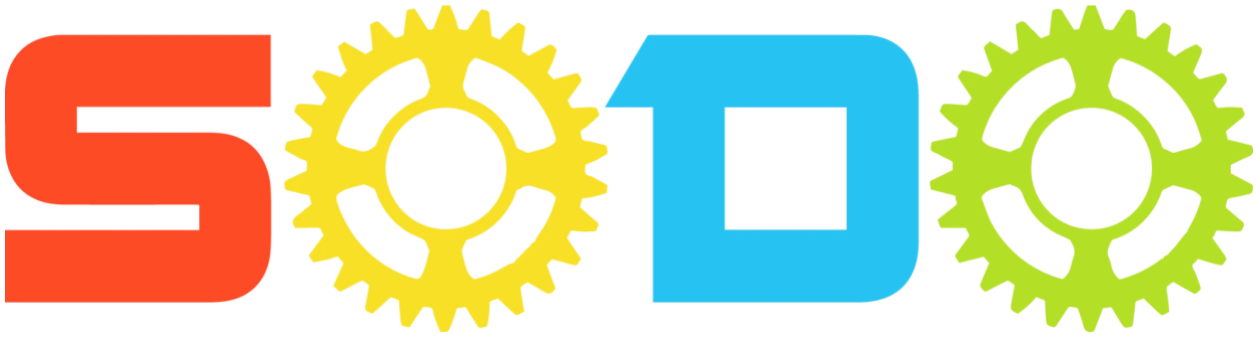

EVANS SCHOOL
OF PUBLIC POLICY & GOVERNANCE

UNIVERSITY of WASHINGTON

SODO Economic and Policy Analysis Report

Evans School Consulting Lab

Cole Harvey, MPA

Joshua Varela, MPA

Mohammed Alzawad, MPA & MSCM

Sukki Kang, MPA

Advisor:

Akhtar Badshah, PhD,

Distinguished Practitioner & Associate Teaching Faculty

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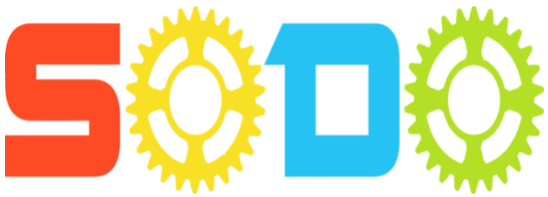

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EXECUTIVE SUMMARY

INTRODUCTION

The SODO district in Seattle, an area with a rich history as a center of industry and manufacturing, is now at a crossroads of economic evolution and urban development. This comprehensive report for the SODO Business Improvement Area (BIA) provides an in-depth evaluation of SODO's present conditions, obstacles, and prospects for future growth. Through extensive qualitative interviews with key stakeholders and rigorous quantitative data analysis, we have pinpointed essential areas that require attention and have formulated strategic recommendations to drive sustainable development in the district.

POLICY CHALLENGES

SODO's primary challenges include aging infrastructure, traffic congestion, tensions around zoning and development, the need for modern amenities to support its diverse workforce, and persistent misconceptions about the area. The neighborhood's industrial base is crucial for Seattle's economy, yet it struggles with symptoms of Seattle's homelessness crisis, public safety issues, transportation inefficiencies, and environmental concerns. Addressing these issues is critical for maintaining SODO's role as an economic engine while supporting amenities that are attractive to the neighborhood's workers and businesses.

RESEARCH METHODS

Our team's research methods build upon the academic and historical context established within our literature review to answer our primary research question: **"How do the experiences and perspectives of SODO stakeholders reflect the current economic and policy environment, and what recommendations can be made to improve SODO's business and community landscape?"** To directly review SODO's current operations and identify areas for improvement, we conducted semi-structured interviews with stakeholders and engaged in a thorough analysis of quantitative data.

KEY FINDINGS

1. **Infrastructure and Transit**
    - **Strengths**: Strategic location near major transportation routes, including highways, railroads, and the Port of Seattle; potential for transit to support future development.
    - **Challenges**: Deteriorating roads, insufficient public transit options, disruption from transit expansion, and safety concerns at railway crossings.
    - **Recommendations**: Establish a SODO Infrastructure Advisory Council and leverage public-private partnerships for infrastructure improvements.

2. **Zoning and Development**
    - **Strengths**: Zoning changes encourage mixed-use development and job density around future transit hubs.
    - **Challenges**: Tensions between adopting zoning/development policies that support freight mobility and adopting zoning/development policies that support increased density.
    - **Recommendations**: Work with the city to adopt lean management strategies and streamline permitting processes for business improvements and development.
3. **Supply Chain Dynamics**
    - **Strengths**: Proximity to transportation facilities and diverse industrial base.
    - **Challenges**: Port congestion, restrictive zoning laws, and need for technological adaptation.
    - **Recommendations**: Improve digital infrastructure, increase levels of data collection, and develop dynamic tools to track progress.
4. **Workforce Equity**
    - **Strengths**: Community initiatives like the Sunny Arms Artist Co-op.
    - **Challenges**: Limited amenities, poor walkability, and impediments to activation.
    - **Recommendations**: Develop green spaces, improve walkability/commute times, and increase essential services that impact employee experiences.
5. **SODO's Economy**
    - **Strengths**: Significant business operating tax contributions and a diverse business environment with a rich history.
    - **Challenges**: Digital literacy gaps, insufficient affordable housing, and high insurance costs due to geographical and geological vulnerabilities.
    - **Recommendations**: Increase digital literacy and empower SODO to play a part in the One Seattle Data Strategy plan. Encourage preemptive mediation efforts, promote cross-sector stakeholder collaborations, and consider active campaigns to promote SODO.
6. **Public Safety Concerns**
    - **Challenges**: Elevated rates of property crime and graffiti due to minimal foot traffic and 24-hour activation.
    - **Recommendations**: Increased police response times, enhanced security measures, and work to foster a sense of community through initiatives that encourage foot traffic and public engagement.

7. **Homelessness and Social Services**
    - **Challenges**: Issues related to drug use, illegal dumping, and individuals camping and living out of vehicles.
    - **Recommendations**: Strengthen partnerships with social service organizations and work towards providing adequate resources, housing, and support services to help individuals transition out of homelessness.

GENERAL RECOMMENDATIONS

1. **Acquire Additional Data to Better Understand SODO**
    - **Data Acquisition**: Utilize smart city initiatives and establish a SODO Data Collaborative.
    - **Data Types**: Collect demographic, economic, traffic, environmental, crime, and community sentiment data.
    - **Initiate Efforts**: Form partnerships, deploy Internet of Things (IoT) and sensor networks, and use crowdsourcing platforms.
2. **Potential Funding Sources for SODO Improvements**: Explore grants and financial assistance from various federal and local sources (further detail and guidance included).
3. **Government Collaboration**: Establish a SODO Stakeholder Advisory Council and develop a project tracking dashboard while recording place-based lessons.

CONCLUSION

The key findings and strategic recommendations highlighted in this report provide the SODO BIA with a foundation to address challenges and continue advocating for SODO's economic prosperity. Though identified insights may not be representative of the entire district, they are based upon qualitative data sourced from a diverse group of stakeholders with genuine ties to district activity. By improving infrastructure, enhancing stakeholder communication, supporting sustainable development, fostering workforce equity, improving public safety, and leveraging data collection, SODO can attract investment, improve activation, and maintain its critical role in the region's economy. The SODO BIA, in collaboration with local government and businesses, is poised to lead these efforts and ensure a prosperous future for the neighborhood.

CHAPTER 1: PROJECT STATEMENT

OVERVIEW

SODO, owing its name to a shortened version of either South of Downtown or South of the Kingdome, is a primarily industrial neighborhood representing the economic engine of Seattle. Over the past century, the area has developed from tideflats of the Duwamish River to a bustling industrial center. Today, SODO plays a major role in the movement of goods and significantly contributes to economic and industrial activities in Seattle. SODO houses a diversity of businesses and includes major public and private entities such as Starbucks, American Life, ProLogis, UPS/FedEx, the Port of Seattle, and Sound Transit along with hundreds of smaller businesses that keep the neighborhood operating. However, businesses face major challenges to continued success and prosperity. Thus, the basis of this project starts with the question: **What support does SODO need to reach its full potential?**

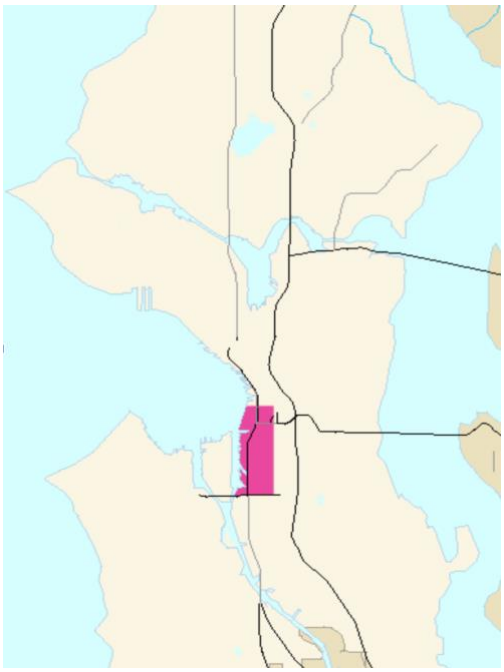

Figure 1. SODO is highlighted in pink. Picture in the public domain.

The main goal of this project is to provide a comprehensive analysis of SODO that emphasizes the neighborhood's status as an integral economic center in Seattle. This document includes 1) a literature review of texts that evaluate the rich history of SODO, 2) an analysis of the strengths, challenges, and opportunities of SODO gathered from qualitative interviews with stakeholders and 3) strategic recommendations. This report is prepared for the SODO Business Improvement Area (BIA), a non-profit organization that supports property owners, businesses, tenants, employees and patrons of the district. The SODO BIA, which represents about 1,200 businesses, can use this report as a tool to attract investment, which will improve the functionality and economic strengths of SODO.

SCOPE

This project encompasses the following:

- Comprehensive literature review on the area's history and economic impact
- Interviews with businesses to understand SODO's strengths, challenges, tensions and opportunities.
- A detailed recommendation for SODO's future improvement

RESEARCH QUESTIONS

- Why do businesses choose SODO for its operations? What are SODO's strengths?
- What are the biggest challenges SODO is facing over the short and long-term?
- What role does SODO play in the future success of Seattle?
- What improvements are needed to help SODO businesses to grow?
- What will the improvements look like? How can this be implemented?

AUDIENCE

This document is intended for key stakeholders of SODO including, but not limited to:

- City of Seattle
- King County
- Washington State Legislature
- Washington State Department of Transportation
- U.S. Federal Government
- SODO Businesses
- Sound Transit
- The Port of Seattle & Northwest Seaport Alliance
- T-Mobile Park & Lumen Field
- Sound Transit
- Seattle Department of Transportation (SDOT)

DELIVERABLES

- A comprehensive report that encapsulates the economic, logistical, and infrastructural aspects of SODO. This includes interviews to assess SODO's current shortfalls, highlight the area's strengths, and emphasize the need for continued investment in the district.
- Presentation of findings and recommendations to the SODO BIA's Board of Directors and economic development committee
- Strategic recommendations for engaging with public entities and leveraging the district's potential.

CHALLENGES AND CONSIDERATIONS

- **Lack of available data** - Unable to track and analyze a range of data sets (e.g. businesses identities, demographics, global trade volumes, vacancy rate, businesses by sector)
- **Public/private collaboration** - Assessing tensions between the needs and desires of stakeholders including both public agencies and unique local businesses.
- **No in-depth interviews with legacy businesses** who recently relocated outside of SODO.

- **Limited time** to conduct interviews and assess SODO's business environment, which is dynamic and will be affected by local policies (updates to comprehensive plan, SDOT Levy, etc).

CHAPTER 2: LITERATURE REVIEW

OVERVIEW

This literature review aims to evaluate and summarize two texts that cover the history of Seattle's SODO neighborhood, the largely industrial but ever-evolving area south of downtown. In addition, Chapter 2 assesses the history of Business Improvement Areas (BIAs), their role in Seattle and other areas, and innovative ways BIAs promote the interests of their member entities. This context will complement this project's qualitative interviews and summary of results by explaining SODO's historical influences and the role of BIAs in urban areas. In addition, this literature review can act as a tool to facilitate a greater understanding of SODO as a place to work, play, and invest for regional stakeholders and readers of this report.

Because highlighting SODO's rich history is an imperative piece of this project, Chapter 2 focuses heavily on the evolution of Seattle's industrial center. Understanding the roots and context of a place is critical for developing improvements that resonate with the existing community and build upon its established identity. Development efforts too often ignore how history has shaped neighborhoods, resulting in changes that feel disconnected or even alienating to residents and businesses. By thoroughly documenting SODO's origins and its recent economic diversification, this report aims to honor the narrative that has defined the neighborhood. Initiatives aimed at enhancing SODO's future can then be purposefully linked to its storied past. SODO remains a misunderstood and rarely-frequented area of Seattle, and this report views knowledge of SODO's past as a prerequisite to engaging thoughtfully and effectively with the area's current strengths, challenges, and opportunities. Thus, the inclusion of SODO's history in Chapter 2 is a nod to the importance of this history as a foundation from which the rest of the report grows.

This chapter draws on two texts that explore the history of SODO: *Tideflats to Tomorrow: The History of Seattle's SODO* by Dan Raley and *The River That Made Seattle: A Human and Natural History of the Duwamish* by BJ Cummings. Raley's book, published in 2010, provides imperative context from which this capstone report is based. Raley highlights the filling of the Duwamish tideflats to create the area known today as SODO, the neighborhood's early industry, the Hooverville settled between 1931 and 1941 in SODO, the post-WWII industrial boom, and the area's modern challenges. Cummings' book, published in 2020, explores the history of the Duwamish River, the waterway that acts as SODO's natural western border and provides access via Puget Sound to international trade routes. This text covers how the rapid growth of Seattle's industrial district and use of the waterway resulted in levels of high pollution that had major effects on the Coast Salish people and salmon population. As of today, various government entities are still working to clean up the EPA-designated Superfund site of carcinogenic chemicals from the Duwamish.

The end of Chapter 2 uses economic data, published research, case studies, and government reports to summarize the history of BIAs, explain the importance of BIAs to urban areas, and highlight innovative roles for BIAs moving forward. In addition, this section gives an overview of the BIA landscape in Seattle and emphasizes the difference in resources and services provided by BIAs. This section intends to familiarize readers with the structure of BIAs and invites additional insight into how BIAs can be formed and utilized to promote regional economic development.

A BRIEF INTRODUCTION TO SODO

In his 2010 book *Tideflats to Tomorrow: The History of Seattle's SODO*, author Dan Raley concisely describes the oft-overlooked neighborhood known as SODO:

> It's an ever-changing place with character and characters, much more than aging warehouses and machine shops sitting pensively in the shadow of expensive sports stadiums. It's no longer the awkward cousin that nobody invites to family gatherings anymore for fear they'll track up the carpets with his dirty shoes. Mostly, it's a long ignored part of town that wants to be seen and heard, and people are finally paying attention. (Raley, 2010, pg. xi).

The district was, for a time, a nebulous area south of downtown without specific boundaries until the BIA's creation in 2014. Today, SODO is a roughly two square mile area of land south of Pioneer Square considered the industrial heart of Seattle.[1] The low-slung buildings of the neighborhood stand in stark contrast to the skyscrapers situated a few blocks away in downtown. Generally, the neighborhood's borders are considered South King Street to the north, South Spokane Street on the south, the Duwamish Waterway on the west, and Interstate 5 to the east. Infrequent visitors to SODO are likely to define the neighborhood by its Costco, the proximity to Lumen Field and T-Mobile Park, the Starbucks corporate headquarters, the old Rainier Brewery building, and its poor street infrastructure.[2] In reality, the story of SODO is far more complex.

AN INTERTWINED HISTORY: THE DUWAMISH WATERWAY AND SODO

Understanding SODO's development is incomplete without appreciating the history of the Duwamish River, the waterway bordering SODO to the west and vital for the movement of goods in and out of the Port of Seattle. In her 2020 book *The River that Made Seattle: A Human and Natural History of the Duwamish,* author BJ Cummings writes that "the story of the Duwamish River and the experiences of its people - Native, immigrant, and industrialist - is largely missing from the popular history of Seattle." Indeed, the City of Seattle grew from the

[1] Dan Raley, *Tideflats to Tomorrow: The History of Seattle's SODO.* First ed. (Fairgreens Publishing LLC, 2010), 1.

[2] Raley, *Tideflats,* 2.

early industrial success of SODO, but as the area will see later, at considerable cost to the waterway itself and the Native people who used the Duwamish for fishing.[3]

Prior to the birth of SODO, the city's industrial center was based on coal mining around Renton and Newcastle.[4] In the dawn of the 20th century, the neighborhood now known as SODO was created by using hydraulic cannons to move sediment from Beacon Hill into the Duwamish waterway.[5] Eugene Semple, former Governor of the Washington Territory whose company filled the tideflats, predicted future industrial prowess of SODO:

> On this land will be founded the major portion of the manufacturing industries of the city and these will be of great benefit and will play an important part in making this city the metropolis of the Pacific Coast. (Cummings, 2020, pg 68).

Semple's vision for SODO came to fruition. The rapid growth of Seattle in the 20th century, facilitated by access to the Duwamish waterway, ushered an influx of immigrants and a booming industrial economy.[6] The filling of the tideflats for the creation of an industrial district, a major goal of Semple, holds as his lasting legacy.[7]

Figure 2. Re-grading Beacon Hill 1923. MOHAI, Lockheed Shipbuilding & Construction Company Photographs and Publications, Lib1988.13.7.2.58.[8]

[3] BJ Cummings, *The River That Made Seattle: A Human and Natural History of the Duwamish*. First ed. (University of Washington Press, 2020), 11.

