docks and in the ports. Shipping lines, of
which there were many, chose where to dock and unload their cargo based on the best rates they could negotiate with port authorities and longshoremen. While the latter is still true, the era of multiple shipping companies is disappearing in favor of a conglomerate model at sea—a result typical of globalization. The clash between large conglomerate companies at sea and multiple, small-interest companies and workers on the docks have contributed directly to seaport congestion in the contemporary era as labor disputes become more frequent.

Superficially, seaport congestion appears to be the result of human need in an era when business increasingly neglects the human, but research proves it a complex and tangled web of various interests, both human and economic. Workers fighting for fair wages, safe conditions, and proper working hours prompt slowdowns or even shut downs of business along the docks, which in turn causes congestion along whole stretches of seaports. Large cargo liner companies, often in conjunction with the port cities competing for their business, have sought to revolve congestion issues by widening important waterways such as the Panama Canal so that larger ships may pass through to different ports and deal with different companies and laborers. Logistics theorists have also considered alternate sea routes; consequently, politicians have argued over who can claim the Arctic Ocean paths above Russia, or whether or not it is safe to dock ships near Yemen. A general problem of the modern globalization of the seaport shipping industry, however, is the lack of resolution at the level of human labor relationships. This can be seen, as McCalla, Slack, and Comtois (2004) and others have noted, in countless examples of labor struggles in industrial ports, resulting in massive seaport congestion—where globalized ocean liner companies have docked in an attempt to do business with unionized, heterogeneous maritime land laborers.
Specific Problem

The two major labor disputes within twelve years on the U.S. West Coast have proven the potential of local labor relations to break down worldwide economies by clogging the network at its most basic level. Between the 2002 shut down and the 2014 slowdown, a marked change has taken place. As Fransoo and Lee (2013) point out, “containerized ocean transport has become the lifeline of almost any global supply chain (p. 253). Since the early 1990s containerized transport has been growing at almost three times the world GDP rate of growth, and yet now an unbridled potential has come into play: The Panama Canal expansion project, which has an intended completion date of April 2016, symbolizes the globalization-era shipping industry (Allen, 2012). The term post-Panamax comes from this literal and figurative expansion. Oversized cargo ships already dock in ports Southampton, and Liverpool UK (“CMA CGM Marco Polo visits UK for first time,” (2012), and with the expansion nearing completion, they will soon be moving freight around the world en masse (Ducruet and Notteboom, 2012).

According to Olney (2003), ILWU membership of longshoremen, clerks, and foremen on West Coast docks had remained steady from 1980-2000, but the amount of cargo handled on the docks increased by 128%, while employment of workers overall had increased by over 50% from 190,000 to 290,000 (p. 39). Therefore, almost half of the employees working on West Coast docks did not have collective bargaining rights, and according to Olney were working in terrible conditions. Today, as Brunson (2015) notes, shippers are sick of back up and congestion on the West Coast: “Total imports along the East Coast have increased by 16% while import traffic along the West Coast is down by 4% (para. 4).” Not only does this shift represent a shift in logistics made possible by the post-Panamax moment, but is also represents a vast shift in the dynamics of human labor. Resolving seaport congestion at the level of business logistics in the
era of the globalized economy indeed seems irreconcilable with the demands of human labor on land, and so this paper asks whether the two can continue to cohabitate, as Hesse (2006) suggests, or if another business model is needed to sustain the industry and economy.

**Type of study**

This study will be a mixture of qualitative and quantitative data that will examine the causes and proposed resolutions to seaport congestion, with specific emphasis on globalization of the container shipping industry, as well as organized labor. It will utilize present statistics on labor and shipping from recent studies and compare them against studies that predate the post-Panamax era for optimal efficacy (Blunden, 2012; Ducruet and Notteboom, 2012; Fransoo and Lee, 2013; Muirhead et al. 2015). Maps and charts also help to explain the present redirection of cargo ship congestion in seaports worldwide. Where present research is deemed inadequate or inaccurate, suggestions will be proposed and alternatives examined. To provide a fair scope, labor issues will be investigated from the perspective of both the unions (ILWU and the ILA) and the Pacific Maritime Association, while issues related to the Panama Canal will also be investigated from multiple perspectives (developed versus developing world, and multiple political and economic views, for example) (Boyle 2015).

Additional qualitative review in the form of textual analysis of sources such as primary sources from the two West Coast incidents place and give voice to the element of human labor that is so deeply in contention with the global marketplace that the cargo liner system increasingly operates within (Burnson, 2015; Cummings et al. 2002; Day and Arnold, 2002; Mongelluzzo, 2015; The Economist 2002; Woodyard 2015). This methodology ensures both a sound analytic approach to the problem of seaport congestion while also helping to identify and
address the lack of discourse around human labor in the global marketplace within the container shipping industry.

**Purpose of Study**

The importance of this assessment is to provide an alternate perspective to shipping companies, port authorities, maritime associations, and union leaders and laborers of the relationship between large conglomerate ocean liner companies and small, heterogeneous land workers in order to prevent (what are otherwise preventable) situations of seaport congestion due to lack of understanding between the two groups. Breaking down the complex problem into a dialogue which accounts for all sides of the issue can and should result in smoother seaport operations and a stronger seaport community. By validating measures such as *post-Panamax* as essential components of a globalized economy, yet not the solution to worldwide seaport congestion, parties can remove some of the stigma from the building of these larger ships and focus on building relationships with workers and employers instead. This assessment will assist with exploring modern economic trends in seaports, promote healthy labor-employer relationships in a global maritime context, and generate new ideas about ways in which congestion at seaports worldwide can be alleviated vis à vis inter-organizational negotiation. The scope of this assessment is multidisciplinary and as such extant research is far-reaching; this assessment draws from recent works in economics, logistics, business, and political science with the intention to add complexity and nuance to these fields.

**Theoretical Framework**

**Hypothesis**

Globalization has vastly altered the container shipping industry. As McCalla et al. (2004) note, the differences in carrier lines have all but disappeared, and these “conformities are best
seen in the extension of services to all world markets through the alliances or multinational mergers among the world’s largest shipper container companies” (p. 474). This, however, is not the case for maritime land operations which as the authors note remain, “differentiated and distinctive.” In other words, conglomeration defines sea operations while specialization defines those on the docks. This marked contrast at least in part accounts for some of the massive seaport congestion experienced worldwide recently. With the implicit industrial emphasis on profit, and the innovative drive, as demonstrated by the ongoing widening of the Panama Canal to accommodate super-sized liners and provide access to more ports, and the promotion of alternate sea routes to alleviate congestion, the at-sea globalization model is the privileged business model, leaving heterogeneous land operations behind. When sea and land operations go toe to toe in the ports under this new globalized atmosphere, the dissonance is clear and can be confirmed in the resultant labor strikes and slowdowns that directly cause seaport congestion, affecting the global cargo shipping industry and the economy worldwide.

**Significance of the Problem**

During the 2002 shut down of the U.S. West Coast ports, up to 150 freighters sat off the coast of Long Beach, causing shipping companies to look for alternate accommodations, and losing up to $1 billion in revenue per day as business stagnated. The shutdown prevented Americans from getting goods such as produce and poultry from other countries, and was also troubling to countries such as Pakistan, where the economy relies on clothing industry-related exports and the need to fulfill multilateral trade quotas for these products (Day and Arnold, 2002). The potential for economic disaster is inherent in letting freighters sit along the coast. The wide-reaching effects of seaport congestion demonstrate the fragility of the globalized economic model in that multiple linked economies have the potential to collapse based on a simple shut
down of two or three major ports in one country. While the U.S. has a developed economy, smaller developing countries would have a much harder time recovering from such a collapse. As Mongelluzzo (2015) points out, the effect seaport congestion caused by port shut downs could devastate the economies of East Asia (“LA-Long Beach, Oakland, PNW reaches critical level”).

Additionally, the focal cause of seaport congestion discussed in this paper – a friction between multinational at-sea operators and specialized maritime land labor – has not fully been explored from the perspective of land labor, taking into consideration the modern needs and demands of dock workers. Studies such as Blunden (2012), Ducruet and Notteboom (2012), Jaffee (2010), and Turnbull and Wass (2007) among others, all cite this dissonance but do not explore the nuances of maritime land labor from land labor’s perspective. Clues as to why and how seaport congestion emerges from this point of contention are found in labor journal articles about specific incidents (such as Olney’s 2003 “On the Waterfront” analysis of the 2002 shutdown), but this thesis attempts to provide a more complete picture by combining existent research on globalization with such case studies in order that the cause of these problems becomes better understood, and hopefully, avoidable.

Research Questions

The primary research question of this assessment is: Would a reconciliation between heterogeneous, multi-company, often unionized land (dock) labor and homogenous, conglomerate shipping lines operating at sea alleviate seaport congestion? Are other stakeholders, such as port authorities, regional and national governments, non-unionized labor, and hinterland transport companies equally to blame for this problem? The disparity between pre- and post-Panamax freight shipping, which can also be described as container shipping
before and after hyper-globalization, causes friction in the supply chain, but this is only one element that contributes to congestion worldwide. Theorists also postulate that congestion is due to the increased demand for seasonal products, and emergent retail cycles, increased liner traffic, new access to ports in the developing world due to the opening of the Panama Canal expansion, among other reasons. However, in the age of post-Panamax, while many focus on economics trends and the truly awesome logistics of the new super-sized container ships built especially for the Panama Canal’s new third set of locks, it is worthy to examine the reasons that U.S. West Coast ports is losing business due to repeated bouts of congestions offshore directly resultant from disputes at the human/land versus corporation/sea level.

Secondary questions include: What are the benefits to a globalized maritime economy, and is it possible or even preferable to maintain a heterogeneous economy on the docks? Post-Panamax liners are beginning to dock in ports around the world and may potentially bring growth to the economies of the communities they are landing upon. Globalization links networks of economies together through supply chains that necessitate organization that the container shipping industry is still working out, possibly at the expense of organized and working class labor. It is still unclear what will happen in the future between large organizations that control shipping such as the Pacific Maritime Association, and the unions that control labor on the docks.

Additional questions: Do alternate “solutions” to the problem of seaport congestion, such as the Northern Sea Route, operate like a band aid, and neglect to address the real problem at its core and instead redirecting attention for the time being elsewhere in order to bide time and clear the air, so to speak? Politically charged conversations over international waters and war-torn territories stir up animosities between already fragile international political relationships. It
would seem prudent to shift away from such temporary solutions in order to find a successful and lasting option to meet this challenge.

**Definition of Key Terms**

**Alternate Sea Routes:** the next operationally-ready sea shipping routes, such as the Northern Sea Route in the Arctic Ocean above Russia, which could potentially replace the more congested sea shipping routes such as those running through the Panama and Suez Canals (Blunden 2012, pp. 115-129).

**Conglomerate Liner Companies:** As a result of globalization, shipping liner companies have become conglomerates, or merged together under one multinational corporation while still appearing to remain as distinct smaller companies (McCalla, Slack, and Comtois 2004, pp. 473-487).

**Containerization:** A system of intermodal freight transport using containers of a standard size made of weathering steel. Containers can be loaded and unloaded onto ships, railways, and semi-trailer trucks without being opened, and are tracked using computerized systems (Ducruet and Notteboom 2012, pp. 395-423).

**Globalization:** The international integration of politics, economies, worldviews, and cultures (Hesse 2006, pp. 570-596).

**ILA:** International Longshoremen’s Association (East and Gulf Coast labor union).

**ILWU:** International Longshore and Warehouse Union (West Coast Labor Union).

**Maritime Land Labor:** Dock workers and other land laborers who work in ports. Workers can be unionized or not, but workers with union contracts often receive better wages and working conditions due to their collective bargaining power (Olney 2003, pp. 31-40).
**Multinational Corporation (MNC):** Organization that owns the means of production or products in more than one country aside from their own (Abdulsomad 2014, pp. 415-426).

**PMA:** Pacific Maritime Association (association that controls land labor in West Coast ports).

**Research Design and Data Analysis Method**

This research design that will be used in this thesis will be a mixture of quantitative and qualitative data that will examine the causes and proposed resolutions to seaport congestion, with specific emphasis on globalization of the container shipping industry, as well as organized labor. It will utilize present statistics on labor and shipping from recent studies and compare them against studies that predate the *post-Panamax* era for optimal efficacy (Blunden, 2012; Ducruet and Notteboom, 2012; Fransoo and Lee, 2013; Muirhead et al. 2015). Maps and charts also help to explain the present redirection of cargo ship congestion in seaports worldwide. Where present research is deemed inadequate or inaccurate, suggestions will be proposed and alternatives examined. To provide a fair scope, labor issues will be investigated from the perspective of both the unions (ILWU and the ILA) and the Pacific Maritime Association, while issues related to the Panama Canal will also be investigated from multiple perspectives (developed versus developing world, and multiple political and economic views, for example) (Boyle 2015).

Additional qualitative review in the form of textual analysis of sources such as primary sources from the two West Coast incidents place and give voice to the element of human labor that is so deeply in contention with the global marketplace that the cargo liner system increasingly operates within (Burnson, 2015; Cummings et al. 2002; Day and Arnold, 2002; Mongelluzzo, 2015; *The Economist* 2002; Woodyard 2015). This methodology ensures both a sound analytic approach to the problem of seaport congestion while also helping to identify and
address the lack of discourse around human labor in the global marketplace within the container shipping industry.

Chapter 2: Literature Review

Because two major incidents of seaport congestion have occurred in the last fifteen years on the U.S. West Coast, causing not only stagnation within the container shipping industry but also a legitimate economic scare, there are a plethora of primary source articles that discuss these occurrences, along with plentiful secondary sources providing direct analysis. These sources are a rich trove of information for this thesis and shed light on the inner workings of labor and the everyday details of logistics that are otherwise ignored in favor of broader trends and currents in the industry. The 2002 shut down was certainly the “turning point” as far as the contemporary moment and container shipping seaport congestion due to President Bush’s evocation of the Taft-Hartley Act, which forced dock workers back to work from their strike while the union leaders and heads of the Pacific Maritime Association attempted a détente.

In his timely October 10, 2002 article in The Nation, labor journalist David Bacon explains the shut down from the standpoint of ILWU. Providing a first person perspective, he describes the scene in San Francisco where workers have been locked out of their jobs by the Pacific Maritime Association, who are punishing them for attempting to strike. Richard Mead, the president of San Francisco’s dock workers’ local is quoted as saying, “‘If you want your children and families to have the same kind of life you’ve had, you know what you have to do’” (“A Union of the Line”). This poignant quote squarely places the needs of labor in the personal and the immediate – as Bacon explains, the workers’ primary concerns are not actually wages (they get paid very fairly due to collective bargaining they have maintained over the years), but rather keeping their jobs in the face of an increasingly computerized industry. One of the main
points of contention between the PMA and the ILWU, and the reason for the shut down and lock out in 2002, is the fact that the PMA insists on computerizing more and more jobs, such as crane and clerical work. Bacon notes that the last major strike, in 1971, was because container cranes reduced the number of West Coast longshore jobs from 100,000 to about 10,000. Additionally, he mentions the Taft-Hartley Act, which at the time of writing had not yet been used by President Bush, noting that the last time it was used was also during the 1971 strike, by President Richard Nixon, though it was unsuccessful in resolving the dispute between the PMA and the ILWU, and the federally-imposed cooling-off period was directly followed by a 134-day strike.

Cummings, Tejada, and Kim (2002) question in the *Wall Street Journal* President Bush’s reluctance to use Taft-Hartley, stating that the “White House conducted an internal historical review of the use of Taft-Hartley and found that it doesn’t often produce the kind of long-term settlement both parties are seeking” (“Use of Taft-Hartley Often Gives Poor Result”). They note that President Carter sought to use the injunction against coal miners in 1978, but was unsupported, and along with Nixon’s use and failure with Taft-Hartley, been invoked and failed, producing a strike after the cooling off period, have involved longshore workers. The authors, like Bacon, site the threat of new technology in the field as the number one complaint of longshoremen, and their willingness to defend their jobs at all cost as an indicator that the injunction would likely fail again if used in the 2002 scenario. Both influential democrats like Senator Ted Kennedy and major unions – the Teamsters and the carpenters – were courting President Bush at the time of writing in an attempt to get him to back away from Taft-Hartley.

Soon after the Cummings et al article was published, Day and Arnold (2002) weighed in the *New York Times*, drawing attention to the larger problems the shutdown posed to the global marketplace. The authors point out that as the shutdown dragged on, “businesses from Japan to
Pakistan are growing increasingly worried that a protracted dispute between American longshoremen and port operators could cripple Asia’s economic recovery” (“ Shutdown of West Coast Ports Puts Asian Businesses on Edge”). Some Asian-owned factories in the U.S., such as Toyota, were already forced to shut down due to a shortage on parts coming from Japan. Importantly, the article points out that a major reason for the slowdown that was the catalyst for the dispute between the PMA and the ILWU was the fact that five longshoremen died the previous year. The slowdown was seen as a safety precaution by the ILWU and hindering business by the PMA.

A staff-written article from the Economist dated October 10, 2002 (“The President and the Dockers: George Bush – Union Basher?”) examines the President’s October 8th decision to use Taft-Hartley to re-open the twenty-nine closed ports along the West Coast, citing both economic reasons and “national security.” The article notes that “the problem for the White House was hat the costs of a port shutdown would have snowballed if the dispute had continued. Export and imports are worth around 25% of GDP, and the west-coast ports carry over half the cargo that is shipped in and out of America in containers.” This points out not only the economic cost of the congested situation on the West Coast, but the possibly problematic nature of having West Coast ports as the main importing and exporting option. While businesses seemed to be elated, the article points out the costly political price – Bush infuriated union leaders, including the AFL-CIO, and many Washington Democrats. The article also states that in the 2000 election, Bush won only one third of union-household votes. Turning against collective bargaining could result in poor campaign strategy among other things.

As noted in a January 2003 article entitled “Boss Delighted with the Longshore Pact” from the IWW’s Industrial Worker, the shutdown was settled through the adoption of a new
contract in January, which provided longshoremen and dock workers with improved contracts, and sought to relocate workers whose clerical jobs would be replaced with technology. The article also notes that while it is unclear that the contracts could have been reached without Taft-Hartley, many ILWU workers resent the government intervention, pointing out that “the agreement was negotiated with a Taft-Hartley gun pointed at the union’s head” (para 4). Unfortunately, one of the effects of using Taft-Hartley is the further disintegration of trust the unions have for the government.

Again in the winter of 2015, the West Coast ports were congested beyond capacity and maritime business ground to a standstill. Most of Asia’s cargo ships sat off the coast of Oakland, California with no one to unload them as the ILWU and PMA faced off once again. The congestion in Oakland had become so bad that the largest liner company, Maersk, was terminating all voyages in Los Angeles instead of following their normal route which stopped in Oakland before embarking for Asia, so as to avoid the congestion. As Mongelluzzo (2015) pointed out in his *Journal of Commerce* article, “contract negotiations between the International Longshore and Warehouse Union and the Pacific Maritime Association appear to be going nowhere” (para 2). The 2015 standoff was directly caused by the PMA decision to cut yard crane operator positions from over one hundred jobs to just about thirty-five. This article clearly points to the way that labor issues in just a few ports (when taking into consideration the number of port worldwide) can affect global economies.

Woodyard (2015) adds, in a timely article from *USA Today*, that U.S. Labor Secretary Thomas Perez was forced to step in to the 2015 dispute because the congestion off the West Coast was “threatening to cause billions of dollars in damage to the U.S. economy” (para. 1). The author notes that two dozen ships each sat in the ports of Los Angeles and Long Beach, and
that twenty-seven other closed ports saw similar situations, leading to businesses and shipping lines increasing frustration, and “impact already showing up in companies’ earnings reports” (para. 8). Significantly, the author notes that an alternative that some companies have been using is a re-route to East Coast ports; a downside to this is that shipping to the East Coast is more expensive, though it is unclear how much this would affect overall profitability when measured against avoiding West Coast congestion.

To elaborate on the phenomenon of shifting from West to East Coast, Burnson (2015) provides an interview and analysis in *Logistics Management* ascertaining that “new evidence [exists] that U.S. West Coast ports are losing market share to ports in the East and some Gulf regions” (para 1), even before the completion of the expansion of the Panama Canal, which was intended to provide such a passageway. Paul Rasmussen, of Zepol (a global trade and intelligence provider) is quoted as saying “‘Shippers may be tired of West Coast back-ups, and with more carriers adding more lines from Asia to the East Coast, it’s hard to blame them’” (para 3). The author also notes that imports on the East Coast have increase by 15% while imports on the West Coast are actually down 4%, and that many shipping companies directly blame the West Coast congestion for this shift. Specifically, shippers are impatient as “‘they feel like they got ‘burned’ because others were not doing their jobs well enough… like a nine-month labor contract to name one [example].’” (Quoting Rasmussen, para. 7-8). The ports with the most increased traffic since the rerouting began are Newark/New York (12% increase), Savannah (32%), and Houston (26%) (para. 10).