[4] Cummings, *River*, 38.

[5] Cummings, *River*, 65.

[6] Cummings, *River*, 11.

[7] Cummings, *River*, 69.

[8] MOHAI; Museum of History & Industry, https://digitalcollections.lib.washington.edu/digital/collection/imlsmohai/id/8796/rec/6

SODO AND THE GREAT DEPRESSION

Before SODO became Seattle's industrial heart, much of the area was covered by Seattle's Hooverville, a sprawling encampment of shoddy shelters that arose during the Great Depression.[9] From 1931 to 1941, roughly 22,000 Seattleites resided in Hoovervilles around the city, with a large number of these individuals living in SODO.[10] In 1934, the University of Washington student Donald Roy studied SODO's Hooverville by living among the masses, and his thesis highlighted the deplorable living conditions of Seattle residents just a stone's throw from Smith Tower:

> "From the sandy waste of an abandoned shipyard site, (Hooverville) was swiftly hammered and wired to flower a conglomerate of grotesque dwells, a Christmas-mix assortment of American junk that stuck together in congested disarray like sea-soaked jetsam spewed on the beach." (Raley, 2010, pg. 42).

World War II precipitated the end of Hooverville in SODO. U.S. entry into the war created myriad local jobs and thus ladders of economic mobility for former Hooverville residents.[11] Residents who chose to remain were required to vacate by the U.S. military, who intended to use SODO's waterfront for steamship terminals.[12] 1941 marked the official end of Hooverville, as bulldozers were brought to SODO to flatten the remaining encampments.[13]

THE INDUSTRIALIZATION OF SODO

Wartime in the 20th century catalyzed the development of SODO into an economic engine, and rapid land grabs from 1920 to 1945 dramatically reduced the availability of industrial space.[14] During this time, various "legacy businesses" (a term often applied to businesses that have been in the neighborhood since the early-to-mid 1900s) moved into SODO, contributing goods and services to the city for decades and supporting the neighborhood's reputation of fostering long-standing, hardworking industry. The end of World War II coincided with rapid waterfront expansion, including the reclamation of piers, along with increased auto traffic.[15]

To address the neighborhood's growing needs, various infrastructure projects were constructed, including Railroad Avenue (which provided direct access to the waterway for commercial traffic) and the Alaskan Way viaduct.[16] The construction of Interstate 5 in 1965

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[9] Raley, *Tideflats*, 36.

[10] Ibid.

[11] Raley, *Tideflats*, 43.

[12] Ibid.

[13] Ibid.

[14] Cummings, *River*, 89.

[15] Raley, *Tideflats*, 53.

[16] Ibid.

supercharged SODO and the Port of Seattle as an imperative industrial center.[17] According to Raley, this lead to considerable change:

> From a handful of Port of Seattle facilities in use, nearly the entire SODO waterfront was paved over, dressed up with container cranes and turned into something shipping-related.
>
> Outdated facilities such as grain elevators, coal-loading operations and various warehouses were removed and military holdings were reclaimed. (Raley, 2010, pg. 55).

Infrastructure development elevated the neighborhood's status as an economic engine, and SODO's reputation as a modern industrial center was solidified.

CLEANING UP THE DUWAMISH

Post World War II, SODO and the greater industrial area continued to fill with industrial development, leading to pollution in the Duwamish waterway that would become a focal point for the next half century.[18] This pollution continued despite the passage of the 1948 Water Pollution Control Act and 1972 Clean Water Act.[19] The Lower Duwamish Waterway, which runs along the western border of SODO, was designated as a Superfund site by the Environmental Protection Agency in 2001.[20] Despite the fear felt throughout Seattle due to the stigma associated with the Superfund site designation, clean-up efforts started immediately, as pollution in the Duwamish had grown to levels that affected adjacent residential neighborhoods, fish in the waterway, and businesses in SODO.[21] Local communities, which remained the driving force behind clean-up efforts, had broader goals for the Duwamish.[22] Author BJ Cummings describes their expansive vision for the clean-up:

[17] Ibid.

[18] Cummings, *River*, 89.

[19] Cummings, *River*, 106.

[20] Cummings, *River*, 127.

[21] Cummings, *River*, 128.

[22] Cummings, *River*, 156.

> Cleaner and greener neighborhoods, a revitalized business and industrial base, improved transportation networks, and strategies to ensure that Duwamish Valley residents could afford to remain in their neighborhoods after the cleanup. (Cummings, 2020, pg 146).

Figure 3. Looking north along the Alaskan Way Viaduct, 1959. University of Washington Libraries, Special Collections, SEA65607.[23]

Indeed, reports by King County indicated that adjacent businesses could benefit substantially from the clean-up "if the clean-up reversed the constraints and stigma of a blighted river and if this stimulated industry revitalization and economic robustness."[24] As a neighbor of the Duwamish, SODO had much to gain from a successful clean-up of the waterway. By 2014, thirteen years after the initial designation as a Superfund site, the river clean-up plan was completed.[25] Initial EPA estimates placed the clean-up cost at $350 million over seventeen years.[26] By 2018, 50% of PCBs - highly carcinogenic compounds - had been removed from the Duwamish, undoubtedly good news for SODO and the neighborhoods surrounding the waterway.[27] As of 2024, clean-up of the Duwamish Waterway continues.

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[23] https://digitalcollections.lib.washington.edu/digital/collection/seattle/id/5674/rec/2

[24] Cummings, *River*, 151.

[25] Cummings, *River*, 159.

[26] Ibid.

[27] Cummings, *River*, 168.

Figure 4. Looking south along the Duwamish River and Spokane Street, 1938. PEMCO Webster & Stevens Collection, Museum of History & Industry, Seattle; All Rights Reserved. 1983.10.17823. [28]

MODERN SODO

Starting in the 1980s, some longtime SODO tenants - including a number of legacy businesses - decided to move out of SODO, citing the draw of cheaper warehouse space in the Kent Valley and increasing neighborhood congestion.[29] For other businesses, relatively high taxes in SODO, limited parking, and a lack of space for expansion facilitated their decision to leave.[30] Dan Raley suggests this shift is a symptom of SODO's success:

> It's clear the dynamics of doing business in SODO have changed dramatically. Where the neighborhood once was the poor stepchild of Seattle, it now rates as a blood relative. This has caused

[28] https://digitalcollections.lib.washington.edu/digital/collection/imlsmohai/id/1040/rec/2

[29] Raley, *Tideflats*, 62-63.

[30] Raley, *Tideflats*, 63.

the warehouse move to the suburbs, coming on the heels of most manufacturing shops leaving the area altogether - or completely disappearing. (Raley, 2010, pg. 67).

Figure 5. Demolished Kingdome, with Safeco Field (Now T-Mobile Park) and SODO in the background, 2000 (*The Seattle Times*).[31]

Coinciding with these shifting dynamics in SODO is the construction of over one billion dollars in sports stadiums: Lumen Field and T-Mobile Park.[32] Situated in the northwest corner of SODO, these stadiums were built on the ashes of the Kingdome, which was built in the 1970s and demolished in 2000.[33] Raley hails Seattle's stadiums as "a significant rebirth and respect for SODO" and challenges the notion that SODO remains exclusively industrial.[34] Indeed, the change in scenery between the bars catering to Seattle sports fans and heavy industry that occurs within just a few blocks is striking. When Seattle's sports teams play at home, the increase in foot traffic in SODO is undeniable. This presents a mixed bag for businesses - while some laud the increased exposure, others bemoan parking inefficiencies and traffic congestion.[35] Still,

[31] Riffkin, Courtney. "Where Were You When the Kingdome Blew?" *The Seattle Times*, The Seattle Times Company, 26 Mar. 2018, www.seattletimes.com/photo-video/photography/kingdome-imploded-15-years-ago-today-were-you-there/.

[32] Raley, *Tideflats*, 84.

[33] Ibid.

[34] Ibid.

[35] Raley, *Tideflats*, 91.

compared to cities like Denver, fan-centric development around the stadiums has been slow, and the push to create a bonafide "stadium district" persists.[36] Some legacy businesses remain in SODO, now managed by descendants of the original European immigrants who were drawn to Seattle.[37] These same businesses have been witness to rapid changes within SODO, from paved roads to twenty-fold increase in land values:

> "It's not just a pure industrial district that it once was… we've got a lot of things that make this part of town look more urban than industrial. There's a real mixed bag of stuff here." (Raley, 2010, pg. 34).

Despite the neighborhood shift, housing remains scarce and restricted to the areas around the stadiums and in southern SODO.[38] The answer to whether this lack of housing is beneficial and whether more housing will be developed in the future depends on who is asked. For some, the lack of housing is a function, not a bug, of the city's historical commitment to keeping SODO industrial. Others view SODO as not impervious to changes occurring throughout the rest of Seattle.[39]

However, resistance to non-industrial use has not stopped a diversification of business within SODO. A trip through modern SODO would illuminate the art and retail spaces in the neighborhood, not to mention SODO's collection of distilleries and microbreweries. For such a misunderstood neighborhood, a 2008 campaign stop by then-candidate Barack Obama reaffirmed the notability of SODO.[40] Raley expands upon this further:

> An Obama visit was a reaffirmation that SODO, even with its broken-down buildings [and] mangled streets… should be taken seriously. Too often the neighborhood has been dismissed as a place people definitely want to skirt… (Raley, 2010, pg. 109).

SODO's evolution has not quelled the debate about the neighborhood's future. Throughout the change in the neighborhood, one aspect has stayed the same: SODO's prime location. SODO remains an exceptional piece of real estate that likely just adds fuel to the debate.

If the defining strength of SODO is its location, then perhaps the neighborhood's most notable weakness is its aging infrastructure. Industry in SODO makes the area busy, messy, and gritty, with lacking roads and buildings further contributing to this atmosphere:

> There are blocks of unpaved roads full of craters and paved roads full of severe dips and potholes, and sizable sections of torn-up roadway… There is more than one building lost to fire damage, either under repair or sitting idle in a neglectful state. (Raley, 2010, pg. 118).

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[36] Raley, *Tideflats*, 93.

[37] Raley, *Tideflats*, 12.

[38] Raley, *Tideflats*, 94.

[39] Ibid.

[40] Raley, *Tideflats*, 109.

Indeed, these features contribute to modern SODO's aura of grit and hard work while likely also deterring the general public from frequenting the area. Again, whether this is beneficial to the neighborhood or not depends on who is asked. Tension remains between how, when, and where SODO continues to develop (or not) into a neighborhood with residential and commercial interests. Current dynamics in SODO suggest that reaching consensus will be difficult.

Figure 6. Painting of a mural along the SODO Track, 2018 (*The Seattle Times*).[41]

However, city leaders have indicated that future SODO can find a balance. Current Seattle mayor Bruce Harrell, speaking as a then-city council member, once stated that in the future SODO "will still maintain mostly manufacturing, industrial and maritime use, but will still see some smart pockets of retail growth."[42] The extent of this evolution likely depends on how SODO navigates modern challenges. Property crime is a concern, various levels of homelessness are seen throughout the area, and infrastructure upgrades are needed. Additionally, where SODO is constructed - on tideflats - will always pose a serious risk during a possible earthquake. But SODO's strengths are also as relevant as ever: its proximity to major thoroughfares and international port, location near the labor supply of a major city, rich history as an industrial area,

[41] Hansen, Bettina. "Sodo Track Murals Brighten Seattle Commute." *The Seattle Times*, The Seattle Times Company, 25 July 2018, www.seattletimes.com/photo-video/photography/sodo-track-murals-brighten-seattle-commute/.

[42] Raley, *Tideflats*, 127.

and increasing business diversification continue to draw investment and interest in the area. The continued success of SODO is likely contingent on the ability of those who work, play, and invest in SODO to maximize these strengths.

SODO TODAY

The COVID-19 pandemic represented a major challenge to SODO, the Port of Seattle, and the city in general. Although specific data about the pandemic's impact on SODO is scarce, the effects on the Port offer insights. By April 2020, the entire cruise season was canceled, which usually brings about $900 million in economic activity to Puget Sound.[43] In addition, April 2020 saw domestic and international travel through Seattle-Tacoma International Airport down 93% and 97%, respectively, which had major implications for businesses throughout the region.[44] In 2021, the Port of Seattle predicted air travel to return to pre-pandemic levels by 2024, which is in line with recent assertions of the American economy's "soft landing" in the wake of COVID-19.[45] The economic recovery is well underway, but some sectors have not yet seen this rebound. For example, while the aerospace product and parts manufacturing sector saw a year-over-year increase in jobs of 8.3% between November 2022 and November 2023, the number of jobs in warehousing and storage decreased by 5.7% over the same period.[46] Since these figures represent citywide data, it is difficult to assess trends within SODO. However, discrepancies between the job recoveries of different sectors speaks to the continued need for BIA advocacy to support industry and manufacturing across the city.

The SODO BIA was created under the auspices of the City of Seattle in 2014 with the goal to advocate for a safe, clean, connected and engaged SODO for the benefit of property owners, businesses, tenants, employees, and patrons of the SODO district. In 2019, Mayor Durkan signed legislation to renew and expand the SODO BIA in response to the support of the surrounding business community. These expanded boundaries allowed the SODO BIA to serve a broader area, encompassing more of the urban industrial neighborhood. Today, the SODO BIA covers about 950 acres, serving over 1,200 individual businesses in the industrial neighborhood of Seattle.[47]

THE ROLE OF INDUSTRIAL ZONES AND THEIR IMPORTANCE TO URBAN AREAS

Industrial zones have long played a vital role in the economic development of cities. As highlighted in the "Urban Manufacturing in Seattle" report, industrial lands account for just 4% of Seattle's land area but provide around 100,000 jobs and $21 billion in annual economic

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[43] "Port Marks One-Year Milestone in COVID-19 Response." *Port of Seattle*, 4 Mar. 2021, www.portseattle.org/news/port-marks-one-year-milestone-covid-19-response.

[44] Ibid.

[45] Ibid.

[46] Roberts, Paul. "For Many Job Seekers, WA Job Market Still Far from a Pre-Pandemic Norm." *The Seattle Times*, The Seattle Times Company, 5 Jan. 2024, www.seattletimes.com/business/for-many-job-seekers-wa-job-market-still-far-from-a-pre-pandemic-norm/.

[47] "SODO BIA." *SODO*, 8 Feb. 2024, sodoseattle.org/sodo-bia/.

activity.[48] Beyond economic impacts, industrial areas are crucial for supporting city functions like construction, transportation, utilities and trade. However, as cities grow and land values rise, there are increasing pressures to convert industrial lands to other uses like housing or commercial projects. Several studies warn about the risks of an "industrial commons" tragedy where short-term land conversions gradually erode the industrial land base that cities rely on.[49] [50] Preserving industrial sanctuaries through zoning and policy is seen as critical for cities to maintain their economic diversity and middle-skill job opportunities.

Luckily, recent reports indicate that the City of Seattle understands that industry will drive SODO's future. The Seattle Industrial Maritime Strategy Director's Report and Recommendation includes a consensus strategy that calls for "strengthen[ing] protections for industrially zoned lands within Seattle by establishing higher thresholds to remove industrial land designations" and another that calls for "no new residential uses on industrial and maritime lands."[51] Additionally, the 2024 Seattle Transportation plan calls for the city to "provide freight mobility and access between Seattle's MICs [Manufacturing/Industrial Centers], intermodal hubs, the Port, and the interstate system."[52] As part of the Duwamish MIC, designated as such by the Puget Sound Regional Council in 2002, SODO is included in the city's plans to expand and protect industry and manufacturing for the long-term.[53]

BUSINESS IMPROVEMENT AREAS (BIAS): A BRIEF HISTORY

In Washington State, the authority to create Business Improvement Areas (BIAs) is granted by the state through the Revised Code of Washington (RCW). The authority to create BIAs is granted at the state level, but the quasi-governmental organizations are established at the local level and aim to supplement municipal services within a defined geographic area.[54] While the general concept of BIAs originated in Toronto, Canada, in the 1960s, and later spread to the United States, the specific powers and limitations of BIAs can vary significantly depending on the jurisdiction and the legislation that creates each individual organization.[55]

According to the U.S. Department of Transportation, Business Improvement Areas (BIAs) are "privately directed and publicly sanctioned organizations that supplement public

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[48] Sturgeon, T., & Glasmeier, A. (2023). Urban Manufacturing in Seattle. WIFO - Austrian Institute of Economic Research.

[49] Leigh, N.G., & Hoelzel, N.Z. (2012). Smart Growth's Blind Side. Journal of the American Planning Association, 78, 103 - 87.

[50] Lester, T. W., Kaza, N., & Kirk, S. (2013). Making room for manufacturing: Understanding Industrial Land Conversion in cities. Journal of the American Planning Association, 79(4), 295–313. https://doi.org/10.1080/01944363.2014.915369

[51] *Seattle Industrial and Maritime Strategy Director's Report and Recommendation*, www.seattle.gov/documents/Departments/OPCD/OngoingInitiatives/IndustrialMaritimeStrategy/IndustrialMaritimeStrategyIndustrialGeneralZoneDirectorsReport.pdf. Accessed 30 May 2024.

[52] *Seattle Transportation Plan Pt. I*, Seattle Department of Transportation, www.seattle.gov/documents/Departments/SDOT/STP/Feb2024/STP_Part_I_MayorsRecommendedPlan_02_2024.pdf. Accessed 30 May 2024.

[53] *Duwamish MIC*, Puget Sound Regional Council, www.psrc.org/media/3363. Accessed 30 May 2024.

[54] Ibid.