With a solid idea of what has happened and is happening with seaport congestion along the U.S. West Coast based on primary sources, it is pertinent to examine the plethora of secondary sources that analyze these occurrences. As a good starting point, the labor unions and
the PMA themselves provide solid histories on their own websites. The International Longshoremen Association (ILA) is the East and Gulf Coast dock and maritime land labor union, and it comes into play as cargo is increasingly rerouted to the East Coast to stave off the congestion of the traditional West Coast ports (ilaunion.org/history). The ILA mythically traces its’ history to colonial America, but more immediately to the dawn of labor unions in the 1800s, and to the Great Lakes region specifically, where lumber handlers first organized under Dan O’Keefe (“1800s Beginning of the ILA para. 2). The interesting thing about the ILA website is the giant gap in its history between 1965 and 2000, or as it terms it, “the present.” According to other sources, to be expounded upon further in this literature review, the ILA struggles to match the ILWU in wages and benefits for its workers, and does not hold very strong collective bargaining power. Perhaps this is because, historically, most cargo has been shipped to the U.S. West Coast, where the ILWU has been forced to fight fiercely for its workers due to the high import volume. However, one complication that could arise from the possible weakness of the ILW presently is that with increased import volume on the East Coast and lower wages and less bargaining power, it is possible that worker unrest could result in seaport congestion on the East Coast as well, but with messier results than if there was stronger union protection.

The ILWU also tells its own story (https://www.ilwu.org/history/the-ilwu-story), though their version is written in a more factual manner than the ILA, focusing on various strikes, complaints, mergers, etc. that have taken place over the years. The ILWU’s history also seems to skip through the 1970s and 80s, and does not mention the 1971 incident of President Nixon using Taft-Hartley against the West Coast dock workers, though it does detail the 134-day strike. This is particularly interesting because several authors and subjects they quote are outraged at use of Taft-Hartley, not just by President Bush, but also retrospectively by Nixon. At any rate, the
ILWU presents an extremely organized, if not pointed, history of itself as the preeminent longshore and warehouse union, and outlines all of the ways in which it is ready to respond to the challenges (mostly technological) of the twenty-first century (something which the ILA does not focus on at all).

In outlining the key players in U.S. maritime labor, the PMA cannot be ignored. Clearly the Pacific Maritime Association views itself as a great peacemaking force, pointing out that since 1949 “the PMA has negotiated several landmark labor agreements with the ILWU, including the Mechanization and Modernization Agreement of 1960 that paved the way for containerized cargo to reshape the industry” (http://www.pmanet.org/overview para. 1).

Referring to the most recent imposition of Taft-Hartley, the Association notes, “Most recently in 2002, the PMA and ILWU reached a landmark agreement that ushered in an era of technology for the West Coast Waterfront” (para. 2). The overview goes on to explain the various technologies that would be implemented, which according to the ILWU, replace hundreds of jobs for their workers. What is the most interesting about the PMA website when compared to the two union websites is the lack of human element. It is easy to see how the clashes occurred: the PMA is interested in business and economics while the unions are obviously interested in protecting their workers, who provide a service that makes business possible. In the end the question almost comes to down whether business is compatible with ethics.

With a solid handle on primary source data about the two different West Coast incidents, as well as secondary sources that analyze these incidents, the literature review moves to an exploration of secondary sources that help explain the larger matrices and systems at play with the maritime economy, and specifically those which produce instances of seaport congestion worldwide. These sources are divided into two main categories: labor and globalization.
Obviously these categories are not mutually exclusive; however, the labor category deals directly with issues of labor on the docks and wharfs where cargo is received from shipping liners, while globalization is a wider theoretical category that not only recounts specific examples related to the cargo shipping industry, but also explores and analyzes issues related to globalized shipping markets in general, and even expands to include global market theories such as the recent disintegration of the Chicago School paradigm.

Olney (2003) analyzes the dissonance between globalized labor and dock worker protection in his *New Labor Forum* article specifically about the 2002 shut down. The author believes that the dock worker lockout and West Coast shutdown “reveals many underlying realities of our political economy,” and outlines the contentious relationship between the PMA and the ILWU, noting that the ILWU actually created the PMA in the 1930s to replace a previous more domineering employer association that “was bent on destroying the union” (p. 34). Olney believes that the ILWU was under pressure from the federal government because “any disruption of the ports by a strike or job actions would threaten national economic health and security, and that failure to implement new technology as the employer was demanding would threaten the security of U.S. seaports on the West Coast” (p. 35). Basically, the President was concerned about lapses in security looking like terrorist threats, while ultimately contributed to his decision to use Taft-Hartley. Importantly, Olney notes that this was the first time that Taft-Hartley was used in the case of an employer lockout, which had been a response to the employee slowdown that created seaport congestion – rather than in the case of an employee strike. Bush was actually not keen to use Taft-Hartley because it did not help his electoral position with union households.
Both Klein (2007) and Skidelsky (2012) discuss the disintegration of the Chicago School paradigm in light of worker (and more generally, human being) livelihood in the face of the increasing globalization of labor. Skidelsky posits that because of the global economic crash experienced worldwide in 2008, “the world is 10% poorer than it would have been, had the growth continued at 2007 rates, and the pain is not yet over” (p. 7). He notes that the economic events of the first decade of the twenty-first century have shattered the rational-expectations paradigm of the Chicago School, that is, that disaster provides opportunity for growth (such as the model that Klein explains using the example of economic development in post-Katrina New Orleans). Skidelsky goes on to insist that “from the point of view of order today, the basic issue is whether we view the market system as conductive to harmony or conflict, and in what proportions” (p. 12). Those who see the market system as harmonious, which for the sake of this thesis is perhaps more aligned with the liner companies and those seeking to make a profit my globalizing at-sea commercial shipping ventures, whereas those who view the market as “unstable, disruptive or exploitative” (p. 12), such as unions and unionized dock workers, argue for intervention and regulation. In the post-market crash globalized world, these competing ideologies bump up against each other in the absence of a coherent dominant paradigm like the now-defunct Chicago School viewpoint.

In “Labor and the Geographic Reorganization of Container Shipping,” Jaffe (2010) takes some of these issues and considers them as particular to the maritime cargo industry. Specifically, Jaffe focuses on the land labor element of the industry, noting that one of the reasons that it has been relatively easy for shipping companies to switch from West to Gulf and East Coast ports is that “the location of the port is less critical than the ability to move the cargo quickly and efficiently” (p. 520), and therefore, there is an increased level of competition among
ports to receive cargo from liners companies. As early as 2000, the author notes, the West Coast was losing opportunities, while the East Coast importation grew, mainly as a result of Chinese companies to ship through these new routes. At the time of writing, the author predicted that the post-Panamax expansion, then set to be completed in 2014 (though still not complete today), would increase East and Gulf Coast importation by a whole quarter (p. 522). However, the main important point that Jaffe makes is that the stress of efficiency – the ability to move cargo off container ships and into the hinterland quickly – is why maritime land labor is so important when selecting a port. Perhaps with a nod to the West Coast situation in 2002, Jaffe points out that “the movement of cargo in the context of supply chains and logistics systems is a largely time-driven enterprise. Holdups, delays, bottlenecks, and slowdowns are fatal kinks in the chain… higher costs expenses may be acceptable where they are compensated with efficiency” (p. 525).

Therefore, it is easy to see how shipping companies would choose East and Gulf Coast ports over congested West Coast ports, even though the West Coast is geographically much a closer and more cost-efficient option.

Turnbull and Wass (2007) go on to defend the position of dock workers, introducing the term “race to the bottom,” which is essentially the idea that companies will attempt to exploit the cheapest and readiest forms of labor for the profit of the company—often resulting in the exploitation of poor and developing world workers. In a way, this is a new model of imperialism. The authors indict what others have framed in terms of globalization, “the global domination of an Anglo-American model of capitalism” (p. 582). However, the authors believe that the issue facing the maritime land labor is more complex than simply a race to the bottom – they see it as “a more complex mix of convergence and divergence… because social institutions do not adjust automatically or instantaneously to market pressures – be they local, national, or global in
origin” (p. 582). One result of the current market, the authors note, is the decline of trade unionism, or at the very least the restructuring of union authority toward passivity and response to crises, led by management rather than a collective. This model is a response to the decreasing importance of location, fewer restrictions on foreign investment, and lower costs of transportation under globalization (p. 583), none of which focus on the integrity of the worker. In fact, Turnbull and Wass go on to point out that one major thing standing in the way of the “success” of globalization is “service quality” (p. 586). Some options in confronting these issues include the background privatization of ports (in collusion with the port authority), called the landlord model, which would force the integration of sea and land operations; the traditionally used tool model, in which the state either invests in infrastructure and equipment, or provides cargo handling services, and laborers are contracted by the state or by union halls, dispersing them based on need to various locations; and the comprehensive model, which is mainly used in developing economies and excludes the private sector completely, engaging in a socialized maritime experience. In terms of the West Coast, the authors point out that they were the first to become modernized and mechanized, and that the ILWU is one of the highest paid unions in the world (p. 608). The tool model still exists in West Coast ports, and union hiring halls produce the labor force, with the powerful ILWU continuously fighting against the landlord model, which they believe would destroy workers, to the immense benefit of their employers (p. 609). These intricate details of the systemic models behind dock work help explain the recent instances of congestion on West Coast ports.

in port hierarchies and service configurations” (p. 395), reflecting the contentious dynamics that other others have suggested to contribute to or outright create seaport congestion. Importantly, they point out that most authors have focused on land-based transport and supply chain integrity versus the issue of seaport congestion that is produced by land labor coming in contact with the globalized ocean liner shipping companies (p. 396). Additionally, they point out that the “development of liner shipping the last 30 years has exceeded the growth or world trade volumes” (p. 398), meaning that dockside interactions are more important than ever, and it is imperative that they run smoothly in order to accommodate this rapid growth. However, unlike Jaffe, who concludes that geography is secondary to efficiency, Cucruet and Notteboom “confirm the strong influence of geography and distance on the distribution of traffic” (p. 415), but in a way they share a similarity in that they agree that “maritime linkages retain an important regional dimension [with] a striking absence and decline of transatlantic linkages as already verified in the global pattern of airline networks” (p. 415). Thus the authors actually point to a similar pattern of shifting ports based on needs of shipping lines, but put in a larger global context which demonstrates an increased preference for regionalism in light of globalization. This ultimately creates clusters of congestion in various regions (China, the U.S. West Coast, etc.) rather than spreading the liner traffic worldwide, as perhaps the qualifier globalization would have us imagine.

Fransoo and Lee (2013) place container shipping squarely within a “critical” role in the distribution supply chain, whereas most other authors view shipping as separate, or at least different from, the land-based supply chain that moves products into the hinterland (p. 253). “Containerized ocean transport has become the lifeline of almost any global supply chain,” the authors contend (p. 253), but it is sorely understudied in terms of its significance within
transport. Fransoo and Lee note that the major issues challenging the global container shipping industry are: “coordination of container shipments across the container supply chain; pricing and risky management in the container supply chain; competition between ports, carriers, and container terminals; and capacity management in the container supply chain” (p. 258). Nearly all of these issues lead to “poorly controlled systems with extensive queuing characteristics under complicated priority settings at each of the stages that the container needs to pass” (p. 259), including at the point of contact between sea and land. Interestingly, the authors conclude that “[cargo shipping] is heavily capacity oriented with a particular dominance of the ocean liner companies that operate the still-scarce capacity of vessels” (p. 265). In other words, congestion is due in part to the globalization of at-sea shipping and to a genuine lack of appropriate vessel volume.

Providing a concrete example of Fransoo and Lee’s dilemma, Hesse (2006) spearheads a case study called “Global Chain, Local Pain: Regional Implications of Global Distribution Networks in the German North Range,” which describes how northern German ports deal with the increase in volume of freight in the face of a stagnant infrastructure. Hesse focuses specifically on the Port of Hamburg, Germany, both because “containerization is the major growth trend… [and] the handling of containers almost doubled between 2000 and 2006 to about eight million TEU” (p. 576), and because the port has traditionally strong ties to both the East Asia and the Baltic region, accounting for the high level of trade that takes place there. The author insists that because of this particular dynamic, there is a high potential for “local pain,” or the inability of ports to adequately physically accommodate the load they bear. “However,” the author cautions, “the relationship between global systems and local places appears to be too complex to suggest that particular local or regional places should [my emphasis] accommodate
the global need for increasing infrastructure supply” (p. 591). Therefore, it cannot be the job of
the individual port or even regional group of ports to accommodate the rapid global expansion
that they did not create but of which they bear the brunt of burden. Additionally, “the question of
scale is closely related to that of power” and with increasing complexity of systems, it is
increasingly difficult to tell “who commands and controls the chain” (p. 592). Hesse provides
valuable insight into the actual circumstances of globalization crashing into local labor and
infrastructure through his case study, which is reminiscent in some ways of the West Coast
situation in the U.S. and easily demonstrates how such situations can contribute to maritime
congestion around the globe.

In a further exploration of the sea-side of things, McCalla, Slack, and Comtois (2004)
tease out the distinctions between the drive toward homogeneity among ocean liner carriers
versus the continued use of the landlord model, which the authors describe as more as
differentiate and heterogeneous. The authors use case studies of three different areas – East Asia,
Northwest Europe, and North America, to examine the vertical and horizontal integration of
ocean carrier vessels and the formation of global networks that seem to disintegrate once the
vessels dock in port. Understanding globalization as an “established fact,” the authors point out
that “conformity and convergence have been felt most in the ocean operations of shipping lines.
Land operations have not taken on the same universal standard elements,” going on to point out
that they have found this to be true in each of their case studies around the world (p. 486). They
find this to be because at sea operations are by nature global – so to globalize them is intuitive.
However, land operations are local and regional, which is not at all the same model as the sea
operation model – natively these operations are heterogeneous. McCalla et al. provide an
excellent theoretical explanation for the friction between liner companies and maritime land
labor. When the friction becomes too great, it starts a fire called shut down, lock out, and congestion.

To better understand the perspective of multinational cargo liner companies, Abdulsomad’s 2014 article in *AI & Soc* explores the MNC, or multinational corporation. Abdulsomad contends that the modern MNC is “the result of rapid liberalization, globalization, and technological changes” (p. 415). Specifically, the author notes that the factors listed above, which have rapidly advanced in the last three decades, have forced MNCs to “rethink how companies commercialize industrial knowledge” (p. 423), that is, there has also been a shift from what Abdulsomad calls *closed innovation* to *open innovation* – *closed innovation*, which requires control and internal focus, supposedly forces innovation from within. However, the *open innovation* model allows that “valuable ideas can come from inside and outside the company and can go to market from inside and outside the company as well” (p. 423). One of the examples of these differences that the author provides on the same page in Table 1 is that under the *closed innovation* model, “The smart people in our field work for us,” versus under *open innovation*, “Not all the smart people work for us. We need to work with smart people inside and outside our company.” Abdulsomad describes closed innovation as a characteristic of the twentieth century, versus open innovation, which emerged with the technological boom at the turn of the twenty-first. If we look at this from the perspective of the U.S. West Coast congestion issues, it is perfectly timely – the economic shift correlates with the time that the clashes begin. As MNCs emerge at sea, they run head into the lagging behind (for reasons of regionalism and heterogeneity cited by other authors noted in this review) maritime land labor regime at port.

Although slightly old in terms of research lifespan, Yeung’s 1998 article “Capital,
state, and space: contesting the borderless world” helps historicize the impact of the shift between the different types of business models, innovation processes, and overall way of thinking about shipping and logistics under globalization. Interestingly, Yeung is writing a decade before the worldwide economic crash that destroyed the Chicago School paradigm (among other things), and so his criticism of the “borderless” world seems almost romantic – a place where “the fortunes of individuals, firms, industries, and even nation states are so intertwined that it becomes almost impossible to define the nation state without reference to the broader economy” (p. 292). The problem of course with the borderless world where “geopolitics have become irrelevant,” Yeung on the same page points out, is that the world does have very real borders, and particularly for those who do not benefit from or are exploited by innovation and progress. The important context that Yeung provides, which is evident in the 2002 and 2015 clashes between ILWU dock workers and the PMA on the U.S. West Coast, is that the discourse of a borderless or hyper-globalized world “must be contested, because it has caricatured the intricate and multiple relationships between capital, the state, and space” (p. 303). The author goes on to point out: “First, the capitalist state continues to perform its functions in capital accumulation and to exert influence in the global political economy. Second, capital is more territorially embedded in places rather than having become ‘placeless…’ Territorial differences and geographical unevenness remain integral to globalization processes” (pp. 303-4). This is clearly the case in the instance of the container shipping industry. The distinction between global and regional markets comes to light via the globalization model of business.

Along the same line of thinking, Greve (2009) discusses “the diffusion of competitive advantage” (1) in his article of the same name in Strategic Management Journal. What is interesting about Greve’s article is that while he agrees with previous theorists that geographic
location is important within the globalized marketplace, he takes a look at the ways in which the diffusion of ship building technology (that is, how knowledge of new types of ships is spread geographically. “Valuable innovations will spread slowly,” the author explains, “whenever there are firms that cannot easily observe which other firms have adopted the innovation and what their experience has been” (p. 18). Greve uses the example of the innovation of the post-Panamax container ship and the double hull oil tanker, both of which had “slow and selective diffusion” (p. 18) and both of which ultimately proved to be industry assets. Some of the advantages of the slow diffusion model, as stated by Greve, include early adoption benefits – the firms that adopt new and risky technology first often end up getting a larger market share of a worthwhile product. Cluster theory and network theory, as explained by Greve, explain the way that the information about these innovations, which ultimately influences where and when they are adopted, is diffused (p. 19). To summarize, cluster theory is based on geography and the “local cluster” that a firm and its suppliers belong to. However, because not all firms in the clusters from Greve’s examples of the post-Panamax ships and the double hull oil tankers adopted the new innovations readily, the author uses network theory to explain how affiliation contributed to additional firms outside the cluster adopting the new ship types. Networking is based on connection, trustworthiness, and indirect contact – and is used to explain the proliferation of adoption outside the original cluster-geographic model of adoption. This also provides insight into the different ways that maritime business can be run – locally, in clusters, or globally, through networking. According to Greve, the simultaneous network and cluster model were necessary for the slow diffusion of new ship building technology in these examples.

Theorists and businesses alike have tried to explore options for easing congestion strictly within the global-as-globalized paradigm. That is, from the perspective of the sea-based
operations. It is from the perspective that the “alternate routes” discourse emerges, in which Blunden (2012) is at the helm. In her *International Affairs* article “Geopolitics and the Northern Sea Route,” the author discusses the “global consequences” of a “new sea lane” above Russia in the Arctic Ocean (p. 115). This route was used by the Soviets but became defunct with the declining Soviet infrastructure; however, today the route is expected to be the next operationally-ready sea route due to Arctic melting and less development of the Northwest Passage. The author notes that Russia’s Arctic Doctrine states that they are to rebuild the route between 2011-2015; however, in 2015 it is clear that this did not happen, and at the time of writing, the author reports that there was little investment or progress made in the venture (p. 117). Importantly, however, Blunden makes an argument similar to but differently nuanced from other authors who have noted the importance of regionalism and geopolitics: she states that transportation route shifts have been historically equated with shifts in political power. “Today,” Blunden states, “the trade routes between Europe and Asia, carrying a volume of trade previously unimaginable, pass through choke-points, from the Strait of Malacca to the Suez Canal, that are highly vulnerable both to congestion and to deliberate or accidental disruption. By 2018, the total world fleet is projected to include 100,000 vessels of 500 dwt or more, compared with the 77,500 in operation in 2008. In terms of volume, the increase is projected to be even more spectacular, reflecting the development of ever larger vessels” (p. 117). Therefore, the importance of the Northern Sea Route is imminent, but the question becomes how politics will develop around this shift.

Finally, Muirhead, Minton, Miller, and Ruiz (2015) provide a contemporary analysis of the “Projected effects of the Panama Canal expansion on shipping traffic and biological invasions, detailed in a recent issue of *Diversity and Distributions*. The authors’ main focus is actually on changes biodiversity in the coastal U.S. due to a change in shipping traffic patterns resulting from
the expansion. However, in their exploration, they actually greatly detail and analyze the possible changes due to post-Panamax. The authors note that “the increased capacity of the PC is likely to affect global trade routes and associated species” (p. 76) – they describe the ways in which organisms are transported via ballast water (water contained within the bottom of a ship during a voyage to provide stability and buoyancy), which is now being diverted and increased because of the canal expansion product. Muirhead et al. estimate that in the five years following the expansion (2015-1019), “the Gulf and East Coasts would receive 78% and 99% median increase in total ballast discharge and 172% and 182% increases in total wetted surface area… We further predict that many ports in the Gulf and East Coast will receive up to three times the current number of arrivals and increased ballast water discharge from this region after expansion” (p. 25).

Meanwhile, the authors predict that both ballast discharge and wetted surface area will decline slightly on the West Coast. In a discussion of worldwide seaport congestion, what can this possibly mean? Perhaps that regionalism is again important – especially when it comes to nature and the way that restricting what might appear to be innocuous business models, which actually affect not only workers around the world but also nature itself. Globalization, according to these authors and many of the others covered in this review, seems to fail at attending to the particulars – even, it seems, when the particulars (such as the natural habitat) are what sustain human life.

Overall, this literature review has attempted to begin with the most particular things to this situation – the two recent instances of seaport congestion on the U.S. West Coast, which threatened the worldwide economy due to the globalized nature of container shipping and the businesses that use this method of import/export. Next, primary source information from the involved parties – the International Longshore and Warehouse Union, the International Longshoremen’s Association, and the Pacific Maritime Association – were analyzed to provide
historicity and perspective. Along with these sources, first and second hand accounts and analyses of the 2002 and 2015 events were added for breadth and depth of knowledge. Additionally, secondary sources focusing on labor were used to tease out common problems and trends within maritime land labor, and the differences within the underlying dynamics between land and sea labor in the container shipping industry. Finally, a survey of literature on globalization as it pertains to multinational corporations, container shipping, port infrastructure and biodiversity was added to really hone in on the global element that congestion in a string of ports along one country’s coast can cause.