[55] Ibid.

services within geographically defined boundaries by generating multi year revenue through a compulsory assessment on local property owners and/or businesses." They are generally managed by a public or nonprofit Board of Directors and aim to supplement municipal services within a defined area.[56] Some services generally provided by BIAs include security, advocacy, development, marketing, and general maintenance and sanitation like graffiti removal and clean-up of illegal dumping.[57]

In Seattle, the City has discussed potentially increasing the scope of responsibilities for its BIAs, as some jurisdictions allow BIAs to actively take ownership and improve the right-of-way, while others may have more limited authority. The City's policies state that BIA funds cannot be used for improvements to private property that do not benefit all ratepayers, potentially restricting BIAs like the SODO BIA from directly modifying or maintaining public infrastructure within their boundaries.[58]

The emergence of BIAs across the United States can be traced back to the 1980s and 1990s when they were established as a response to suburban sprawl, budget shortfalls in local governments, and the economic decline of city centers.[59] Despite variations in their specific powers, BIAs share a common goal of representing and providing supplemental services to member entities within their defined geographic areas. Currently, there are over 1,000 BIAs in the United States, each representing a specific geographic area and providing various supplemental services to member entities - and tailored to the unique needs and constraints set forth by their respective state and local legislation.[60]

THE ROLE OF BIAS IN URBAN DEVELOPMENT

Business Improvement Areas are public-private partnerships that allow businesses and property owners within a defined area to pay an additional tax or fee to fund neighborhood improvements and services. Research has found BIAs can be effective tools for neighborhood revitalization, improving public space maintenance, marketing, security and other services beyond basic municipal provisions.[61] [62] However, their impacts are debated and vary based on place and size. One New York City study suggests that large and small BIAs fulfill different development functions. While small BIAs attend to the physical maintenance of an area, mid-sized BIAs generally concentrate on marketing and promotional activities. Large BIAs, in addition to maintenance and promotion, engage in capital improvement activities. BIA behavior

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[56] "Business Improvement Districts." *FHWA*, U.S. Department of Transportation Federal Highway Administration, www.fhwa.dot.gov/ipd/fact_sheets/value_cap_bid.aspx. Accessed 29 May 2024.

[57] Ibid.

[58] https://wwwqa.seattle.gov/Documents/Departments/economicDevelopment/OISI/City%20of%20Seattle%20Policies%20for%20BIAs%20adopted%20April%202016.pdf

[59] Ibid.

[60] Ibid.

[61] Hoyt, L., & Gopal-Agge, D. (2007). The Business Improvement District Model: A Balanced Review of contemporary debates. *Geography Compass*, *1*(4), 946–958. https://doi.org/10.1111/j.1749-8198.2007.00041.x

[62] Meltzer, R. (2012). Understanding Business Improvement District Formation: An analysis of neighborhoods and boundaries. *Journal of Urban Economics*, *71*(1), 66–78. https://doi.org/10.1016/j.jue.2011.08.005

appears to vary in relation to its resource base, type of commercial property represented, the composition and balance of power among key stakeholders, and the wealth of the community in which it is located.[63] Properly structured with inclusive governance and tailored service priorities, BIAs can potentially help retain and support existing industrial businesses.

BIAs support businesses throughout Seattle. As of 2019, Seattle had ten BIAs (including the SODO BIA) that covered about 13.5% of the city's lot square miles and had a collective assessment value of $22 million.[64] BIAs in Seattle vary in terms of geographic size, assessment value, and services provided to members. For example, the second-largest BIA by assessment value is the Seattle Tourism Improvement Area, which provides marketing and promotion, organizational development, and advocacy support to its members.[65] In comparison, the smallest BIA by assessment value is the Columbia City BIA, which offers a Clean and Safe program, public realm improvements and planning, organizational development, and advocacy.[66] Discrepancies in service provision speak to both the varying levels of resources enjoyed by each BIA and also the respective needs of each BIA's member pool.

INNOVATIVE BIA EXAMPLES IN MANAGING MULTI-USE INDUSTRIAL AREAS

Unique, intentional engagement approaches are needed for industrial areas like SODO due to their economic importance and mix of industrial businesses, bordering residential communities, and evolving uses. Simply applying standard public outreach methods may not sufficiently capture the nuanced perspectives and operational needs of SODO's tenants. Most case studies that we encountered reflected business associations playing a proactive role in the transition of industrial areas to more mixed-use environments. The Local Initiatives Support Coalition (LISC) published a report of case studies that explored redevelopment/revitalization measures in formerly industrial hubs. Each case benefited from creative financing programs, extensive community engagement efforts, and local organizations (similar to BIAs)[67].

[63] Gross, J. S. (2005). Business Improvement Districts in New York City's low-income and high-income neighborhoods. *Economic Development Quarterly*, 19(2), 174–189. https://doi.org/10.1177/0891242404273783

[64] *Seattle Business Improvement Areas*, City of Seattle Office of Economic Development, 2019, www.seattle.gov/documents/Departments/economicDevelopment/OISI/BIA%202019%20Report(2).pdf.

[65] Ibid.

[66] Ibid.

[67] Voltolini, P., & Greenberg, D. M. (2020). Industrial District Revitalization in Three Cities - Early Outcomes.

- In Jacksonville's Rail Yard District, LISC supported the creation of the Rail Yard Business District Council (RYBDC), a 501(c)3 organization that has grown to represent 63 businesses with over 4,600 employees. The RYBDC has connected businesses with the surrounding residential community through joint neighborhood beautification projects and establishing a local Financial Opportunity Center to link nearby residents with jobs in the district.
- In Duluth's Lincoln Park neighborhood, the Advancing Lincoln Park collaborative brought together local businesses to establish a vision for the area as a "craft district" by attracting artisanal producers. With LISC's assistance funding a district coordinator position, they branded the area and attracted new businesses, leading to 42 new businesses and 157 new jobs as of 2017.The report recommends creating intentional partnerships between business associations, communities, and the public sector to guide equitable revitalization of industrial areas. Local government collaboration between the Englewood Community Development Corporation (CDC) and the City of Indianapolis helped catalyze redevelopment of the P.R. Mallory industrial site with job opportunities for nearby residents. Using federal historic tax credits, the vacant factory was converted to an educational space for two charter/vocational school programs.[68]

The LISC report highlights examples where visioning and implementation charrettes have helped guide the equitable revitalization of transitioning industrial areas. Visioning charrettes that produce illustrations of a sustainable, multi-use vision can rally various stakeholders around a

[68] "P.R. Mallory Company Factory." *Rosin Preservation*, rosinpreservation.com/portfolio_page/p-r-mallory-company-factoryp-r-mallory-campus/. Accessed 29 May 2024.

common future for the district. Implementation charrettes then develop specific regulatory and investment plans to realize that vision.[69]

While the examples from Jacksonville, Duluth, and Indianapolis highlight how BIAs can play a role in revitalizing and transitioning former industrial areas, the SODO BIA's mission differs in that its focus is on improving and advocating for Seattle's vital industrial jobs center as it currently exists. Rather than pursuing redevelopment, the SODO BIA represents the interests of existing property owners, businesses, and industrial tenants by focusing on enhancements that improve the area for those working and recreating there. Priorities include promoting public safety, improving sanitation, increasing connectivity and engaging the SODO community to make the area a cleaner, better-connected, and more vibrant district for employers, employees, suppliers, and customers. This study will explore ways for the SODO BIA to supplement city services with collaborative, marginal improvements that benefit the existing character of the neighborhood. While some areas undergo grand visions and rezoning during redevelopment, SODO's path forward involves intentional, measured actions by and for the businesses that define the district's economic importance. With its inclusive governance representing diverse SODO stakeholders, the BIA is an effective vehicle for pragmatic advances that allow the area's industrial uses to thrive as a major jobs hub. The following sections will assess current conditions, strengths, and opportunities for the SODO BIA to build on the district's legacy as an economic engine for Seattle.

[69] Condon, P. M. (2008). Design charrettes for sustainable communities (1st ed.). Island Press.

CHAPTER 3: RESEARCH METHODS

The research methods utilized in this report build upon the academic and historical context established within Chapter 2 to answer the primary research question: "How do the experiences and perspectives of SODO stakeholders reflect the current economic and policy environment, and what recommendations can be made to improve SODO's business and community landscape?" To directly review SODO's current operations and identify areas for improvement, capstone team members conducted semi-structured interviews with stakeholders and engaged in a thorough analysis of quantitative data.

Through these methods, we identified perceptions of SODO's strengths and challenges from stakeholders familiar with the area's economic activities, history, and infrastructure. We also analyzed relevant quantitative data to identify trends and contextualize SODO's current status within the broader industrial and manufacturing region. These research methods allowed this report to capture ideas from both spheres – qualitative insights from stakeholders and quantitative trends from data – and gather shared perspectives on SODO's future.

SEMI-STRUCTURED INTERVIEWS:

We conducted semi-structured interviews to gather in-depth qualitative data from SODO stakeholders. Semi-structured interviews utilized an interview script to ensure consistency across interviews while allowing flexibility to follow-up on issues that interviewees felt were most relevant. The interview script can be found in the appendix.

INTERVIEW PARTICIPANTS:

Interviews were conducted with 16 SODO stakeholders, including representatives from nine SODO businesses and seven local government entities. This diverse group provided a comprehensive view of SODO's strengths, challenges, and opportunities.

INTERVIEW DESIGN AND CONDUCT:

Interviews were conducted either face-to-face or through online platforms Zoom and Microsoft Teams, depending on participants' availability and preference. Each interview followed a set of predetermined questions but allowed flexibility to delve deeper into relevant topics as they arose naturally. This approach ensured a thorough exploration of a range of experiences and viewpoints shaping SODO.

QUANTITATIVE DATA ANALYSIS

a. Data Sources

To build a foundation for understanding SODO's present economic status, we analyzed various quantitative data sources, including:

- **Geospatial Data:** ArcGIS for parcel analysis (through King County Parcel Viewer), and PolicyMap - an online data and mapping tool that enables institutions to access exclusive, proprietary and gold-standard public indicators about communities across the U.S.[70]
- **Census Data:** Workforce demographics and business revenues
- **Permitting Records:** Property ownership turnover and business activities
- **Public Datasets:** Regional economic indicators and trends over the past 5-10 years

b. Literature Review

To contextualize our findings, we conducted an extensive review of relevant literature, including:

- **Tideflats to Tomorrow: The History of Seattle's SODO by** Dan Raley
- **The River That Made Seattle** by BJ Cummings
- **Strategy Reports** from the City of Seattle and other economic development entities.
- **Economic Development Research** to understand broader economic trends affecting areas like SODO and the effectiveness/roles of BIAs

ETHICAL CONSIDERATIONS

To maintain ethical standards, all participants received detailed information about the study objectives, data usage, and their rights throughout the research process. This ensured confidentiality and allowed participants to opt-out at any time. Verbal consent was obtained before recording interviews to support data analysis. Thus, the results highlighted in Chapter 4 represent aggregated responses to our interview questions, and no interview participants are named directly.

WEAKNESSES AND CHALLENGES

While our research methodology was robust and comprehensive, there were several limitations and challenges we encountered during the study:

SAMPLE LIMITATIONS

- **Language Barriers:** The interviews and surveys were conducted in English, which may have excluded non-English-speaking stakeholders from participating.

[70] "About Us." *PolicyMap*, 27 July 2023, www.policymap.com/about.

- **Preference for In-Person Interviews:** Some potential interviewees preferred in-person meetings over Zoom or phone, limiting our availability to conduct interviews due to time and logistical constraints.
- **Time Constraints:** Due to the project timeline, some stakeholders who were willing to participate could not be interviewed if they responded too late or had scheduling conflicts.

DATA LIMITATIONS

- **Incomplete Data:** Some public datasets were incomplete or outdated, which may have impacted the accuracy of our quantitative analysis.
- **Data Availability:** Certain data points relevant to SODO's economic and infrastructural analysis were not readily available or accessible due to privacy or proprietary concerns.
- **Lack of SODO-Specific Data:** Detailed, SODO-specific data were often lacking, requiring inferences based on broader regional data, which may not fully capture the unique characteristics of SODO.
- **Census Data Misalignment:** The use of Census-based data has skewed the perceptions of SODO due to the misalignment between the Census tracts and SODO's boundary. This misalignment may lead to inaccurate representations of SODO's demographic, economic, and infrastructural characteristics.

METHODOLOGICAL CHALLENGES

- **Interview Bias**: The semi-structured nature of the interviews allowed for flexibility but also introduced the potential for interviewer bias, where the interviewer's questions or demeanor could influence responses.

ANTICIPATED THEMES & CODEBOOK CREATION

Based on our research methodology, we identified broad themes around economic development, access, zoning, transit expansion, infrastructure improvements, and SODO's future. To analyze the data from the interviews, we developed a codebook to assess interview findings. These themes guided our analysis and the formulation of this report's strategic recommendations. We reviewed each interview script, counting the frequency of similar responses to identify prevalent themes and perceptions among stakeholders. For example, in analyzing responses, we noted how many times certain future roles or strengths of SODO were mentioned, as shown in the tables below.

Future Role	Number of Mentions
Potential for mixed-use / Vibrant community	4
Critical for Seattle's supply chain / Economy	3
Maintaining industrial diversity	2

Supporting green economy / Renewable energy	2
Infrastructure crucial for developments	1
Strategic location and business ecosystem	1
Expansion and adaptation to urban needs	1

The above table highlights the future roles of SODO as identified by stakeholders, with the potential for a mixed-use/vibrant community and critical role in Seattle's supply chain/economy being the most frequently mentioned.

Strength	Number of Mentions
Strategic location / Access	6
Diverse business culture	4
Development potential	2
Industrial heritage / Foundation	2
Infrastructure ready for future	2
Community advocacy	1
Recent zoning legislation	1
Potential for housing growth	1

The above table highlights SODO's strengths as identified by stakeholders, with strategic location/access and diverse business culture being the most frequently mentioned. The main themes of our codebook were based on key topics that our research team deemed important to highlight in our report: infrastructure, zoning, transit, supply chain dynamics, workforce equity, economy, and homelessness/social services. We used these as the structure to create sub themes that emerged under each broader theme and inform each section of **Chapter 4.**

CHAPTER 4: ANALYSIS/FINDINGS

INTRODUCTION

Chapter 4 includes an analysis of findings from interviews with SODO stakeholders and is further informed by background research, including this project's literature review. This chapter is split into seven sections that each highlight an aspect of SODO mentioned during qualitative interviews: Infrastructure, Transit, Zoning/Development, Supply Chain Dynamics, Workforce Equity, SODO's Economy, and an Additional Considerations section that includes analysis of the SODO's Public Safety Concerns, Homelessness and Social Services, and Historical Draw.

Except for the Additional Considerations section, each section includes multiple parts:

1. **Strengths:** SODO's assets and advantages are discussed in this section. This includes a consideration of the neighborhood's strengths as mentioned in stakeholder interviews and the reasons why businesses generally choose SODO for their operations.
2. **Challenges:** As defined by stakeholder interviews and supported by background research, this section defines and analyzes major challenges that SODO faces.
3. **Tensions and Tradeoffs:** Differing visions for SODO's future require stakeholders to find a balance between priorities. This section speaks to the tensions and tradeoffs that exist between diverging viewpoints to illuminate where common ground is present.
4. **Future of SODO:** This section highlights the role of the respective topic in the future of SODO's success. Instead of providing recommendations, this section intends to offer how the future of SODO might look given the neighborhood's current context.
5. **Strategic Recommendations:** If appropriate, this section offers recommendations around how to foster SODO's growth, protect businesses, and support a thriving future for the neighborhood.

INFRASTRUCTURE

SODO's infrastructure plays a crucial role in supporting Seattle's industrial and economic activities, serving as a hub for the manufacturing, international maritime operations, logistics, and local business support. The area's strategic location and access to transportation networks have historically attracted businesses that rely on the efficient movement of goods and materials. However, SODO faces various infrastructure challenges and needs that must be addressed to maintain its competitive edge and support future growth. These include aging transportation infrastructure, utilities, and buildings, as well as environmental considerations and the need to balance the requirements of maintaining the international deep-water port operations with those of local businesses.

STRENGTHS

1. **Trade (Transportation) Infrastructure**: Nearly every interviewed business mentioned SODO's strategic location for importing and exporting goods as a reason for choosing the neighborhood for operations. With access to major transportation routes including the Port of Seattle, railroads, and major highways, businesses requiring efficient movement of goods thrive in SODO. The availability of rail access is a critical strength for multiple businesses, allowing cost-effective delivery of raw materials.

2. **Business Environment**: SODO's historical presence as an industrial and economic core of Seattle, with a robust transportation network optimized for warehousing and manufacturing, provides a strong foundation for continued growth and innovation. The unique industrial environment allows operations that are loud, sometimes smelly, and could otherwise not be conducted in more densely populated or less industrial areas like downtown Seattle or Bellevue, while still providing services to said areas.

3. **Proximity to City**: Part of SODO's unique draw comes from its proximity to downtown Seattle and its respective amenities, which makes for an unparalleled urban industrial community when compared to other PNW industrial areas. SODO's environment is ideal for early development and manufacturing due to its dynamic nature and access to essential infrastructure like Boeing Field and Seattle-Tacoma International Airport, while also tapping into a rich pool of engineering talent crucial for high-tech and emerging technology sectors. The integration of food and art with light manufacturing and recreation is more promising in SODO than in most other comparable industrial zones.