Chapter 3: Methodology

Type/Subtype of Research

This thesis takes a qualitative perspective, focusing on meaning, perspective, and analysis in order to understand a phenomenon of the human condition as it meets up with the quite unhuman-like, yet human-created, beast of globalization. It should be noted that the study contains less quantitative data than originally prescribed; due to the evolutionary nature of research and writing, it became clear that the case study format was the best fit for this body of research. Given this, because this project focuses on two specific instances, it is by all means as described by Joyner, Rouse, and Glatthorn (2013), a case study, and one which expands out into the realm of the theoretical in order to delve deeply into the issue(s) at hand (p. 77).

As such, the study does not require participants, but the general context is located philosophically at the intersection of discourses on globalization versus traditional discourses on labor and the working class. Therefore, another perspective this study takes is one of interdisciplinary, or perhaps multidisciplinary. Document analysis is the primary instrument used in this thesis. The method of data collection had four main loci: case study primary sources, case
study secondary sources, labor secondary sources and analyses, and globalization secondary sources, analyses, and theories. All documents had to be related to the following search terms: container shipping; cargo shipping; U.S. West Coast lockout (shutdown and strike were also terms entered); Taft-Hartley Act; seaport congestion; port congestion; containerization; maritime land labor; globalization; maritime trade unions. The procedure involved with data collection and analysis, shown in Appendix A, included separating articles into categories, piecing together the primary source data to analyze the case studies and link them together (though it was unclear at the beginning of data collection whether the two incidents were connected), writing a preliminary literature review, and then writing a comprehensive literature review in which the links, theories, chronology, and historicity all became clear. Finally, data was analyzed using key term highlighting and direct comparison, as well as through concept mapping to produce a coherent line of reasoning. The concept maps helped to set up the connections between the smaller, more particular case studies, and the larger, more universal and theoretical concepts of globalization and labor politics.

**U.S. West Coast Labor**

A close reading of documents related to the two U.S. West Coast incidents reveals not only a clear pattern but also a more nuanced understanding of the way that the particular can and does affect the universal. The sources all clearly demonstrate the phenomenon that theoreticians predicted and have seen elsewhere – the way in which maritime land labor is out of step with the increasing globalization of the maritime workplace economy. Additionally, this specific example is simply one of many examples, as demonstrated by case studies done by other authors on similar topics that points at least in part to the same conclusion. One consideration made in this thesis was how the first world might be privileged by choosing U.S. examples for a paper about “worldwide”
seaport congestion. A critical consciousness and sensitivity to subject positioning is required in
order to use such an example. Additionally, beginning with the voice of subjugated labor in the
United States (as opposed to the Pacific Maritime Association or the voice of the conglomerate)
allows the reader to be placed squarely within the choppy swells rather than the smooth seas.

Primary sources for the 2002 shut down and the 2015 slow down ubiquitously
demonstrate the tension between politics and labor. In the articles about 2002, authors repeatedly
point out their concern first over President Bush’s possible use (or not) of the Taft-Hartley Act,
and then when he does evoke the Act, they react in kind. Authors writing for several different
Street Journal, Day and Arnold for the New York Times (2002) and a staff-written article in The
Economist (2002), all express trepidation and ambivalence out of concern for the economy should
the shutdown continue, and also should the president force the ports back open. The focus begins
with the particular situation at hand but in each case expands outward, offering varying levels of
doom for the global economic landscape should the shut down on the U.S. West Coast continue.
Interestingly, and perhaps because the shut down now had a precedent, in 2015, authors
(Mongelluzzo, 2015; Woodyard, 2015) did focus on the particular and expanded to the universal,
but in addition to this, they also moved toward a conversation about alternate sea routes, perhaps
also influenced by the nearly-completed Panama Canal expansion. Appendix A demonstrates the
ways in which each case study relates individually to issues of labor, globalization, and alternate
sea routes.

Analyzing Labor

The voices of labor unions (and their adversaries) demonstrate how, from a superficial
position at least, these organizations operate and attempt to position themselves in the
conversation about maritime labor in instances of worldwide seaport congestion. It is very clear from various secondary sources (Olney, 2003) as well as from their own website (https://www.ilwu.org/history/the-ilwu-story) that the ILWU is the premier longshore workers’ union in the United States. According to many sources, they have secured the highest wages and most protection for workers in their industry – in the world. According to the Pacific Maritime Association (http://www.pmanet.org/overview), the conversation around unions does not center on workers but rather on innovation. The website espouses all sorts of new technology that has industry come out recently on the docks – without a single mention of how this affects workers. This disparity in the crux of the analysis around how labor is understood from different perspectives by those directly participating in it.

Meanwhile, many theorists have actually gone and analyzed this crux in a manner similar to this thesis, but either with larger, more general scope, or with specific (different) case study locations. For example, Jaffe (2010) focuses on the switch from West to East and Gulf coasts due to labor and congestion issues, taking into consideration the lesser strength of the ILA (who describe their own history at ilaunion.org/history) and what impact this might have on both the local and global economies. Wass and Turnbull (2007) contextualize the “race to the bottom” in light of dock work in an increasingly globalized maritime economic system, discusses the various models used in ports today. A complete outline of the ways that these different labor theories, including those of Ducruet and Notteboom (2012) and Fransoo and Lee (2013) intersect is available in Appendix B.

**Globalization Theories**

The broader and almost hidden context of seaport congestion is the globalization of labor. As many theorists have pointed out, this mainly takes place at sea, through the conglomeration of
multinational liner companies. McCalla, Slack, and Comtois (2004) are the main authors who contextualize this in a broad sense. They note that globalization is an “established fact” (p. 486), which echoes the sentiments of other theorists on the topic, bringing together a broad consensus that one major contributor to maritime congestion at port is land labor’s fundamental lag in catch up, (or alternately, its refusal to comply with the tenets of globalization). The primary source documents currently seem to imply the latter, but overall the literature leans both ways. For example, Hesse (2006), points to the ways in which updating ports or finding solutions to accommodate the crashing-in effect of globalization in Germany would benefit both the economy and the workers. The task remains to assess the implications of each theory.

In a larger sense, Klein (2007) and Skidelsky (2012) discuss the disaster model also known as the Chicago School paradigm of globalization, noting that disaster does not in fact propel the economy but rather inhibit it. Analysis of this work, including the almost-psychic seeming Yeung’s 1998 article about logistics under globalization, and Abdulsomad’s 2014 breakdown of the multinational corporation, provide inroads to the large and snarling beast of globalization, revealing the many layers and complexities that have taken shape in recent history. Entrenched in this research, they seem almost to overwhelm the tiny, particular conversations about labor, and make it abundantly clear how the conflict began to start with.

Ways Around

Finally, a selection of work on alternate sea routes, the Panama Canal expansion, and various shipping route traffic patterns provides insight as to how the problem is viewed singularly within the context of globalization. This “ways around” approach is examined by Greve (2009), Blunden (2012), and Muirhead, Minton, Miller, and Ruiz (2015), and eliminates a conversation about labor altogether and focuses on how to manage seaport congestion in terms of what could
be called avoidance behavior or alternate solutions. In examining this body of work, it is imperative to notice where conversations about labor are missing, and where proposed alternate solutions avoid the actual problems caused by land labor conflicting with globalized maritime shipping companies. Examining patterns of shift and change within port usage tell us more than just docking capacities and liner preferences – it is possible that they also tell us much about labor practices in these docks and the ways in which certain labor practices influence patterns of global movement. Perhaps new routes that have the potential for catastrophic political conflict are not necessary in light of fair labor practices. Confronting works on alternate shipping routes with the very real realities of labor practices on the docks highlights the lack and almost wishful thinking of this proposed solution.

Chapter 4: Results

U.S. Labor in the Global Shipping Landscape

David Bacon, in his article from *The Nation* (2002), quotes Clarence Thomas, the secretary treasurer of the San Francisco Longshore Local 10: “They can accuse us of anything they want, but it’s not worth our lives to do this work at an unsafe pace” (para. 13). The longshoreman is referring to the conditions imposed upon dock workers by the Pacific Maritime Association: because the workers had slowed down, they were now forced to speed up. The reason that workers had slowed down, according to Thomas, was because five men had died in the last year trying to work at a pace rapid enough to accommodating ever-expanding volumes of incoming cargo. When workers refused to labor at the pace imposed by the PMA, the PMA locked them out of their workplaces, at docks from Oakland to Long Beach. The 2002 shut down was not a strike, as is described in the popular media; it was a PMA-imposed lockout, causing the already congested U.S. West Coast ports to stall to total gridlock.
The dual cases of U.S. West Coast congestion are intensely local – intimate, even. Stories from longshoremen about the incidents revealed in the primary sources describe concerns over feeding one’s family, continuing the tradition of labor that has been in the family for many years, or a job that is the difference between making it and breaking it as a first generation American. The International Longshore and Warehouse Union (ILWU) boasts the highest wages and one of the strongest collective bargaining capabilities of any union in country (Kirkham and Khouri, 2015, para. 3), and worker viability is central to the discourse. The congestion in the bay surrounding the docks (the docks taking primacy in this version of the story) is merely fallout, a consequence of greedy hyper-capitalist corporations, hungry consumers, and an unforgiving PMA. If the story sounds historic, romantic even – it is. The dock workers’ perspective, and the most immediate and tangible starting point for the issue of seaport congestion belongs squarely within a socialist paradigm launched in the industrial nineteenth century.

The history of longshore unions dates back to early industrial America in Great Lakes region, where lumbermen would gather logs “alongshore” the lakes and the St. Lawrence Seaway. The International Longshoremen’s Association (ILA), headquartered in Chicago, was actually the first of such unions and was comprised of Canadian and American longshoremen. With the rapid industrialization of the mid-1800s, the ILA expanded around centers of industry and import, to be mostly comprised of East and Gulf Coast (ilaunion.org/history, “1800s beginning of the ILA” para. 2). The ILWU soon followed, eventually monopolizing the West Coast brunt of maritime land labor. Due to the increasingly globalized economy of the twentieth century and the distribution of cheap labor vis à vis the developing world by the Cold War, the ILWU ended up bearing heaviest weight of cargo of the American seabords. Therefore, it follows that the ILWU became stronger by necessity than the ILA, and ended up becoming the
“preeminent longshore and warehouse union” (https://www.ilwu.org/history/the-ilwu-story, “The Warehouse Industry,” para 1). The ILWU articulates a response to the Pacific Maritime Association’s present-day push for the mechanization of longshore jobs – by “mobilizing community campaigns… negotiating the best possible protections, severance payments, and retraining benefits for displaced workers… and by strengthening alliances with other unions for collective bargaining” (para 30). Being situated next along the West Coast directly across from the Asian developing world markets from whence the United States pulls so much of its import volume, the ILWU is directly entrenched in the globalization crossfire and therefore forced to respond in kind.

From the view of labor, the issue of seaport congestion and the subsequent government involvement in its resolution is a direct attack on the livelihood of workers who are simply following an ages-old blue collar tradition in addition to trying to make ends meet in a very tangible sense. Even when the 2002 shutdown dissipated in January 2003, the ILWU was still skeptical about the methods used to force the agreement, as well as the future of longshore work. As noted in the January 2003 edition of the IWW publication Industrial Worker, “the agreement was negotiated with a Taft-Hartley gun pointed at the union’s head” (“Boss Delighted with the Longshore Pact,” para 4). President Bush’s intervention with Taft-Hartley, which many sources corroborate as purely political (Bacon, 2002; Cummings, Tejada, and Kim, 2002; Day and Arnold, 2002). “The President and the Dockers: George Bush – Union Basher?”) The Economist, 2002) yanked the dock workers’ plight from local and immediate onto the world stage by acknowledging the global economic domino effect the demand for safer condition could and did have.
Obviously the friction between the globalized, conglomerate liner companies’ manner of handling business and the longshoremen’s demands and expectations of on-the-job safety already existed. However, the articulation of these issues before the 2002 shut down, and then following the almost-repeat situation in 2015, appears to have shifted from particular (specific to job types, working hours, and even to Coasts) to universal (global v. local labor, worldwide economies). Imperatively, when the situation nearly reprised early in 2015, the world finally seemed to sigh and acknowledge the paradigmatic butting of heads. The 2015 slowdown, which did not result in a full shut down, but caused massive seaport congestion along the U.S. West Coast resulting in negative worldwide global economic ramifications, took place because the PMA decided to cut crane operator positions from over one hundred jobs to around thirty-five (Mongelluzzo, 2015). Again, the U.S. government stepped in, fearful that congestion along the U.S. West Coast was “threatening to cause billions of dollars in damage to the U.S. economy” (Woodyard, 2015) and could spread to affect economies worldwide. Paul Rasmussen, of Zepol (a global trade and intelligence provider) is quoted in Burnson (2015) as saying “‘Shippers may be tired of West Coast back-ups, and with more carriers adding more lines from Asia to the East Coast, it’s hard to blame them’” (para 3). For the first time, the shift took place away from resolving issues on the West Coast to other shipping options in relation to congestion and labor activities. Theorists and businessmen alike actively sought possibilities to alleviate seaport congestion, and in so many words, to not have to deal with the power of the unionized ILWU dock workers (Burnson, 2015).

The decision by various cargo liner companies to shift their routes from the U.S. West Coast to the East and Gulf Coasts is particularly staggering when the proximity of the West Coast to the import markets of Southeast Asia is taken into consideration. In order to get goods
to the East and Gulf Coasts, these companies must cover thousands more miles of ocean, cross through the still-in-progress Panama Canal expansion, and negotiate with new port authorities in new cities, dealing also with the ILA instead of the ILWU. However, at this point it appears that labor issues as the direct cause of seaport congestion has contributed to tangible shift in the paradigm: imports on the East Coast have increased by 15%, while imports on the West Coast are actually down 4% (Burnson, 2015). As a direct result of the labor strife and subsequent congestion on the U.S. West Coast, shipping patterns markedly have changed even in the last year. Considered at a local, micro level, it makes sense that the conversation about seaport congestion is about labor rights and struggle of unionized workers against the demands of the large conglomerate shipping companies and the intermediaries such as the PMA. However, while this is a valid point, the plight of labor is only one piece of the puzzle necessary to unpacking the contemporary crux of seaport congestion. The next section looks at the dockside situation from the perspective of liner companies who are interacting with dock workers, as well as which docking options are best for cargo shipping companies to utilize in light of the repeated instances of congestion, with a mind toward avoiding such situations in the future.

**Multi-Port Options for Conglomerate Liner Companies**

With the knowledge that shipping patterns to and from the U.S. have shifted markedly in the last decade due to instances of labor strife and seaport congestion effecting the global marketplace, we turn now to an examination of multi-port options for conglomerate liner companies and various factors that influence these decisions. Indeed, it is interesting to note how quickly this shift has taken place, even while it has been a long time coming (consider the advent of container shipping in the 1960s, the ongoing Panama Canal expansion, and the slow saturation of globalization into economic landscape throughout the second half of the twentieth century).
As Jaffe (2010) points out, perhaps it has been relatively easy for shipping companies to switch from West to Gulf and East Coast ports because “the location of the port is less critical than the ability to move the cargo quickly and efficiently” (p. 520). Not only is efficiency important in moving cargo from ocean liners onto dry docks, but it is also important throughout the supply chain, when moving cargo into the hinterland to its final destination. Jaffe continues: “the movement of cargo in the context of supply chains and logistics systems is a largely time-driven enterprise. Holdups, delays, bottlenecks, and slowdowns are fatal kinks in the chain… higher costs expenses may be acceptable where they are compensated with efficiency” (p. 525). The decisions that cargo companies make about which port to dock in actually only comprise a small part of the process of export/importation; repeated congestion at specific ports is a deterrent that might be worth a few thousand miles and a few extra units of currency to avoid, if it means securing a smoother supply chain.

However, it cannot be that geography simply doesn’t matter. Congestion at specific busy ports is almost unavoidable in the newly globalized world because globalization has happened too rapidly to keep up actual physical capacity – in this case, vessel volume. Currently too much volume is being jammed through multiple ports that do not have enough capacity. Both Fransoo and Lee (2013) and Hesse (2006) elaborate upon this. Fransoo and Lee point out that poor capacity management leads to “poorly controlled systems with extensive queuing characteristics under complicated priority settings at each of the stages that the container needs to pass” (p. 259), including at the point of contact between sea and land. Hesse uses the example of the strategically located port of Hamburg, Germany, where ties to both the Baltic and East Asia have seen a nearly double increase in cargo volume since 2000 and have put an intense strain on the port infrastructure (p. 576). In Hamburg, there is an acute inability for the current infrastructure
to accommodate the volume of cargo that is attempting to be imported – however, because of prime geographic real estate, the location is chosen again and again by liner companies, resulting in massive congestion and “local pain,” as the author terms it. Therefore, regardless of efficiency further along the supply chain, in this case the primacy of geography makes Hamburg, which is a completely inefficient port, an excellent choice for large liner companies with cargo arriving both from Asia and from the Baltic region. Hesse also points out that the port has no choice but to adapt its infrastructure in order to accommodate this load - and it is easy to see how conditions for laborers would deteriorate from privileging the needs of the liner companies over the sound structure of the dry docks.

Speaking of working conditions, within the process of transitioning to a worldwide economy, the term “race to the bottom” has emerged as an elephant in the room –something that large conglomerate companies participate in and yet are rarely self-reflective over. “Race to the bottom” is essentially the idea that large multinational corporations will find the cheapest and readiest labor, which often resides in the developing world, and take advantage of the lack of protections and regulations in these places in order to maximize profit and volume. In terms of how this affects seaport operations and therefore worldwide seaport congestion, Turnbull and Wass (2007) are correct in believing the issue is more nuanced: they see it as a “complex mix of convergence and divergence… because social institutions do not adjust automatically or instantaneously to market pressures – be they local, national, or global in origin” (p. 582). In other words, the economic institutions and the humans doing the labor are not currently in sync in this particular business model. In some places, specifically at sea, the economy is highly standardized, whereas on land, it remains heterogeneous. According to Turnbull and Wass, one
major obstacle to the standardization of labor and economics both at sea and on land is “service quality” (p. 586) – that is, the workers’ needs are in the way.

Options for rectifying this situation could include several models. The landlord model requires the privatization of ports, which would integrate land and sea operations in collusion with the port authority. The traditionally used tool model is when the state either invests in infrastructure and equipment, or provides cargo handling services, and laborers are contracted by the state or by union halls, dispersing them based on need to various locations. Lastly, the comprehensive model is mainly used in developing economies and excludes the private sector completely, engaging in a socialized maritime experience. The tool model is used on the highly unionized West Coast, where the extremely powerful force of the ILWU continues to fight against the landlord model because they believe it would destroy the workers’ livelihood (Turnbull and Wass, 2007, p. 609).

The contemporary situation of seaport congestion begs several questions in relationship to these models and docking choices made by shipping companies. The ILWU’s insistence on the tool model leads to continuous shut down/slow down situations resulting in severe seaport congestion affecting the worldwide economy, the result being a dramatic shift in shipping patterns along the U.S. coasts. Is it ever possible for the unionized demands of labor to be adequately met, while also meeting the needs of contemporary shipping companies’ dockside? The landlord model seems to be, according to Turnbull and Wass and based on interaction with the case studies from 2002 and 2015, a highly socialized model that could result in a “race to the bottom” type of worker exploitation in the subtle way that globalization tends to foster such dilemmas (and the comprehensive model is clearly the outright realization of the this). Where is there space for a gentle and non-exploitative merger of land and sea labor?
Upon examination of perspectives beyond the immediacies of labor and the dry docks, several underlying tensions are revealed. Supply chains must run smoothly – but is the choice of port more important than the over supply chain, if the port cannot properly accommodate the cargo volume, as is the case in Hamburg, for reasons of infrastructure, or in Long Beach, for reasons of labor tension? If we focus on building strong dry dock infrastructures and reroute shipping traffic to ports with strong infrastructures that can accommodate higher volumes, are we neglecting the supply chain to the hinterlands, in turn causing congestion elsewhere? Where do workers’ rights and safety fall along these auspices? In these examples the drive toward higher economic output from the perspective of shipping is incompatible not only with human effort but also with infrastructural integrity. The next section will further deconstruct the Multinational Corporation and theories of globalization as they pertain to maritime commerce in order to see if this holds true.