CHALLENGES

1. **Transportation Infrastructure**: Deterioration of both principal and non-principal arterial roads within SODO pose ongoing maintenance challenges. 4th Avenue over

Argo, a principal arterial, has needed structural fixes for six years.[71] There are miles of crumbling non-arterials. The district is close to downtown, but provides jobs to many people who are otherwise priced out of the city. The majority of SODO employees commute from West Seattle or South King County and are not proximate to light rail or bus lines. Commuters have been directly affected by the cluster of fair/poor condition bridges of the area and the closures of the Lower Spokane St. Swing Bridge and the West Seattle Bridge. Most drive to work, which makes commuting and parking accessibility a challenge, especially for the many businesses with 24/7 operation shifts. Safety concerns exist around railroad crossings, such as the Holgate Crossing, identified as the most dangerous rail crossing in Washington State.[72]

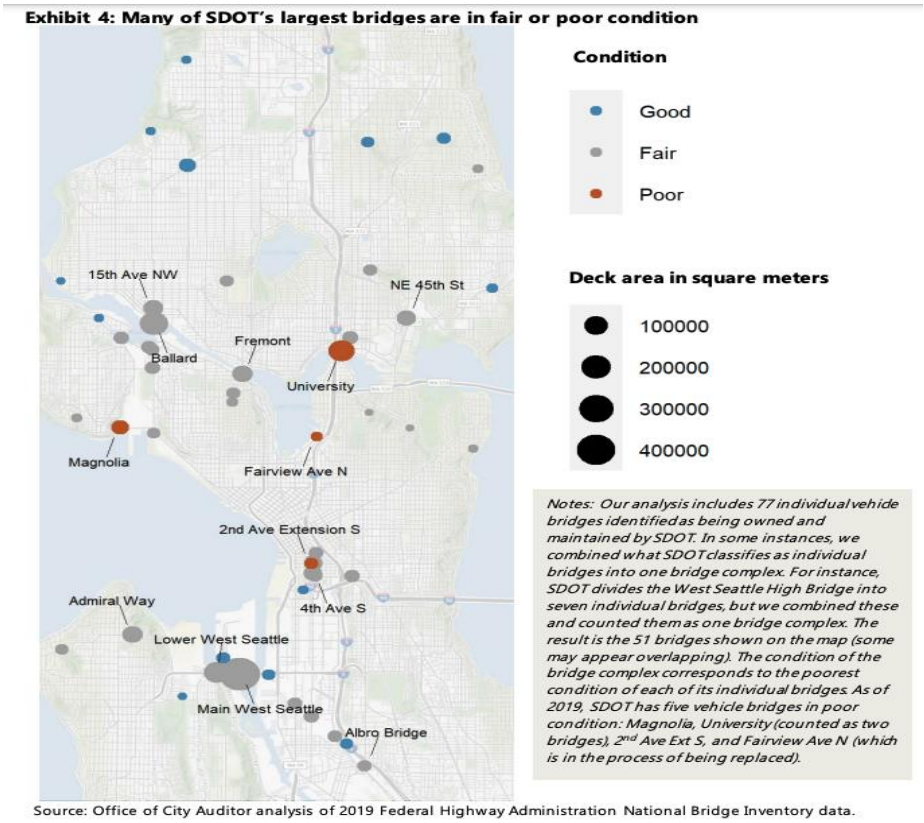

Figure 8. Seattle's largest bridges that are either in fair or poor condition (Seattle Office of City Auditor).

[71] DeBlieck, Sean, and David G. Jones. *Seattle Department of Transportation: Strategic Approach to Vehicle Bridge Maintenance Is Warranted*, Seattle Office of City Auditor, www.seattle.gov/documents/Departments/CityAuditor/auditreports/2020_03_SeattleBridges_FinalReport.pdf. Accessed 30 May 2024.

[72] Denkmann, Libby. "SODO Is Home to the State's Most Dangerous RR Crossing. How Can We Make It Safer?" *KUOW*, KUOW Public Radio, 22 June 2023, www.kuow.org/stories/sodo-is-home-to-the-state-s-most-dangerous-rr-crossing-how-can-we-make-it-safer

Figure 9. The railroad crossing at South Holgate Street, approaching Occidental Avenue, with no barrier between railway and pedestrian traffic (KUOW).[73]

Figure 10. Many streets in SODO are in the top tiers of unsafe streets citywide (SDOT).[74]

[73] Ibid.

[74] Packer, Ryan. "Seattle Proposes 'Rapid Response' Changes to Dangerous Sodo Street - the Urbanist." *The Urbanist - Examining Urban Policy to Improve Cities and Quality of Life.*, 22 July 2022, www.theurbanist.org/2022/07/20/seattle-proposes-rapid-response-changes-to-dangerous-sodo-street/.

2. **Utilities**: Many roads in SODO, Georgetown, and South Park lack sewer infrastructure, putting higher demand on the roads with this existing infrastructure.[75] Aging sewer infrastructure leads to problems like water puddling and potholes. Power grid issues make industrial electrification difficult, and limit the types of light industry, technology, manufacturing, and testing businesses that SODO is otherwise poised to support. Basic infrastructure improvements, including capacity expansion of internet and power connections, are necessary to meet the needs of businesses. Most of the neighborhood is zoned for traditional manufacturing, including heavy industry, with smaller sections poised to attract light industry, such as the area around the SODO station.

3. **Building Stock**: Rising building insurance costs are a significant challenge for SODO's aging building stock, hampering capital improvements for landowners and leaseholders. SODO's location in a liquefaction zone exacerbates the need for seismic retrofitting and preparedness, and seismic retrofitting of Unreinforced Masonry (URM) buildings is a critical need to improve safety and resilience. Reuse of industrial places across the country has shown success, and the potential for an inclusive character that connects legacy industries with new business models and entertainment is growing.[76] However, many movements seem to be built around full redevelopment projects of industrial areas, rather than instances of inclusive transitions. The direction and quality of SODO's building stock rehabilitation will be determined by the level of willingness to find consensus that is present in eventual design charrettes. In the meantime, SODO can support smooth, inclusive transitions with marginal building retrofits and infrastructure improvements.

[75] Olsen, Katie. "New Pavement, Sidewalks, Trees, and Other Upgrades to South Park Streets to Help Reduce Flooding: Levy Dollars at Work ." *SDOT Blog*, Seattle Department of Transportation, 23 May 2023, sdotblog.seattle.gov/2023/05/23/new-pavement-sidewalks-trees-and-other-upgrades-to-south-park-streets-to-help-reduce-flooding-levy-dollars-at-work/.

[76] Pintos, Paula. "Transforming Historic Industrial Buildings in US Cities: 6 Buildings Adapted for the Contemporary Workspace." *ArchDaily*, ArchDaily, 26 Apr. 2024, www.archdaily.com/1015956/transforming-historic-industrial-buildings-in-us-cities-6-buildings-adapted-for-the-contemporary-workspace.

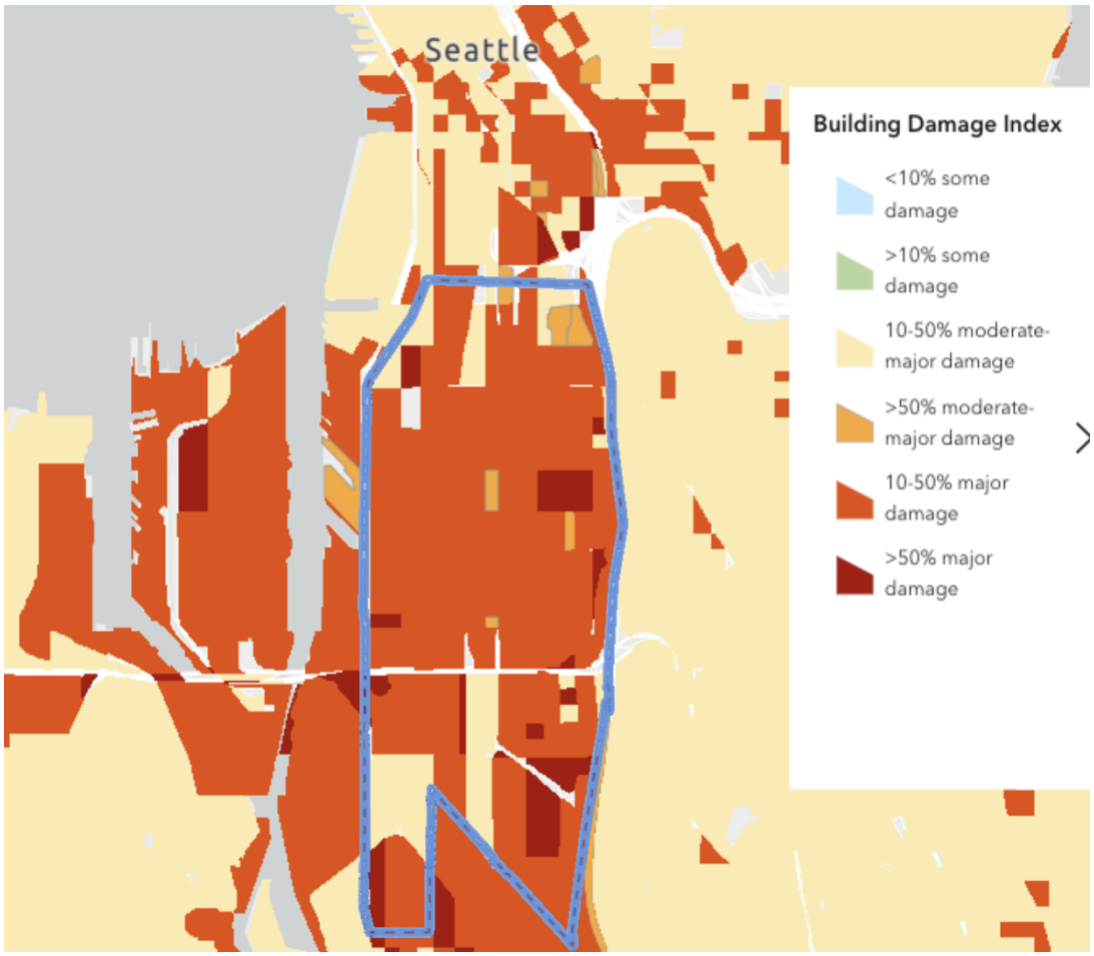

Figure 11. Cascadia Earthquake Scenario in SODO (data from Office of Emergency Management: Seattle Hazard Explorer).

TENSIONS AND TRADE-OFFS

1. **Balancing Industrial Growth and Citizen Accommodation**: As SODO attracts more industrial and manufacturing businesses, there will be increased demand for efficient transportation infrastructure, such as improved arterials and rail crossings. A strong perception is that freight corridors and efforts to enhance the area's activation are mutually exclusive, as increased industrial activity may lead to more noise, pollution, and traffic congestion, impacting potential recreation and nearby residential areas. Surprisingly, several interviewees rejected the idea that these two values were mutually exclusive and remained open to strategic development toward a softer landscape for those working, living, and visiting the district. While not representative of the district as a whole, our findings suggest the existence of Pareto improvements in this space.

2. **Cost of Infrastructure Upgrades vs. Economic Development**: Upgrading SODO's aging infrastructure, including sewers, utilities, roads, sidewalks, and buildings, will require significant investment. While these improvements are necessary for attracting/retaining business and supporting economic growth, local governments face tensions around allocating limited resources between infrastructure projects and other priorities, such as affordable housing in nearby neighborhoods or social services. Redevelopment projects are opportune moments for infrastructure improvement and should be incentivized by the government whenever possible, but they also add to project costs. Unpredictable permitting processes and other development impediments further complicate projects, particularly for new or prospective tenants.

3. **Diversity of Business Needs:** SODO is home to a diverse range of businesses, some directly or indirectly dependent on the operations of the Port of Seattle and associated transportation infrastructure for import/export activities, while others are less reliant on the Port but still impacted by the resulting congestion and operations. While the efficient movement of goods through the Port is crucial for many SODO businesses, the neighborhood's economic fabric extends beyond import/export-driven industries, encompassing manufacturers, service providers, retail establishments, and a wide array of other commercial entities that have different priorities and needs. Striking a balance between facilitating the Port's operations and addressing the concerns of businesses less directly involved in import/export activities is a challenge.

FUTURE OF SODO

SODO's future role as a thriving industrial and economic hub hinges on strategic infrastructure improvements that address transportation, utilities, building infrastructure, connectivity, activation, and the balance between port operations and local business needs. Current and past key initiatives include the East Marginal Way Improvement Project (which began in March of 2024) for efficient freight movement, upgrading aging sewer systems and power grids to support emerging industries, and enhancing internet connectivity and lighting for safety.[77] [78] Additional initiatives that interviewees mentioned included seismic retrofitting (or full redevelopment) of buildings for resilience, addressing issues like abandoned vehicles and critical social services for improved activation, and deepening collaboration between the Port of Seattle and a broader array of SODO businesses to mitigate potential conflicts. By prioritizing infrastructure enhancements, SODO can maintain its competitive edge, attract diverse economic activities, and continue serving as Seattle's vital industrial and economic engine.

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[77] *East Marginal Way Corridor Improvement Project*, Seattle Department of Transportation, www.seattle.gov/transportation/projects-and-programs/programs/freight-program/east-marginal-way-corridor-improvement-project. Accessed 29 May 2024.

[78] Ambion, Hernann. *City Light Completes Electrical System Upgrades in Sodo*, Seattle City Light, 17 Jan. 2018, powerlines.seattle.gov/2018/01/17/city-light-completes-electrical-system-upgrades-in-sodo/.

STRATEGIC RECOMMENDATIONS

Local governments should continue to prioritize coordinated approaches to address SODO's diverse infrastructure needs. Establishing a SODO Infrastructure Advisory Council or annual meeting, comprising representatives from the SODO BIA, the Port of Seattle, transportation agencies, utility providers, and local business employees/employers, could facilitate a comprehensive understanding of priorities and help balance the needs of different stakeholders. The BIA could leverage their role on this council to work closer with organizations like Seattle Department of Transportation (SDOT) to identify critical projects, recommend investment strategies, propose solutions to mitigate conflicts (such as those between port operations and local businesses), and market the completion of these collaborative projects. Opportunities for public-private partnerships should be explored, leveraging private sector resources and expertise to accelerate the delivery of infrastructure upgrades, including seismic retrofitting, power grid enhancements, and transportation improvements. Such partnerships could foster innovation, long-term cost savings, and align with the modern industrial economy's requirements.

Collaborating with utility providers and transportation agencies could streamline the planning and execution of maintenance and repair work, minimizing disruptions while identifying opportunities for joint trenching or coordinated utility replacements, reducing overall costs and construction impacts. Effective collaboration between entities like Seattle Public Utilities (SPU) and SDOT is crucial for coordinating infrastructure improvements in SODO, a district that heavily depends on its arterials for the transportation of goods around Seattle. Ripping up the roads once to simultaneously address road improvements, power grid upgrades, and sewer replacements can significantly minimize disruptions to SODO's operations and make the most of funds from viable sources like the Levy to Move Seattle.[79] However, achieving such coordination is challenging, as it requires seamless collaboration not only between SPU and SDOT but also with federal agencies responsible for railroads, King County, and other city agencies involved in infrastructure projects like Sound Transit.

As redevelopment projects occur, swift public collaboration with developers to incorporate infrastructure improvements into their plans, such as upgrading adjacent roads, and utilities, or implementing green infrastructure solutions. This incremental approach could enhance SODO's infrastructure without bearing the full cost of standalone projects. Additionally, developing comprehensive parking management strategies that involve individual outreach between local businesses and the Port of Seattle - or formally loop in the SODO BIA to facilitate - could alleviate parking challenges, reduce congestion, and improve accessibility for businesses and their employees.

[79] "Levy to Move Seattle." *Seattle Department of Transportation*, www.seattle.gov/transportation/about-us/funding/levy-to-move-seattle. Accessed 29 May 2024.

TRANSIT

Like other neighborhoods in a growing Seattle, SODO has been affected by transit development, primarily Sound Transit's recent and planned light rail expansion. This includes the construction of the SODO light rail station, the development of at-grade and elevated light rail between Pioneer Square and Beacon Hill, and the upcoming West Seattle Link Extension. Approved by voters in 2016, this extension is currently in the design phase, and construction is anticipated between 2027-2032, with preparatory construction starting in 2025. Transit is imperative to a growing city, but the past and potential effects on SODO have not been insignificant.

STRENGTHS

1. **Support for Current and Future Development:** Despite the challenges that light rail expansion has brought to SODO, existing transit and future plans are cited as a neighborhood strength. Stakeholders have indicated the SODO light rail station is a limited, though not insignificant, public transit link to the rest of the city. In addition, the station's future as a transportation hub and link to West Seattle provides necessary support to SODO's future development.

CHALLENGES

1. **Displacement and Disruption to SODO:** Stakeholders in SODO expressed concern about past and future interruptions to neighborhood traffic due to construction associated with transit expansion. Increased road congestion can slow traffic to and from major thoroughfares like Interstate 5 and affect business and commerce that relies on shuttling goods to and from the Port of Seattle. In addition, businesses currently occupying land that Sound Transit requires for transit construction will be displaced, increasing the likelihood that the entity leaves SODO altogether.

2. **Transit Needs vs. Existing Service:** Discussions with stakeholders suggest that Sound Transit's current footprint in SODO does not adequately meet the neighborhood's transit needs. Though SODO has a light rail station, its usefulness is mostly limited to northern SODO, and the neighborhood's larger infrastructure challenges limit foot traffic. In addition, light rail does not provide service to SODO between roughly 12 am - 5 am despite the fact that SODO businesses are continuously running and staff are commuting to and from the neighborhood. For these reasons, a number of businesses mentioned that staff generally drive to work, which suggests that King County Metro bus routes have not filled the need for transit options to and within SODO.

3. **Community Engagement:** SODO businesses expressed a desire for greater community engagement from transit entities and more opportunities for individual, face-to-face communication around transit projects. Though stakeholders understand the importance and inevitability of transit projects, they indicated that greater involvement earlier in the transit planning process would be preferred.

TENSIONS & TRADE-OFFS

1. **Balancing Transit Development and Commerce:** SODO stakeholders must continue to find a balance between supporting transit development and minimizing disruption to the daily operations of businesses in SODO. Traffic, closures, and construction will undoubtedly affect businesses in the vicinity around the SODO light rail station, as well as those that rely on shipping within the neighborhood.

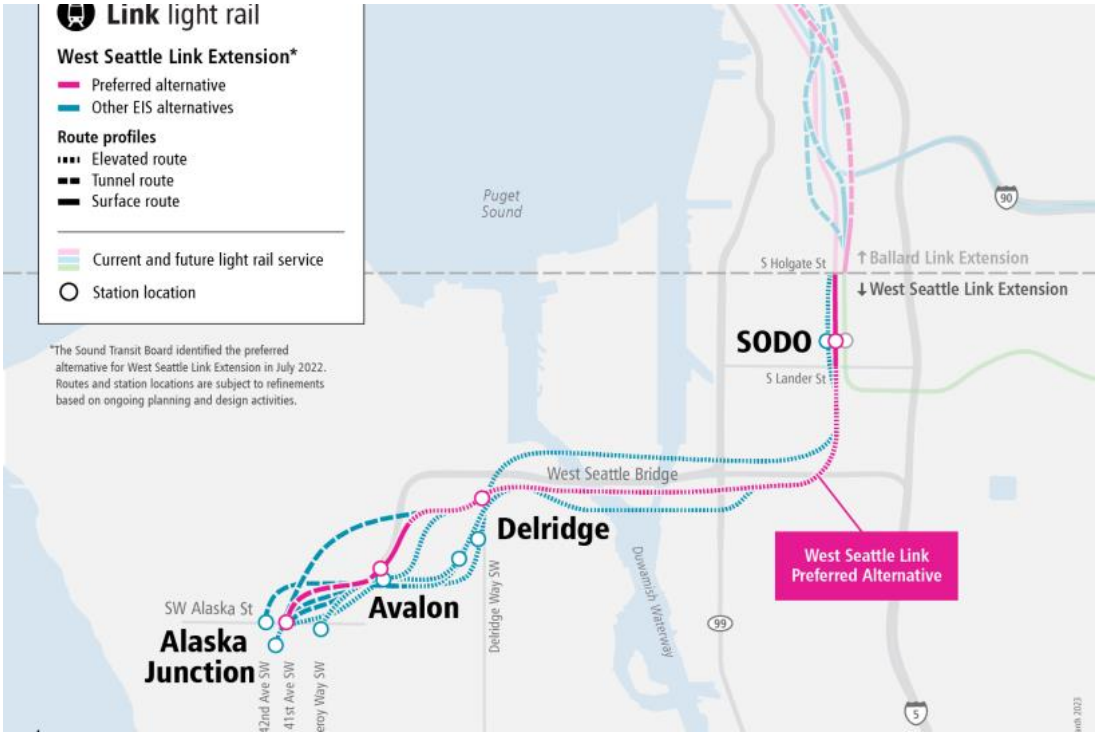

Figure 12. Map of Sound Transit's West Seattle Link Extension, including preferred alternative.[80]

[80] "West Seattle Link Extension." *West Seattle Link Extension | Project Map and Summary | Sound Transit*, Sound Transit, www.soundtransit.org/system-expansion/west-seattle-link-extension. Accessed 29 May 2024.

FUTURE OF TRANSIT IN SODO

The relationship between SODO and public transit is complicated. However, existing transit infrastructure and the development of future lines provide an opportunity to support the evolution of SODO by connecting the neighborhood with other Sound Transit lines and King County Metro bus lines. SODO will have to endure transit development for the foreseeable future, although collaboration between transit entities, businesses, and interested third parties can mitigate the disruption to the neighborhood.

STRATEGIC RECOMMENDATIONS

Through community engagement campaigns, local government entities should continue to build open lines of communication with businesses and stakeholders in SODO. The reason for this is twofold. First, engagement with SODO stakeholders - both private businesses and government entities - can illuminate neighborhood transit needs, primarily concerning the movement of workers to and from the area. Although the planning phase of the SODO-West Seattle connection is well underway, more engagement with SODO stakeholders can equip government entities with a greater understanding of SODO's transit needs. Second, increased community engagement efforts can provide clarity around more effective ways to mitigate disruption to SODO during the development of the SODO station and light rail expansion.

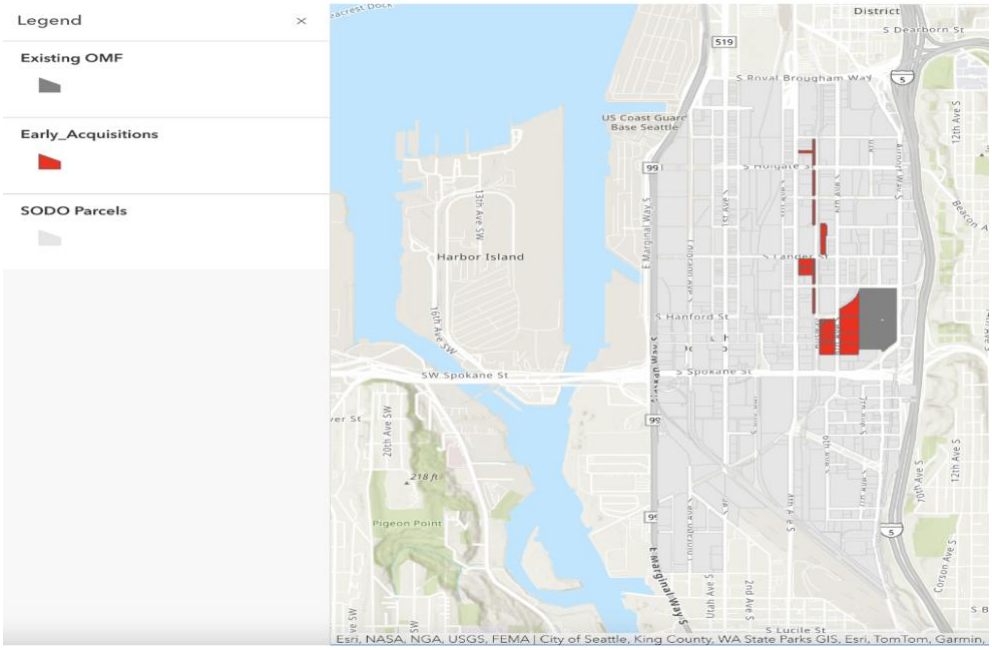

Figure 13. A map of SODO with property to be acquired by Sound Transit for transit expansion highlighted in red. SODO properties are highlighted in light gray, and Sound Transit's existing facilities are in dark gray (data from King County Parcel Viewer).

ZONING/DEVELOPMENT

Seattle's rich history as a maritime city is still the present in SODO, which has remained oriented toward warehousing and manufacturing around the seaport, railroads, and highways. The passage of the Industrial and Maritime Strategy zoning package in 2023 solidified the neighborhood's status as one of the city's two "Manufacturing Industrial Centers" for years to come.[81]

STRENGTHS

1. **Industry/Predictability:** The zoning code in SODO is the most predictable it has been in the past decade. Debates, studies, and outreach which spanned the past three mayoral administrations informed the recent industrial land reform. The neighborhood now comprises three distinct zoning classifications, providing a clear framework for future development, while also preserving industrial activities:

    a. Maritime, Manufacturing and Logistics (MML) - Strengthens protections for core industrial/maritime areas near shorelines, ports, rail/freight infrastructure to prevent encroachment of incompatible developments like mini-storage.

    b. Industry and Innovation (II) - Encourages multi-story buildings accommodating industrial businesses mixed with research, design, offices, technology through density bonuses near light rail stations. Supports modern, high-density industrial development.

    c. Urban Industrial (UI) - Promotes vibrant mix of affordable spaces for light industry, makers, creative arts, ancillary retail/housing for better transitions between industrial areas and urban villages/residential zones in neighborhoods like Georgetown and Ballard.[82]

The zoning classifications have remained relatively constant throughout the One Seattle Comprehensive Plan update as well. The neighborhood remains to be part of the 12% of Seattle's Area that makes up industrial land and generates about 15% of employment in the city.[83]

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[81] Housen, Jamie. "Mayor Harrell Advances Innovative Industrial and Maritime Strategy ." *Office of the Mayor*, 12 Apr. 2023, harrell.seattle.gov/2023/04/11/mayor-harrell-advances-innovative-industrial-and-maritime-strategy/.

[82] Ibid.

[83] "Seattle City Council Approves Rezoning Plan Meant to Protect Industry, Port." *The Seattle Times*, The Seattle Times Company, 21 July 2023, www.seattletimes.com/business/city-council-approves-lands-plan-meant-to-protect-seattle-industry-port/.

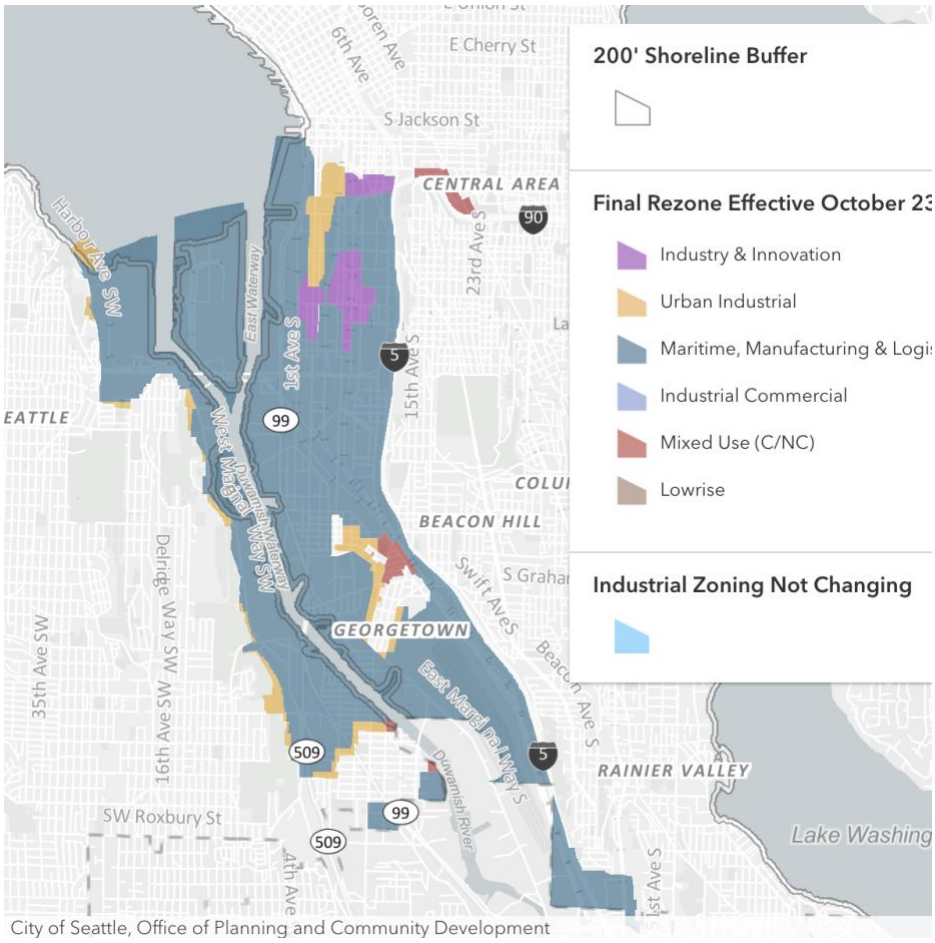

Figure 14. SODO is composed of three industrial zones: Industry & Innovation, Urban Industrial, and Maritime, Manufacturing and Logistics (Seattle Office of Planning and Community Development).[84]

2. **Agglomeration Economy**: The SODO business community is unique. With the exception of the district's delicious eateries, breweries/distilleries, and warehouse-turned-retail spaces, many establishments do not value foot traffic. Buildings might look similar, but the array of businesses within is markedly diverse. The neighborhood houses the livelihoods of many of the Seattle area's working class employees. Despite its sometimes quiet appearance, the neighborhood boasts some of the lowest business vacancy rates in

[84] "Industrial and Maritime Strategy." *Industrial and Maritime Strategy - OPCD*, Seattle Office of Planning and Community Development, www.seattle.gov/opcd/ongoing-initiatives/industrial-and-maritime-strategy. Accessed 29 May 2024.

the city.[85] Employers empathize with one another's more discrete models of operations and are quick to step up for one another when opportunities arise.

3. **Pollution:** Like its adjacent neighborhoods, the majority of the pollution in SODO actually comes from I-5 and its constant fuel emissions.[86] Unfortunately, the South Seattle districts suffer among the highest levels of environmental health risks in the state.[87] SODO's proximity to rail lines, the port, and interstate highways mitigates the emissions of the transloading businesses within. Concentration of industry also makes for easier cleanup and reduction. SODO's manufacturing capacity and adjacency to the port also make it an ideal location for potential offshore wind infrastructure manufacturing and maintenance in the future.

CHALLENGES

1. **Permitting**: The concentration of legacy businesses in SODO made for a noticeable dichotomy of responses around permitting. Legacy businesses did not mention the issue, but newer businesses shared stories of a process that impeded development progress and delayed the start of their operations.

2. **Building Insurance:** While rising building insurance costs are not unique to SODO, the neighborhood's aging building stock, seasonal groundwater issues, and liquefaction zone status all exacerbate the existing market pressures. The result has inflated insurance costs so severely that they inhibit capital improvements among landowners/lease holders.

3. **Critical Infrastructure:** SODO's zoning status makes it a "catch-all" for services that do not fit in urban villages (critical infrastructure like the methadone clinic/sobering center). SODO might actually be the best place for these, but their placement comes with consequences. These services serve as one step of support for some of the city's most vulnerable residents, but other steps are missing. While outside of the scope of this research project, some steps that come to mind are transitional and permanent supportive housing options in close proximity to service providers, ensuring a continuum of care and stable living environments. The BIA's role here is not explicit, but businesses expressed their gratitude for the organization's pushes for information sharing among service providers, government agencies, and community stakeholders to ensure a more streamlined approach for support services. Accessible transportation solutions are also

[85] Gaquin, Ashley. "Seattle-Area Warehouse Demand Keeps Pace with 'Massive Output.'" *Lee & Associates Pacific Northwest*, 21 Mar. 2022, www.lee-associates.com/northwest/2021/11/09/seattle-area-warehouse-demand-keeps-pace-with-massive-output/.

[86] Nelson, Glenn. "Fighting for Clean Air in One of Seattle's Most Polluted Neighborhoods: Opinion." *Cascade PBS News*, 13 May 2019, crosscut.com/2019/05/fighting-clean-air-one-seattles-most-polluted-neighborhoods.

[87] *Information by Location: Washington Tracking Network (WTN)*, Washington State Department of Health, fortress.wa.gov/doh/wtn/WTNIBL/. Accessed 29 May 2024.

important to facilitate reliable travel to and from service providers, housing, and potential employment opportunities for patrons.

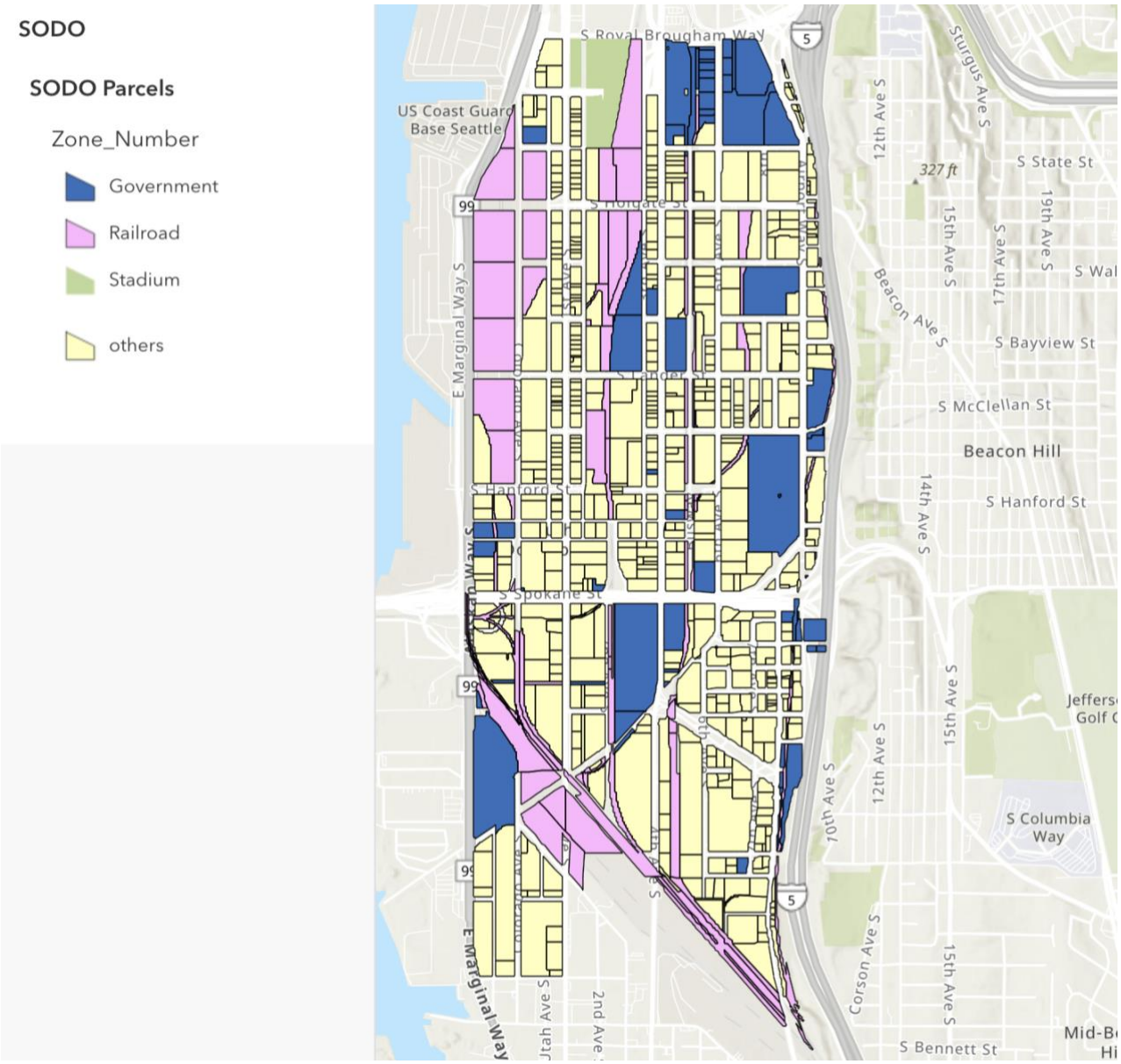

Figure 15. Breakdown of parcel operation in SODO - "others" means privately owned (data from King County Parcel Viewer).