**Liner Companies as Multinational Corporations**

According to McCalla, Slack, and Comtois (2004), the globalization of business is an established fact (p. 486). The authors examined case studies from around the world and found that the vertical and horizontal integration of ocean carrier vessels was ubiquitous, and that the formation of global networks seemed to always disintegrate once a vessel docked in a port. Understanding how multinational corporations operate, alongside theories of globalization, may help better understand why this phenomenon seems to universally take place, and also why the solutions to seaport congestion offered from the stance of business (such as rerouting, exploring new docking options, and alternate sea routes) mainly address global or universal solutions rather than genuinely local ones that might chip away at the crux of the issue.
Yeung (1998) is an early theorist who writes about the shipping industry in “a borderless world,” stating that “the fortunes of individuals, firms, industries, and even nation states are so intertwined that it becomes almost impossible to define the nation state without reference to the broader economy” (p. 292). The problem with this, as the author goes on to point out, is the fact that the world does in fact have very real geopolitical borders and nation states with vested interests. Other more recent authors collude on this viewpoint. In her 2009 exposé on the globalization of first world products through the use of third world labor, Snyder also challenges the Western capitalist notion that “the only borders that exist, exist in your mind” (p. 311). She examines how global manufacturing affects textile workers around the world, for whom Export Processing Zones, or EPZs, which are illegal in the U.S. due to worker protection laws but rampant in the third world, are a tangible reality of national borders. These borders clearly contain different political systems and economies and in the case of the international maritime economy, they particularly affect whether one is a protected union dock worker or a third world exploited laborer creating the products to be exported – or, perhaps whether a country has enough capital and a democratic free market to support the formation of a conglomerate liner company.

As though anticipating the 2002 and 2015 instances of seaport congestion, Yeung insists that the discourse of the borderless world “must be contested, because it has caricatured the intricate and multiple relationships between capital, the state, and space” (p. 303). For example, the borderless world that conglomerate liner companies imagine when the effortlessly re-route their cargo from the U.S. West Coast to the U.S. East Coast via the Panama Canal is actually a series of international, cross-cultural, and multi-economic transactions rather than a simple geore-positioning. The author goes on to point out: “First, the capitalist state continues to perform its
functions in capital accumulation and to exert influence in the global political economy. Second, capital is more territorially embedded in places rather than having become ‘placeless…’ Territorial differences and geographical unevenness remain integral to globalization processes” (pp. 303-4). It is dangerous to forget the particulars of the nation-states within the much bordered world of the supposedly borderless economy. The 2002 and 2015 instances are examples where the uniquely bordered world has been forgotten in favor of solutions that cater to business as usual. For example, returning to the quote from the IWW *Industrial Worker* (2003) that states: “the [2002] agreement was negotiated with a Taft-Hartley gun pointed at the union’s head” (para 4): while the outcome of the shutdown appears to have been a fair negotiation between the ILWU and the PMA, resulting in the retention of many jobs and the appeasement of workers through safety restrictions placed on pace of work, from a worker perspective it was clearly not an agreement at all, but rather a force-fed acceptance of terms. To enhance an understanding of how this relates to globalization, one needs only to look at the PMA’s version of 2002 events on their website: “Most recently in 2002, the PMA and ILWU reached a landmark agreement that ushered in an era of technology for the West Coast Waterfront” (http://www.pmanet.org/overview, para. 2). The disparity in point of view hardly needs explication. However, diversified land labor’s loss of voice, the glossing over of the worker’s position, is typical of a globalization economy, and is the tender point of tension where the seaport congestion issue may never be resolved should the paradigm of globalization persist.

Conglomerate liner companies are multinational corporations, or MNCs, meaning they are massive firms with assets and facilities in multiple countries, the home base usually in a modern, wealthy, (often) Western country. Abdulsomad (2014) describes the modern MNC as “the result of rapid liberalization, globalization, and technological changes” (p. 415); therefore,
the MNC by definition relies on a political-economic world model of borderless-ness. One interesting element that the author brings to light, which converges with Greve’s (2009) discussion of competitive advantage in the container shipping industry, is a discussion of the ways that innovation is disseminated in modern MNCs. Abdulsomad discusses open versus closed innovation models – that is, prior to the MNC model, closed innovation, where companies sought to contain all the best and brightest employees and ideas within their enterprise (think: the early days of computer companies, such as IBM or Apple), took place. However, in the globalized world of MNCs, open innovation, or idea-sharing has become the norm and companies glean information from each other’s best and brightest, often sharing the wealth of genius employees across the industry rather than attempting to retain them within a single company (think: TED Talks or contemporary social media companies). Along these lines, Greve (2009) adds that in the container shipping industry, new industry information about shipbuilding is disbursed in various ways among the major MNCs, such as Maersk. Specifically, the author focuses on the way that the adaptation of the post-Panamax liner, which proliferated with “slow and selective diffusion” (p. 18) and yet proved to be, from the point of view of the MNC, an industry asset. Greve uses cluster theory and network theory to describe the proliferation of the post-Panamax liner ship model: mainly, that maritime MNCs within certain clusters of geographic proximity as well as industry networks were the first to catch on to the oversized post-Panamax, proceeding with caution only when they saw that the new model worked for the early adopters (p. 19). What is perhaps most fascinating about the discussions of the new liner models and the MNCs that support their construction and usage, is the absence of human presence. Amid Abdulsomad’s discussion of open innovation and MNCs, the human brain power behind the innovation is merely a cog in the machine of global business. The way the article
describes MNCs, it is almost as though the corporation has taken on personhood, and could operate without the actual human minds that have supposedly done the innovating. There is no mention of the actual people involved – who are the human beings who are the best and brightest thinkers, working across corporations to come up with the latest innovative technology? Who are the workers who produce this technology? The same goes for Greve’s discussion of the proliferation of the post-Panamax liner; it is almost as though these enormous liners are ghost ships. Who inhabits the networks that supposedly whispered about the new oversized cargo ships? Who decided to take the risk? Who built the boats, who loads the cargo, and who is the captain? All of these questions are lost on the MNC, whose business is business, rather than labor.

It is easy to get lost in the rhetoric of the MNCs, the business networks they inhabit, and the excitement of post-Panamax. Globalization and MNCs do not account for human labor and the lives that it takes to create and maintain global networks of trade; nor do they account for the fall out of lives affected by global trade. Therefore, when a problem arises in an international port, such as the instances of seaport congestion on the U.S. West Coast in 2002 and 2015, it is almost impossible to reconcile issues of labor under a world dominated by globalization and an industry run by MNCs. An important question to ask is: why, for better or worse, is labor on the docks not adapting? How long can dock workers hold out in the face of such a powerful and intimidating presence? Based on an examination of the effects of globalization on the industry, however, we can be sure that these instances of congestion will not stop until either the model of globalization implodes or the dock workers give in. In the meantime, however, theorists and shipping companies are still looking for ways to circumnavigate the problem. The final section of results will describe the option of alternate sea routes, and the ways that patterns of congestion
in various high-traffic ports worldwide have been examined in order to side-step the ultimate labor-globalization confrontation.

**Alternate Sea Routes**

Given that the contemporary condition of seaport congestion is created in the context of globalization and favors the MNC model of conglomerate liner companies, it follows that a dominant trend in research on both the business and theoretical end is *finding ways around*. That is, how can we minimize congestion at seaports without actually having to deconstruct the globalized model of business or address the issues presented by heterogeneous, unionized labor? Two predominant themes that have arisen are analysis of traffic patterns at the world’s most congested ports, and the examination of alternate sea routes. Both of these models offer to attach proverbial Band-Aids to the escalating wound that is the congested seaport, location: global. Ducret and Notteboom (2012) provide a complex network analysis of all of the world’s fleets using graph theory and multiple types of mapping techniques. The authors conclude:” we observe a certain robustness in the network structure. While transshipment hub flows and gateway flows might slightly shift among nodes, topological properties remain rather stable” (p. 415). The authors believe that regardless of how the global shipping pattern morphs over time, due to conglomerate liner companies’ needs and preferences as well as world politics, the industry overall remains strong, with congestion occurring in many of the same main ports, or shifting to new ports which become central hubs, but never alleviating itself altogether. This might simply indicate that the frantic rate of commerce induced by globalization will always necessitate a condition that land labor will not be able to meet, resulting in congestion.

Another option to try to ameliorate some of the world’s seaport congestion is to use routes that are not currently in use. Ducruet and Notteboom note that there are definitely certain
passages, such as the transatlantic, which are avoided. This is most likely because the “new world” of globalized industry and shipping is located around the Asia-Pacific area, which ultimately causes the most congestion in Asian ports such as Shanghai, Hong Kong, and Singapore (p. 410). All of these ports were considered highly congested in the authors’ study, in both 1996 and 2006, as opposed to U.S. ports, for example, which shifted in importance over time. For reference, Ducruet and Notteboom’s visualization of the global liner shipping network in 1996 and 2006 appears in Appendix C. However, other routes have been left in the dust completely and could be considered possibilities to open up not only ocean space but also ports of call. Blunden (2012) discusses the “global consequences” for a “new sea lane” above Russia in the Arctic Ocean (p. 115). This old route was used by the Soviets but fell out of favor once the USSR began to decline; however, because it has already been tested and because of Arctic Sea melting along with a lack of development of the rival Northwest Passage, Blunden contends that the so-called Northern Sea Route is the next operationally-ready sea route.

However, there are certain political consequences to reviving an old Soviet sea route, in addition to considerations about the globalization of container shipping and the contemporary state of maritime land labor. As Blunden notes, the Arctic Ocean travel space is contested in what seems to be mock-Cold War split: Russia lays claim to the shipping lane while the Western countries insist that it is international water. It is somewhat ironic that even though Russia’s Arctic Doctrine states that the former Soviet Union will prepare the passage for operational readiness between 2011-2015, little progress had been made in the venture at the time of Blunden’s writing (p. 117), and today the passage is quite nominally used (Petterson, 2014, para. 2). Historically, Blunden notes, transportation route shifts have been equated with shifts in power; however, one must wonder if the same holds true for the world under a globalized
economy. Ducruet and Notteboom’s research demonstrates that the shift in port importance over a decade relates to loci of manufacture and import/export, and sometimes to political situations and uprising (for example, Yemen has been consistently avoided as a major docking option for at least a decade), but not necessarily to great empires (p. 398). Perhaps, like the closed innovation model, the idea is outdated and insufficient for the contemporary world economy. Regardless, it is imperative to point out that opening the Northern Sea Route, shaky an idea as it is, has not produced major results in alleviating seaport congestion around the world – according to Petterson (2014), a totally of seventy-one vessels used to channel in 2013 (para. 3) – nor would it make substantial changes in the worldwide situation were fully operational. Currently, Russian Prime Minister Dmitry Medvedev estimates that the capacity, which is currently four million tons, could be increased to 80 million tons in the next fifteen years and still not be at full capacity (Kovalev, 2015, para. 2). The issue of worldwide seaport congestion appears to be a product of increased volume under the conglomerated model of globalization, wreaking havoc on still-stratified and human-centric model of labor it meets at the very local port of call.