TENSIONS AND TRADE-OFFS:

1. **Freight Mobility vs. Activation**: Preserving mobility on critical freight corridors like 1st Ave S and Royal Brougham Way that connect SODO to regional highway networks. Introducing more residential or mixed-use development near these corridors could increase conflicts with heavy truck traffic; however, it would also help stabilize the traffic surges with additional visitors, reducing "dead" times and making for a safer neighborhood feel.

2. **Density around Transit Hub**: Increased density and activity around future light rail stations will impact existing industrial operations. More people living and working in those areas could lead to conflicts with noise, smells, and truck traffic from long standing industrial businesses. Smaller businesses will face potential displacement pressures as land values rise with zoning changes that enable adequate density around transit stations. Larger businesses, land owners, and even a few legacy businesses mentioned openness to a shifting business paradigm that made space for the inevitable foot traffic. Strategic developments that invite the coexistence of this growth will be key.

3. **Business Diversity**: Allowing enough flexibility for SODO's evolving mix of industries beyond just traditional manufacturing and maritime. SODO now hosts a diverse array of sectors like advanced technology, environmental services, cannabis production, wineries/breweries etc. Overly restrictive zoning measures stifle economic diversity.[88]

4. **Mixed-Use Adjustments**: Balancing a vibrant mixed-use environment that attracts new investment and businesses while preserving affordable industrial lands for traditional manufacturing/production that cannot as easily absorb higher rents.

FUTURE OF ZONING IN SODO

The future zoning for SODO protects the core industrial and maritime areas while allowing for increased density and some mixed-use development at the peripheries near transit. The Maritime, Manufacturing and Logistics zone, established in 2023, strengthens protections against residential encroachment in areas like the Stadium District that need to preserve freight mobility and port access. However, two new zones - Industry and Innovation and Urban Industrial - permit multi-story buildings combining industrial uses with other dense employment near light rail stations. Limited mixed-use housing will also be allowed in urban industrial areas along the edges abutting residential neighborhoods.

Overall, the zoning changes try to strike a balance and shield SODO's industrial base from incompatible uses while encouraging job density around future transit hubs. Existing operations get strengthened protections, while the district's outer areas can add vibrancy through

[88] Gray, M. N. (2022a). *Arbitrary lines: How zoning broke the American city and how to fix it*. Island Press.

mixed-use development incorporating affordable housing and complementary businesses like makers spaces.[89] Homes are where jobs go at night, and about 3,000 new homes were incentivized citywide through this compromise approach - with none located in SODO at this time.

STRATEGIC RECOMMENDATIONS

To address ongoing tensions around SODO's zoning and support the neighborhood's diverse economic mix, the city should prioritize enhancing the predictability and efficiency of the zoning code and development processes. Businesses have cited permitting as a major pain point, with many newer companies having to exhibit extensive advocacy just to get permits approved in a reasonable timeframe. With the rationale of current zones hinging on flourishing light industrial areas, the city should follow the lead of Kitsap, Island, and Clark Counties and apply lean management strategies to simplify and streamline the permitting process, making the rules clearer for businesses to follow.

Clark, Island, and Kitsap Counties all participated in five-day Kaizen events. A Kaizen event is a focused event where employees review a process' steps with the goal of making improvements. Waste is any action, task, process or product that adds time and cost, without adding value as perceived by potential or existing tenants. Some symptoms of waste that both SODO businesses and county officials identified were excess costs, delays, dependency on work-around methods, and daily management by exception. Permitting timelines in each county were reduced to 50% or lower through these processes.[90]

To put this into practice, the BIA could work with the City of Seattle to convene a SODO Permitting Task Force with representatives from the neighborhood's varied businesses. This group could conduct a comprehensive review (a Kaizen event) to identify opportunities to consolidate applications, remove redundancies, and set clear timelines for approval. Using the lean philosophy, the focus would be on maximizing value for businesses while removing wasteful steps that breed uncertainty. Clear, efficient processes aligned with the modern industrial economy will be critical to realizing the vision for SODO under the new zoning framework.

[89] Trumm, Doug. "Harrell Signs Industrial Land Reform into Law - the Urbanist." *The Urbanist - Examining Urban Policy to Improve Cities and Quality of Life.*, 27 July 2023, www.theurbanist.org/2023/07/27/harrell-signs-industrial-land-reform-into-law/.

[90] *Lessons Learned: How Counties Are Improving Permitting Processes*, Washington State Auditor's Office, mrsc.org/getmedia/99ae2189-11b3-4668-afb1-9d3fc3d27182/w3saolessons.pdf. Accessed 30 May 2024.

SUPPLY CHAIN AND LOGISTICAL DYNAMICS IN SODO

As a critical component of Seattle's supply chain, SODO faces complex challenges and opportunities influenced by local infrastructure and logistics capabilities. Interviews with SODO stakeholders highlighted the intersection of logistical challenges and strategic responses shaped by Seattle's greater industrial and manufacturing landscape.

STRENGTHS

1. **Strategic Location:** SODO's proximity to major transportation facilities like ports, railroads, and highways supports its pivotal role in regional, national, and international logistics. This strategic positioning is instrumental in facilitating efficient trade and logistics operations.

2. **Diverse Industrial Base:** Industrial diversity enhances SODO's economic resilience and supports a wide range of supply chain activities, making the area a hub for logistics and distribution.

3. **Community and Innovation:** Advocacy from local businesses and an openness to innovation foster a progressive environment that can embrace sustainable practices and cutting-edge supply chain technologies.

CHALLENGES

1. **Port Congestion and Zoning Issues:** Feedback from industry stakeholders underscores challenges with congestion at the Port of Seattle, which directly impacts SODO's logistics and supply chain operations. Strict zoning laws further complicate the operational landscape, leading to inefficiencies and increased costs.

2. **Public Safety and Infrastructure**: Concerns over public safety and aging infrastructure are significant. These challenges impact the logistics ecosystem by affecting transportation routes, logistical planning, and overall employee safety in the district.

3. **Technological Adaptation:** The need for advanced technology integration is clear, and the possibility for digital transformation exists through **Internet of Things (IoT)**, **Artificial Intelligence (AI)**, and potentially **blockchain technologies**. However, the adaptation of such technologies brings challenges, including substantial investments and the need for skilled workforce adaptation:

a. **Internet of Things (IoT):** IoT refers to the network of physical devices embedded with sensors, software, and other technologies to connect and exchange data with other devices and systems over the Internet. In SODO's context, IoT can enhance supply chain operations by providing real-time data collection, improved visibility, operational efficiency, and predictive maintenance. Despite these benefits, IoT implementation requires significant investment in technology and infrastructure and a skilled workforce to manage and analyze the data.[91]

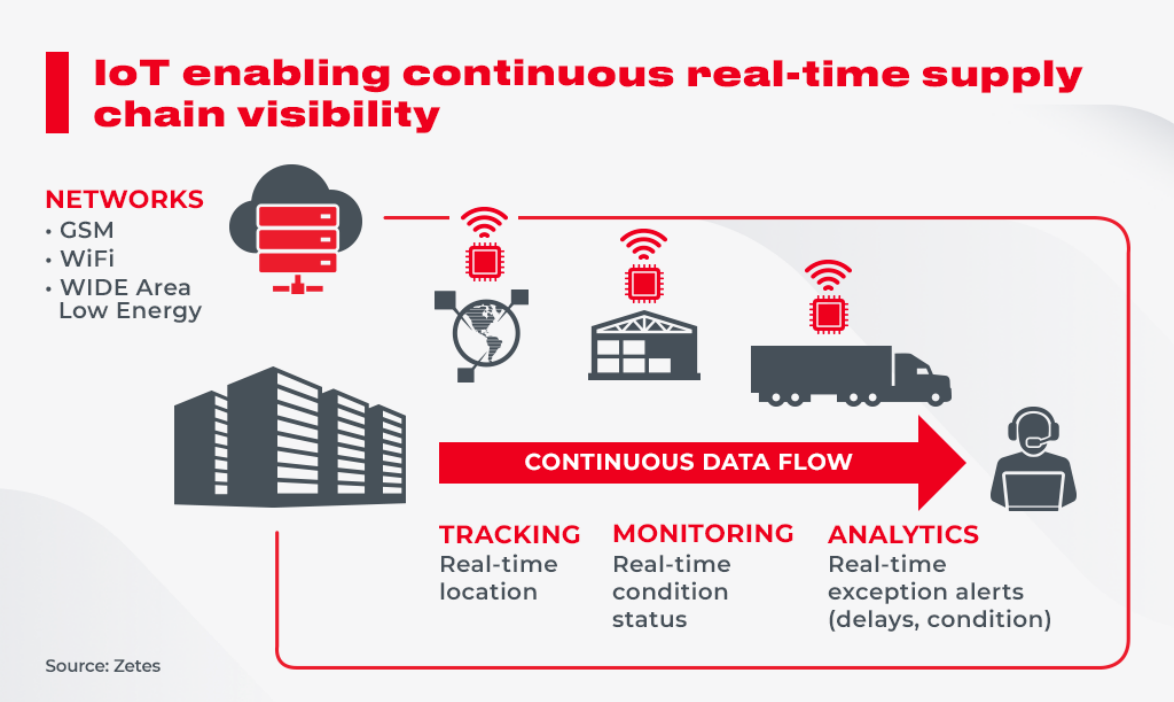

Figure 16. This image illustrates how IoT enables continuous real-time supply chain visibility through networks such as GSM, WiFi, and WIDE Area Low Energy (Zetes).[92]

IoT facilitates:

- **Tracking:** Real-time location tracking of goods and assets
- **Monitoring:** Real-time condition status of products
- **Analytics:** Real-time exception alerts (e.g., delays, condition changes)

[91] "Why IOT Architecture Is Important for Supply Chain Management." *Innovecs*, innovecs.com/blog/iot-architecture-supply-chain/. Accessed 29 May 2024.

[92] Ibid.

TENSIONS AND TRADE-OFFS

Balancing industrial operations with urban development and technological integration presents significant challenges. Infrastructure improvements, such as expanding public transit and upgrading utilities, must be managed carefully to avoid disrupting existing supply chain and logistics activities while accommodating future growth.[93]

FUTURE OF SODO

The future of SODO's supply chain emphasizes sustainability and advanced digitization. Plans to integrate sophisticated technologies aim to enhance operational efficiency, improve logistics tracking, and foster environmentally sustainable practices. These advancements have the potential to transform SODO into a more dynamic and responsive logistics hub.[94]

STRATEGIC RECOMMENDATIONS

Developing the infrastructure to support IoT and other advanced technologies could greatly benefit logistics operations by providing real-time data. Encouraging the adoption of AI and blockchain technologies can streamline logistics operations, cut costs for stakeholders, and enhance supply chain efficiency. This development would likely include offering training programs to cultivate a workforce with the skills to manage and leverage these technologies. Additionally, implementing logistics management systems - which includes investing in warehouse management systems - could optimize routes, alleviate bottlenecks, and enhance the flow of goods, thus significantly boosting efficiency.

[93] Celich, Jillian. *SODO Stories, Made in SODO Series: Washington Chain & Supply, Inc.*., SODO BIA, 10 Sept. 2019, sodoseattle.org/sodo-stories-made-in-sodo-series-washington-chain-supply-inc/.

[94] Marak, Sylvia. "Supply Chain Trends 2024: The Future of SCM." *SelectHub*, www.selecthub.com/supply-chain-management/supply-chain-management-future-trends/.

WORKFORCE EQUITY IN SODO

In SODO, a district known for its industrial and commercial vibrancy, the discussion around workforce equity often centers on the lack of amenities that cater to its workforce. Stakeholders express concerns that tens of thousands of people spend significant portions of their lives in SODO, yet the area continues to function primarily as a workplace without sufficient support for recreational and basic living needs.

STRENGTHS

1. **Community Initiatives:** The Sunny Arms Artist Co-op illustrates how community-centered spaces can uplift individuals in the SODO. Located in a renovated shoe factory, this cooperative provides homes and workspaces for 17 artists. The existence of Sunny Arms showcases the impact of incorporating communal areas into industrial zones while boosting fair employment opportunities and encouraging varied economic growth.[95]

2. **Strategic Location:** SODO's strategic location and industrial infrastructure offer unique opportunities for mixed-use development that could include amenities catering to a broader demographic. This strategic positioning is instrumental to facilitating efficient trade and logistics operations.

3. **Resilience and Adaptability:** SODO possesses a robust industrial foundation supported by legacy businesses. This resilience is crucial for future strategic development plans that consider both business operations and the area's industrial character.

4. **Community Advocacy and Strategic Planning:** The active community advocacy and strategic planning in SODO enhance the district's capacity to support the green economy and maintain industrial diversity. These efforts are vital to Seattle's economic well-being and resilience, helping the area adapt to and plan for future economic and industrial challenges.

CHALLENGES

1. **Lack of Amenities:** The area's limited amenities contribute to a form of inequity. Employees in SODO have restricted access to facilities that are common in more residential or mixed-use areas, such as green spaces, restaurants, and grocery stores.

2. **Walkability and Traffic Fluctuation:** SODO's infrastructure is designed to support industrial and manufacturing operations, which poses challenges for pedestrian access,

[95] Celich, Jillian. *SODO Stories, Made in SODO Series: Easton Richmond Photography*, SODO BIA, 6 Aug. 2019, sodoseattle.org/sodo-stories-made-in-sodo-series-easton-richmond-photography/.

causes traffic fluctuations, and impacts worker commutes. However, recent efforts have been made to tackle these issues. The Safe Streets for All grant from SDOT, granted in 2023, aims to enhance walkability in SODO by installing sidewalks. These enhancements are anticipated to improve pedestrian safety and accessibility, thus making it easier for employees and visitors to navigate the area. This progress signifies a move towards an infrastructure that caters to both industrial needs and the daily requirements of the workforce.[96]

3. **Small Residential Population:** The lack of a substantial residential population in SODO impacts the economic feasibility of developing more amenities. Without a significant number of residents, there is less incentive for public infrastructure investment that would support a more livable community. Residents in the census tract are mostly found in Pioneer Square and Beacon Hill, with a handful residing in buildings on the southeastern side of the district. Understanding the racial and language breakdown of these areas could offer valuable insights into the workforce demographics.

RACIAL BREAKDOWN

According to industry estimates, less than 3% of maritime jobs are held by women and people of color. Port of Seattle's 2021-23 workforce development plan found that white people make up 78% of the maritime workforce in Seattle-King County, and men 74%.[97] SODO's surrounding neighborhoods are relatively diverse compared to the rest of Seattle. However, specific data for SODO is not readily available, and district-specific demographic data must be either extrapolated from census results, or workforce studies from public agencies, labor unions, or individual businesses. Census data of tract 53033009300 (which encapsulates SODO) is displayed below:

- **White (Non-Hispanic): ~** 57.01%
- **Asian:** ~16.63%
- **Black or African American**: ~ 6.58%
- **Hispanic or Latino**: ~ 9.4%
- **Multiracial**: ~ 8.34%

[96] Packer, Ryan. "Seattle Wins Major Federal Grant for Citywide Safety Upgrades." *The Urbanist*, 1 Feb. 2023, www.theurbanist.org/2023/01/31/seattle-wins-major-federal-grant-for-citywide-safety-upgrades/#:~:text=On%20Monday%2C%20Senator%20Maria%20Cantwell%27s,for%20All%20grant%20program%20funded.

[97] Smith, Jenn. "Maritime High Charts New Course to Diversify Old Boys Club Workforce." *The Seattle Times*, The Seattle Times Company, 26 Sept. 2021, www.seattletimes.com/education-lab/seattles-maritime-high-charts-new-course-to-diversify-old-boys-club-workforce/.

These figures indicate a significant presence of people of color, with Asians being the largest group of color followed by Hispanic/Latino and Black/African American residents. [98] [99]

LANGUAGE BREAKDOWN

Language diversity is another crucial aspect of the demographic profile:

- About **22.1%** of Seattle's population speaks a language other than English at home. This is particularly prominent in neighborhoods like Beacon Hill, which is adjacent to SODO and known for its high concentration of immigrant communities.

This linguistic diversity reflects the significant immigrant and refugee communities in the area, necessitating amenities and services that cater to various linguistic needs. [100]

WORKFORCE DEMOGRAPHICS

While SODO includes a limited residential population, its workforce is diverse, mirroring the broader racial and ethnic makeup of Seattle. This diversity underscores the importance of creating amenities and services that address the cultural and linguistic needs of the workforce, enhancing equity and activation of the area. While some individual businesses and labor unions possess their own demographic/language breakdowns, there is no aggregated source available for public/BIA use. At this time, demographic data must be requested at the business level or extrapolated from census results (below).

[98] "Population & Demographics." *Population & Demographics - OPCD*, Seattle Office of Planning and Community Development, www.seattle.gov/opcd/population-and-demographics. Accessed 29 May 2024.

[99] "Seattle, WA Population by Race & Ethnicity - 2023." *Neilsberg*, Neilsberg Research, www.neilsberg.com/insights/seattle-wa-population-by-race/. Accessed 29 May 2024.

[100] "About Seattle." *About Seattle - OPCD*, Seattle Office of Planning and Community Development, www.seattle.gov/opcd/population-and-demographics/about-seattle. Accessed 29 May 2024.