Chapter 5: Discussion

Synthesis of Results

Superficially, the most immediate cause of seaport congestion is labor strife in port, which produces friction between large conglomerate companies, maritime associations which act as intermediaries for those companies, and unions or other organization representing maritime workers. These struggles are a result of an increase in volume of cargo being shipping in new supersized post-Panamax liners in addition to fleets already in use. Most port infrastructures around the world are not equipped to handle this volume, and yet the trust of globalized business pushes for products to be delivered – more, faster, bigger, and better. As outlined in the first
section of results, this drive negates the human element of labor and increasingly privileges products and profits over worker viability. A seemingly viable option for container shippers wishing to avoid congestion caused by such situations might be to simply chose another port – but as we have seen in the second section, through an exploration of multi-port options, this is an overly simplistic understanding of geopolitics, and one which neglects to account for port infrastructures buckling under the sheer volume of cargo produced by the globalization of the industry. A careful investigation of globalization and the multinational corporation helps to understand why the above mentioned dilemmas are not taken into consideration until they meet unhappy dock workers – and even when they do, the onus is placed on dock workers rather than the conditions of the postmodern moment. MNCs are almost anti-human – large, decentralized networks based in countries far away from the labor it takes to produce their products and services, and operating in terms of networks and clusters; MNC liner companies and the heterogeneous land labor run by unions are like oil and water, and the language and frameworks within which MNCs operate does not account for human lives and labor. Given this, the MNCs try to skirt around the issue of labor, not only portraying workers in a bad light for resisting the auspices of globalization, but also insisting that the solutions lie in alternatives: alternative sea routes. However, upon examination of two different theories, the patterns of worldwide sea traffic disbursement and the Northern Sea Route, it is easy to see that both of these options simply shift the problem of congestion around, or don’t substantially alleviate it. By unpacking all of these layers, it is clear that human labor struggles are not a cause of seaport congestion but rather a product of a globalized economic model, and all of the bagged that this model entails.

**Recommendations**
In light of what seem like the irreconcilable differences between conglomerate liner companies and heterogeneous land labor that come to a head during instances of seaport congestion such as those on the U.S. West Coast in 2002 and 2015, I have several recommendations for further research. The first suggestion is to gain an explicit understanding of where laborers see themselves located in the globalized economy. So far, their voice exists only in the reactionary rather than from an objective, non-crisis point of view. Understanding how dock workers view themselves as part of a new globalized labor workforce would shed light on their role and perhaps help to engage MNCs or (more likely) theoreticians in a discussion about the role of labor in the global industrial economy. Additionally, as time goes on and particularly as the Panama Canal expansion is completed, it will be interesting to see how the East and Gulf Coast ports and their labor forces are affected by what appears to be a trending shift away from docking on the West Coast. Studies should be mindful of the logistics of ILA and whether it has any interaction with it ILWU, which East and Gulf Coast ports become major hubs, and whether or not regionalism has any significance on the overall congestion load of costal America, and how choices to dock at ports are made. Additionally, shipping patterns to all of the Americas would be useful to follow, to gain better insight into shifting world shipping trends. It is also worthwhile to continue to study the ways in which port infrastructures accommodate (or cannot accommodate) the colossal volume of cargo increasingly demanded by the globalized economy. Presumably at some point, there will either be a major shift in the way that infrastructures are set up, or there will be a major collapse. Either way, further research will enhance our readiness for what is to come and our ability to troubleshoot. Alternate sea routes could be explored further, but I do recommend their advanced explication; rather, continuing to focus on and track the trending shipping patterns around the world will provide insight into the ways in which industrial
and technological shifts affect the viability of certain port over others, influencing the patterns of
journeys worldwide. This will not help us negate congestion, but at least it will help us to
anticipate it. Noticeably, none of these recommendations solve the dilemma of worldwide
seaport congestion as it is presented in this paper; this is because ultimately, and in conclusion,
by its very definition globalization is irreconcilable with heterogeneous, locally-based labor
models. One thing is absolutely certain, however: it would behoove us to further analyze this
problem the closest and deepest at its root – the crux of this irreconcilability – rather than
continue to find a way around the problem, as many of the “solutions” interrogated here have
done.
References List


<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Source type</th>
<th>Topic</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdulsomad, K.</td>
<td>2014</td>
<td>Secondary</td>
<td>Globalization and shipping</td>
<td>Peer reviewed article</td>
</tr>
<tr>
<td>Allen, G.</td>
<td>2012</td>
<td>Primary</td>
<td>Post-Panamax ports</td>
<td>News article</td>
</tr>
<tr>
<td>Bacon, D.</td>
<td>2002</td>
<td>Primary</td>
<td>Taft-Hartley Act</td>
<td>News article</td>
</tr>
<tr>
<td>Blunden, M.</td>
<td>2012</td>
<td>Secondary</td>
<td>Northern Sea Route</td>
<td>Peer reviewed article</td>
</tr>
<tr>
<td>Bonacich, E. and</td>
<td>2008</td>
<td>Secondary</td>
<td>Logistics</td>
<td>Peer reviewed article</td>
</tr>
<tr>
<td>Wilson, J.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boyle, R.</td>
<td>2015</td>
<td>Secondary</td>
<td>Panama Canal</td>
<td>Popular media</td>
</tr>
<tr>
<td>Broder, J.M.</td>
<td>2004</td>
<td>Primary</td>
<td>Port security</td>
<td>News article</td>
</tr>
<tr>
<td>Burnson, P.</td>
<td>2015</td>
<td>Primary</td>
<td>Shipping patterns</td>
<td>Trade journal</td>
</tr>
<tr>
<td>Cummings, J.,</td>
<td>2002</td>
<td>Primary</td>
<td>Taft-Hartley</td>
<td>News article</td>
</tr>
<tr>
<td>Tejada, C., and</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kim, Q.S.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(no author listed)</td>
<td>2012</td>
<td>Primary</td>
<td>Post-Panamax ports</td>
<td>News article</td>
</tr>
<tr>
<td>“CMA CGM…”</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Day, S. and Arnold, W.</td>
<td>2002</td>
<td>Primary</td>
<td>W. Coast shutdown</td>
<td>News article</td>
</tr>
<tr>
<td>Ducruet, C., and</td>
<td>2012</td>
<td>Secondary</td>
<td>Container shipping</td>
<td>Peer reviewed article</td>
</tr>
<tr>
<td>Notteboom, T.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fransoo, J.C.</td>
<td>2012</td>
<td>Secondary</td>
<td>Supply chain logistics</td>
<td>Peer reviewed article</td>
</tr>
<tr>
<td>and Lee, C.Y.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greve, H.</td>
<td>2009</td>
<td>Secondary</td>
<td>Logistics and competitive advantage</td>
<td>Peer reviewed article</td>
</tr>
<tr>
<td>Hesse, M.</td>
<td>2006</td>
<td>Secondary</td>
<td>Globalization and port infrastructure</td>
<td>Peer reviewed article</td>
</tr>
<tr>
<td>ILA</td>
<td>2015</td>
<td>Primary</td>
<td>Union</td>
<td>Official website</td>
</tr>
<tr>
<td>ILWU</td>
<td>2015</td>
<td>Primary</td>
<td>Union</td>
<td>Official website</td>
</tr>
<tr>
<td>Jaffe, D.</td>
<td>2010</td>
<td>Secondary</td>
<td>Labor and container shipping</td>
<td>Peer reviewed article</td>
</tr>
<tr>
<td>Johnson, B.</td>
<td>2008</td>
<td>Primary</td>
<td>Port selection</td>
<td>Trade journal</td>
</tr>
<tr>
<td>Jubel, M.H.</td>
<td>2001</td>
<td>Secondary</td>
<td>Globalization and shipping</td>
<td>Peer reviewed journal</td>
</tr>
<tr>
<td>Kirkham, C., and</td>
<td>2015</td>
<td>Primary</td>
<td>Globalization and union labor</td>
<td>News article</td>
</tr>
<tr>
<td>Khouri, A.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Klein, N.</td>
<td>2000</td>
<td>Secondary</td>
<td>Globalization and factory work</td>
<td>Academic press paperback</td>
</tr>
<tr>
<td>Klein, N.</td>
<td>2007</td>
<td>Secondary</td>
<td>Globalization and capitalism</td>
<td>Academic press paperback</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Year</td>
<td>Type</td>
<td>Title/Category</td>
<td>Source</td>
</tr>
<tr>
<td>------------------------</td>
<td>------</td>
<td>----------</td>
<td>--------------------------------------------------------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Kovalev, A.</td>
<td>2015</td>
<td>Primary</td>
<td>Northern Sea Route News article</td>
<td></td>
</tr>
<tr>
<td>McCalla, R.J. et al.</td>
<td>2004</td>
<td>Secondary</td>
<td>Globalization and container shipping</td>
<td>Peer reviewed journal</td>
</tr>
<tr>
<td>Muirhead, J.R. et al.</td>
<td>2015</td>
<td>Secondary</td>
<td>Panama Canal expansion</td>
<td>Peer reviewed journal</td>
</tr>
<tr>
<td>Mongelluzzo, B.</td>
<td>2015</td>
<td>Primary</td>
<td>West Coast slow down</td>
<td>Trade journal</td>
</tr>
<tr>
<td>Olney, P.</td>
<td>2003</td>
<td>Secondary</td>
<td>West Coast shut down</td>
<td>Trade journal</td>
</tr>
<tr>
<td>PMA</td>
<td>2015</td>
<td>Primary</td>
<td>Pacific Maritime Association</td>
<td>Official website</td>
</tr>
<tr>
<td>Pallis, A.A. et al.</td>
<td>2010</td>
<td>Secondary</td>
<td>Port economics</td>
<td>Peer reviewed journal</td>
</tr>
<tr>
<td>Petterson, T.</td>
<td>2014</td>
<td>Primary</td>
<td>Northern Sea Route</td>
<td>News article</td>
</tr>
<tr>
<td>Skidelsky, R.</td>
<td>2012</td>
<td>Secondary</td>
<td>Globalization and economic crash</td>
<td>Peer reviewed journal</td>
</tr>
<tr>
<td>Slack, B.</td>
<td>1993</td>
<td>Secondary</td>
<td>Global transport</td>
<td>Peer reviewed journal</td>
</tr>
<tr>
<td>(no author listed)</td>
<td>2002</td>
<td>Primary</td>
<td>Taft-Hartley Act</td>
<td>News article</td>
</tr>
<tr>
<td>Turnbull, P.J.</td>
<td>2007</td>
<td>Secondary</td>
<td>Globalization and labor</td>
<td>Peer reviewed journal</td>
</tr>
<tr>
<td>Wass, V.J.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woodyard, C.</td>
<td>2015</td>
<td>Primary</td>
<td>West Coast slow down</td>
<td>Popular media</td>
</tr>
<tr>
<td>Yeung, H.W.</td>
<td>1998</td>
<td>Secondary</td>
<td>Globalization and national borders</td>
<td>Peer reviewed journal</td>
</tr>
</tbody>
</table>

Appendix 1: Summary of Documents by Category
Appendix 2: Case Studies Relatedness to Major Topics. Source: author’s elaboration created with Delineato Pro software, v. 1.2.6 (10.3).
Appendix 3: Theories of Labor and Globalization. Source: author’s elaboration created with Delineato Pro software, v. 1.2.6 (10.3).