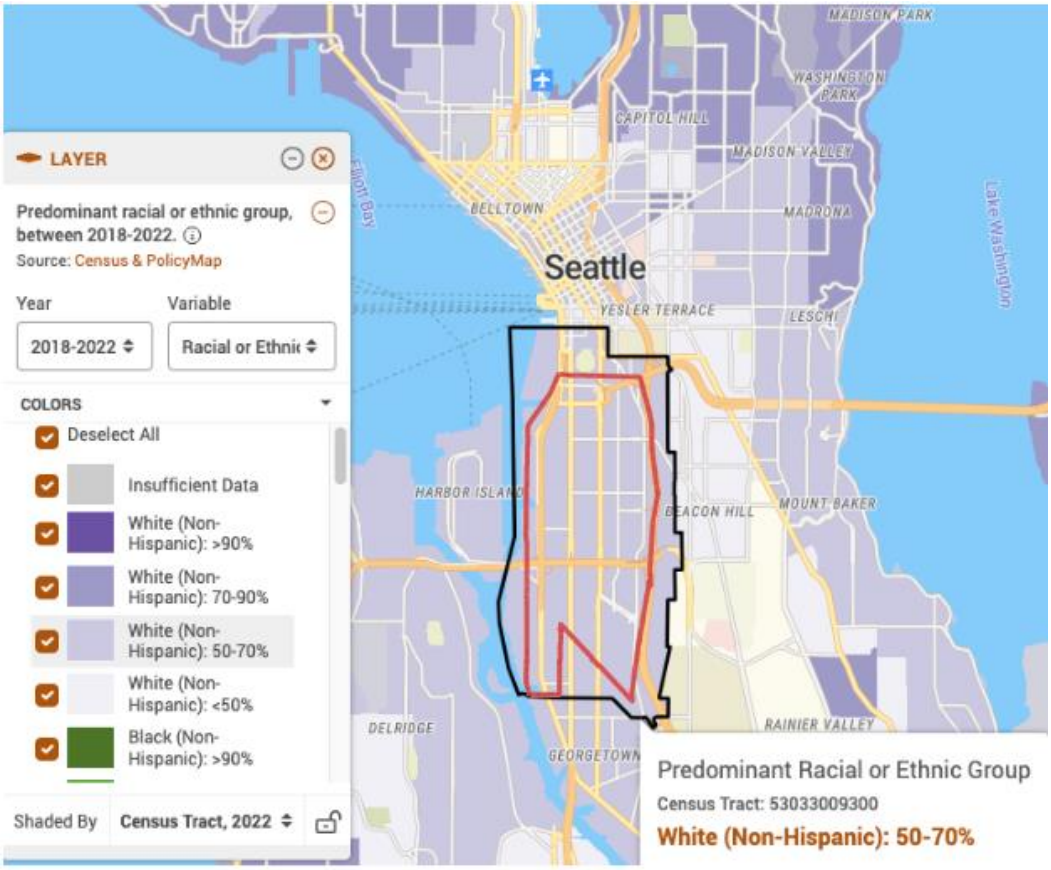

Figure 17. Map showing the predominant racial or ethnic group in Seattle between 2018-2022. The highlighted census tract includes SODO, but also parts of Pioneer Square, Beacon Hill, and Georgetown.[101]

TENSIONS AND TRADE-OFFS

Balancing SODO's industrial character with the need for modern urban development and improved workforce equity presents significant challenges. Infrastructure improvements, such as expanding public transit and upgrading utilities, must be managed carefully to avoid disrupting existing industrial activities while accommodating future growth.

FUTURE OF SODO

Looking forward, there is potential for SODO to evolve to include more mixed-use developments, transforming into an area that supports not only industrial and commercial sectors but also offers amenities that enhance the quality of life for its workforce. Transit and

[101] Policy Map, https://washington-policymap-com.offcampus.lib.washington.edu/newmaps/#/

infrastructure improvements should be developed to provide data about the current employee population - a sector of Seattle's workforce that we know relatively little about.

STRATEGIC RECOMMENDATIONS

1. **Collective Action:** Comprehensive strategies are recommended to promote a more inclusive and equitable experience for SODO's workforce. Such strategies include partnering with employers to develop and track equity metrics as the economy recovers from the COVID-19 pandemic and advancing sector-based strategies that prioritize growth sectors like construction, IT, and healthcare.[102] The Port of Seattle has initiated various policies to promote workforce equity, including efforts to dismantle structural barriers that prevent full participation by marginalized communities, particularly communities of color, and to ensure equitable economic opportunities and working conditions.[103] Understanding the demographic breakdown of the district is a great next step. Engaging in further qualitative research with a more diverse section of the district's labor force could be a great next step to building on this report and identifying further nuance in the way workers experience SODO. A steering committee constructed of a sample SODO's workforce could be assembled and empowered to form policy adjustments (potential suggestions listed below) that target the needs of the district's current employee base.

2. **Marginal Activation Improvements**: Increasing SODO's amenities could involve developing more green spaces, improving walkability, and increasing the availability of essential services like grocery stores and restaurants for neighboring residents and employees. Potential shuttles or ride sharing systems could also address employee parking issues, reduce emissions, and serve employees who are not proximate to current transit lines that service the area. These improvements would benefit the current workforce and attract more businesses and patrons to the area, creating a more vibrant community.

[102] "Advancing Workforce Equity in Seattle: A Blueprint for Action." *National Fund for Workforce Solutions*, 17 Feb. 2021, nationalfund.org/our-resources/publications/advancing-workforce-equity-in-seattle/.

[103] "Equity & Workforce Development Committee." *Port of Seattle*, www.portseattle.org/page/equity-workforce-development-committee. Accessed 29 May 2024.

SODO'S ECONOMY

SODO is a major industrial district of Seattle that functions as a driving engine of the city's economy. SODO's unique location next to the Port of Seattle, major arterial routes like the I-90 and I-5 freeways, and Seattle's sports stadiums, attracts businesses into the area, including bars, restaurants, entertainment venues. Additionally, major companies like Starbucks and Costco are either headquartered in or closely associated with SODO. Over 1,200 individual businesses make up the SODO neighborhood, with 70+ restaurants, 70+ manufacturers and producers, and 85+ stores/outlets available.[104] Despite SODO's assets, the neighborhood's economic contributions are often misunderstood and understated.

STRENGTHS

1. **Major Source of Business Operating Tax**: SODO brings a meaningful share of business operating tax to the city. Stakeholder interviews emphasized that over 550 businesses in SODO pay roughly 30% of Seattle's total business operating tax.[105] With a business vacancy rate below 5%, this tax contribution will likely continue.[106]

2. **Business Diversity:** The type and size of businesses vary widely in SODO. Because of previously mentioned access to major thoroughfares, SODO attracts diverse businesses, including logistics, manufacturing, warehousing, transportation, and maritime shipping firms. Stadiums nearby draw foot traffic to the area, supporting the area's retail, art, and cultural businesses.

3. **Cradle for Technology Research & Development:** SODO is an ideal site for the early development and manufacturing of new technologies due to its proximity to technological hubs and easy access to related essential industries and its infrastructure. In addition, companies benefit by having Boeing Field and Sea-Tac International Airport in close proximity to its development process. A rich pool of talented engineering groups also contributes to research and development efforts.

4. **Continuing Investment:** Money is invested in SODO from both government agencies and the private sector. In 2023, the Seattle Mariners decided to make the biggest financial investment in SODO infrastructure since T-Mobile Park's opening after recognizing the SODO neighborhood as an important element for expanding fan-centric businesses. This investment is focused on bringing more foot traffic into the area, as this effort led to 1) renovating large fan gathering spaces, like bars and restaurants, and 2) a new year-round

[104] *Business Directory*, SODO BIA, 20 Nov. 2023, sodoseattle.org/business-directory/.

[105] "SODO BIA." *SODO*, 8 Feb. 2024, sodoseattle.org/sodo-bia/.

[106] Gaquin, Ashley. "Seattle-Area Warehouse Demand Keeps Pace with 'Massive Output.'" *Lee & Associates Pacific Northwest*, 21 Mar. 2022, www.lee-associates.com/northwest/2021/11/09/seattle-area-warehouse-demand-keeps-pace-with-massive-output/.

baseball/softball training facility in SODO, and 3) a dedicated rideshare lot off 3rd Avenue South.[107]

CHALLENGES

Despite its strengths, SODO's continued success requires attention from local government to further improve the district and foster economic activity.

1. **Digital Literacy:** Legacy industries settled in SODO several decades ago, before the digital era. Many businesses subscribe to the "old way of doing things," which suggests limited computer and/or technological reliance. This indicates that some areas of SODO may lack digital literacy, which is becoming increasingly important as the role of technology in business grows.

2. **Insufficient Affordable Housing:** Though zoned for industry, the consequences of Seattle's housing crisis are also felt in SODO. Many workers face long commutes from Seattle's suburbs due to the lack of affordable housing in and around SODO.

3. **Unseen Importance**: SODO has a rich history of economic contributions to Seattle, though the neighborhood is often overlooked. Due to the lack of foot traffic, SODO remains an unfamiliar neighborhood for many Seattle residents. The consequences to this include 1) the lack of public presence during non-business hours, 2) building deterioration, and 3) a persistent misunderstanding of SODO among Seattle residents.

4. **Insurance Policy Disadvantages:** SODO's unique geographical location works unfavorably for insurance, as insurance companies are disinclined to provide insurance policies (or opt to provide policies at high prices) to SODO businesses because of its vulnerability to natural disasters (e.g. floods, earthquakes) and old building structures.

TENSIONS AND TRADE-OFFS

Tensions exist over further economic development of SODO, particularly around rezoning. Some businesses would benefit from more foot traffic within the area and thus support rezoning SODO to allow for more mixed-use and residential buildings nearby. Other businesses and the Port of Seattle oppose the idea on the grounds that SODO must remain industrial since its location is a perfect spot for transport and future clean energy facilities for the maritime

[107] Daniels, Chris. "Seattle Mariners Spending Millions on SODO Redevelopments." *KOMO News*, komonews.com/news/local/mariners-sodo-seattle-development-facility-stadium-downtown-homeless-homelessness-crisis-victory-hall-baseball-softball-hatback-steelheads-brewery-pyramid-ale-house-silver-cloud-hotel-mlb-club-organization. Accessed 29 May 2024.

shipping business. This tension is settled for now, but necessary activation of the district will require creative, pragmatic solutions which must be formed collaboratively.

FUTURE OF SODO

SODO serves the industrial backbone of Seattle and plays a key part in the city's economic stability. Stakeholders in SODO believe that the area should continue as a vibrant manufacturing and industrial center and remain adaptable to trends like on-shoring of manufacturing. The mix of light industry and tech uses could leverage SODO's uniqueness for success, emphasizing the need for strategic urban planning to address infrastructure and development challenges.

STRATEGIC RECOMMENDATIONS

1. **Preemptive Mediation Efforts**: To prevent conflict between stakeholders during policy development and implementation processes, consensus-based mediation and negotiation efforts that focus on mutual interests are needed to minimize future cost and time burdens. In addition, stakeholders from different sectors in SODO can work collaboratively to promote programs and developments that benefit cross-sector interests. Recent dining and training facility renovations sponsored by the Mariners is a great example. Initiatives for similar collaborations are recommended to facilitate more foot traffic and contribute to SODO's vibrant economy.

2. **Active Campaigning of SODO**: Increased public familiarity with SODO's functionality as an economic engine of the city could also promote further local and state investment into neighborhood improvements. Regular messaging about SODO's significance and vital role as a hub which fuels Seattle's small business economy is also encouraged. The BIA's social media presence is strong and improving. Highlighting events and sharing details about SODO business relationships and crucial export/import patterns could be a fun and easy way for enhanced collaboration with the Seattle Office of Economic Development, Port Commission, and other public partners. Directing Seattleites to the plethora of businesses in SODO is a great step in this direction.

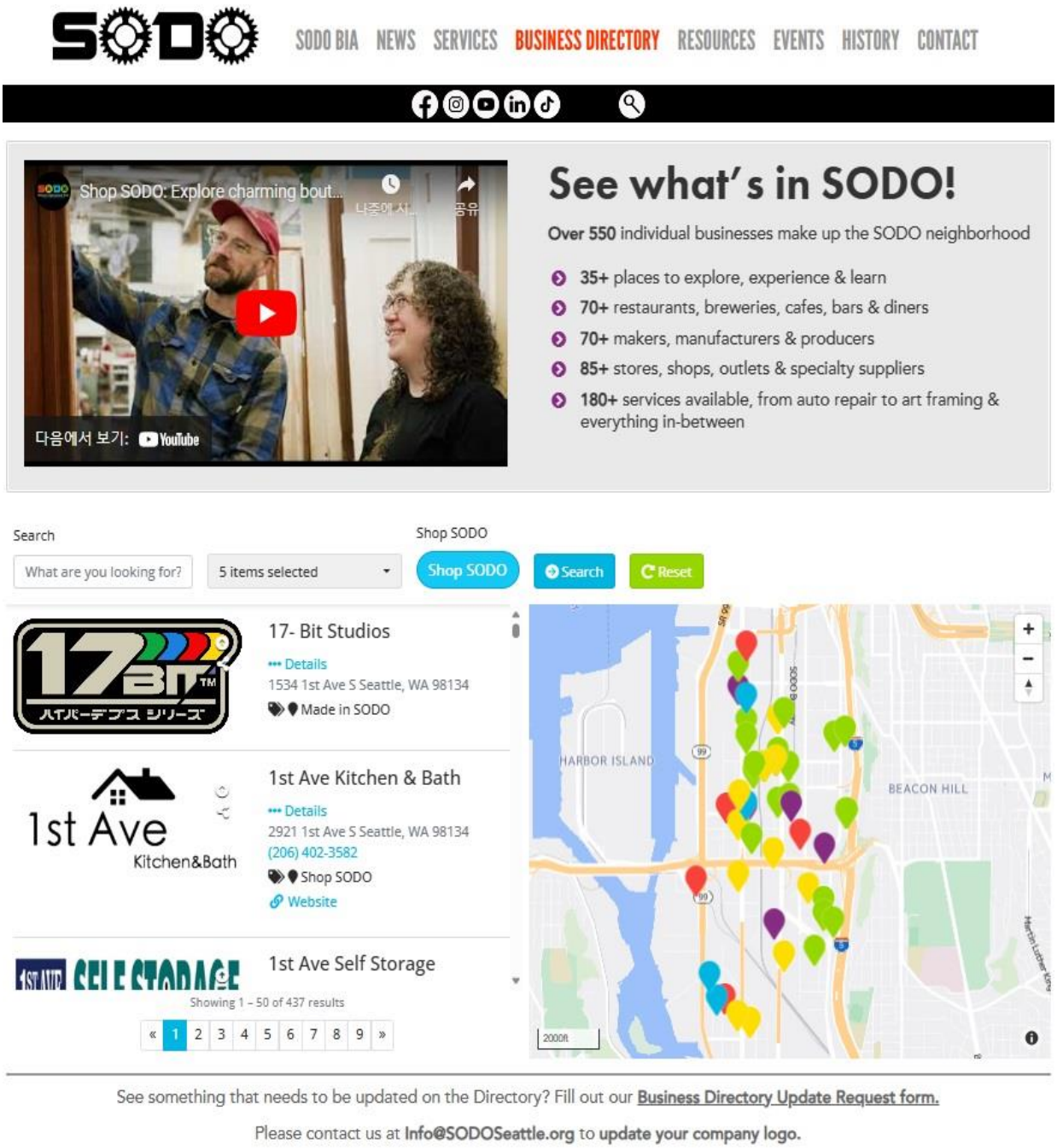

Figure 18. Business directory page in SODO BIA website. Over 550 businesses make SODO not only an industrial district but also a special place for leisure.[108]

[108] *Business Directory*, SODO BIA, 20 Nov. 2023, sodoseattle.org/business-directory/.

ADDITIONAL CONSIDERATIONS

PUBLIC SAFETY CONCERNS

Despite SODO's economic strengths and benefits, the neighborhood faces public safety challenges that have escalated at a disproportionate rate compared to other areas in Seattle. The variable foot traffic and lack of a substantial residential presence, especially during off-business hours, have contributed to an increase in property crime such as graffiti, thefts, and burglaries. According to the Seattle Police Department, the majority of crimes reported in SODO in 2022 (totaling 1,065 incidents) were burglaries and thefts.[109] These public safety concerns pose a threat to businesses, potentially driving them away from the area, including long-standing legacy establishments like the 116-year-old Emmanuel's Rug & Upholstery Cleaners, which cited the need for a safer environment as a factor in their relocation considerations.[110]

Addressing public safety issues in SODO requires collaboration between businesses, law enforcement, and local authorities. Increased police presence and swift response times, enhanced security measures, and fostering a sense of community through initiatives that encourage foot traffic and public engagement could contribute to deterring criminal activities and creating a more secure environment for businesses and their employees.

HOMELESSNESS AND SOCIAL SERVICES

SODO's industrial character and the presence of essential social services, such as the methadone clinic, sobering center, Department of Corrections (DOC) Community Corrections Office, and potential jail, provide necessary services for a significant population of unhoused individuals and require them to be proximate to these resources.[111] While these services provide vital support, their concentration in SODO has led to challenges related to drug use, illegal dumping, and individuals living out of their vehicles or recreational vehicles (RVs) in the area.

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[109] Fryer, Alex. "Who Will Save Sodo? Seattle's Industrial Neighborhood Fights for Survival in a 'wild West' of Property Crime | Alex Fryer." *The Seattle Times*, The Seattle Times Company, 2 June 2023, www.seattletimes.com/opinion/who-will-save-sodo-seattles-industrial-neighborhood-fights-for-survival-in-a-wild-west-of-property-crime/.

[110] Everman, Hannah, and Jeremy Harris. "'We're Tired': 116-Year-Old Seattle Business to Close Shop over Encampment Safety Concerns." *KOMO News*, 3 Feb. 2023, komonews.com/news/local/seattle-homeless-crisis-116-year-old-business-closing-sodo-neighborhood-business-emmanuels-rug-and-upholstery-cleaners-relocating-unhoused-homelessness-rv-encampment-camp-concerns-mayor-bruce-harrell-safety-concerns-raw-sewage-campers.

[111] Beekman, Daniel. "King County Explores Downtown Revamp Options, like Moving Jail to Sodo." *The Seattle Times*, The Seattle Times Company, 22 Aug. 2023, www.seattletimes.com/seattle-news/politics/king-county-explores-downtown-revamp-options-like-moving-jail-to-sodo/.

Figure 19. RVs and encampments in SODO with T-Mobile Park and downtown in the background, 2023 (*KOMO News*).[112]

To address these issues, the SODO BIA has undertaken initiatives such as homeless outreach, pressure washing, and graffiti removal, aiming to improve the neighborhood's overall activation and connect individuals with appropriate service providers. However, further research and collaboration with social service organizations, city agencies, and advocacy groups are necessary to develop long-term, sustainable solutions that address the root causes of homelessness while ensuring the safety and well-being of both unhoused individuals and the business community. The BIA needs support on these endeavors.

Homelessness is a complex issue that requires a compassionate and multifaceted approach. While addressing public safety concerns is essential, it is also important to recognize the human aspect of this challenge and work towards providing adequate resources, housing, and

[112] Rivera, Paul. "Seattle Neighborhood Welcomes Winter Classic Fans amid Homelessness Crisis Battle." *KOMO News*, 29 Dec. 2023, komonews.com/news/local/seattle-neighborhood-sodo-nhl-winter-classic-t-mobile-park-baseball-mariners-homelessness-crisis-rv-encampment-shelter-major-league-baseball-las-vegas-golden-knights-seattle-kraken-drug-seahawks-lumen-spd-police-resources.

support services to help individuals transition out of homelessness, or prevent homelessness altogether.

HISTORICAL DRAW

SODO has a rich industrial history that dates back to the neighborhood's beginnings in the late 1800s. Once part of the Duwamish Waterway, the neighborhood now known as SODO was created by moving silt from neighboring hills to the area south of downtown Seattle. From its inception, SODO has been a space for industry to develop, moving with the busts of the Great Depression and the booms of the post-war era. Legacy businesses, entities that established roots early on in SODO and continue to call the area home, contribute to the aura of SODO as an industry-first, hardworking, and gritty neighborhood. Though some long-established legacy businesses have chosen to leave SODO for more affordable areas in the Kent Valley, those that continue to call SODO home remain notable assets to the community and draw new businesses into the community.

A sense of pride exists in SODO. The neighborhood, situated right beside the natural deep water Port of Seattle, moves goods from the American Midwest to nations across the globe. SODO includes neighborhood bakeries, electric car manufacturers, wine cellars, the headquarters of Fortune 500 companies, local breweries, mom and pop restaurants, transloading facilities, and vintage markets. This diverse conglomeration of business and industry remains the beating heart of Seattle, and those who frequent the area understand deeply how much of an asset SODO remains for the city.

The reasons that businesses choose SODO for operations are plentiful: access to the Port of Seattle, proximity to major thoroughfares, and industrial zoning, to name a few. Stakeholders have also mentioned a sense of collaboration, community advocacy, and dynamism as unique characteristics that promote SODO as a center for industry and commerce. But perhaps the most notable is the area's historic reputation as an area that welcomes and fosters industry. Though difficult to quantify, this characteristic supports SODO's presence as the industrial heart of Seattle.

CHAPTER 5: RECOMMENDED AVENUES TO IMPROVE SODO

The following recommendations represent an array of options for the SODO BIA to consider as they continue to fulfill their fiduciary responsibility to the businesses they represent. While these recommendations are informed by the aggregated responses from stakeholder interviews and our analysis, they also reflect our opinions and should be viewed as a starting point for further exploration and refinement. It is imperative that the SODO BIA engages in ongoing dialogue with its member businesses to gauge their specific needs, priorities, and level of support for the proposed strategies. This process will allow the BIA to refine these recommendations, ensuring alignment with the collective interests of the SODO business community. Ultimately, the implementation of any recommended action will rely on some level of government support and should be driven by a collaborative approach that empowers SODO businesses to shape the future of their neighborhood. The BIA's role is to facilitate this inclusive decision-making process, serving as a catalyst for positive change while upholding their fiduciary duty to the entities they represent.

1. ACQUIRE ADDITIONAL DATA TO BETTER UNDERSTAND SODO

A key challenge we encountered during this study was the scarcity of data and existing research focused specifically on SODO. Most existing studies tend to analyze SODO collectively with other maritime and industrial areas in Seattle, failing to capture its unique characteristics and proximity to urban amenities like stadiums, restaurants, dispensaries, bars, and the Port of Seattle. To address this gap and inform future decision-making tailored to SODO, we recommend the following strategies:

a. **Leverage Localized Smart City Initiatives**: Renowned as an example for digital equity and accessibility, the City of Seattle is committed to breaking down silos and staid systems that prevent data sharing within the city. A key part of this means bringing neighborhoods like SODO up to speed. It is crucial to advocate for geospatial analysis and the deployment of Internet of Things (IoT) sensors within SODO. Gleaning inspiration from SDOT's Winter Weather Response Map (which already monitors the area) and other tools could yield granular, real-time data on traffic patterns, environmental conditions, and infrastructure usage, informing data-driven decision making specific to SODO's needs.[113]

b. **Establish a "SODO Data Collaborative**:" Convene a collaborative effort involving the SODO BIA, local universities, research institutions, and technology partners to develop

[113] https://seattlecitygis.maps.arcgis.com/apps/webappviewer/index.html?id=78d66825a3e6478c9fc6bdd3116038c8

innovative data collection methods tailored specifically to SODO's industrial and urban landscape. This collaboration could explore technologies like crowdsourcing platforms, sensor networks, and computer vision/AI tools to gather comprehensive information on various aspects of the neighborhood, ensuring that SODO's unique characteristics - and effects of investments - are accurately captured.[114] This approach aligns with the City's goal of "advancing data practices by creating communities around shared interests."[115]

c. **Commission More SODO-Focused Research Studies**: Build on this report; partnering with local universities, research institutions, or planning/consulting firms to conduct comprehensive studies that continue to examine SODO as a distinct neighborhood. These studies should employ a range of methodologies similar to this study: surveys, interviews, focus groups, and on-the-ground data collection, to deepen understanding of the nuances of SODO's business landscape, workforce dynamics, community aspirations, etc.

TYPES OF DATA TO COLLECT

- **Demographic Data:**
  - Collect detailed demographic information on the tenants, workforce, and visitors to SODO. This includes age, gender, income levels, education, and employment sectors. Understanding the demographic profile will help tailor services and initiatives to the needs of the community.

- **Economic Data:**
  - Gather data on local businesses, including types, sizes, and economic contributions. This should include sales volumes, employment numbers, and business turnover rates. Tracking economic indicators will help assess the economic health of the neighborhood and identify growth opportunities.

- **Traffic and Transportation Data:**
  - Monitor traffic patterns, pedestrian flows, and public transportation usage. This data can be collected through IoT sensors, traffic cameras, and transit system records. Analyzing this information will help improve transportation infrastructure and address congestion issues.

[114] *Distribution Line Sensor Installations*, Seattle City Light, www.seattle.gov/city-light/in-the-community/current-projects/distribution-line-sensor-installations. Accessed 29 May 2024.

[115] *One Seattle Data Strategy*, City of Seattle , Dec. 2023, www.seattle.gov/documents/Departments/MayorHarrell/OneSeattleInitiatives/OneSeattleDataStrategy.pdf.

- **Environmental Data:**
    - Measure air quality, noise levels, and other environmental indicators. Deploying sensors throughout the neighborhood can provide real-time data on environmental conditions, helping to identify areas requiring intervention to improve quality of life.

- **Crime and Safety Data:**
    - Collect data on crime rates, types of incidents, and areas with higher occurrences of safety concerns. Collaborating with local law enforcement agencies can provide access to this data, which is crucial for developing safety initiatives.

- **Community Sentiment and Feedback:**
    - Conduct regular surveys, focus groups, and town hall meetings to gather feedback from businesses and patrons. Utilizing digital platforms for continuous engagement can also provide valuable insights into community needs and priorities.

HOW TO INITIATE DATA COLLECTION EFFORTS

- **Partnerships and Collaborations:**
    - Form partnerships with local universities, research institutions, and technology firms to develop and implement data collection methods. These partnerships can provide expertise, resources, and innovative approaches to gather and analyze data.

- **Utilize Existing Infrastructure:**
    - Leverage existing city infrastructure, such as Seattle's smart city initiatives, to integrate SODO-specific data collection. Utilizing the Winter Weather Response Map and other city tools can provide a foundation for localized data gathering.

- **Deploy IoT and Sensor Networks:**
    - Install IoT devices and sensor networks throughout SODO to collect real-time data on traffic, environmental conditions, and infrastructure usage. These technologies can provide continuous, accurate, and granular data to inform decision-making.

- **Crowdsourcing Platforms:**
    - Utilize crowdsourcing platforms to gather data from the community. Encouraging patrons and businesses to contribute information through mobile apps or online portals can supplement other data collection methods and provide a broader perspective.

- **Pilot Programs:**
    - Launch pilot programs to test and refine data collection methods. Start with specific areas or data types to evaluate the effectiveness of different approaches before scaling up to the entire neighborhood.

- **Regular Reporting and Review:**
    - Establish a system for regular data reporting and review. This includes setting up dashboards and other visualization tools to make data accessible to stakeholders, allowing for continuous monitoring and adjustment of strategies.

2. POTENTIAL FUNDING SOURCES AND RATIONALE

a. **EPA's Environmental and Climate Justice Community Change Grants**: This new program offers approximately $2 billion in Inflation Reduction Act (IRA) funds for environmental and climate justice activities that benefit disadvantaged communities.[116] Funds can support projects that reduce pollution, increase climate resilience, and build community capacity to address environmental challenges. SODO could leverage these grants for community-driven initiatives focused on mitigating the neighborhood's industrial impacts and promoting sustainable development.

b. **U.S. Economic Development Administration (EDA) Grants**: The EDA offers various grant programs to support economic development, infrastructure improvements, and job creation in distressed communities. SODO could explore opportunities through programs like the Public Works and Economic Adjustment Assistance programs to fund projects that enhance the neighborhood's competitiveness and resilience.[117]

c. **Federal Transit Oriented Development Funds**: As SODO continues to expand its transit infrastructure, exploring programs like the Transportation Infrastructure Finance and Innovation Act (TIFIA) and Railroad Rehabilitation & Improvement Financing

[116] *Inflation Reduction Act Community Change Grants Program*, Environmental Protection Agency, www.epa.gov/inflation-reduction-act/inflation-reduction-act-community-change-grants-program. Accessed 29 May 2024.

[117] "Economic Adjustment Assistance." *U.S. Economic Development Administration*, www.eda.gov/economic-adjustment-assistance. Accessed 29 May 2024.

(RRIF) could stimulate capital market investment in transportation infrastructure by providing credit assistance in the form of direct loans, loan guarantees, and standby lines of credit (rather than grants) to projects of regional significance.[118]

d. **Community Development Financial Institution (CDFI) Assistance**: CDFI lending is growing exponentially, up 40% over the past five years.[119] These investments have vital impact on community development and partnering with a CDFI to help businesses access small business (SBA 7a) loan programs, flex funds, revolving loan funds, and more can boost the BIA's responsiveness to stakeholder needs.

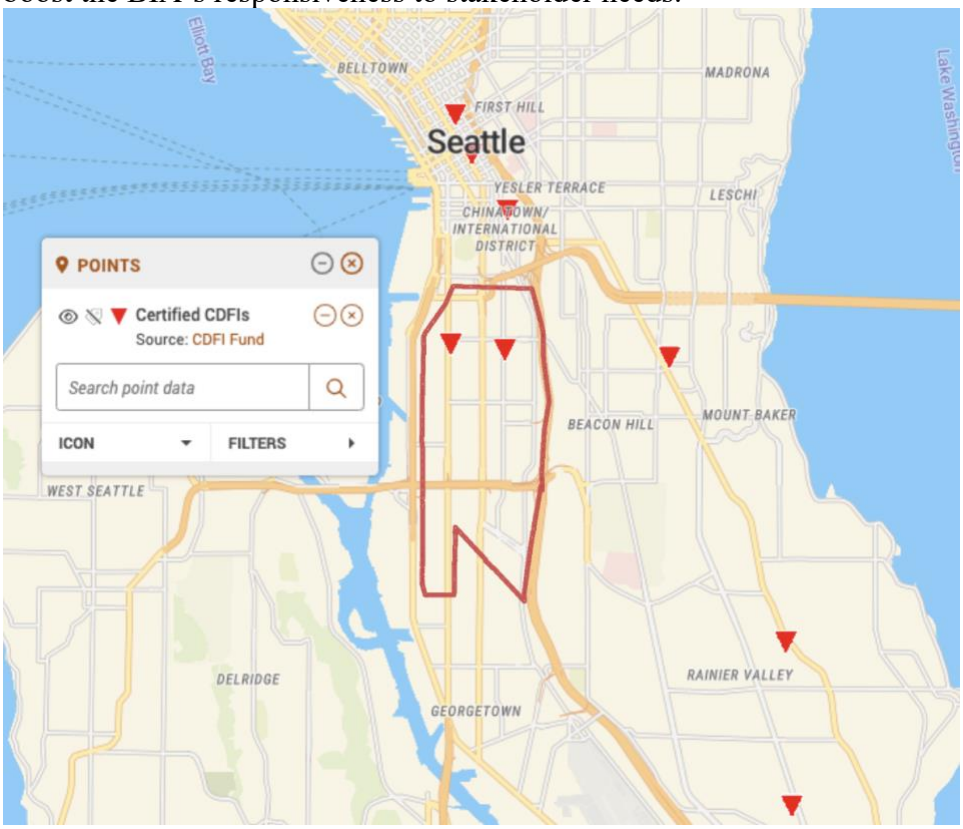

Figure 20. Certified Community Development Financial Institutions (CDFI): Listed (north to south): Washington Community Reinvestment Association, Impact Capital, Craft3, Seattle Metropolitan Credit Union, Express Credit Union, Ventures, HomeSight, Rainier Valley Community Development Fund (PolicyMap).

[118] *Tifia Credit Program Overview*, U.S. Department of Transportation, www.transportation.gov/buildamerica/financing/tifia/tifia-credit-program-overview. Accessed 29 May 2024.

[119] *Examining the Origination and Sale of Loans by Community Development Financial Institutions*, FEDERAL RESERVE BANK of NEW YORK, www.newyorkfed.org/outreach-and-education/household-financial-stability/examining-the-origination-and-sale-of-loans-by-community-development-financial-institutions. Accessed 29 May 2024.

e. **State and Local Funding Sources**: Engage with the Washington State Department of Transportation, the Puget Sound Regional Council, and King County to identify potential state and local funding sources for infrastructure, economic development, and community revitalization projects in SODO.

3. COLLABORATION WITH LOCAL GOVERNMENTS AND ENHANCING TRANSPARENCY

a. **Establish a SODO Stakeholder Advisory Council**: The SODO BIA has already solidified itself as a community engagement hub for businesses in the area and offers regular networking opportunities. Several interviewees expressed frustration with some of the community engagement efforts of local governments, and valued the role of the BIA as a liaison for government relations and updates. A formal council between the BIA, local businesses (potentially a rotating panel), community organizations, and representatives from the City of Seattle and King County could serve as a platform for collaboration. The council could facilitate information sharing, identify priorities, and develop consensus-driven strategies for addressing SODO's challenges.

b. **Develop a SODO Project Tracking Dashboard**: The BIA could work with government partners to set up a publicly accessible online dashboard that provides real-time updates on ongoing and planned projects, policies, and initiatives impacting SODO. While dashboards like this exist for particular government agencies, this dashboard could pull from other sources to get everything in one place for stakeholders to easily keep up with project timelines, funding sources, and even progress updates on programs, promoting transparency and accountability.

c. **Record/Implement Community Engagement Best Practices**: Quality community engagement in SODO looks different from quality community engagement in other Seattle neighborhoods. Documenting the best practices from focus groups, town halls, outreach efforts, and digital campaigns will boost the efficacy of future engagement efforts. Marketing and smoothing of feedback pathways will help increase the diversity of needs that engagement efforts can collect and reduce obstacles of transitions.

By implementing these recommendations, SODO can address the data collection challenges, leverage diverse funding sources, and foster a collaborative environment that prioritizes transparency, consensus-building, and the acknowledgment of SODO's vital role in Seattle's economic landscape.

APPENDIX

Interview Script:

(Note: Modify wording based on the type of interview - government or business)

Thank you for taking the time to speak with us. My name is [Name], and my team and I are graduate students from the Evans School of Public Policy & Governance at the University of Washington. We are working on a project in partnership with SODO BIA to highlight the strengths and challenges of SODO. Unless expressed otherwise, your answers will remain confidential. Direct quotes will not include identifying information. You are free to decline to answer any question and can end this interview at any time. Are you ready to begin? [Wait for verbal confirmation.] *Are you comfortable if we record this conversation?* [Wait for verbal confirmation.]

1. *Please tell us about your role and your organization's connection to SODO.* (Probe: How long have you been working here?)
2. *Why do businesses choose SODO for their operations?*
3. *What are the biggest challenges facing SODO in the short- and long-term?* (Probe: What support does SODO need to overcome these challenges?)
4. *What are SODO's biggest strengths?* (Probe: What can be done to foster these strengths?)
5. *What role does SODO play in the future success of Seattle?* (Probe: What does the evolution of SODO look like?)

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